

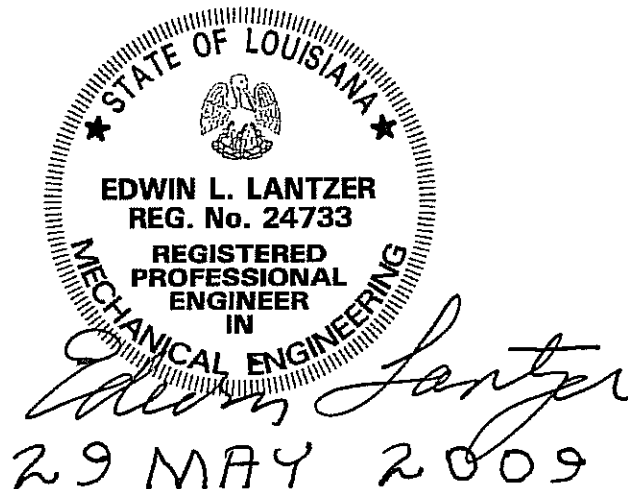
**STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND
DEVELOPMENT**

CONSTRUCTION PROPOSAL



FEDERAL AID PROJECT

**STATE PROJECT NOS. 817-41-0008 and 744-17-0038
O'NEAL LANE (JCT. I-12 TO JCT. US 190)
ROUTE LA 3245
EAST BATON ROUGE PARISH**



STATE PROJECT NOS. 817-41-0008 and 744-17-0038

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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, **June 24, 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

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FEDERAL AID PROJECT NOS. 1700(503) and 1708(515)

DESCRIPTION: O'NEAL LANE (JCT. I-12 to JCT. US 190)

ROUTE: LA 3245

PARISH: EAST BATON ROUGE

LENGTH: 2.452 miles.

TYPE: GRADING, DRAINAGE STRUCTURES, CLASS II BASE COURSE, COLD PLANING ASPHALTIC PAVEMENT, SUPERPAVE ASPHALTIC CONCRETE PAVEMENT, PORTLAND CEMENT CONCRETE PAVEMENT, SIGNALIZATION, AND RELATED WORK.

LIMITS: State Project Nos. 817-41-0008 and 744-17-0038: LOCATED ON ROUTE LA 3245 FROM ITS JUNCTION WITH ROUTE I-12 to ITS JUNCTION WITH ROUTE US 190.

ESTIMATED COST RANGE: \$10,000,000 to \$15,000,000

PROJECT ENGINEER: DONMYER, TODD; 10481 Old Hammond Hwy., Baton Rouge, LA, 70816. (225) 231-4123.

PROJECT MANAGER: BORNE, FRED.

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 \$32.50 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.

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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.

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AWARD OF CONTRACT: Subsection 103.02 is hereby amended to include the following. The Award of Contract is contingent upon the Department having the necessary funds to provide the State match of Federal funds authorized for this project. Should these matching funds not be immediately available, Award of Contract may be delayed into the next fiscal year, with an anticipated fund availability of July 15, 2009. The successful low bidder shall agree to extending the time needed for Award of Contract as necessary through July 31, 2009, as originally bid.

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 **15 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).

PARTICIPATION IN JOB TRAINING (07/08): If the contractor desires to participate in job training, as provided by Supplemental Specifications elsewhere herein, he/she shall submit a written request to the project engineer with a copy to the Compliance Program Section. According to the design formula, the number of potential trainees has been established as six. For the purposes of reimbursement, this number of trainees has been translated into an estimated six thousand trainee hours. The pay item for Trainee Reimbursement; will be established in the contract in accordance with the Supplemental Specifications for On-The-Job Training and the above hours.

Should the design formula not indicate that the contract could support training; a contractor may still train upon the approval of the Department.

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

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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.

COST-PLUS-TIME BIDDING PROCEDURE (A + B METHOD)(08/06): The 2006 Standard Specifications and Supplemental Specifications, as amended elsewhere herein, are further amended as follows:

General. The process for bidding and the award of this project will take into account not only the contract amount bid but also the bidder's stated contract time in which the project will be completed to final acceptance. This method will only be used to determine the successful bidder. It will not be used to determine the award amount nor final payment to the contractor.

Definition of Terms. For this project the following definitions apply:

- (a) Calendar Day – Refer to Subsection 101.03.
- (b) Contract Amount – The summation of the products of the quantities shown in the Schedule of Items multiplied by the unit bid prices.
- (c) Contract Time – The number of calendar days stated in the successful bidders proposal to complete the project to final acceptance as adjusted by authorized extensions.
- (d) Daily Road User Cost – The amount which represents the average daily cost of interference and inconvenience to the road user. The Department has assigned a daily road user cost of \$3000 per calendar day for this project.
- (e) Final Acceptance – Refer to Subsection 105.17(b).

Preparation of Proposal. In addition to all other bidding requirements of the project specifications, the bidder shall state his required completion time in the space provided on the "CONTRACT TIME" form contained elsewhere herein. The proposed completion time shall be based on the construction phases shown in the plans in their respective order and will be a factor used in considering bids for award. The stated number of calendar days required for completion will be the contract time for this project should the bidder be successful. The total number of days stated by the bidder to complete the project shall not exceed the maximum allowable contract time stated on the "CONTRACT TIME" form contained elsewhere herein. Bids not including a contract time, or showing time to completion in excess of the maximum amount will be considered irregular and will be rejected.

Consideration of Bids. After bids are opened and read, they will be compared based on the Total Bid Amount as determined by the following formula. In case of equal total bid amounts between qualified bidders, award will be made to the bidder proposing the lowest contract time.

Total Bid Amount = A + B

Where:

A = the contract amount as defined herein.

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B = the product of the number of calendar days of contract time stated by the bidder and the daily road user cost contained herein.

Conditional Notice to Proceed/Notice to Proceed. If this A + B project is awarded during the months of September, October or November, the Department will consider issuing a Conditional Notice to Proceed with an expiration date of March 1 of the following calendar year, whereupon a Notice to Proceed will become effective. Such request for delay from the contractor shall be in writing with justification for the delay. If a Conditional Notice to Proceed is issued then any assembly period, as provided in the special provision "Contract Time", is negated.

Late Completion. Should the contractor fail to complete the project to final acceptance prior to expiration of the contract time, stipulated damages will be charged an amount equal to the daily road user cost stated herein.

INTENT OF CONTRACT (11/95): Subsection 104.01, Intent of Contract, is amended to include the following.

(a) **Covenant of Good Faith and Fair Dealing.**

This contract imposes an obligation of good faith and fair dealing in its performance and enforcement.

The contractor and the Department agree from the beginning to focus on creative cooperation, to avoid adverse confrontation, and to foster mutual respect, along with a positive commitment to honesty and integrity, and agree to the following mutual duties.

- (1) Each will function within the laws and statutes applicable to their duties and responsibilities.
- (2) Each will communicate in an open and candid manner.
- (3) Each will assist in the other's performance.
- (4) Each will avoid hindering the other's performance.
- (5) Each will proceed to fulfill its obligations diligently.
- (6) Each will cooperate in the common endeavor of the contract.

(b) **Voluntary Partnering.**

The Louisiana Department of Transportation and Development intends to encourage the foundation of a cohesive partnership with the contractor and its principal subcontractors and suppliers. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objective is a cooperative approach to contract management that will reduce costs, litigation, and "stress" while completing the project in accordance with the plans and specifications.

This partnership will be bilateral in makeup, and participation in partnering will be totally voluntary and is not a requirement of the contract.

A partnering conference is to be implemented and held prior to beginning construction. The contractor's management personnel and the Project Engineer will initiate a partnering development conference. They, working with the assistance of the District Construction Engineer, will make arrangements to determine the facilitator, the attendees at the conference, agenda of the conference, duration, and location. Persons required to be in attendance will be the Project Engineer and key project personnel; the contractor's on-site project manager and key project supervision personnel of both the prime and principal subcontractors and suppliers. The project design engineers, FHWA, key company representatives, and key local government

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personnel will also be invited to attend as necessary. The contractor and DOTD will also be required to have Regional/District and Corporate/State level managers on the project team.

Any cost associated with effectuating this partnering will be agreed to by both parties and will be shared equally and will be paid for in accordance with Subsection 109.04. The contractor, DOTD, FHWA and all others invited to the partnering conference will be responsible for any expenses incurred by their respective employees which includes salaries, travel, and lodging.

Follow-up conferences may be held periodically throughout the duration of the contract as agreed by the contractor and the DOTD.

The establishment of a partnership charter on a project will not change the legal relationship of the parties to the contract nor relieve either party from any of the terms of the contract. This partnership charter is intended only to establish an environment of cooperation and communication between all parties involved with the completion of the project.

MAINTENANCE OF TRAFFIC (11/13/08): Subsection 104.03 of the 2006 Standard Specifications is amended to include the following requirements.

The contractor shall provide for and maintain through and local traffic at all times and shall conduct his operations in such manner as to cause the least possible interference with traffic at junctions with roads, streets and driveways.

In order to maintain traffic, the contractor shall construct temporary detours as required by the contract.

The contractor shall conduct his paving operations on one side of the roadway at a time. The side of the roadway, including shoulder, that is open to traffic shall be clear at all times.

When the plans show asphaltic concrete pavement layers to be placed in thicknesses of 2 inches (50 mm) or less, the contractor will be permitted to pave in one lane for a full day; the adjacent lane may be paved the following workday. When pavement layers are greater than 2 inches (50 mm) thickness, the contractor shall use a Wedged Joint and will be permitted to pave in one lane for a full day; the adjacent lane shall be paved the following day or place approximately 1/2 of each day's production in one lane and the remainder in the adjacent lane.

At the end of each day's paving operations, temporary pavement markings shall be in place and proper signs and barricades displayed. During the period that all lanes are open to traffic, the contractor shall neither store material nor park equipment on roadway shoulders.

When asphaltic concrete pavement is cold planed to a depth of 2 inches (50 mm) or less, the contractor will be permitted to cold plane in one lane for a full day; the adjacent lane may be cold planed the following workday. When the depth of cold planing is greater than 2 inches (50 mm), the contractor shall cold plane approximately 1/2 of each day's production in one lane and the remainder in the adjacent lane.

All asphaltic concrete pavement new construction, overlays, and shoulder surfacing operations open to traffic shall be conducted in accordance with the following requirements.

1. **Shoulder Subgrade Preparation:** Any required embankment widening shall be completed before placement of the asphaltic concrete overlay. All vegetation shall be removed from existing shoulders before beginning temporary or final shoulder construction. When the Shoulder Wedge is required, the contractor shall blade and shape existing shoulder material to form a uniform surface under the wedge prior to placement of the asphaltic concrete overlay.

2. **Temporary Shoulder Construction:** Temporary shoulder construction described herein shall be completed at the end of each day's operations for all asphaltic concrete courses except

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the final wearing course. There shall be no drop-off from the pavement edge to the shoulder. The contractor shall blade and shape existing shoulder material against, and approximately level with, the top of the pavement surfacing to form a temporary shoulder with a uniform slope from the pavement edge to the existing shoulder line, or to a point 10 feet (3 m) from the pavement edge. If existing shoulder materials are insufficient, the contractor shall furnish, place and shape additional shoulder surfacing materials to form the temporary shoulder. Existing and/or additional materials for temporary shoulders shall be to the satisfaction of the engineer. Compaction shall be by approved methods.

No direct payment will be made for constructing and subsequently reshaping temporary shoulders, except payment for additional materials under appropriate pay items.

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

In accordance with the provisions of this Subsection, the Department has obtained the required U.S. Army Corps of Engineers and U.S. Army Corps of Engineers (Nationwide) permit.

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.

ENVIRONMENTAL PROTECTION (08/06): Subsection 107.14 of the 2006 Standard Specifications is amended to include the following paragraphs at the end of this subsection.

The Notice of Intent (NOI) will be submitted by the Department to the Louisiana Department of Environmental Quality (LADEQ) prior to the project letting. The project engineer will complete and submit the Notice of Termination (NOT) to the LADEQ after final stabilization of the site, in accordance with the terms of the permit.

The use of erosion control features or methods other than those in the contract shall be as directed.

The Storm Water Pollution Prevention Plan shall be comprised of Section 204 of the standard specifications along with applicable supplemental specifications and special provisions, and Standard Plan EC-01, "Temporary Erosion Control Details."

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

- Item 703-03-00100, Perforated Pipe Underdrains
- Item 705-06-00200, Chain Link Fence (1500mm Height)
- Item 729-01-00100, Sign (Type A) R3-5L (76.2 cm x 91.4 cm)
- Item 729-01-00100, Sign (Type A) R10-12 (61.0 cm x 76.2 cm)
- Item 729-01-00100, Sign (Type A) R10-10L (61.0 cm x 76.2 cm)
- Item 729-01-00100, Sign (Type A) R3-6L (76.2 cm x 91.4 cm)
- Item 729-01-00100, Sign (Type A) R3-5R (76.2 cm x 91.4 cm)
- Item 729-01-00100, Sign (Type A) Buried Traffic Fiber Optics Cable (102mm x 305mm)
- Item 729-21-00100, U-Channel Post
- Item 731-02-00100, Reflectorized Raised Pavement Markers
- Item 732-01-01000, Plastic Pavement Striping (100 mm Width)(Thermoplastic 90 mil)
- Item 732-01-01020, Plastic Pavement Striping (150 mm Width)(Thermoplastic 90 mil)
- Item 732-01-01040, Plastic Pavement Striping (200 mm Width)(Thermoplastic 90 mil)
- Item 732-01-01080, Plastic Pavement Striping (600 mm Width)(Thermoplastic 90 mil)

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Item 732-04-01040, Plastic Pavement Legends and Symbols (Arrow – Double)
Item 732-04-01080, Plastic Pavement Legends and Symbols (Arrow – Left Turn)
Item 732-04-15020, Plastic Pavement Legends and Symbols (Only)
Item 736-01-00100, Trenching and Backfilling
Item 736-03-00100, Jacked or Bored Conduit (25 mm HPDE, Sch 80)
Item 736-03-00200, Jacked or Bored Conduit (50 mm HDPE, Sch 80)
Item 736-03-00300, Jacked or Bored Conduit (75 mm HDPE, Sch 80)
Item 736-04-04080, Signal Support (7.5 m Single Mast Arm)
Item 736-04-04100, Signal Support (9 m Single Mast Arm)
Item 736-04-04120, Signal Support (10.5 m Single Mast Arm)
Item 736-04-04140, Signal Support (12 m Single Mast Arm)
Item 736-04-04160, Signal Support (13.5 m Single Mast Arm)
Item 736-04-04180, Signal Support (15 m Single Mast Arm)
Item 736-04-04220, Signal Support (18 m Single Mast Arm)
Item 736-05-02000, Signal Heads (3 Section, 300 mm LED Lens, R, Y, G)
Item 736-05-02020, Signal Heads (3 Section, 300 mm LED Lens, R, LT, Y, LT, G)
Item 736-05-04000, Signal Heads (5 Section, 300 mm LED Lens, R, LT, Y, Y, LT, G, G)
Item 736-05-04020, Signal Heads (5 Section, 300 mm LED Lens, R, Y, RT, Y, G, RT, G)
Item 736-06-00100, Signal Service
Item 736-06-00200, Signal Service (Pedestal Required)
Item 736-08-02020, Signal Controller (TS-2, Type 2; Type 6 Cabinet)
Item 736-08-02040, Signal Controller (TS-2, Type 2; Type 6 Cabinet, on Existing Base)
Item 736-09-00100, Loop Detector
Item 736-10-00300, Underground Junction Box (Type F)
Item 736-10-00500, Underground Junction Box (Type H)
Item 736-10-00600, Underground Junction Box (Type I)
Item 736-10-00700, Underground Junction Box (Type J)
Item 736-11-00100, Conduit (12.5 mm HDPE, Schedule 80)
Item 736-11-00300, Conduit (50 mm HDPE, Schedule 80)
Item 736-11-00400, Conduit (75mm HDPE, Schedule 80)
Item 736-12-01040, Conductor (2c, #14 AWG)
Item 736-12-02000, Conductor (3c, 6 gauge/ #6 AWG)
Item 736-12-04000, Conductor (6c, #14 AWG)
Item 736-12-06000, Conductor (10c, #14 AWG)
Item 736-12-08000, Conductor (Video Surveillance)
Item NS-ITS-03060, Vehicle Detector, Video, Furnish & Install
Item NS-ITS- 04020, Fiber Optic Cable, SM, Furnish & Install, 13-48 Fibers
Item NS-ITS-04250, Fiber Optic Cable, SM, 12 Strand, Furnish & Install
Item NS-ITS-04260, Fiber Optic Patch Cord, SM, 4 Strand, Furnish & Install
Item NS-ITS-04425, Fiber Optic Connection Patch Panel, Outdoor, Furnish & Install
Item NS-ITS-05025, Splice Closure, Outdoor, Furnish & Install
Item NS-ITS-09080, Local Ethernet Swtch, Furnish & Install
Item NS-ITS-12000, Communications System Integration

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CRITICAL PATH METHOD (CPM) FOR CONSTRUCTION PROGRESS SCHEDULING (12/08): Critical Path Methods (CPM) as described and with terms as defined in the Associated General Contractors of America (AGC) publication, *Construction Planning and Scheduling*, latest edition, shall be used in construction scheduling, establishing the critical items of work, and measuring progress of the work. In case of discrepancy between these specifications and *Construction Planning and Scheduling*, these specifications shall govern.

Section 108, Prosecution and Progress of the 2006 Standard Specifications and the Supplemental Specifications thereto is amended as follows.

Subsection 108.03, Construction Progress Schedule: This subsection is deleted and the following substituted.

The contractor shall submit to the project engineer for approval, CPM Construction Schedules, Summary of Activities tabulations, and Scheduled Earnings tabulations, all as described hereinafter, and altogether defined as "Construction Progress Schedule" or "Construction Schedule". The Construction Progress Schedule shall be based on the planned and specified finished work, the maintenance of traffic restrictions, and other design requirements given in the plans and specifications. Each sheet or page of each submittal shall be identified with the contractor's company name, state project number, project name, date prepared, revision dates, and sheet or page number. If the submittals are not prepared by the contractor's own staff, the company name of the preparer shall be shown on each sheet or page.

The critical activities as shown on the approved Construction Schedule will be considered in establishing the controlling item of work. If the Construction Schedule has not been approved, the engineer will establish the controlling work item and charge the contract time accordingly. Scheduled Earnings will be the basis for measurement of contractor's progress.

Approved Construction Progress Schedules and approved associated data shall become part of the contract documents. Un-approved Construction Progress Schedules and associated data shall not be considered relevant or applicable for any purposes during or after completion of the project and shall not be binding on the Department. The sequence of work as represented on the Construction Progress Schedule and subsequent updates shall be interpreted as being the intention of the contractor at the time that the schedule was made.

(a) Construction Schedule: The Construction Schedule shall be a Critical Path Method (CPM) graphic diagram, computer prepared, utilizing the Precedence Diagramming Method (PDM). For the calendar day contract, the Gregorian calendar shall be used.

The schedule shall show and describe the various activities of work required to complete the contract in sufficient detail so that all activities are readily identifiable and progress on the activities can be readily measured. Sufficient detail in bridge work means each element of work (piles, footings, columns, caps, rebar, cure time, etc.) of individual bents; each element of work in individual spans (girders, strip seal joints, Class AA, rebar, cure time, etc.); individual approach slabs; railings; rebar for all of the above as separate activities; and, miscellaneous other bridge work. Sufficient detail in road work means individual runs of pipe in drainage structures; individual box culverts; individual detour roads; the embankment, excavation, base and paving layers within definable geometric limits (e.g., from station to station, within a single ramp, etc.). Physical locations of activities within definable geometric limits (e.g., from station to station, within a single ramp, individual bents, individual spans, etc.) shall be included in the activity description or shown in activity codes relative to each activity. It shall include submittals and

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approvals of critical samples, shop drawings, procedures, order lists (pilings for example), or other things that could have a significant schedule impact.

Relatively minor items of work, similar or non-similar, may be grouped together into one activity (or more). Activities to be performed by subcontractors shall be included and identified. The schedule shall show the sequence in which the activities are to be accomplished and their dependency relationships. The estimated contract earnings and pay item quantities associated with each activity shall be included, and the sum of the estimated earnings shall equal the current contract amount.

The duration of activities shall be in whole calendar days and no activity shall have duration of less than one calendar day or more than 30 calendar days. The ending event of the schedule shall be a finish milestone identified as "Contract Completion Date". Its sole predecessor shall be "Reserved Float". The sole predecessor of "Reserved Float" shall be "Final Inspection" which shall be a finish milestone and shall have as predecessors all of the activities that must be completed prior to the Department's final inspection of the work. The duration of "Reserved Float" is the difference between "Final Inspection" and "Contract Completion Date". "Reserved Float" is defined as that part of the shared float reserved exclusively for the contractor's use. The contract date for stipulated damages will be adjusted by change order to the beginning date of the activity "Reserved Float".

The Construction Schedule shall be computer plotted on sheets not larger than 22 inches x 36 inches and shall show a continuous flow of information from left to right with no arrows from right to left and shall be drawn to a time scale of calendar days. The critical path shall be clearly identified. Resource constraints shall be identified, as shall scheduled starts or completions imposed on the schedule by the contractor.

The contractor shall submit color-coded graphics in the required multiple copies. The choice of the color coding must remain in effect for the life of the contract.

The contractor shall provide the Department with the means to electronically translate the Construction Schedule data into a configuration that can be read and processed by the Department or its consultants' hardware and Primavera software. If the contractor elects to use SureTrak Project Manager software, the following defaults must be placed: (1) resources shall be non-driving; (2) default activity type shall be "Task"; (3) activity type shall not be "Independent"; (4) duration display style shall be "Day (d)"; (5) float style shall be "Days"; and, (6) dates time format shall be "Don't show time". The revenue feature in SureTrak Project Manager does not translate to Primavera Project Planner (P3), so in SureTrak Project Manager the earnings must be entered as cost data. In both the SureTrak Project Manager and in the Primavera Project Planner (P3) "Back up" menu selection, the contractor will ensure that the option "Remove access list during backup" is checked. In addition, the project must be saved in SureTrak as a "Concentric P3" Type project.

(b) Summary of Activities: The Summary of Activities shall be a tabulation of all activities shown on the Construction Schedule, and shall accurately reflect the data used in preparation of the Construction Schedule. The summary shall be computer generated and sequenced by activity number. Each activity shall include as a minimum the following, in calendar days:

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1. Activity numbers.
2. Activity description.
3. Estimated duration of activity.
4. Early start.
5. Late start.
6. Constrained start, if constrained.
7. Early finish.
8. Late finish.
9. Constrained finish, if constrained.
10. Status (whether critical).
11. Free float.
12. Total float.
13. Monetary value of the activity.
14. Remaining duration and calendar days used.

(c) **Scheduled Earnings:** The Scheduled Earnings shall be a product of the software creating the Construction Schedule and shall be a tabulation of accumulated scheduled contract earnings, based on late starts, measured in accumulated dollars for all activities, for each monthly partial estimate. The tabulation shall be prepared from the Construction Schedule and shall be computer generated. The Schedule of Earnings will not include advanced payments for stockpiled materials.

(d) **Cash Management Document:** When designated as a Cash Management Project, prior to the issuance of the Notice to Proceed, the contractor shall provide to the Department and obtain approval from the Department of the Scheduled Earnings report as described above, except that it shall be based on early starts. The Department will use this report for its cash management purposes. Failure of the contractor to provide and obtain approval of the Scheduled Earnings Report will result in withholding of any funds due the contractor.

(e) **Submittal:** Prior to or at the preconstruction conference the contractor shall submit to the project engineer for approval, in triplicate, a Construction Schedule giving a proposed schedule of operations that provides for completion of the work, a Summary of Activities tabulation, a Scheduled Earnings tabulation, and a Forty-Five Day Look-Ahead task list. The contractor shall also submit the Construction Schedule data electronically capable of being processed with the hardware and software being used by the Department or its consultants.

Within 7 calendar days after receipt of the submittal, the project engineer and contractor shall meet and review the proposed schedules and tabulations. Any revisions resulting from the review shall be submitted, in triplicate, for approval within 7 calendar days after the meeting. This procedure will be repeated as necessary. The approved final schedule shall be called the "Baseline Schedule".

Failure to have obtained approval of a Baseline Schedule and tabulations within 20 calendar days after the Notice to Proceed will result in withholding twenty-five percent of the amount of partial estimates until such schedules and tabulations are submitted and approved. Failure to have obtained approval of a Baseline Schedule and tabulations within the third estimate period may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(f) **Construction Schedule Updates:** The contractor shall update and submit each month, within 7 calendar days after the partial estimate is submitted, the Construction Schedule critical

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path diagram, Summary of Activities tabulation, Scheduled Earnings tabulation, a Forty-Five Day Look-Ahead task list, and a current Turnaround Document as follows:

- (1) The updated Construction Schedule critical path diagram will be in the same form as that submitted in (e) Submittal. It will be updated for progress through the estimate closing date, recalculated and plotted. The contractor will revise, adjust, and recalculate the schedule so that the difference in the work completion date calculated by the Retained Logic Method shall not be more than one-half an estimate period different from the work completion date calculated by the Progress Override Method. The Construction Schedule critical path diagram will show both the look ahead critical path for the duration of the project and the look back critical path as reported in the prior months.
- (2) The updated Summary of Activities and Scheduled Earnings tabulation will be in the same form as that submitted in (e) Submittal. It will be updated for progress through the estimate closing date, recalculated and printed.
- (3) The Forty-Five Day Look-Ahead task list will show all incomplete activities which the logic has determined either should be or may be active during the next forty-five days. It will be plotted in a graphic form similar to that of the Construction Schedule critical path diagram.
- (4) The Turnaround Document will be a listing of the log record of a new activity added monthly to the schedule for the purpose of keeping a current presentation of the following information:
 - a. The original contract completion date presented as actual calendar date.
 - b. The number of days added to the contract by approved change order (if any, if none, so state).
 - c. The present computed completion date presented as an actual calendar date and as a workday number, if applicable.
 - d. A list of activities deleted and added (if any, if none, so state), including their descriptions.
 - e. A list of logic changes and the reasons for the changes (if any, if none, so state).
 - f. A list of budget changes and the reasons for the changes (if any, if none, so state).
 - g. A narrative description of any other changes to the Construction Schedule critical path diagram.

Failure to submit the monthly updates of the Construction Progress Schedules within 7 calendar days after the partial estimate was submitted will result in withholding of twenty-five percent of the amount of partial estimate payments until such schedules are submitted and approved. Failure to have obtained approval of three consecutive monthly updates of the Construction Progress Schedule may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(g) CPM Reviews: The project engineer will designate the time and location for review of construction progress. The contractor's representative designated under Subsection 105.05 will be required to attend the construction progress review or a contractor's representative directed by the project engineer shall attend. The current approved Construction Schedule, Summary of Activities and Scheduled Earnings tabulations shall be reviewed, and required or desired changes discussed and documented.

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As a minimum the following shall be discussed: contractor's compliance with approved schedules and tabulations, delays, proposed and approved contract quantity increases and decreases, proposed and approved extra work, actual starts, durations and finishes, and actual contract earnings.

If requested by the project engineer, within 7 calendar days following the review meeting the contractor shall submit to the project engineer for approval, in triplicate, a revised Construction Schedule, Summary of Activities tabulation, and Scheduled Earnings tabulation, and Forty-Five Day Look-Ahead, all in accordance with paragraph (e) Submittal, and all brought up to date to reflect agreements made at the review meeting. Failure to submit the revision of the Construction Progress Schedules within 7 calendar days after the request will result in withholding of twenty-five percent of the amount of partial estimate payments until such schedules are submitted and approved. Failure to have obtained approval of three consecutive monthly updates of the Construction Progress Schedule may result in the Department's determination that the contractor is in default under the provisions of Subsection 108.09.

(h) The CPM Construction Schedule will be provided at no direct pay.

Subsection 108.04, Prosecution of Work: Heading (b), Disqualification, is deleted and the following is substituted.

(b) Disqualification. The contractor's progress will be determined monthly at the time of each partial estimate, and will be based on the total amount of money earned by the contractor, excluding advanced stockpiled material, as shown by the partial estimate compared to scheduled earnings as shown by the approved Scheduled Earnings tabulation, as of the end of the partial estimate period. If the contractor's progress is more than 10 percent behind scheduled earnings, 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 20 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.

A contractor who is in default in accordance with Subsection 108.09 (a) (1) and actual earnings versus scheduled earnings are 5.0 percent or more, the contractor 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 be considered irregular.

Subsection 108.07, Determination and Extension of Contract Time: This subsection is amended as follows.

The third and fourth paragraphs are deleted and the following substituted.

The contract time for the work as awarded is based on the original quantities as defined in Subsection 102.05 and includes time to procure material, equipment and an adequate labor force

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to complete the work. If satisfactory fulfillment of the contract requires performance of work in greater quantities than those specified, or requires performance of extra work in accordance with Subsection 104.02 and the contractor requests additional contract time, the contractor shall submit a proposed CPM schedule based on the latest approved CPM schedule showing the increased time and revised completion date for approval by the Department. When the contract is altered in accordance with Subsection 104.02 and the engineer determines that a reduction in contract time is warranted due to decreased effort, the contractor shall submit a proposed CPM schedule based on the latest approved CPM schedule showing the reduced time and revised completion date for approval by the Department. A CPM schedule will be required for the engineer to process a change order that either increases or decreases the contract time.

If the contractor finds it impossible, for reasons beyond the contractor's control, to complete the work within the contract time as specified or as extended in accordance with the provisions of this subsection, the contractor shall, at the time the delay occurs make a written request to the engineer for an extension of time setting forth therein the reasons which justify granting the request. Such written request shall conform to the requirements of EDSM III.1.1.28. If the request does not so conform, the contractor hereby agrees to and shall be deemed to have expressly waived any claim for such additional time. The contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the engineer finds that the work was delayed because of conditions beyond the control and without the fault of the contractor, the engineer may extend the contract time in such amount as conditions justify. The contractor's written request to the engineer for an extension of contract time shall include a proposed CPM schedule based on the latest approved CPM schedule update showing the increased time and revised completion date for approval by the Department. This CPM schedule document will be required for the engineer to process a change order that changes the contract time.

DETERMINATION AND EXTENSION OF CONTRACT TIME (12/08): Subsection 108.07, Determination and Extension of Contract Time, is amended to include the following.

The contractor shall document for each month of scheduled construction, the occurrence of adverse weather conditions having an impact on controlling items of work. An adverse weather day is a previously scheduled or normally scheduled work day on which rainfall, wet conditions or cold weather will prevent construction operations on the controlling work activity from proceeding for at least 5 continuous hours of the day or 65 percent of the normal work day, whichever is greater, with the normal working force engaged in performing the controlling item of work. If the contractor submits a written request for additional contract time due to adverse weather conditions, the contractor's request will be considered only after the Department agrees with the days and then only for adverse weather days in excess of the allowable number of days per month stated below. Adverse weather days will be documented by the Engineer and agreed upon monthly. Adverse weather days will be prorated for partial months when a work order or final inspection is issued other than the first or last of the month and agreed to by the Department. If the contractor is being considered for disqualification by the Department, an equitable adjustment in contract time may be made at the end of the original contract period, including all days added by approved change orders. Contract time will be adjusted by comparing the actual number of adverse weather days to the statistical number of adverse weather days over the specific time period per the table below. The resulting number of adverse weather days will be multiplied by 1.45 to convert to calendar days. Adjustments for adverse

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weather cannot result in a contract time reduction. Once adjusted, a new adverse weather day accounting will begin using the adverse weather conditions having an impact on the controlling items of work, in excess of the allowable number of days per month stated below. A second and final contract time adjustment will then be done at the final acceptance of the project. An adjustment in the contract time due to adverse weather will not be cause for an adjustment in the contract amount. There will be no direct or indirect cost reimbursement for excess adverse weather days.

The following are anticipated adverse weather days that the contractor shall include in each month of his calendar day construction schedule.

January	10 days	May	5 days	September	4 days
February	9 days	June	6 days	October	3 days
March	8 days	July	6 days	November	7 days
April	7 days	August	5 days	December	7 days

PAYMENT ADJUSTMENT (12/08): Section 109, Measurement and Payment of the 2006 Standard Specifications and the supplemental specifications thereto, is amended to add the following.

This project is designated for payment adjustment for asphalt cements and fuels in accordance with Subsection 109.09 as follows.

109.09 PAYMENT ADJUSTMENT (ASPHALT CEMENTS AND FUELS).

(a) General: Payment for contract items indicated herein will be adjusted to compensate for cost differentials of Performance Graded (PG) asphalt cements, gasoline, and diesel fuel when such costs increase or decrease more than 5 percent from the Department's established base prices for these items. The base price indices for asphalt cements and fuels will be the monthly price indices in effect at the time bids are opened for the project. The base price indices for asphalt cements will be as stated in paragraph (b) below. The base price index for fuels will be as stated in paragraph (c) below.

Payment adjustments will be made each monthly estimate period when a price index for this period varies more than 5 percent from its respective base price index. The monthly price indices to be used with each monthly estimate will be the price indices for the month in which the estimate period begins.

If the project is placed in default, payment adjustments will be based on the monthly price indices used for the last monthly estimate period prior to the project being placed in default, unless a monthly price index decreases in which case the lower monthly price index will be used.

If it is determined after completion of work on any eligible item that the total quantity paid to date must be adjusted to reflect more accurate quantity determinations, the Department will prorate the additional quantity to be added or subtracted over all previous estimate periods in which the item of work was performed in order to determine additional payment adjustments. If payment adjustments were made during any of these partial estimate periods, this added or

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subtracted quantity that has been prorated will likewise have payment adjustments calculated and included.

(b) Performance Graded (PG) Asphalt Cements: The base price index will be the monthly price index in effect at the time of bid opening as shown elsewhere herein. The monthly price indices will be the average, excluding the extreme outliers, of the unit prices for PG 64-22, the average, excluding the extreme outliers, of the unit prices for PG 70-22m, and the average, excluding the extreme outliers, of the unit prices for PG 76-22m. The monthly prices for each of these asphalt materials will be F.O.B. refinery or terminal as determined from the quoted prices effective on the first calendar day of each month from suppliers of these materials. Suppliers considered are those who have requested to participate in the liquid asphalt index determination and have supplied materials on DOTD projects within the past twelve months. These suppliers and materials shall be listed on the Department's Qualified Products List (QPL 41) and must be marketed in Louisiana. For Asphalt Cements not listed above, the following shall be considered equivalent for payment adjustments:

Pay Item Equivalents Eligible for Asphalt Pay Adjustment

Performance Graded Asphalt Cement	Equivalent PG Asphalt Cement for Payment Adjustment
PG 58-28	PG 64-22
PG 64-22	PG 64-22
PG 70-22m	PG 70-22m
PG 76-22m	PG 76-22m
PG 82-22rm	PG 64-22

Payment adjustments will be made in accordance with the following formulas:

If Monthly Price Index exceeds Base Price Index,

$$P_a = (A - 1.05B) \times C \times D \times (1.00 + T)$$

If Base Price Index exceeds Monthly Price Index,

$$P_a = (0.95B - A) \times C \times D \times (1.00 + T)$$

Where:

- P_a = Price adjustment (increase or decrease) for asphalt cement.
 A = Monthly Price Index for respective PG 64-22, PG 70-22m, or PG 76-22m in dollars per ton/megagram.
 B = Base Price Index for respective PG 64-22, PG 70-22m, or PG 76-22m in dollars per ton/megagram.
 C = Tons/megagrams of asphaltic concrete.
 D = Percent of respective asphalt cement, per job mix formula, in decimals.
 T = Louisiana sales tax percentage, in decimals.
(Note: Local tax is not considered)

The engineer will furnish the weights (mass) of asphaltic concrete placed during the monthly estimate period with the respective asphalt cement content, excluding the asphalt content in reclaimed asphaltic pavement (RAP) as per job mix formula. If the asphalt cement

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content changes during the estimate period, the respective weight (mass) of asphaltic concrete produced at each cement content will be reported.

All contract pay items using PG 58-28, PG 64-22, PG 70-22m, PG 76-22m, and PG 82-22rm shall be eligible for payment adjustments of asphalt materials; except no payment adjustment will be made for contract pay items under Subsection 510-01, "Pavement Patching", Section 507, "Asphaltic Surface Treatment", nor for any emulsions of cutbacks.

Item 510-02, Pavement Widening, and all contract pay items under Sections 502 and 508, will be eligible for payment adjustments of asphalt materials. No payment adjustment will be made for other asphalt materials, including emulsions and cutbacks.

The base price indices for asphalt cements and fuels will be posted on the DOTD internet website before the 10th calendar day of each month at the following URL: www.dotd.louisiana.gov/lettings/lac_price_index/priceindices.asp.

(c) Fuels: The base price index for this project will be the monthly price index in effect when bids are opened for the project. The monthly price index will be the minimum price quotations for unleaded gasoline and No. 2 diesel fuel listed for the New Orleans area in *Platt's Oilgram and Price Report* effective on the first calendar day of each month.

Payment adjustment will be made in accordance with the following formulas:

If Monthly Price Index exceeds Base Price Index,

$$P_a = (A - 1.05B) \times Q \times F$$

If Base Price Index exceeds Monthly Price Index,

$$P_a = (0.95B - A) \times Q \times F$$

Where:

P_a	=	Price adjustment.
A	=	Monthly Price Index in dollars per gallon/liter.
B	=	Base Price Index in dollars per gallon/liter.
Q	=	Pay Item Quantity (Pay Units).
F	=	Fuel Usage Factor Gal (L)/Pay Unit.

The following is a listing of contract pay items that are eligible for payment adjustment and the fuel usage factors that will be used in making such adjustment. Contract items that expand the items listed herein by use of letter or number designations are also eligible for fuel price adjustments; for example:

Item 601-01-G, Portland Cement Concrete Pavement 8 inches (200 mm) thick.

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**ELIGIBLE CONTRACT PAY ITEMS & FUEL USAGE FACTORS FOR FUEL
PAYMENT ADJUSTMENT⁷**

ITEM NO.	PAY ITEM	UNITS	MIN. ORIGINAL CONTRACT QUANTITY FOR PAY ADJUSTMENT	FUEL USAGE FACTORS	
				Diesel ²	Gasoline
203-01 ¹	General Excavation	gal/cu yd	10,000 cu yd	0.29	0.15
203-02	Drainage Excavation	gal/cu yd	10,000 cu yd	0.29	0.15
203-03 ¹	Embankment	gal/cu yd	10,000 cu yd	0.29	0.15
203-04	Nonplastic Embankment	gal/cu yd	10,000 cu yd	0.29	0.15
203-07	Borrow (Vehicular Measurement)	gal/cu yd	10,000 cu yd	0.29	0.15
301-01	Class I Base Course	gal/cu yd	3,000 cu yd	0.88	0.57
301-02	Class I Base Course (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
302-01	Class II Base Course	gal/cu yd	3,000 cu yd	0.88	0.57
302-02	Class II Base Course (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
303-01	In-Place Cement Stabilized Base Course	gal/sq yd	50,000 sq yd	0.04	0.03
304-02	Lime Treatment (Type B)	gal/sq yd	50,000 sq yd	0.04	0.03
304-03	Lime Treatment (Type C)	gal/sq yd	50,000 sq yd	0.04	0.03
304-04	Lime Treatment (Type D)	gal/sq yd	50,000 sq yd	0.04	0.03
305-01	Subgrade Layer (" Thick)	gal/sq yd	50,000 sq yd	0.04	0.03
308-01	In-Place Cement Treated Base Course	gal/sq yd	50,000 sq yd	0.04	0.03
401-01	Aggregate Surface Course (Net Section)	gal/cu yd	3,000 cu yd	0.88	0.57
401-02	Aggregate Surface Course (Adjusted Vehicular Measurement)	gal/cu yd	3,000 cu yd	0.88	0.57
502-01	Superpave Asphaltic Concrete	gal/ton	1000 ton	2.40 ³	0.2
502-02	Superpave Asphaltic Concrete	gal/cu yd	500 cu yd	4.80 ⁴	0.4
502-03	Superpave Asphaltic Concrete (" Thick)	gal/sq yd	10,000 sq yd	0.13 ^{5,6}	0.01 ⁶
508-01	Asphaltic Concrete (SMA)	gal/ton	1000 ton	2.40 ³	0.2
510-02	Pavement Widening	gal/sq yd	3,000 sq yd	0.86	0.24
601-01	Portland Cement Concrete Pavement (" Thick)	gal/sq yd	15,000 sq yd	0.11	0.15

- 1 If project has both 203-01 & 203-03, only the item with larger quantity is eligible.
- 2 For fuel adjustment purposes, the term "diesel" shall represent No. 2 or No. 4 fuel oils or any of the liquified petroleum gases, such as propane or butane.
- 3 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 1.67 gal/ton.
- 4 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 13.34 gal/cu yd.
- 5 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 0.09 gal/sq yd.
- 6 Per inch of thickness.
- 7 No fuel adjustment will be allowed for waste oil.

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**ELIGIBLE CONTRACT PAY ITEMS & FUEL USAGE FACTORS FOR FUEL
PAYMENT ADJUSTMENT (METRIC)⁷**

ITEM NO.	PAY ITEM	UNITS	MIN. ORIGINAL CONTRACT QUANTITY FOR PAY ADJUSTMENT	FUEL USAGE FACTORS	
				Diesel ²	Gasoline
203-01 ¹	General Excavation	l/m ³	7,600 m ³	1.44	0.74
203-02	Drainage Excavation	l/m ³	7,600 m ³	1.44	0.74
203-03 ¹	Embankment	l/m ³	7,600 m ³	1.44	0.74
203-04	Nonplastic Embankment	l/m ³	7,600 m ³	1.44	0.74
203-07	Borrow (Vehicular Measurement)	l/m ³	7,600 m ³	1.44	0.74
301-01	Class I Base Course	l/m ³	2,300 m ³	4.36	2.82
301-02	Class I Base Course (mm Thick)	l/m ²	41,800 m ²	0.18	0.14
302-01	Class II Base Course	l/m ³	2,300 m ³	4.36	2.82
302-02	Class II Base Course (mm Thick)	l/m ²	41,800 m ²	0.18	0.14
303-01	In-Place Cement Stabilized Base Course	l/m ²	41,800 m ²	0.18	0.14
304-02	Lime Treatment (Type B)	l/m ²	41,800 m ²	0.18	0.14
304-03	Lime Treatment (Type C)	l/m ²	41,800 m ²	0.18	0.14
304-04	Lime Treatment (Type D)	l/m ²	41,800 m ²	0.18	0.14
305-01	Subgrade Layer (mm Thick)	l/m ²	41,800 m ²	0.18	0.14
308-01	In-Place Cement Stabilized Base Course	l/m ²	41,800 m ²	0.18	0.14
401-01	Aggregate Surface Course (Net Section)	l/m ³	2,300 m ³	4.36	2.82
401-02	Aggregate Surface Course (Adjusted Vehicular Measurement)	l/m ³	2,300 m ³	4.36	2.82
502-01	Superpave Asphaltic Concrete	l/Mg	900 Mg	10.01 ³	0.83
502-02	Superpave Asphaltic Concrete	l/m ³	400 m ³	23.77 ⁴	1.98
502-03	Superpave Asphaltic Concrete (mm Thick)	l/m ²	8,400 m ²	0.59 ^{5,6}	0.45 ⁶
508-01	Asphaltic Concrete (SMA)	l/Mg	900 Mg	10.01 ³	0.83
510-02	Pavement Widening	l/m ²	2,500 m ²	3.89	1.09
601-01	Portland Cement Concrete Pavement (mm Thick)	l/m ²	12,500 m ²	0.5	0.68

- 1 If project has both 203-01 & 203-03, only the item with larger quantity is eligible.
- 2 For fuel adjustment purposes, the term "diesel" shall represent No. 2 or No. 4 fuel oils or any of the liquified petroleum gases, such as propane or butane.
- 3 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 6.97 l/mg.
- 4 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 16.53 l/m³.
- 5 If natural gas or coal is used instead of diesel for aggregate drying and heating the fuel usage factor shall be 0.41 l/m².
- 6 Per mm of thickness.
- 7 No fuel adjustment will be allowed for waste oil.

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SUPERPAVE ASPHALTIC CONCRETE MIXTURES (11/08): Section 502, Superpave Asphaltic Concrete Mixtures of the 2006 Standard Specifications as amended by the supplemental specifications thereto, is further amended as follows.

Subsection 502.04, Job Mix Formula Validation.

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

A JMF is considered validated if the following parameters are 71 percent within limits of the JMF and meet the specifications requirements.

Subsection 502.05, Plant Quality Control.

Delete the first paragraph and substitute the following.

For quality control purposes, the contractor shall obtain a minimum of two (2) samples of mixture from each subplot using a stratified random sampling approach. Test results for theoretical maximum specific gravity (G_{mm}) and measured bulk specific gravity (G_{mb}) at N_{max} and percent G_{mm} at $N_{initial}$, on samples of each subplot shall be reported. Control charts may be requested by the engineer if mixture problems develop. Quality control gyratory samples may be aged or unaged at the contractor's option, but the method chosen shall be used consistently throughout the project. If aged samples are used, report the measured G_{mb} at N_{max} . If unaged samples are used, report the estimated G_{mb} at N_{max} . One loose mix sample shall be taken from each subplot after placement of the mix in the truck. The mix shall be tested by the contractor at the plant for aggregate gradation, asphalt content and percent crushed aggregate. The mix shall be tested in accordance with DOTD TR 309, TR 323 and TR 306. The lot average and standard deviation shall be determined for aggregate gradation and asphalt content. The percent within limits (PWL) shall be determined on the Nos. 8 and 200 (2.36 mm and 75 μ m) sieves and for G_{mm} . Corrective action shall be taken if these parameters fall below 71 PWL. For each lot, the contractor shall report all quality control data to the DOTD Certified Plant Technician. The full range of gradation mix tolerances will be allowed even if they fall outside the control points. The District Laboratory Engineer may require re-validation of the mix when the average of the Quality Control data indicates non-compliance with the specified limits or tolerances.

Subsection 502.15, Measurement.

Subheading (c), Surface Tolerance Incentive Measurement.

Delete the first paragraph and substitute the following.

At the completion of construction of the project, an independent certified profiler such as that of a private company or the Materials and Testing Section, approved by the Department, shall be used to measure a continuous profile from the start station to the end station of the construction project for the purpose of determining qualification for incentive pay under Subsection 502.16(e). Bridges and 300 feet (90 m) on each end of the bridge will be excluded from measurements for surface tolerance incentive pay.

Delete Table 502-7A, Payment Adjustment Schedule for Plant Acceptance and substitute the following.

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Table 502-7A
Payment Adjustment Schedule for Plant Acceptance

Air Voids PWL (90 AQL)	Percent Payment
71-100	100
61-70	90
51-60	80
≤50	50 or Remove ¹

¹At the option of the Department after investigation.

Delete Table 502-7B, Payment Adjustment Schedule for Roadway Density and substitute the following.

Table 502-7B
Payment Adjustment Schedule for Roadway Density

Roadway Density PWL (90 AQL)	Percent Payment
99-100	102
81-98	100
71-80	95
51-70	80
≤50	50 or Remove ¹

¹At the option of the Department after investigation.

Delete Table 502-8A, Payment Adjustment Schedules for Longitudinal Surface Tolerance, Maximum International Roughness Index, inches per mile (mm per km) and substitute the following.

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Table 502-8A
Payment Adjustment Schedules for Longitudinal
Surface Tolerance, Maximum International Roughness Index,
inches per mile (mm per km)

Percent of Contract Unit Price (by Sublot) ¹	102% ²	100%	90%	80%	50% or Remove ³
Category A All Interstates, Multi-Lift New Construction and Overlays of More than two Lifts	<45 (<710)	<65 (<1030)	65-75 (1030-1180)	NA	>75 (>1180)
Category B One or Two Lift Overlays Over Cold Planed Surfaces, and Two-Lift Overlays Over Existing Surfaces ⁴	<55 (<870)	<75 (<1180)	75-89 (1180-1400)	NA	>89 (>1400)
Category C Single-Lift Overlays Over Existing Surfaces ⁴	N/A	<85 (<1340)	85-95 (1340-1500)	>95-110 (>1500-1740)	>110 (>1740)
Longitudinal Surface Tolerance Incentive Pay, Final Completion, Average of All Travel Lanes ⁵	≤ 45 (≤ 710)				

¹Or portion of sublot placed on the project.

²Maximum payment for sublots with exception areas, exclusions or grinding is 100 percent, unless the excluded area is a bridge end.

³At the option of the engineer.

⁴ Existing surfaces include reconstructed bases without profile grade control.

⁵Only Category A projects are eligible for incentive. However, any grinding except within 300 feet (90 m) of a bridge end will cause the roadway to be ineligible for surface tolerance incentive pay.

Measurements must be verified by an independent entity.

Delete Table 502-8B, Individual Wheelpath Deficient Area Limits, Maximum International Roughness Index, Inches per Mile (mm per km) and substitute the following.

Table 502-8B
Individual Wheelpath Deficient Area Limits
Maximum International Roughness Index, inches per mile (mm per km)

Any 0.05 Mile (0.08 km) Segment	Wearing Course	Binder Course
Category A	89 (1400)	130 (2050)
Category B	99 (1560)	150 (2370)
Category C	N/A	N/A

TEMPORARY TRAFFIC CONTROL (03/09): 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.

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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.

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.

ASPHALT MATERIALS AND ADDITIVES (04/08): Section 1002 of the 2006 Standard Specifications and the supplemental specifications thereto is amended as follows.

Subsection 1002.02, Asphalt Material Additives is amended as follows.

Table 1002-1, Performance Graded Asphalt Cements is deleted and the following substituted.

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Table 1002-1
Performance Graded Asphalt Cements

Property	AASHTO Test Method	PG82-22rm ⁶	PG76-22m	PG70-22m	PG64-22	PG58-28
		Spec.	Spec.	Spec.	Spec.	Spec.
Tests on Original Binder:						
Rotational Viscosity @ 135°C, Pa.s ¹	T 316	3.0	3.0	3.0	3.0	3.0
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	1.00+ @ 82°C	1.00+ @ 76°C	1.00+ @ 70°C	1.30+ @ 64°C	1.00+ @ 58°C
Flash Point, °C	T 48	232+	232+	232+	232+	232+
Solubility, % ²	T 44	N/A	99.0+	99.0+	99.0+	99.0+
Separation of Polymer, 163°C, 48 hours, degree C difference in R & B from top to bottom ⁵	ASTM D 7173 AASHTO T 53	---	2-	2-	---	---
Force Ductility Ratio (f ₂ /f ₁ , 4°C, 5 cm/min., f ₂ @ 30 cm elongation) ³	T 300	---	0.30+	---	---	---
Force Ductility, (4°C, 5 cm/min, 30 cm elongation, kg) ³	T 300	---	---	0.23+	---	---
Tests on Rolling Thin Film Oven Residue:						
Mass loss, %	T 240					
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	2.20+ @ 82°C	2.20+ @76°C	2.20+ @ 70°C	2.20+ @ 64°C	2.20+ @ 58°C
Elastic Recovery, 25°C, 10 cm elongation, % ⁴	T 301	60+	60+	40+	---	---
Ductility, 25°C, 5 cm/min, cm	T 51	---	---	---	100+	---
Tests on Pressure Aging Vessel Residue:						
Dynamic Shear, @ 25°C, 10 rad/s, G* Sin Delta, kPa	T 315	5000-	5000-	5000-	5000-	5000- @ 19°C
Bending Beam Creep Stiffness, S, MPa @ -12°C.	T 313	300-	300-	300-	300-	300- @ -18°C
Bending Beam Creep Slope, m value,@ -12°C	T 313	0.300+	0.300+	0.300+	0.300+	0.300+ @ -18°C

¹The rotational viscosity will be measured to determine product uniformity. The rotational viscosity measured by the supplier shall be noted on the Certificate of Delivery. A binder having a rotational viscosity of 3.0 Pa·s or less will typically have adequate mixing and pumping capabilities. Binders with rotational viscosity values higher than 3.0 Pa·s should be used with caution and only after consulting with the supplier as to any special handling procedures and guarantees of mixing and pumping capabilities.

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²Not all polymers are soluble in the specified solvents. If the polymer modified asphalt digested in the solvent will not pass the filter media, a sample of the base asphalt used in making the polymer modified asphalt should be tested for solubility. If the solubility of the base asphalt is at least 99.0%, the material will be considered as passing.

³AASHTO T 300 except the second peak (f₂) is defined as the stress at 30 cm elongation.

⁴AASHTO T 301 except elongation shall be 10 cm.

⁵Prepare samples per ASTM D 7173. Determine softening point of top and bottom per AASHTO T 53.

⁶The quality assurance plan for this product will require the contractors who use this material to submit written documentation of tank cleaning annually. Contractors must have tank mixers. Written certificates of analysis from the asphalt binder supplier confirming rubber source and size distribution of rubber used shall be furnished to the Materials Laboratory.

Add the following Table 1002-12, Anionic Trackless Tack Coat Grade NTSS-1HM.

Table 1002-12
Anionic Trackless Tack Coat Grade NTSS-1HM

Property	AASHTO Test Method	Specification Deviation	
		100% Pay	50% Pay or Remove ¹
Viscosity, Saybolt Furol @ 25°C, s	T 59	15 - 100	---
Storage Stability, 24 Hour, %	T 59	1.0-	---
Settlement, 5 Days, %	T 59	5.0-	---
Residue by Distillation, %	T 59	50+	49-
Oil Distillate, %	T 59	1.0-	---
Sieve Test ² , (Retained on the 850 µm), %	T 59	0.3-	---
Tests on Residue			
Penetration @ 25°C, 100g, 5s, dmm	T 49	20-	---
Softening Point, Ring and Ball, °C	T 53	65+	64-
Solubility, %	T 44	97.5+	---
DSR @ 25°C; G*Sin δ, 10 rad / s, kPa	T 315	1.0+	---

¹ At the option of Engineer.

² Sieve tests may be waived if no application problems are present in the field.

BASE COURSE AGGREGATES (07/08): Subsection 1003.03 of the 2006 Standard Specifications is amended to include the following.

(e) Blended Calcium Sulfate: When blended calcium sulfate base course material is allowed on the plans, it shall consist of calcium sulfate from a source approved by the Materials and Testing Section and be blended with an approved aggregate or lime. The source shall have a quality control program approved by the Materials and Testing Section. The source shall have been given environmental clearance by the Department of Environmental Quality for the intended use, and written evidence of such environmental clearance shall be on file at the Materials and Testing Section. DOTD monitoring for compliance with environmental regulations will be limited to the pH testing stated herein below. The blended material shall be

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non-plastic and reasonably free from organic and foreign matter. The pH shall be a minimum of 5.0 when tested in accordance with DOTD TR 430. Re-evaluation will be required if the source of the aggregate or lime that is blended with the calcium sulfate changes.

Blended calcium sulfate material used as base course shall comply with the following gradation requirements when tested in accordance with DOTD TR 113, modified to include a maximum drying temperature of 140°F (60°C). Sampling shall be taken from an approved stockpile at the point of origin.

<u>U.S. Sieve</u>	<u>Metric Sieve</u>	<u>Percent Passing</u>
1-1/2 inch	37.5 mm	60 - 100
1 inch	25.0 mm	40 - 80
3/4 inch	19.0 mm	30 - 70
No. 4	4.75 mm	20 - 65
No. 200	75 µm	0 - 25

Blended calcium sulfate shall be sampled in accordance with the requirements for stone in Section 302 of the Materials Sampling Manual.

ITEM NS-600-00220, SAW CUTTING PORTLAND CEMENT CONCRETE PAVEMENT (05/08): This item consists of furnishing all equipment, labor, materials and incidentals to perform saw cutting of existing portland cement concrete pavement as shown on the plans or as directed by the Project Engineer.

The saw cutting will be measured and paid at the contract unit price per inch (mm) depth of cut times the linear foot (lin. meter) of cut.

Payment will be made at the contract unit price under:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
NS-600-00220	Saw Cutting Portland Cement Concrete Pavement	Per Inch Depth Linear Foot (per mm depth lin m)

ITEM NS-736-00020 AND ITEM NS-736-00040, VIDEO DETECTOR (MVP) DEVICE AND VIDEO DETECTION (MVP) SYSTEM (11/08):

DESCRIPTION. These items consist of furnishing all necessary equipment, labor and material to install Video Detector Device and Video Detection System as described in these specifications.

EQUIPMENT REQUIREMENTS.

1.1. System Hardware

The machine vision system hardware shall consist of three components: 1) a color, 22x zoom, MVP sensor 2) a modular cabinet interface unit 3) a communication interface panel. The real-time performance shall be observed by viewing the video output from the sensor with overlaid flashing detectors to indicate the current detection state (on/off). The MVP sensor shall be able to store cumulative traffic statistics internally in non-volatile memory for later retrieval and analysis.

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The MVP shall communicate to the modular cabinet interface unit via the communications interface panel and the software applications using the industry standard TCP/IP network protocol. The MVP shall have a built-in, Ethernet-ready, Internet Protocol (IP) address and shall be addressable with no plug in devices or

converters required. The MVP shall provide standard MPEG-4 streaming digital video. Achievable frame rates shall vary from 5 to 30 frames/sec as a function of video quality and available bandwidth.

The modular cabinet interface unit shall communicate directly with up to eight (8) MVP sensors and shall comply with the form factor and electrical characteristics to plug directly into a NEMA type C or D detector rack providing up to thirty-two (32) inputs and sixty-four (64) outputs or a 170 input file rack providing up to sixteen (16) contact closure inputs and twenty-four (24) contact closure outputs to a traffic signal controller.

The communication interface panel shall provide four (4) sets of three (3) electrical terminations for three-wire power cables for up to eight (8) MVP sensors that may be mounted on a pole or mast arm with a traffic signal cabinet or junction box. The communication interface panel shall provide high-energy transient protection to electrically protect the modular cabinet interface unit and connected MVP sensors. The communications interface panel shall provide single-point Ethernet connectivity via RJ45 connector for communication to and between the modular cabinet interface module and the MVP sensors.

1.2. System Software

The MVP sensor embedded software shall incorporate multiple applications that perform a variety of diagnostic, installation, fault tolerant operations, data communications, digital video streaming, and vehicle detection processing. The detection shall be reliable, consistent, and perform under all weather, lighting, and traffic congestion levels. An embedded web server shall permit standard internet browsers to connect and perform basic configuration, maintenance, and video streaming services.

There shall be a suite of client applications that reside on the host client / server PC. The applications shall execute under Microsoft Windows XP or Vista. Available client applications shall include:

- Master network browser: Learn a network of connected modular cabinet interface units and MVP sensors, display basic information, and launch applications software to perform operations within that system of sensors.
- Configuration setup: Create and modify detector configurations to be executed on the MVP sensor and the modular cabinet interface unit.
- Operation log: Retrieve, display, and save field hardware run-time operation logs of special events that have occurred.
- Software install: Reconfigure one or more MVP sensors with a newer release of embedded system software.
- Streaming video player: Play and record streaming video with flashing detector overlay.

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- Data retrieval: Fetch once or poll for traffic data and alarms and store on PC storage media.
- Communications server: Provide fault-tolerant, real-time TCP/IP communications to / from all devices and client applications with full logging capability for systems integration.

2. Functional Capabilities

2.1. MVP Sensor

The MVP sensor shall be an integrated imaging color CCD array with zoom lens optics, high-speed, dual-core image processing hardware bundled into a sealed enclosure. The CCD array shall be directly controlled by the dual-core processor, thus providing high-quality video for detection that has virtually no noise to degrade detection performance. It shall be possible to zoom the lens as required for setup and operation. It shall provide JPEG video compression as well as standard MPEG-4 digital streaming video with flashing detector overlay. The MVP shall provide direct real-time iris and shutter speed control. The MVP image sensor shall be equipped with an integrated 22x zoom lens that can be changed using configuration computer software. The digital streaming video output and all data communications shall be transmitted over the three-wire power cable.

2.1.2. *Power*

The MVP sensor shall operate on 110/220 VAC, 50/60Hz at a maximum of 25 watts. The camera and processor electronics shall consume a maximum of 10 watts and the remaining 15 watts shall support an enclosure heater.

2.1.3. *Detection Zone Programming*

Placement of detection zones shall be by means of a PC with a Windows XP or Vista operating system, a keyboard, and a mouse. The PC monitor shall be able to show the detection zones superimposed on images of traffic scenes.

The detection zones shall be created by using a mouse to draw detection zones on the PC monitor. Using the mouse and keyboard it shall be possible to place, size, and orient detection zones to provide optimal road coverage for vehicle detection. It shall be possible to download detector configurations from the PC to the MVP sensor and cabinet interface module, to retrieve the detector configuration that is currently running in the MVP sensor, and to back up detector configurations by saving them to the PC fixed disks or other removable storage media.

The supervisor computer's mouse and keyboard shall be used to edit previously defined detector configurations to permit adjustment of the detection zone size and placement, to add detectors for

additional traffic applications, or to reprogram the MVP sensor for different traffic applications or changes in installation site geometry or traffic rerouting.

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2.2. *Detection Types*

The MVP shall be able to be programmed with a variety of detector types that perform specific functions. Detector types shall include the following:

- a) Count Detector--outputs traffic volume statistics;
- b) Presence Detector--indicates presence of a vehicle, stopped vehicle, or vehicles traveling the wrong direction;
- c) Speed Detector--provides vehicle speed, length, classification, volume, density and traffic flow statistics;
- d) Detector Function--combines outputs of multiple detector types via Boolean logic functions and allows timing extensions and delays. Similar to the Contrast Detector below, it monitors video signal quality in multiple detection zones.
- e) Station--accumulates traffic data over user specified time intervals, including cycle splits for intersection applications;
- f) Input Label Detector--provides states of a user-provided input signal;
- g) Speed Alarm--generates an alarm output based on user-defined speed and volume thresholds;
- h) Contrast Detector--monitors video signal quality and provides an optical fail safe alarm feature. The Contrast Detector shall be able to monitor specific areas of a detection zone.
- i) Incident Detector--operates an incident detection algorithm which monitors speed and occupancy data from individual traffic lanes to detect the shock wave effects which propagate upstream from a capacity-reducing incident that occurs outside the camera field of view. It shall be adjustable for regularly recurring congestion.
- j) Scheduler--controls detector operation based upon a user-defined time schedule;
- k) Label--displays system or user-defined static or dynamic information on the output video of the MVP, including titles and bitmap graphics.
- l) Lane Detector-- generates an alarm for stopped vehicle (default setting), a slow vehicle, or a wrong-way vehicle along an entire outdoor traffic lane within the field of view.
- m) Tunnel Detector--generates an alarm for stopped vehicle (default setting), a slow vehicle, or a wrong-way vehicle along an entire tunnel lane within the field of view.

2.2.1. The speed detector shall report vehicle speed and vehicle classification based on five user-defined length categories, satisfying the four generalized category requirement recommended by FHWA.

2.2.2. Multiple detector outputs shall be able to be combined together via OR, AND, NAND, and N of M logical functions. In addition, the MVP shall be able to condition the detector outputs based on the state of associated input signals. The following detector output types shall be available:

- a) Type 0 -- send a call for every vehicle presence detected;
- b) Type 1 -- extends a call on Green, delays a call on NOT Green;

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- c) Type 2 -- both Extends and Delays a call on Green, no change to call on NOT Green;
- d) Type 3 -- provides Stop Bar detection;
- e) Type 4 -- provides Stop Bar detection with a timer;
- f) Type 5 -- provides Stop Bar detection with a reset timer;
- g) Type 6 -- enables a call when the input phase is Red;
- h) Type 8 -- provides Dilemma Zone detection, based on the speed of the vehicle;
- i) Type 9 -- provides moving vehicle detection and time validation during Red;
- j) Type 10 -- arbitrates between individual Contrast Loss detectors to determine video quality loss.

2.2.3. Each MVP shall be able to detect the absence of a valid video signal on each image sensor input. Upon detecting the absence of a valid video signal, the MVP shall place all the detector outputs associated with the failed image sensor input into a fail-safe ON state known as recall.

2.2.4. Each MVP shall be able to detect when the quality of the video input from the image sensor is not sufficient to enable vehicle detection (e.g., when environmental conditions obscure the sensor view). Use of this video loss detection capability shall be selectable by the user. If a video loss failure is detected, the MVP shall place the detector outputs associated with the failed sensor on minimum recall, maximum recall, or fixed time recall as selected by the user.

2.3. Interval Traffic Data

2.3.1. Each MVP shall count vehicles in real-time and compute the average of traffic parameters over user-defined time intervals (or time slices), as follows:

- a) Volume -- number of vehicles detected during the time interval;
- b) Occupancy -- detector occupancy measured in percent of time;
- c) Vehicle Classification -- number of vehicles in each of five classes, as defined by vehicle length in feet or meters;
- d) Flow Rate -- vehicles per hour per lane;
- e) Headway -- average time interval between vehicles;
- f) Speed -- time mean and space mean vehicle speed in mi/hr;
- g) Level of Service -- determined by user-defined thresholds for average speed or capacity flow rates;
- h) Space Occupancy -- sum of the vehicle lengths divided by average distance traveled during the time interval measured as percent;
- i) Density -- flow rate divided by space mean speed expressed in vehicles/km or vehicles/mi.

2.3.2. The duration of the time intervals (or time slices) shall be user-customizable as per signal control cycle or 10, 20, or 30 seconds, or 1, 5, 10, 15, 30, or 60 minutes, or any other arbitrary time interval of choice.

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2.3.3. It shall be possible to poll the MVP for traffic flow, vehicle presence, or event alarm data during normal operation when connected to a computer with serial communications.

Furthermore, an option to minimize data loss, called persistent polling, shall be provided to collect time interval data when the MVP is not connected to a computer. It shall operate as follows: When the communication link to the traffic management computer is cutoff temporarily, for whatever reason, the MVP shall write the persistent poll data to non-volatile EEPROM flash memory. At such time as the link is restored, the persistent poll data shall be transferred to the traffic management computer. Thus though delayed, there is no loss of data due to communications link failures. This shall also allow the use of dial-up modem applications to be scheduled, for example daily or weekly calls, to collect all data since last connection was made.

Finally, the option for persistent polling shall begin accumulating and storing defined poll data to flash memory if needed after system reboot, as may be caused by local mains power failures.

2.3.4. Using the persistent polling technique above, it shall be possible to save the time-interval data in non-volatile EEPROM flash memory within the MVP for later transfer to the supervisor computer for analysis.

2.3.5. Retrieval of real-time poll data or persistent poll data stored in the memory of the MVP shall be via a serial communications port or integrated Ethernet port using manufacturer provided software tools. Provision shall be made for transfer of data via a modem and dial-up telephone lines, via private cable, fiber optic network, wireless system, Ethernet or via direct connection to another computer by serial cable.

2.3.6. Each MVP shall provide an optional power line monitor to ensure the accuracy of its internal clock.

2.4. *Optimal Detection*

The video detection system shall optimally detect vehicle passage and presence when the MVP sensor is mounted 30 feet (10 m) or higher above the roadway, when the image sensor is adjacent to the desired coverage area, and when the distance to the farthest detection zone locations are not greater than ten (10) times the mounting height of the MVP. The recommended deployment geometry for optimal detection also requires that there be an unobstructed view of each traveled lane where detection is required. Although optimal detection may be obtained when the MVP is mounted directly above the traveled lanes, the MVP shall not be required to be directly over the roadway. The MVP shall be able to view either approaching or receding traffic or both in the same field of view. The preferred MVP sensor orientation shall be to view approaching traffic since there are more high contrast features on vehicles as viewed from the front rather than the rear. The MVP sensor placed at a mounting height that minimizes vehicle image

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occlusion shall be able to simultaneously monitor a maximum of six (6) traffic lanes when mounted at the road-side or up to eight (8) traffic lanes when mounted in the center with four lanes on each side.

2.5. Modular Cabinet Interface Unit

The modular cabinet interface unit shall provide the hardware and software means for up to eight (8) MVP sensors to communicate real-time detection states and alarms to a local traffic signal controller. It shall comply with the electrical and protocol specifications of the detector rack standards. The card shall have 1500 Vrms isolation between rack logic ground and street wiring.

The modular cabinet interface unit shall be a simple interface card that plugs directly into a 170 input file rack or a NEMA type C or D detector rack. The modular cabinet interface unit shall occupy only 2 slots of the detector rack. The modular cabinet interface unit shall accept up to sixteen (16) phase inputs and shall provide up to twenty-four (24) detector outputs.

2.6. *Communications Interface Panel*

The communications interface panel shall support up to eight MVPs. The communications interface panel shall accept 110/220 VAC, 50/60 Hz power and provide predefined wire termination blocks for MVP power connections, a Broadband-over-Power-Line (BPL) transceiver to support up to 10MB/s interdevice communications, electrical surge protectors to isolate the modular cabinet interface unit and MVP sensors, and an interface connector to cable directly to the modular cabinet interface unit.

The interface panel shall provide power for up to eight (8) MVP sensors, taking local line voltage 110/220 VAC, 50/60 Hz and producing 110/220 VAC, 50/60 Hz, at about 30 watts to each MVP sensor. Two ½-amp SLO-BLO fuses shall protect the communications interface panel.

3. System Installation & Training

The supplier of the video detection system may supervise the installation and testing of the video detection system and computer equipment as required by the contracting agency.

Training shall be available to personnel of the contracting agency in the operation, set up, and maintenance of the video detection system. The MVP sensor and its support hardware / software shall be a sophisticated leading-edge technology system. Proper instruction from certified instructors shall be recommended to ensure that the end user has complete competency in system operation. The User's Guide is not an adequate substitute for practical classroom training and formal certification by an approved agency.

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4. Warranty, Service, & Support

For a minimum of two (2) years, the supplier shall warrant the video detection system. Ongoing software support by the supplier shall include software updates of the MVP sensor, modular cabinet interface unit, and supervisor computer applications. These updates shall be provided free of charge during the warranty period. The supplier shall maintain a program for technical support and software updates following expiration of the warranty period. This program shall be available to the contracting agency in the form of a separate agreement for continuing support.

CONSTRUCTION REQUIREMENTS. The contractor shall be responsible to provide the necessary hardware for the camera assembly, installation, and operation to detect and or count vehicles as shown in the plans.

This specification sets forth the minimum requirements for a system that monitors vehicles on a roadway via processing of video images. The detection of vehicles passing through the field-of-view of an image sensor shall be made available to a large variety of end user applications as simple contact closure outputs that reflect the current real-time detector or alarm states (on/off) or as summary traffic statistics that are reported locally or remotely. The contact closure outputs shall be provided to a traffic signal controller and comply with the National Electrical Manufacturers Association (NEMA) type C or D detector rack or 170 input file rack standards.

The system architecture shall fully support Ethernet networking of system components through a variety of industry standard and commercially available infrastructures that are used in the traffic industry. The data communications shall support direct connect, [modem,] and multi-drop interconnects. Simple, standard Ethernet wiring shall be supported to minimize overall system cost and improve reliability, utilizing existing infrastructure and ease of system installation and maintenance. Both streaming video and data communications shall, if specified in the plans, be interconnected over long distances through fiber optic, microwave, or other commonly used digital communications transport configurations.

MEASUREMENT.

Video Detector (MVP) Device, per each shall include all required materials, tools, equipment, labor, and incidentals required to install each video detection device as described above, including the cable connection to the controller cabinet, and fully functioning, per each as indicated on the plans.

Video Detection (MVP) System (Intersection) per each shall include all required materials, tools, equipment, labor, incidentals as described above, and fully functioning for the proper operation of the system.

PAYMENT. Payment for Video Detector (MVP) Device and Video Detection (MVP) System will be made at the contract price and shall be full compensation for furnishing all materials, tools, equipment, labor, and incidentals required to perform all work as described above or as directed by the engineer.

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Payment for the Video Detector (MVP) Device will be paid at the contract price under:

Item No.	Pay Item	Pay Unit
NS-736-00020	Video Detector (MVP) Device	Per Each
NS-736-00040	Video Detection (MVP) System	Per Each

ITEMS NS-ITS-04020, 04250,04260,04425,05025, OPTICAL FIBER ELEMENTS:

Scope of Work

This Item consists of furnishing and installing an Optical Fiber System and all appurtenances required for the ITS in accordance with plan details, specifications, and as directed by the Project Engineer.

All equipment shall be new and constructed using the highest quality, commercially available components and techniques to assure high reliability and minimum maintenance. The contractor shall submit, prior to installation Fiber Optic Splicing and Termination Diagrams for the Backbone and Drops and a complete set of shop drawings of all the equipment and components listed below and included as part of the installation.

The system shall consist of the following major components:

- Fiber Optic Splicing Diagrams
- Fiber Optic Termination Diagrams
- Optical fiber cable
- Optical fiber drop cable
- Optical fiber patch cord
- Fiber Optic Components

General Requirements

The Contractor shall be required to assemble and install all necessary material and equipment and to furnish a working Optical Fiber System in accordance with these plans and specifications and compatible with the requirements of the ITS. All items that are required to complete the installation shall be supplied by the contractor whether listed above or not. All items not specifically shown but required for an operational ITS shall be supplied by the Contractor. All components supplied by the contractor are the responsibility of the Contractor.

The Contractor shall field verify final equipment locations with the Project Engineer. Plans are diagrammatic and indicate the general arrangement of devices and work included in these documents. Final placement and arrangement are the responsibility of the Contractor.

During the installation of the underground systems, removal of brush, trees, fencing, and other obstructions within the right-of-way shall comply with Section 202 of the Louisiana Standard Specifications for Roads and Bridges and shall be paid for under Item 202-01 – Removal of Structures and Obstructions. Landscaping shall be restored to original or better condition if disturbed.

The manufacturer upon request by the Department shall grant access to the manufacturing facility for all products specified herein.

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Optical Fiber Cable Requirements

General Requirements

This specification section covers all fiber optic cable, fiber optic drop cable, and fiber optic patch cords that are to be installed as part of the optical fiber backbone and device build-outs. As such, each type of cable (trunk, drop, and patch cord) is herein referenced as fiber optic cable.

Shop drawings showing the details for each component shall be submitted for approval prior to construction.

Enclosed Specifications cover the requirements for the manufacturing, testing, and shipping of fiber optic cable and patch cord. Cable characteristics are single mode, overall HDPE or MDPE jacket, rated for installation in conduit, shall be suitable for direct burial, and shall be an accepted product of the United States Department of Agriculture Rural Utilities Service (RUS) 7 CFR 1755.900 and meet the requirements of ANSI/ICEA Standard for Fiber Optic Outside Plant Communications Cable, ANSI/ICEA S-87-640-1992.

For the Equipment specified herein, the manufacturer shall be ISO 9000, 9001 or 9002 certified.

The cable manufacturer shall support industry standards such as Bell Communications Research (Bellcore), Electronic Industries Association (EIA), Telecommunications Industry Association (TIA), International Telecommunications Union (ITU), International Electromechanical Commission (IEC), Rural Utilities Service (RSU, formerly-REA), American Society for Testing and Material (ASTM) and the Building Industry Consultant Services (BICSI) Telecommunications Distribution Methods Manual. In addition, product supplied by the cable manufacturer shall meet all applicable standards of the above organizations and well as the attached reference standards.

Materials provided under this Specification must be new and must be provided by manufacturers regularly engaged in the production of such products.

It is required that the cable manufacturer shall provide installation procedures and technical support concerning the items contained in this specification.

References, Standards, Listing, and Codes

All Work and Equipment shall be designed, manufactured, and tested in accordance with the latest applicable standards for the Equipment specified. In some instances, these Specifications go beyond the requirements of the stated standards. Where these Specifications differ from the requirements of the stated standards, these Specifications shall take precedence.

In addition to the requirements of these Specifications, Material and Work shall meet and/or exceed all requirements of the applicable portions of the latest editions of the standards and codes listed below. The fiber optic cable shall further meet and/or exceed those applicable standards not stated herein but referenced by the below standards and/or their applicable sections. The standards list includes, but is not limited to, the following:

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Industry Standard / Code	Description
ASTM D 1248	Standard Specification for Polyethylene Plastics Molding and Extrusion Materials
ASTM D 1603	Standard Test Method for Carbon Black in Olefin Plastics
ASTM D 1765	Standard Classification System for Carbon Blacks Used in Rubber Products
ASTM D 3349	Standard Test Method for Absorption Coefficient of Carbon Black Pigmented Ethylene Plastic
ASTM E 29	Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
BELLCORE GR-20-CORE	Issue 1, September 1994 Generic Requirements for Optical Fiber and Fiber Optic Cable
EIA/TIA-455-3	Procedure to Measure Temperature Cycling Effects on as Optical Fiber, Optical Cable, and Other Passive Fiber Optic Components
EIA/TIA-455-24	Water Peak Attenuation Measurement of Single Mode Fibers
EIA/TIA-455-25	Impact Testing of Fiber Optic Cables and Cable Assemblies
EIA/TIA-455-28	Method for Measuring Dynamic Tensile Strength of Optical Fibers
EIA/TIA-455-29	Refractive Index Profile Transverse Interference Method
EIA/TIA-455-31	Fiber Tensile Proof Test Method
EIA/TIA-455-33	Fiber Optic Cable Tensile Loading and Bending Test
EIA/TIA-455-37	Low or High Temperature Bend Test for Fiber Optic Cable
EIA/TIA-455-41	Compressive Loading Resistance of Fiber Optic Cable
EIA/TIA-455-46	Spectral Attenuation Measurement for Long-Length, Graded-Index Optical Fibers
EIA/TIA-455-47	Output Far-Field Radiation Pattern Measurement
EIA/TIA-455-51	Pulse Distortion Measurement of Multimode Glass Optical Fibers Information Transmission Capacity
EIA/TIA-455-58	Core Diameter Measurement of Graded-index Optical Fibers Information Transmission Capacity
EIA/TIA-455-59	Measurement of Fiber Point Discontinuities Using an OTDR
EIA/TIA-455-61	Measurement of Fiber or Cable Attenuation Using an OTDR
EIA/TIA-455-62	Measurement of Optical Fiber Macrobend Attenuation
EIA/TIA-455-76	Method for Measuring Dynamic Fatigue of Optical Fibers by Tension
EIA/TIA-455-78	Spectral Attenuation Cutback Measurement for Single-Mode Optical Fibers
EIA/TIA-455-80	Measuring Cutoff Wavelength of Uncabled Single-Mode Fiber by Transmitted Power
EIA/TIA-455-82	Fluid Penetration Test for Fluid-Blocked Fiber Optic Cable
EIA/TIA-455-85	Fiber Optic Cable Twist Test
EIA/TIA-455-86	Fiber Optic Cable Jacket Shrinkage
EIA/TIA-455-89	Fiber Optic Cable Jacket Elongation and Tensile Strength
EIA/TIA-455-97	Procedure for Measuring Static Fatigue of Optical Fibers in

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Industry Standard / Code	Description
	Two-Point Bending
EIA/TIA-455-98	Fiber Optic Cable External Freezing Test
EIA/TIA-455-104	Fiber Optic Cable Cyclic Flexing Test
EIA/TIA-455-111	Procedure for the Measurement of Optical Fiber Curl
EIA/TIA-455-113	Polarization-Mode Dispersion Measurement for Single-Mode Optical Fibers by Wavelength Scanning
EIA/TIA-455-164	Single-Mode Fiber, Measurement of Mode Field Diameter by Far-Field Scanning
EIA/TIA-455-167	Mode Field Diameter Measurement-Variable Aperture Method in the Far-Field
EIA/TIA-455-168	Chromatic Dispersion Measurement of Multimode Graded-Index and Single-Mode Optical Fibers by Spectral Group Delay Measurement in the Time Domain
EIA/TIA-455-170	Cable Cutoff Wavelength of Single-Mode Fiber by Transmitted Power
EIA/TIA-455-173	Coating Geometry Measurements, Side View
EIA/TIA-455-175	Chromatic Dispersion Measurement of Single-mode Optical Fibers by the Differential Phase Shift Method
EIA/TIA-455-176	Method for Measuring Optical Fiber Cross-Sectional Geometry by Automated Grey-Scale Analysis
EIA/TIA-455-177	Numerical Aperture Measurement of Graded-Index Optical Fibers
EIA/TIA-455-178	Measurement of Strip Force Required for Mechanically Removing Coatings from Optical Fibers
EIA/TIA-455-181	Lightning Damage Susceptibility Test for Fiber Optic Cables with Metallic Components
IEC 793-1	International Standard (Optical Fibers) – Part1: Generic Specification
-A1A	Refractive Index Profile
-A2	Near Field Light Distribution
-B1	Optical Fiber Proof Test
-C1A	Cut-back Technique
-C1C	Insertion Loss Technique
-C2A	Impulse Response
-C5C	Chromatic Dispersion Measurement of Optical Fibers by the Differential Phase Shift Method
-C7B	Cable Cut-off Wavelength Measurement of Single Mode Fiber
-C9A	Mode Field Diameter Measurement Direct Far-Field Scanning Method
-C9B	Mode Field Diameter Measurement – Variable Aperture Method in the Far-Field
-C11	Macrobending Sensitivity
IEC 794-1	International Standard (Fiber Optic Cables) – Part1: Generic Specification

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36 Strand Single Mode Cable – Main
General Requirements

Contractor shall provide 36 strand optical fiber with characteristics as specified herein. All fiber strands shall conform to the requirements detailed herein.

- The maximum attenuation for each single mode fiber shall be 0.36 dB/km at 1310nm and 0.23 dB/km at 1550nm. The maximum dispersion shall be less than 3.5 ps/(nm•km) from 1285nm to 1330nm and less than 18 ps/(nm•km) at 1550nm.

All optical fibers shall be proof tested by the fiber manufacturer to a minimum load of .07GN/m² (100 kpsi).

Each fiber shall be distinguishable by means of color coding in accordance with TIA/EIA-598-A, "Optical Fiber Cable Color Coding."

A. Cable Construction

All fiber optic cable provided under this Contract shall be of a totally dielectric construction. Optical fibers shall be arranged in a loose tube configuration. Fibers must be matched clad.

The fiber strands shall not be colored with solvent-based inks.

All cables shall have either a central strength member or two groups of strength members that are longitudinally applied diametrically opposite each other over the cable core. Strength members shall consist of a dielectric, glass reinforced plastic rod. All cables shall also contain either one or two ripcords.

Buffer tubes shall be stranded around a dielectric central member. Water blocking yarn(s) or flooded compound shall be applied longitudinally along the central member during stranding. For cables consisting of a single tube with fiber ribbons, this Specification would not apply.

All cables shall be sheathed with a circular extrusion of high-density polyethylene (HDPE), medium density polyethylene (MDPE), or Polyvinyl Chloride (PVC) and shall be suitable for direct burial. The minimum nominal jacket thickness shall be approximately 1.4 mm. Jacketing material shall be applied directly over the tensile strength members and water blocking tape. The fiber cable shall have a tensile rating of 600-lb. (2670 N).

HDPE and MDPE shall contain carbon black to provide ultraviolet light protection and shall not promote the growth of fungus. The polyethylene jacket material shall be as defined by ASTM D1248.

All Materials used in the fiber cable shall be non-reclaimed, free from foreign matter consistent with good manufacturing practices, and shall not degrade cable components or approved connectors, closures, tapes and other materials used with the fiber cable. All fibers, coatings, plastic tubes and jackets shall be continuous and free from roughness, porosity, bubbles, splits, blisters, voids and inclusions, consistent with good manufacturing practices.

Cable jackets shall be marked with manufacturer's name, sequential meter or foot markings, month and year, or quarter and year of manufacture, and a telecommunication handset symbol, as required by Section 350G of the National Electrical Safety Code (NESC). The actual length of the cable shall be within -0/+1% of the length markings. The print color shall be white; with the exception that cable jackets containing one or

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more coextruded white stripes shall be printed in light blue. The height of the marking shall be approximately 2.5 mm.

If the initial marking fails to meet the specified requirements (i.e., improper text statement, color, legibility, or print interval), the cable may be remarked using a contrasting alternate color. The numbering sequence shall differ from the previous numbering sequence, and a tag shall be attached to both the outside end of the cable and to the reel to indicate the sequence of remarking. The preferred remarking color will be yellow, with the secondary choice being blue.

The maximum pulling tension shall be 2700 N (608 lbf) during installation (short term) and 890 N (200 lbf) long term installed.

All cables must be able to withstand a minimum bending radius of 10 times cable diameter under no load and 20 times cable diameter under load, without affecting performance characteristics of the cable.

The shipping, storage, and operating temperature range of the cable shall be 40°C to +75°C. The installation temperature range of the cable shall be 30°C to +60°C.

12 Strand Single Mode Cable – Drop

A. General Requirements

Contractor shall provide 12 strand optical fiber with characteristics as specified herein. All fiber strands shall conform to the requirements detailed herein.

- The maximum attenuation for each single mode fiber shall be 0.36 dB/km at 1310nm and 0.23 dB/km at 1550nm. The maximum dispersion shall be less than 3.5 ps/(nm•km) from 1285nm to 1330nm and less than 18 ps/(nm•km) at 1550nm.

All optical fibers shall be proof tested by the fiber manufacturer to a minimum load of .07GN/m² (100 kpsi).

Each fiber shall be distinguishable by means of color coding in accordance with TIA/EIA-598-A, "Optical Fiber Cable Color Coding."

B. Cable Construction

Drop cable shall be installed from the main trunk to a termination point within the controller cabinet associated with the particular field device.

Optical fibers shall be placed in a single filled loose buffer tube.

Water swellable dielectric strength members shall be applied evenly around the outside of the buffer tube for tensile strength. The dielectric strength members shall be non-nutritive to fungus, electrically nonconductive, and free from dirt and foreign matter. Water blocking shall be provided by the strength members, which shall be impregnated with a water swellable compound. The cable shall not have stiff longitudinal rods or any other component that shall cause the cable to have a preferential bend.

Cables shall be sheathed with flame retardant polyvinyl chloride (PVC) and shall be an all dielectric construction. The nominal jacket thickness shall be 1.4mm and shall be applied directly over the tensile strength members. The PVC jacket shall contain carbon black to provide UV protection and shall not promote the growth of fungus. The cable shall meet the requirements of the National Electrical Code Section 770 for Non-Plenum Applications – Applicable Flame Tests: ANSI/UL 1666 and shall be rated OFNR.

Cable jackets shall be marked with manufacturer's name, sequential meter or foot markings, month and year, or quarter and year of manufacture, and a telecommunication

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handset symbol, as required by Section 350G of the National Electrical Safety Code (NESC). The actual length of the cable shall be within -0/+1% of the length markings. The print color shall be white; with the exception that cable jackets containing one or more coextruded white stripes shall be printed in light blue. The height of the marking shall be approximately 2.5 mm.

If the initial marking fails to meet the specified requirements (i.e., improper text statement, color, legibility, or print interval), the cable may be remarked using a contrasting alternate color. The numbering sequence shall differ from the previous numbering sequence, and a tag shall be attached to both the outside end of the cable and to the reel to indicate the sequence of remarking. The preferred remarking color will be yellow, with the secondary choice being blue.

The maximum pulling tension shall be 2700 N (608 lbf) during installation (short term) and 890 N (200 lbf) long term installed.

All cables must be able to withstand a minimum bending radius of 10 times cable diameter under no load and 20 times cable diameter under load, without affecting performance characteristics of the cable.

The shipping, storage, and operating temperature range of the cable shall be 40°C to +75°C. The installation temperature range of the cable shall be 30°C to +60°C.

4 Strand Single Mode Cable – Patch Cord

C. General Requirements

Contractor shall provide 4 strand optical fiber with characteristics as specified herein. All fiber strands shall conform to the requirements detailed herein.

- The maximum attenuation for each single mode fiber shall be 0.36 dB/km at 1310nm and 0.23 dB/km at 1550nm. The maximum dispersion shall be less than 3.5 ps/(nm•km) from 1285nm to 1330nm and less than 18 ps/(nm•km) at 1550nm.

All optical fibers shall be proof tested by the fiber manufacturer to a minimum load of .07GN/m² (100 kpsi).

D. Cable Construction

Standard single mode patch cord shall be installed from the termination point within the controller cabinet associated with the particular field device to the digital video and data encoder.

All patch cords used for system configuration shall be compatible with fiber types and connectors specified herein. Patch cords shall be yellow in color and shall incorporate buffered fiber, aramid yarn strength members, and an outer jacket. Part number, manufacturer, and lot number shall be imprinted on the jacket.

Quality Control Provision

All cabled optical fibers shall be 100% attenuation tested. The attenuation of each fiber shall be provided with each cable reel and shall meet the requirements of the fiber specification parameters as specified herein.

All cable once on the reel shall have Optical Time Domain Reflector (OTDR) reports generated at the factory prior to shipment, at the delivery location prior to installation, and on-site after installation. Cable provided under this Specification must produce equivalent OTDR reports at each test point.

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Production Tests and Technical Requirements

E. General Requirements

LADOTD shall have accessibility to manufacturing plant to witness manufacture and testing of fiber optic cable.

The Manufacturer shall provide a representative to witness field-testing of installed fiber optic cable.

Final inspection and acceptance of the multiple fiber optic cable installations shall be at the discretion of the LADOTD. LADOTD shall require the Contractor to have completed testing as described below, and to have provided LADOTD with documentation related to such testing. Testing shall be in accordance with the standards and regulations previously referenced by these Specifications.

The Contractor shall prepare a statement of methodology for all testing procedures that shall be used for this installation. This statement shall be provided in advance to the LADOTD for approval by the Project Engineer. In addition to approving procedures, the Project Engineer must also pre-approve all data forms that shall be used to record results of pre and post installation testing. Once testing is complete, all test results recorded on approved data forms, and signed by the Contractor, shall be provided to the Engineer for approval.

In addition to the guidance provided above, all testing shall be performed in accordance with industry standards bodies and generally accepted methods that were previously documented. Testing shall also comply with the specific industry standards provided by the fiber optic cable Specification.

F. Tests Performed at Manufacturing Facility

Certified test reports shall be supplied for each shipping reel of cable. Manufacturer shall document and certify the results of all factory tests and compliance with the performance requirements. Certificates of compliance are not acceptable. A written quality assurance manual shall be implemented and maintained to insure full compliance with all requirements of this Specification.

Testing shall be performed in accordance with the procedures outlined in the previously mentioned standards. These tests shall be performed at the factory and certified test results shall be provided to the LADOTD in accordance with those standards.

G. Tests Performed Immediately Upon Delivery

At the time of delivery, fiber optic cable tests as outlined in this section shall be performed in the presence of the Contractor, a LADOTD representative, and the manufacturer's representative. Once the tests are complete, are satisfactorily passed, and the results agreed upon by all representatives present, the Equipment and Materials shall then become the responsibility of the Contractor and are suitable for installation.

Once off-loaded from the delivery vehicle, each reel of fiber optic cable shall be subjected to an optical time domain reflectometer (OTDR) test. Every fiber strand in each cable shall be tested end to end with an OTDR which is compatible with wavelength and fiber type. Testing shall measure attenuation and length, verify continuity, and discover anomalies. Should an accurate measurement not be obtained from one end of a cable strand, the test shall be run from the opposite end. Tested loss per kilometer shall not exceed the loss provided in the manufacturer's certification data and as required by

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these specifications. In the event that loss per kilometer does exceed that of the manufacturer's certification data and these specifications, the cable reel shall be rejected and returned to the manufacturer.

Test reports shall be submitted to the Engineer within 48 hours of test completion.

H. Tests Performed Subsequent to Installation

Following installation and prior to splicing, each strand of the fiber cables at each location, shall be tested for loss characteristics. Tests shall be performed for both directions of operation.

These tests shall be repeated once all splices and connectors have been installed, for the full length of the installation and spliced connections to field build-outs.

Storage, Packaging, and Shipping

The Contractor shall provide a secure indoor storage facility for the duration of the storage period.

Cables shall be shipped on heavy-duty reels. The distance between the cable and the outer edge of the reel flange shall not be less than 2 inches.

Cable ends shall be sealed with heat shrink end caps and both ends of the cable shall be exposed to facilitate testing on the reel.

Reels must be shipped in upright position on edges of flanges. Any reels laid on flanges shall be returned. Reels must not be stored on sides of flanges (laying flat) or stored stacked on each other.

All reels must be wrapped with a protective paper or cardboard wrap to expose any damage that may have occurred during transportation.

Standard industry practices for storage, handling, and shipping shall be adhered to when not covered in these Specifications.

The reel tag shall include the following information:

- Cable number
- Gross weight
- Shipped cable length in feet
- Project name and number
- Manufacturers product number
- Date cable was tested
- Manufacturers order number
- Cable length markings - Top (inside end of cable) and Bottom (outside end of cable)
- Item number
- Loss budget for each fiber strand w/in each fiber optic cable
-

The reel (one flange) marking shall include:

- "Manufacturer"
- An arrow indicating proper direction of roll when handling

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- Ship to address
- Manufacturer cable number
- Cable length in feet
- Gross package weight inclusive of cable, reel and protective covering
- Project name and number
- Fork lift handling illustration
- The text “DO NOT SHIP REEL ON SIDE”
-

Each cable shall be accompanied by a cable data sheet. The cable data sheet shall include the following information:

- Manufacturer Cable Number
- Manufacturer Product Number
- Manufacturer Factory Order Number
- Customer Name
- Customer Cable Number
- Mark for Information
- Ordered Length
- Actual Shipped Length
- Loss budget for each fiber strand within each fiber optic cable segment
- Bandwidth Specification

Warranty

The Manufacturer of the specified fiber optic cable shall provide a written and documented ten 10 year warranty on materials and workmanship to the LADOTD effective from the date of commission of said fiber optic cable.

In the event that the Fiber Optic Cable, or any portion thereof, should fail due to workmanship or materials within the said ten -10 year warranty period, the warranty shall provide that the manufacturer shall supply the LADOTD with new replacement Fiber Optic Cable of equal or greater kind and quality and meeting all of the applicable Specifications herein, at no charge to the LADOTD.

Cable manufacturer must provide recommended Splicing and Termination Instructions and procedures as part of the warranty.

Installation Guidelines and Requirements

General Requirements

The purpose of this section is to provide guidelines for installing the fiber optic cable. This document provides generic guidance according to generally accepted installation procedures. This document relies on manufacturer provided specific instructions for installation of fiber optic fusion splices, fiber terminations, selective splicing, and other items for which manufacturer

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specific instructions exist. These procedures are dependent upon the manufacturer of the fiber cable and the cable splicing and termination equipment.

Shop drawings showing the details for each component shall be submitted for approval prior to construction.

Before beginning any excavation, the Contractor shall determine the location of any electrical lines, drainage, utility, and other underground facilities in the vicinity and shall conduct his work in such a manner as to avoid damage to it. Precautions shall be taken to insure that the conduit is located to avoid conflict with proposed guard rail, sign posts, or any other miscellaneous structures.

Contractor shall be responsible for repairing any broken or damaged underground facilities.

Backfilling of trenches shall be with usable soil, placed and compacted to at least the density of the surrounding ground at no direct pay.

All publications or standards referenced herein, along with all manufacturers' specifications, directions, and testing procedures, are hereby incorporated into the installation guidelines. In addition to the standards, publications, directions and other specifications appearing here, specifications and standards provided in the cable manufacturer specification are also incorporated. The sum of the previously mentioned sources comprises the complete installation guidelines.

It is the intent of the design to hold to an absolute minimum the number of total fiber optic cable fusion splices. Locations of allowed fusion splices are as detailed herein. It shall be the responsibility of the Contractor to ensure that a sufficient amount of fiber optic cable is included per run in order to avoid unnecessary splices.

Contractor shall install detectable Muletape in every spare conduit installed as part of this project.

During the installation of the underground systems, removal of brush, trees, fencing, and other obstructions within the right-of-way shall comply with Section 202 of the Louisiana Standard Specifications for Roads and Bridges and shall be paid for under Item 202-01 – Removal of Structures and Obstructions. Landscaping shall be restored to original condition if disturbed.

Installation Description and Locations

Fiber optic cable and appurtenances shall be installed within the following locations according to plan details:

- From the signalized intersection of O'Neal Lane and Florida Boulevard along O'Neal Lane to the intersection of O'Neal Lane at Medical Center Drive. Refer to Plan Sheets 115-118 for general location of fiber optic cable, conduit, junction boxes and splice locations.

Fiber Optic Cable Installation

Generally accepted practices and standards for installing fiber optic cable and electrical conductors shall be followed during the installation. All appropriate precautions to prevent cable kinks and breaks shall be followed. Once the cable manufacturer has been selected, their specifications regarding tensile strength, pulling capacity, and bending radius, etc. shall not be violated. Plan details provide a diagram illustrating the route that each cable will take from origin to destination.

All specifications provided by the cable manufacturer along with all procedures and standards provided in this document must be followed. Appropriate standards for buried installation of cable shall be followed in laying-in and routing the fiber cable. Documents such as Lucent

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Technologies, Outside Plant Systems, Outside Plant Engineering Handbook provide guidance on proper installation procedures. Plan details provide a typical illustration of how the fiber is routed. During installation of the fiber optic cable, care must be taken so that the cables do not kink, or bend excessively, in a manner that diminishes the cable transmission capability. Note that the cable is to be terminated and/or spliced at specific locations. Maximum pulling tensions of all cables and conductors shall not exceed manufacturer's recommendations.

During installation of the optical fiber cable, a minimum of 50'-0" of slack shall be coiled within each underground handhole / pullbox. Drop locations for future connectivity shall have a minimum of 200'-0" of slack coiled within each underground handhole / pullbox as noted in the plans.

At each underground handhole / pullbox the Contractor shall label every cable entering and leaving. Labels shall be permanent, plastic, wrap-around crimp-type that contains a minimum of 20 characters. Specific label content shall be determined with the Project Engineer using designations as detailed on the plans.

Fiber Optic Cable Termination Points

I. General Requirements

Prior to any fiber terminations, the Fiber Optic Splicing and Termination Diagrams for the Backbone, Subtending and Drops shall be submitted and approved.

The loss through any one terminus connector shall be 0.25 dB or less.

Acceptable fiber optic connectors shall be SC or LC and are referenced in this specification as connectors. Contractor shall verify that connector type is compatible with hardware fiber ports. Industry standards related to fiber termination shall be followed. Connectors shall have pre-radiused zirconia ceramic ferrule, metal connector body, blue shroud, crimp ring, black 3.0mm and a 900° boots. Connectors shall be compatible with both two part heat cure epoxy and anaerobic adhesive assembly methods.

Connectors shall be used throughout the fiber optic system installation for terminating fibers and for jumping between termination points, unless otherwise required by a network device. Fusion splicing shall be utilized for all splices and manufacturer's specifications for equipment and fiber cable shall be followed.

To accomplish the terminations, modular rackmount fiber termination shelves/closets shall be used. The connector housing(s) in use at the each termination point shall have adequate space to terminate a minimum of 96 fibers. The connector housings must be able to accommodate multiple rows of connectors. Multiple units may be used if necessary, depending on selected manufacturer's product offering. The connector housings shall include either external SC or LC connectors for each fiber strand.

Acceptable termination devices for the each termination point include Siecor's CCH-04U and Lucent's LST1U line or approved equal. Manufacturer's specifications for terminating the fiber cable and for utilization of the termination device shall be followed. In addition, industry standard practices for fiber termination shall also be followed. Plan details provide termination diagrams for each termination point and a numbering scheme for the fiber cables that will be followed throughout the layout of the network.

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Each strand of each cable being terminated shall be appropriately labeled with origination and destination information. Each strand of each cable being fusion spliced shall be appropriately labeled within origination and destination information.

Buffer tube fanouts are acceptable for use where the cable is being terminated within a distribution housing.

- J. Designated fibers are to be terminated in the traffic signal controller cabinets located at the intersections of O'Neal Lane at Medical Center, O'Neal Lane at I-12, O'Neal Lane at London Towne, O'Neal Lane at Woodwick/Coliseum, O'Neal Lane at Strain Road and O'Neal Lane at Old Hammond Highway. Refer to Plan Sheets 135 – 137.
- K. Designated fibers are to be fusion spliced in designated junction boxes at the intersections of O'Neal Lane at Medical Center, O'Neal Lane at I-12, O'Neal Lane at London Towne, O'Neal Lane at Woodwick/Coliseum, O'Neal Lane at Strain Road, O'Neal Lane at Old Hammond Highway and O'Neal Lane at Florida Boulevard. Refer to Plan Sheets 115 – 118.

Fiber Optic Cable Fusion Splice and Selective Splice Points

General Requirements

Prior to any fiber splicing, the Fiber Optic Splicing and Termination Diagrams for the Backbone, Subtending and Drops shall be submitted and approved.

Refer to plan details for specific fibers being spliced and those being expressed.

The loss through any one fusion splice shall be 0.07 dB or less.

The complete fusion splice points for the fiber optic cable shall occur only within pullboxes as designated by the Project Engineer. At each of these points, a submersible splice enclosure suitable for a minimum of 96 fusion splices shall be utilized. This enclosure shall allow for installation of a fiber optic drop cable that shall be routed to a wall mounted patch panel. Industry accepted standards and manufacturer's specifications shall be followed for installation of splice enclosures and fusion splices.

The loss through any one terminus connector shall be 0.25 dB or less.

Acceptable fiber optic connectors shall be SC and are referenced in this specification as connectors. Industry standards related to fiber termination shall be followed. Connectors shall have pre-radiused zirconia ceramic ferrule, metal connector body, blue shroud, crimp ring, black 3.0mm and a 900° boots. Connectors shall be compatible with both two part heat cure epoxy and anaerobic adhesive assembly methods.

Connectors shall be used throughout the fiber optic system installation for terminating fibers and for jumping between termination points, unless otherwise required by a network device. Fusion splicing shall be utilized for all splices and manufacturer's specifications for equipment and fiber cable shall be followed.

Optical Fiber Patch Panel

Acceptable patch panels include Fiber Connections Gator Patch GP2J012FH-Bxx (where xx represents the length of the drop cable in meters), Lucent's Fiber Interconnection Unit, Model 400 A1, Siecor's WCH-02P Wall-Mount Closet Housing, or approved equal. Industry accepted standards and manufacturer specifications shall be followed for installation of the patch panels.

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Buffer tube fanouts are acceptable for use where the cable is being spliced within a distribution housing.

- Fiber patch panels are required in the traffic signal controller cabinets at the signalized intersections of O'Neal Lane at Medical Center Drive, O'Neal Lane at I-12, O'Neal Lane at London Towne, O'Neal Lane at Woodwick/Coliseum, O'Neal Lane at Strain Road, and O'Neal Lane at Old Hammond Highway.

Total Cable Fusion Splice Points

All fiber optic cables shall be continuous with no total cable splices.

Measurement and Payment

General Requirements

The intent of this section is to provide a means for accounting for the periodic payments to the Contractor. The intent of the contract is to provide for the installation of a fully operational Communications, complete, in place, as described in this contract. Nothing in this section of the specification is to conflict with that intent. In the event that an item is not specifically identified for payment, it shall be considered to be included in the most appropriate bid item.

For all pay items, the Contractor shall submit a complete breakdown for the use of the Project Engineer in evaluating the contractor's request for payment. The breakdown shall be submitted to the Department for review. If additional information is required and/or any changes or additions deemed necessary by the Department, these shall be incorporated into the breakdown. The Contractor shall resubmit the breakdown and if all changes are satisfactorily performed, the breakdown format shall be approved. If not, resubmission shall occur. The exact quantities and values used in the breakdowns shall not be the basis for increases or decreases in quantity or value of work in place. The Project Engineer may, however, rely on the proportions of the price breakdown in evaluating changes or additions to the work, if any.

Measurement

36 Strand Optical Fiber Cable

This item will be measured per linear foot and shall include providing all labor, equipment, materials, and incidentals required for the furnishing and installation of the 36 Strand Optical Fiber Cable as detailed in the plans and as described in the specifications. Included in this item is the fiber optic cable, housings and terminations within the aggregation sites, factory and manufacturing inspection, testing, storage, packaging, shipping, warranty, and all work, equipment, and appurtenances as required to effect the full operation and control of the 36 Strand Optical Fiber Cable complete in place and ready for use.

Optical Fiber Drop Cable

This item will be measured per linear foot and will include providing all labor, equipment, materials, and incidentals required for the furnishing and installation of the Optical Fiber Drop Cable as detailed in the plans and as described in the specifications. Included in this item is the fiber optic drop cable, housings and terminations within the traffic signal controller cabinets at the intersections indicated on Plan Sheets 115 -118, factory and manufacturing inspection,

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testing, storage, packaging, shipping, warranty, and all work, equipment, and appurtenances as required to effect the full operation and control of the Optical Fiber Drop Cable complete in place and ready for use.

Optical Fiber Patch Cord

This item will be measured per each and will include providing all labor, equipment, materials, and incidentals required for the furnishing and installation of the Optical Fiber Patch Cord as detailed in the plans and as described in the specifications. Included in this item is the fiber optic patch cord, housings and terminations within the traffic signal controller cabinets at the intersections indicated on Plan Sheets 136 - 137, factory and manufacturing inspection, testing, storage, packaging, shipping, warranty, and all work, equipment, and appurtenances as required to effect the full operation and control of the Optical Fiber Patch Cord complete in place and ready for use.

Optical Fiber Patch Panel

This item will be measured per each and will include providing all labor, equipment, materials, and incidentals required for the furnishing and installation of the Optical Fiber Patch Panel as detailed in the plans and as described in the specifications. Included in this item is the fiber optic patch panel within the traffic signal controller cabinets at the intersections indicated on Plan Sheets 136 - 137, factory and manufacturing inspection, testing, storage, packaging, shipping, warranty, and all work, equipment, and appurtenances as required to effect the full operation and control of the Optical Fiber Patch Panel complete in place and ready for use.

Splice Closure

This item will be measured per each and will include providing all labor, equipment, materials, and incidentals required for the furnishing and installation of the Splice Closure as detailed in the plans and as described in the specifications. Work included in this item the splice closure, fusion butt splices, and fusion selective splicing from the main trunk to the drop cable, factory and manufacturing inspection, testing, storage, packaging, shipping, warranty, and all work, equipment, and appurtenances as required to effect the full operation and control of the Splice Closure complete in place and ready for use.

Payment

Payment for Optical Fiber System work shall be made at the Contract unit price under:

Item Number	Pay Item	Pay Unit
NS-ITS 04020	Fiber Optic Cable, SM, Furnish & Install, 3-48 Fibers	Linear Meter
NS-ITS-04250	Fiber Optic Drop Cable, SM, 12 Strand, Furnish & Install	Linear Meter
NS-ITS-04260	Fiber Optic Patch Cord, SM, 4 Strand, Furnish & Install	Each
NS-ITS-04425	Fiber Optic Connection Patch Panel, Outdoor, Furnish & Install	Each
NS-ITS-05025	Splice Closure, Outdoor, Furnish & Install	Each

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ITEM NS-ITS-09080 LOCAL ETHERNET SWITCH:

General Requirements

Local Ethernet Switches shall be installed in the traffic signal controller cabinets at the following locations:

O'Neal Lane at Old Hammond Highway

O'Neal Lane at Strain Road

O'Neal Lane at Woodwick/Coliseum

O'Neal Lane at London Towne

O'Neal Lane at I-12

O'Neal Lane at Medical Center

The switch shall accommodate the requirements of the field device communications and shall be equipped to operate at Fast Ethernet rate.

Contractor shall provide items such as cables, connectors, software, modules, etc. necessary for a complete and operational system.

Local Ethernet Switches shall have an operating temperature range of -40 C to +85 C and an operating ambient humidity of 5% - 95% (non-condensing).

All materials furnished, assembled, fabricated, and/or installed under this item shall be compliant with 802.3 Ethernet standards, shall be manufactured to ISO 9001 Quality Assurance specifications, and shall be CE approved. All equipment shall be new and corrosion resistant.

Power supply shall accept 120VAC.

L. Ethernet Network Standard Specifications

Ethernet switches shall comply with the following IEEE standards as a minimum.

- IEEE-802.1D standard for media access control (MAC) bridges used with the Spanning Tree Protocol (STP);
- IEEE-802.1W (RSTP) Rapid spanning tree protocol
- IEEE 802.1Q standard for port-based virtual local area networks (VLAN);
- IEEE 802.1p message prioritization
- IEEE 802.3u supplement standard regarding 100BaseTX/100BaseFX
- IEEE-802.3x standard regarding flow control with full duplex operation.
- IEEE-802.3Z Gigabit Ethernet Standard (for switches with GB ports only)

M. Performance / Management Specifications

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The switch shall have the ability to support the Layer 2 management features commonly found in Ethernet switches. These features shall include, but not be limited to:

- The STP healing rate shall meet or exceed specifications published in the IEEE 802.1D standard;
- The RSTP healing rate shall meet or exceed specifications published in the IEEE 802.1W standard;
- The switch shall support port-based VLAN's that meet or exceeds specifications as published in the IEEE 802.1Q standard
- The switch shall be able to support 2000 MAC addresses;
- The switch shall support, at a minimum, Version 2 of the Internet Group Management Protocol (IGMP);
- The switch shall include the electronics required for the Simple Network Management Protocol (SNMP V2). The switch shall be accessed using the resident EIA-232 management port, a telecommunication network, or the File Transfer Protocol (TFTP);
- The switch shall support management via Telnet and Web
- The switch shall support the TFTP, the Network Time Protocol (NTP), and the Simple Network Time Protocol (SNTP).
- The switch shall support Port Rate Limiting
- The switch shall include integrated AC power supply

N. Switch Configuration

1. General Requirements

Each Local Ethernet Switch shall be provided as follows:

- Local Ethernet Switch Chassis and power supply
- Two (2) Duplex Fast Ethernet, 100 BaseX fiber uplink ports
- Six (6) Fast Ethernet 10/100 TX copper ports

2. Optical Port Specifications

All fiber optic link ports shall utilize single mode fiber optics. Single mode optics shall adhere to the following:

- Medium haul (40km) single mode fiber -5...-0 dBm for, Rx sensitivity -31 dBm.

The optical ports shall be Type SC, LC, ST, MT-RJ, or approved connector. The switch shall have minimum of two optical Fast Ethernet ports that are capable of transmitting data at a minimum of 100 Mbps.

3. Copper Port Specifications

All copper ports shall be Type RJ-45 and shall autonegotiate for speed (i.e., 10/100Base), duplex (i.e., full or half) and polarity. All 10/100BaseTX ports shall

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meet the Category 5 specifications and shall be compliant with the EIA/TIA-568-A or EIA/TIA-568-B standard pinouts.

O. Warranty

The Manufacturer of the specified Local Ethernet Switch shall provide a written and documented five (5) year warranty on materials and workmanship to the LADOTD effective from the date of commission of said Local Ethernet Switch.

In the event that the Local Ethernet Switch, or any portion thereof, should fail due to workmanship or materials within the said five (5) year warranty period, the warranty shall provide that the manufacturer shall supply the LADOTD with a new replacement Local Ethernet Switch of equal or greater kind and quality and meeting all of the applicable Specifications herein, at no charge to the LADOTD.

Item No.	Pay Item	Pay Unit
NS-ITS 09080	Local Ethernet Switch, Furnish & Install	Each

ITEM NS-ITS-12000 – COMMUNICATIONS SYSTEM INTEGRATION:

Scope of Work

This specification section details the requirement of the Communications System Integration. The CONTRACTOR is required to assemble, install and test all necessary material and equipment and to furnish a complete and operational system in accordance with these plans, specifications, and as directed by the PROJECT ENGINEER. All items that are required to complete the installation shall be secured by the CONTRACTOR.

Also included in this item are the software and any required hardware for the control and programming of field devices and all appurtenances required for the system in accordance with plan details, specifications, and as directed by the PROJECT ENGINEER.

General Requirements

The CONTRACTOR shall obtain the necessary technical and engineering assistance from the manufacturer of the individual field devices to insure that all components of the ITS operate and function as specified and intended.

The system will be operated and controlled from a network of master workstations utilizing traffic management software. This network of master workstations is located at the Advanced Transportation Management / Emergency Operations Center (ATM/EOC) facility located on Harding Boulevard in Baton Rouge, Louisiana. The network of master workstations and traffic management software located at the ATM/EOC are provided by others and are not the responsibility of the CONTRACTOR. The CONTRACTOR is responsible for providing a system as described in these plans and specifications that will communicate and be compatible with the ATM/EOC equipment and software.

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The CONTRACTOR shall coordinate with the PROJECT ENGINEER and the LADOTD ITS Division for the integration of all video/data signals for this project. CONTRACTOR shall install Category 5 UTP cable between the existing Software Server and the existing Cisco Systems Catalyst 6509-E Ethernet switch.

The CONTRACTOR shall obtain the necessary technical and engineering assistance from the manufacturer of the individual field devices to ensure that all components of the system operate and function as specified and intended. At a minimum, the CONTRACTOR shall provide a system that receives video and data signals at the ATM/EOC from each new traffic signal controller installed and from the ITS Hub Sites before the project will be accepted.

The integration of each of the aforementioned systems is one of the most critical aspects of this project. As part of this contract, the CONTRACTOR will be required to attend a pre-construction meeting as well as developmental meetings throughout the course of this project. An approval meeting will be held upon completion. Close coordination by the CONTRACTOR, with the PROJECT ENGINEER and the LADOTD ITS Division, during the system integration phase is required. The CONTRACTOR is herein required to fully integrate the previously mentioned systems into a fully functional and operational system as called for in these plans and specifications and as directed by the PROJECT ENGINEER.

The CONTRACTOR shall conduct System Integration Test as defined in the System Testing section of this specification.

CONTRACTOR shall provide properly trained personnel, with knowledge of the Cisco IOS and CatOS operating systems, capable of installing and configuring Enterprise-class Layer-3 and Layer-2 Gigabit Ethernet WANs operating over optical fiber. It shall be the CONTRACTOR's responsibility for ensuring that the system described herein operates and functions prior to final acceptance.

Integrator and installer shall be currently CCIE certified in routing and switching and proof shall be provided of this certification prior to installation and system integration.

Existing / New Ethernet Switches and Network

For integration of new system components (traffic signal controllers), CONTRACTOR shall utilize two (2) existing Cisco 6509-E switches located at ITS Hub Site #4 (Airline Hwy./I-12 Interchange) and at the Advanced Transportation Management / Emergency Operations Center (ATM/EOC).

Without exception, the existing switch configuration shall not be modified without prior consent from the PROJECT ENGINEER. Advanced warning of (28) days minimum shall be submitted to the PROJECT ENGINEER for approval prior to the commencement of system integration and a meeting with all involved parties shall be held for coordination purposes.

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CONTRACTOR shall submit to the PROJECT ENGINEER for review and approval an integration plan that details the configuration, settings, and all appropriate information required to explain and depict the new system arrangement. A meeting shall be scheduled by the CONTRACTOR with all involved parties for the purpose of discussing the integration plan and for overall coordination.

The existing architecture shall not be modified. However, necessary changes shall allow the new systems to seamlessly communicate with the existing system. The existing system WAN protocols shall not be modified and shall remain as follows:

- ATM/EOC Catalyst 6509 to the ITS Hub Site #4 Catalyst 6509 is via Gigabit Ethernet over single mode fiber cable. Existing Gigabit Ethernet backbone connectivity shall not be interrupted.
- Communications from ITS Hub Site #2 and ITS Hub Site #4 to the existing "Local-Loops" shall remain unchanged within the ITS Hub Sites #2 and #4 Catalysts 6509.

Existing WAN loop #2 communicates with the field devices via an existing Gigabit Ethernet switch installed in the traffic signal controller cabinet at the Centerway Blvd./Florida Blvd. intersection. This Gigabit Ethernet switch also communicates to ITS Hub site #4 via the termination cabinet located at Airline Hwy./Florida Blvd. interchange and the existing line cards within the ITS Hub Site #4 Catalyst 6509. CONTRACTOR shall provide optics and attenuators for the existing line card as required by transmission distances.

Existing WAN loop #3 communicates with the field devices via an existing Gigabit Ethernet switch installed in the traffic signal controller cabinet at the Goodwood Blvd./Tara Blvd. intersection. This existing Gigabit Ethernet switch shall also communicate to ITS Hub site #4 via existing line cards within the ITS Hub Site #4 Catalyst 6509. CONTRACTOR shall provide optics and attenuators for the existing line card as required by transmission distances. Placement of the new Gigabit Ethernet switch within the traffic signal controller cabinet shall be determined in the field and shall be coordinated with the PROJECT ENGINEER.

WAN loop #5 shall communicate with the field devices via a new Gigabit Ethernet switch installed in the traffic signal controller cabinet at LA 3245 (O'Neal Lane) at Old Hammond Highway. This new Gigabit Ethernet switch shall also communicate to ITS Hub site #4 via termination cabinet located at Airline Hwy./Florida Blvd. interchange and existing line cards within the ITS Hub Site #4 Catalyst 6509. CONTRACTOR shall provide optics and attenuators for the existing line card as required by transmission distances. Placement of the new Gigabit Ethernet switch within the traffic signal controller cabinet shall be determined in the field and shall be coordinated with the PROJECT ENGINEER.

In addition, a new junction box with 61 meters of spare coiled fiber is to be installed at the interchange of O'Neal Lane and I-12 for a future tie-in to a future planned Hub site. Refer to Plan Sheet 115.

Connectivity from ITS Hub Site #2 to ITS Hub Site #4 shall be through existing WAN Loop #1. WAN Loop #1 is currently interconnected to the ITS Hub Site #2 Catalyst 6509 and cross

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connected at ITS Hub Site #4. Connectivity shall remain unchanged. The CONTRACTOR shall coordinate with the LADOTD ITS Division to verify that this connectivity is still current.

All field device sites shall communicate to ITS Hub Site #4, ITS Hub Site #2, and the ATM/EOC via fiber optic cable. Communications from ITS Hub Site #2, ITS Hub Site #4, and to the field devices will occur over the designated WAN loop as defined herein. Communications from ITS Hub Site #2 to the ATM/EOC will occur over the existing Gigabit Ethernet backbone.

CONTRACTOR shall be required to purchase a fiber optic line card for the ITS Hub Site #4 Catalyst 6509-E switch. The part number shall be Cisco part number WS-X6724-SFP or approved equal. CONTRACTOR shall provide optics and attenuators for the existing line card as required by transmission distances.

CONTRACTOR shall provide connectivity from the Catalyst 6509-E installed at the ATM/EOC. CONTRACTOR shall provide UTP Category 5 cabling and fiber optic patch cords and connectors as required that conform to specifications elsewhere herein. Routing shall be approved by the PROJECT ENGINEER.

CONTRACTOR shall provide connectivity from the East Baton Rouge City Parish Ethernet switch to the Catalyst 6509-E installed at the ATM/EOC. CONTRACTOR shall provide UTP Category 5 cabling and fiber optic patch cords and connectors as required that conform to specifications elsewhere herein. Routing shall be approved by the PROJECT ENGINEER.

System Testing

All Systems Tests (Commissioning Testing, System Integration Testing and Inspection Testing) must be performed and accepted as part of Conditional Acceptance prior to starting the Integration and Burn-In Periods.

Commissioning Testing

The following criteria define Commissioning Testing:

A. Purpose

Commissioning Testing is performed for each site on all system items. The primary purpose is to ensure that the installed site components operate in a local environment and meet all requirements' definitions and specifications.

The Commissioning Testing is a validation that all site installed equipment and material function as per manufacturer's specification and the technical requirements and specifications contained herein.

B. Test Approach

The CONTRACTOR will develop a Commissioning Test plan following a step-by-step test script that will demonstrate that all the site components are installed and operate correctly. Specification sections and manufacturers specific features shall be referenced by the test script. The test script will be optimized to accomplish the maximum level of

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testing with the fewest steps (tasks). The script will contain step numbers, space for a date, time, pass/fail designation, and comment along with the task. The test script will be delivered to the PROJECT ENGINEER for review and approval at least ten (10) days prior the start of the test.

The PE and other designated principals will witness the testing. The results of each test step in the script will be assessed using pass/fail designators. At the completion of each commissioning test for a particular site, the site will be deemed commissioned.

CONTRACTOR shall have on site during the testing all applicable documentation concerning the devices being tested.

C. Commission Test Entry and Exit Criteria

The following criteria will be met before test entry of each site and completion of the Commission Test:

1. Entry Criteria

- The CONTRACTOR has installed all required site components.
- The CONTRACTOR has inspected and tested sites for operational anomalies.
- The Commissioning Test plan has been approved by the PROJECT ENGINEER.
- The CONTRACTOR will have all vendor and/or proprietary software and hardware ready for validating the site installed components.

2. Exit Criteria

- Each commission test activity has been evaluated via a pass/fail designator.
- The CONTRACTOR has provided the PE showing the results of the Commissioning Test and a course of action for resolving any anomalies.
- All equipment and material discrepancies, inconsistencies, shortages, and failures to meet the Project requirements and specifications have been identified, documented, and have a resolution, and/or agreed-upon schedule of resolution.
- In the event of a requirement deficiency requiring repair or replacement of a system component, the PROJECT ENGINEER may require a repeat test by revisiting the applicable script.

Upon achievement of criteria, the PROJECT ENGINEER will grant completion. Six (6) copies of the Commissioning Test results must be submitted to the PROJECT ENGINEER within 15 days of test completion for approval. The CONTRACTOR can commence with energizing the system components only after written approval notification is received from the PROJECT ENGINEER.

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System Integration Testing (SIT)

The following criteria define System Integration Testing:

A. Purpose

The System Integration Test is performed in order to demonstrate that the energized system is fully operational in accordance with the plan detail, specifications, and as directed by the PROJECT ENGINEER. The test will verify that the sites are integrated so that the system is operable and controllable from a network of master workstations utilizing traffic management software. The primary purpose is to ensure that system components are installed, integrated, and functionally operational meeting all requirements and specifications.

The SIT is a validation that all installed equipment and material operate as per their defined functionality in the field and in the networking environment, i.e., the system is fully operational.

B. Test Approach

The CONTRACTOR will develop a System Integration Test plan following a step-by-step test script that will demonstrate the functionality of the system. Specification sections and manufacturers specific features shall be referenced by the test script. The test script shall contain written procedures so as to demonstrate each feature of the system. The test script will be optimized to accomplish the maximum level of testing with the fewest steps (tasks). The script will contain step numbers, space for a date, time, pass/fail designation, and comment along with the task. The test script will be delivered to the PROJECT ENGINEER for review and approval at least ten (10) days' prior the start of the test.

The PROJECT ENGINEER and other designated principals will witness the testing. The results of each test step in the script will be assessed using pass/fail designators. The SIT is successful when the criteria have been met. Once all sites are commissioned as detailed above and the test reports are approved by the PROJECT ENGINEER, the system will be deemed commissioned.

CONTRACTOR shall have on site during the testing all applicable documentation concerning the devices being tested.

C. SIT Entry and Exit Criteria

The following criteria will be met before test entry and successful completion of SIT:

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1. Entry Criteria

- The Commissioning Test has been approved.
- The CONTRACTOR has inspected and tested system for operational anomalies.
- The SIT plans have been approved by the PROJECT ENGINEER
- The CONTRACTOR will provide all material, software, and hardware to conduct the test.
- The CONTRACTOR will provide all material, vendor and/or proprietary software and hardware for the test.
- Preliminary As Built plans have been submitted and approved.

2. Exit Criteria

- Each SIT script procedure activity has been evaluated via a pass/fail designator.
- The CONTRACTOR has provided the PROJECT ENGINEER the results of SIT and a course of action for resolving any anomalies.
- All discrepancies, inconsistencies, shortages, and failures to meet the system requirements and specifications have been identified, documented, and have a resolution, and/or agreed-upon schedule of resolution.
- In the event of a requirement deficiency of the system, the PROJECT ENGINEER may require revisiting the applicable script or a complete retest.

Upon completion of criteria, the system must perform System Software Performance /Integration tests as described in Section 2.2 Conditional Acceptance Tests Part 3, before the PROFESSIONAL ENGINEER will grant SIT acceptance and, hence Conditional Acceptance of the system. Six (6) copies of the SIT Report must be submitted to the PROJECT ENGINEER within 15 days of SIT acceptance for approval. The report will contain the results of SIT and a problem tracking list for all deficiencies identified in the test along with a resolution schedule.

Inspection Testing

The CONTRACTOR shall furnish the instruments, wiring, labor, and incidentals necessary to perform the required tests and adjustments for electrical/electronic systems and equipment. Upon completion of the test, systems and equipment shall be in satisfactory working order. Adjustments or replacements necessary to accomplish this shall conform to the requirements specified herein. Tests shall be performed in the presence of the PROJECT ENGINEER. The PROJECT ENGINEER shall be notified in writing two weeks in advance of scheduled test. Test results shall be submitted to the PROJECT ENGINEER prior to energizing of equipment. Six copies of each test report shall be provided to the PROJECT ENGINEER within 15 days after the performance of each test. Tests shall be signed by the CONTRACTOR and shall include the date and time of testing.

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The following installation tests shall be performed after the contractor's equipment has been installed to ensure that the equipment has not been damaged or has failed in shipment or storage and that it has been properly installed and is operating as designed. The installation tests shall be performed by the CONTRACTOR. The installation tests shall include but not be limited to the following:

Receptacle Tests: After completion of the electrical system, the CONTRACTOR shall test each receptacle for proper polarity and continuity of the ground.

Special Tests: The CONTRACTOR shall conduct special tests when equipment or systems are suspected of improper operation, or when additional data is necessary to determine proper operation.

Insulation Tests: The CONTRACTOR shall conduct megohm tests on all AWG #10 and larger conductors. Tests shall be made after the conductors are installed and before connecting equipment that may be damaged by the tests. Readings below 50 megohms, when measured with a 1000 volt DC insulation tester will be considered defective.

Fiber Optic and Power Tests: as required elsewhere in these specifications.

Existing System Connectivity

General Requirements

Existing System Connectivity must be performed and accepted as part of Conditional Acceptance prior to starting the Integration and Burn-In Periods.

The CONTRACTOR shall be required to assemble and install all necessary material and equipment in accordance with these plans and specifications and compatible with the requirements of the overall system. All items that are required to complete the installation shall be secured by the CONTRACTOR.

The CONTRACTOR shall field verify final equipment locations with the PROJECT ENGINEER. Plans are diagrammatic and indicate the general arrangement of devices and work included in these documents. Final placement and arrangement are the responsibility of the CONTRACTOR.

Access to the manufacturing facility for all products specified herein shall be granted by the manufacturer upon request by the PROJECT ENGINEER.

CONTRACTOR shall provide to the PROJECT ENGINEER the latitude and longitude coordinates for each distinct type of equipment.

Communications System

A. General Requirements

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Shop drawings showing the details for each component shall be submitted for approval prior to construction.

All communications system wiring and cabling shall be within conduit. No exposed wiring or cabling shall be acceptable.

Terminations and cross connects shall be according to these specifications and as detailed in the plans.

B. Tie Into Existing Systems

One of the objectives of this project is to construct optical fiber WAN loops that include all traffic signal controller cabinets (with and without digital video and data encoders), ITS Hub Site #2, and ITS Hub Site #4. WAN Loops for this project are defined herein and in the plans.

1. WAN Loop #2 (Existing – For Informational Purposes Only)

WAN Loop #2 – Extends north along Airline Hwy. from ITS Hub Site #4 (I-12/Airline Highway), then travels East on Florida Blvd. to Stevendale Road.

Terminating within the termination enclosure (located at the Florida Blvd./Airline Highway Interchange) from the East (along Florida Boulevard) is one (1) thirty-six (36) strand optical fiber cable (traffic signal 36 strand single mode (new)) on a modular rackmount fiber termination shelf/closet. Refer to plan details for additional information.

WAN loop #2 communicates with the field devices via an existing Gigabit Ethernet switch installed in the traffic signal controller cabinet at the Centerway Blvd./Florida Blvd. intersection.

2. WAN Loop #3 (Existing – For Informational Purposes Only)

WAN Loop #3 – Extends north along Airline Hwy. from ITS Hub Site #4 (I-12/Airline Highway), then travels West on Goodwood Blvd. to Lobdell Avenue.

WAN loop #3 communicates with the field devices via an existing Gigabit Ethernet switch installed in the traffic signal controller cabinet at the Goodwood Blvd./Tara Blvd. intersection.

3. WAN Loop #4 (Existing – For Informational Purposes Only)

WAN Loop #4 – Extends West from ITS Hub Site #2 (I-10/I-12 Split) along Interstate 10 to Acadian Thruway and then travels North along Acadian Thruway to Claycut Road.

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WAN loop #4 communicates with the field devices via the an existing Gigabit Ethernet switch installed in the traffic signal controller cabinet at the Acadian Thruway at Bawell intersection.

4. WAN Loop #5 (to be installed as part of this project)

WAN Loop #5 – Extends North along Airline Hwy. from ITS Hub Site #4 (Airline/I-12 Interchange), to Florida Blvd., then travels East along Florida Blvd. to LA 3245 (O’Neal Lane), then travels South along LA 3245 (O’Neal Lane) to Medical Center Drive.

WAN loop #5 shall communicate with the field devices via the new Gigabit Ethernet switch installed in the traffic signal controller cabinet at the LA 3245 (O’Neal Lane) at Old Hammond intersection.

Measurement and Payment

The intent of this section is to provide a means for accounting for the periodic payments to the CONTRACTOR. The intent of the contract is to provide for the installation of a fully operational system, complete, in place, as described in this contract. Nothing in this section of the specification is to conflict with that intent. In the event that an item is not specifically identified for payment, it shall be considered to be included in the most appropriate bid item.

For Lump Sum pay items exceeding \$20,000, the CONTRACTOR shall submit a complete breakdown of the Lump Sum for the use of the PROJECT ENGINEER in evaluating the CONTRACTOR’s request for payment. The breakdown of any required lump sum item shall be submitted to the PROJECT ENGINEER for review. If additional information is required and/or any changes or additions deemed necessary by the PROJECT ENGINEER, these shall be incorporated into the breakdown. The CONTRACTOR shall resubmit the breakdown and if all changes are satisfactorily performed, the breakdown format will be approved. If not, resubmission shall occur. The exact quantities and values used in the breakdowns will not be the basis for increases or decreases in quantity or value of work in place. The PROJECT ENGINEER may, however, rely on the proportions of the price breakdown in evaluating changes or additions to the Work, if any.

Measurement

1. NS-ITS-12000- Communications System Integration

This item will be measured per lump sum and will include providing all labor, equipment, materials, and incidentals required for the furnishing and installation of Communications System Integration as detailed in the plans and as described in the specifications. Included in this item is the establishment of a complete and operational system as described, existing system connectivity and programming, new Ethernet switch line cards, traffic signal controller cabinet modifications, fiber optic components, cabling, network configuration, commissioning testing, system integration testing, CCIE certified integrator or approved equal services, storage,

**STATE PROJECT NOS. 817-41-0008 and 744-17-0038
SPECIAL PROVISIONS**

packaging, shipping, warranty, and all work, equipment, and appurtenances as required to effect the full operation and control of Communications System Integration complete in place and ready for use.

Payment

Payment for Communications System Integration work will be made at the Contract unit price under:

Item Number	Pay Unit	Pay Item
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NS-ITS-12000		Communications System Integration Lump Sum
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ITEM NS-MSC-00120, DRAINAGE STRUCTURE DOUBLE OPEN TOP C.B.(01/09):

Furnish and install, or construct in place miscellaneous drainage structures at the locations and in conformity with the lines, grades and dimensions shown in the plans or established by the Engineer. Typical structure types may include but is not limited to, manholes, junction boxes, catch basins, culvert end treatments and safety ends, cast-in-place box culverts, precast box culverts, precast concrete pipe, or precast concrete arch pipe; or any combination thereof. Include all gasket materials, sealants, varnishes, etc. to provide watertight connections to pipes and other structures as may be required to complete the item, as shown on the plans or required by the Engineer. Comply with plan details and referenced Sections of the *Louisiana Standard Specifications for Roads and Bridges* as indicated in the general notes of the drainage structure special details included elsewhere herein.

MATERIALS: Comply with plan details and referenced Sections of the *Louisiana Standard Specifications for Roads and Bridges* as indicated in the general notes of the drainage structure special details included elsewhere herein.

CONSTRUCTION REQUIREMENTS: Comply with plan details and referenced Sections of the *Louisiana Standard Specifications for Roads and Bridges* as indicated in the general notes of the drainage structure special details included elsewhere herein.

MEASUREMENT: Excavation and backfill required for installation of these units will not be measured for payment. Measurement will be made by the unit, per each.

PAYMENT: Payment for drainage structures, including all materials, tools, equipment, labor and incidentals necessary to complete the work will be made at the contract unit price, per each.

Payment will be made under:

Item No.	Pay Item	Pay Unit
NS-MSC-00120	Drainage Structure Double Open Top C.B.	Each

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SPECIAL PROVISIONS

CONTRACT TIME (03/05): The entire contract shall be completed in all details and ready for final acceptance in accordance with Subsection 105.17(b) within the time specified by the contractor, which shall not exceed the maximum allowable contract time stated on the "Contract Time" form contained elsewhere herein.

Prior to assessment of contract time, the contractor will be allowed 30 calendar days from the date stipulated in the Notice to Proceed to commence with portions of the contract work including but not limited to assembly periods, preparatory work for materials fabrications such as test piles, or other activities which hinder progress in the beginning stages of construction. Prior to issuance of the Notice to Proceed, the Department will consider extending the assembly period, upon written request from the contractor justifying the need for additional time.

The contractor shall be responsible for maintenance of traffic from the beginning of the assembly period. During the assembly period, the contractor will be allowed to do patching and other maintenance work necessary to maintain the roadway with no time charges when approved by the engineer.

If the contractor begins regular construction operations prior to expiration of the assembly period, the assessment of contract time will commence at the time construction operations are begun.

The contractor is directed to the special provisions and the plans for any restrictions that may affect work schedules.

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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 302.01 – Description (12/08), Page 150.

Add the following to the third paragraph:

(6) Blended Calcium Sulfate

Subsection 302.02 – Materials (12/08), Pages 150 and 151.

Add the following to the first paragraph:

Blended Calcium Sulfate	1003.01 & 1003.03 (e)
-------------------------	-----------------------

Subsection 302.04 – General Construction Requirements (12/08), Page 152.

Add the following:

Blended calcium sulfate will be allowed in areas of new alignment, fill areas, and cut areas less than one foot.

In cut areas greater than one foot (300 mm), an additional one foot (300 mm) of undercut will be required prior to placement of BCS. The additional undercut area shall be replaced with non-plastic sand embankment and encapsulated with a Class D geotextile fabric. The additional

non-plastic material, geotextile fabric, and undercut shall be at no additional cost to the Department.

Blended calcium sulfate will not be allowed in areas needed to facilitate traffic control or when a soil cement base course is specified in the plans. Blended calcium sulfate shall not be placed within 10 feet (3.0 m) of metal drainage structures. The contractor will be allowed to substitute any untreated Class II base course material listed in Subsection 302.01. Flowable fill under Section 710, or other approved backfill material in Section 701 shall be used to backfill the drainage structure.

Subsection 302.05 – Mixing (08/06) (12/08), 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.

Add Heading (d) as follows:

(d) Blended Calcium Sulfate: Calcium sulfate shall be blended with an approved aggregate or lime prior to placement. The blended calcium sulfate material shall be uniformly mixed and sampled from dedicated stockpiles. Gradation sampling in accordance with Subsection 1003.03 shall be taken from the dedicated stockpiles at the point of material origin.

Subsection 302.06 – Transporting and Placing on Subgrade (12/08), Page 154.

Add the following:

Water shall be added or other suitable means taken to prevent dust during the transporting and placing of dry blended calcium sulfate.

Subsection 302.07 - Compacting and Finishing (12/08), Pages 154 and 155.

Add Heading (e) as follows:

(e) Blended Calcium Sulfate: Blended calcium sulfate shall be placed and spread on the subgrade and compacted to produce layers not exceeding 12 inches (300 mm) compacted thickness. During placement the material shall be thoroughly wetted by application of water to maintain 2 to 4 percent above optimum moisture. After application of water, allow the moisture to reach equilibrium in the base before applying rolling techniques. Rolling of BCS is required to the edge of the embankment or subgrade. Each layer shall be compacted to at least 95 percent of maximum dry density or compacted by an approved established rolling pattern determined by the project engineer before the next layer is placed. Optimum moisture and maximum density shall be determined in accordance with DOTD TR 418 Method G modified to include a maximum drying temperature of 140°F (60°C).

Add Heading (f) as follows:

(f) Proof Rolling: Proof rolling shall be done by a load of 25 tons (25 Mg) in a 12 to 14 cubic yard (9 to 10.5 cubic meters) tandem dump truck with ten wheels or approved loaded truck

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determined by the project engineer. Proof rolling shall be a minimum of 5 passes in each direction at the same locations and at a maximum vehicle speed of 3 mph (4.8 km/h).

All BCS base will be tested by proof rolling prior to placement of surfacing material, including asphalt binder. Any irregularities or soft spots shall be corrected prior to placement of the surfacing material. Any rain event on the project site between the proof rolling and placement of the surfacing will require an additional proof rolling as noted above.

Subsection 302.09 – Protection and Curing (12/08), Page 155.

Add Heading (c) as follows:

(c) Blended Calcium Sulfate: Protection and curing of blended calcium sulfate shall be in accordance with Subsection 302.09(b).

Subsection 302.12 – Acceptance Requirements (12/08), Pages 156 – 161.

Add the following to Heading (a):

The acceptance requirements for blended calcium sulfate base course shall be the same as stone base course with the following modifications. Upon completion of compaction operations, the density will be determined in accordance with DOTD TR 401 except that all moisture content determinations for density calculations shall be conducted by oven drying the material for 24 hours at 140°F (60°C). A forced draft type oven capable of maintaining the temperature shall be provided by the contractor for field moisture content determination for density control.

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.

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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.

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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)

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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.

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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
S H O R T T E R M	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
L O N G T E R M	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.

¹No-passing zones shall be delineated as indicated whenever a project is open to traffic.

²On 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), Pages 548 – 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:

<u>Property</u>	<u>ASTM Test Method</u>	<u>Requirements</u>	
		<u>Polymerized Chloroprene</u>	<u>Thermoplastic Vulcanizate</u>
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.

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(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 Sheeting¹

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

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

(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	

¹The 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 Standards¹

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

¹At 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.

²Percent retained retroreflectivity of referenced table after the outdoor test exposure time specified.

³Colors shall conform to the color specification limits of ASTM D 4956 after the outdoor test exposure time specified.

⁴ASTM D 4956, Table 8.

⁵ASTM D 4956, Table 13.

⁶ASTM 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

¹Percent retained retroreflectivity of referenced table after installation and the field exposure time specified.

²All sheeting shall maintain its structural integrity, adhesion and functionality after installation and the field exposure time specified.

³All colors shall conform to the color specification limits of ASTM D 4956 after installation and the field exposure time specified.

⁴ASTM D4956, Table 8.

⁵ASTM 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

<u>Time</u>	<u>Observation Angle, degrees</u>	<u>Entrance Angle, degrees</u>	Specific Luminance (mcd/sq m/lx)	
			<u>White</u>	<u>Yellow</u>
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.

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(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. 595.

**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 is 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 Public 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

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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
SUPPLEMENTAL SPECIFICATIONS
ON-THE-JOB TRAINING**

The Louisiana Department of Transportation and Development (LADOTD) has partnered with the Louisiana Associated General Contractors (LAGC) to ensure that on-the-job training is provided on a voluntary basis by contractors performing work on LADOTD's federally assisted construction projects.

The LAGC has committed that its member contractors will enroll a minimum of 15 trainees statewide during the period July 1 through June 30 annually. It is anticipated that this annual training goal will be increased in future years as participation in the program grows.

The LADOTD on-the-job training program will be monitored by the Compliance Programs Section. At all times it will be the responsibility of the contractor to comply with the Job Training Supplemental Specifications. LAGC will provide support to their member contractors in the area of on-the-job training as they would in any contractual activity. LAGC has committed to assisting contractors in areas such as recruitment, record keeping, graduation certificates, and ongoing encouragement of contractors to participate in the training program. LAGC has expressed their willingness to work with LADOTD and FHWA in making the contracting industry as strong as possible in all areas, including on-the-job training.

Non-LAGC members are encouraged to participate in the LADOTD on-the-job training program. No aspect of the LADOTD/LAGC partnership is designed to eliminate the right of any non-LAGC member to participate in the training program described in these specifications. If any non-LAGC member does not utilize a previously approved training program, he/she is directed to develop and submit a training program to LADOTD for approval by LADOTD and FHWA.

Although training under this contract is not limited to minorities and females, contractors should be aware that one of the objectives of the training program is to increase the participation and skills of minorities and females in highway construction. Contractors must exert good faith efforts to comply with the Equal Employment Opportunity contract requirements governing recruitment and upgrading when seeking to fill vacancies in the work force and select candidates for the training program. Adequate documentation of good faith efforts should be maintained and submitted to the Compliance Programs Section Training Program Manager (TPM) when requested.

These supplemental specifications are in implementation of 23 USC 140(a). Training under this contract shall be optional to the successful bidder, provided the item for which training is requested is less than 70 percent complete. If the contractor elects to provide training under the

contract as established in these specifications, he may submit a written request to the project engineer with a copy to the Construction Section. A plan change will be prepared to incorporate a pay item using the trainee hours stated in the Special Provisions elsewhere herein. Training will only be reimbursed after the approval of this plan change.

It is intended that training under these supplemental specifications be in crafts directly related to highway construction. Therefore, training in classifications such as clerk-typist, secretary, bookkeeper, fireman, office engineer, estimator, timekeeper, and unskilled or common laborer will not be approved for participation under these supplemental specifications.

No employee shall be employed as a trainee in any classification in which he/she has successfully completed a training course leading to journey person status or in which he/she has been employed as a journey person. The contractor shall satisfy this requirement by completing the Contractor's Trainee Enrollment & Interview Form for each potential trainee. The completed form shall be electronically submitted to the TPM for review and approval.

The contractor will be reimbursed \$3.00 per hour of training provided in accordance with an approved training program. Reimbursement will be made for training hours in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other sources do not specifically prohibit the contractor from receiving other reimbursement. The contractor will be reimbursed for the number of trainee hours actually trained on the project in accordance with these supplemental specifications.

The contractor will be credited for each trainee employed on the project that is currently enrolled or becomes enrolled in an approved training program and will be reimbursed for such trainees as provided in these supplemental specifications.

The minimum length and type of training for each classification selected by the contractor will be established in the training program approved by the Department, Federal Highway Administration (FHWA), and/or Office of Federal Contract Compliance Programs (OFCCP). The Department, FHWA, and/or OFCCP will approve a program if it is reasonably calculated to meet the Equal Employment Opportunity obligations of the contractor and to qualify the average trainee for journey person status in the classification concerned by the end of the training period. Apprenticeship programs registered with the U. S. Department of Labor, Bureau of Apprenticeship and Training or with a state apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U. S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training will also be considered acceptable if it is being administered in a manner consistent with the equal employment obligations of federal-aid highway construction contracts.

It is normally expected that a trainee will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his/her work classification or until he/she has completed the training program.

Enrollment of trainees in excess of the required number will be permitted, with approval, to allow the contractor to maintain the required continuous effort to complete the training of individual trainees.

Trainees will be paid at least 60 percent of the appropriate minimum journey person's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent of the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by these supplemental specifications.

The contractor, prior to the start of training, shall provide written notice to each person to be trained under these supplemental specifications of that person's designation as a trainee, the training program and classification under which training will be provided, the length of the training program, and the hourly wage rate to be paid to the trainee. This requirement shall be fulfilled by use of the Contractor's Trainee Enrollment & Interview Form.

Upon graduation, the contractor shall issue the trainee a certification showing the type and length of training satisfactorily completed along with a permanent photo identification card designating the bearer as a graduate journey person of the appropriate training program.

The contractor shall electronically submit the Contractor's Trainee Enrollment & Interview Form for each employee on the project who is enrolled as a trainee in an approved training program or apprenticeship program. The trainee enrollments shall be submitted to the TPM within the first payroll period in which each trainee or apprentice is assigned to the project.

In order to collect the \$3.00 per hour reimbursement for training, the contractor shall electronically submit to the project engineer's office each week that training is conducted on the project the Contractor's OJT Weekly Reporting Form along with the payroll. For projects where weekly payroll submission is not required, the Contractor's OJT Weekly Reporting Form shall be submitted to the project engineer's office.

At anytime during the life of the project, provided that the item for which training is requested is less than 70 percent complete, a subcontractor may elect to train. The subcontractor should follow the steps described above in order to participate in the on-the-job training program. If the

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On-The-Job Training

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subcontractor does not utilize a previously approved training program, he/she is directed to develop and submit a training program to the TPM for approval by LADOTD and FHWA.

Contractors are to train according to their work force needs and as training opportunities exist on a project. If a trainee graduates from a training classification, training opportunities no longer exist in the approved classification, or a contractor's work force needs change, a trainee could be enrolled in a different classification. The Contractor's OJT Change Form is to be used when these circumstances necessitate enrolling a current trainee or a graduate in a new classification. Multiple enrollments of an individual should not be used to diminish the objectives of these specifications, but to enhance the trainee's career growth, benefit the contractor's operations, and improve the contracting industry overall.

All required forms can be found on the LADOTD website on the Compliance Programs page and the Construction Letting Information page under Doing Business with DOTD. Instructions for completing any required form may be obtained from the TPM.

It is the goal of the LADOTD/LAGC partnership to maintain a voluntary on-the-job training program, but revisions to the program may be deemed necessary should participation fall below acceptable levels.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

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ATTACHMENTS

A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)

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 an 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 of 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 than the applicable wage rate and fringe benefits or cash equivalent for the classification of work 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 than \$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, INELIGIBILITY AND SUSPENSION, 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-L.L.L., "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

¹For 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#

06/08

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

¹For 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 were paid 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

STATE PROJECT NO.FEDERAL PROJECT NO.PARISH(ES)DBE GOAL AMOUNT: SCONTRACT AMOUNT: \$**LETTING DATE:****CONTRACTOR:**

**DOTD CERTIFIED DBE
SUBCONTRACTOR OR SUPPLIER**

**TOTAL DOLLAR AMOUNT
PAID TO SUB OR SUPPLIER (60%)**

This is to certify that \$_____

Authorized Signature

Typed or Printed Name

TitleDate _____

Parish or County

State of

Subscribed and sworn to, before me, this

A.D. 20

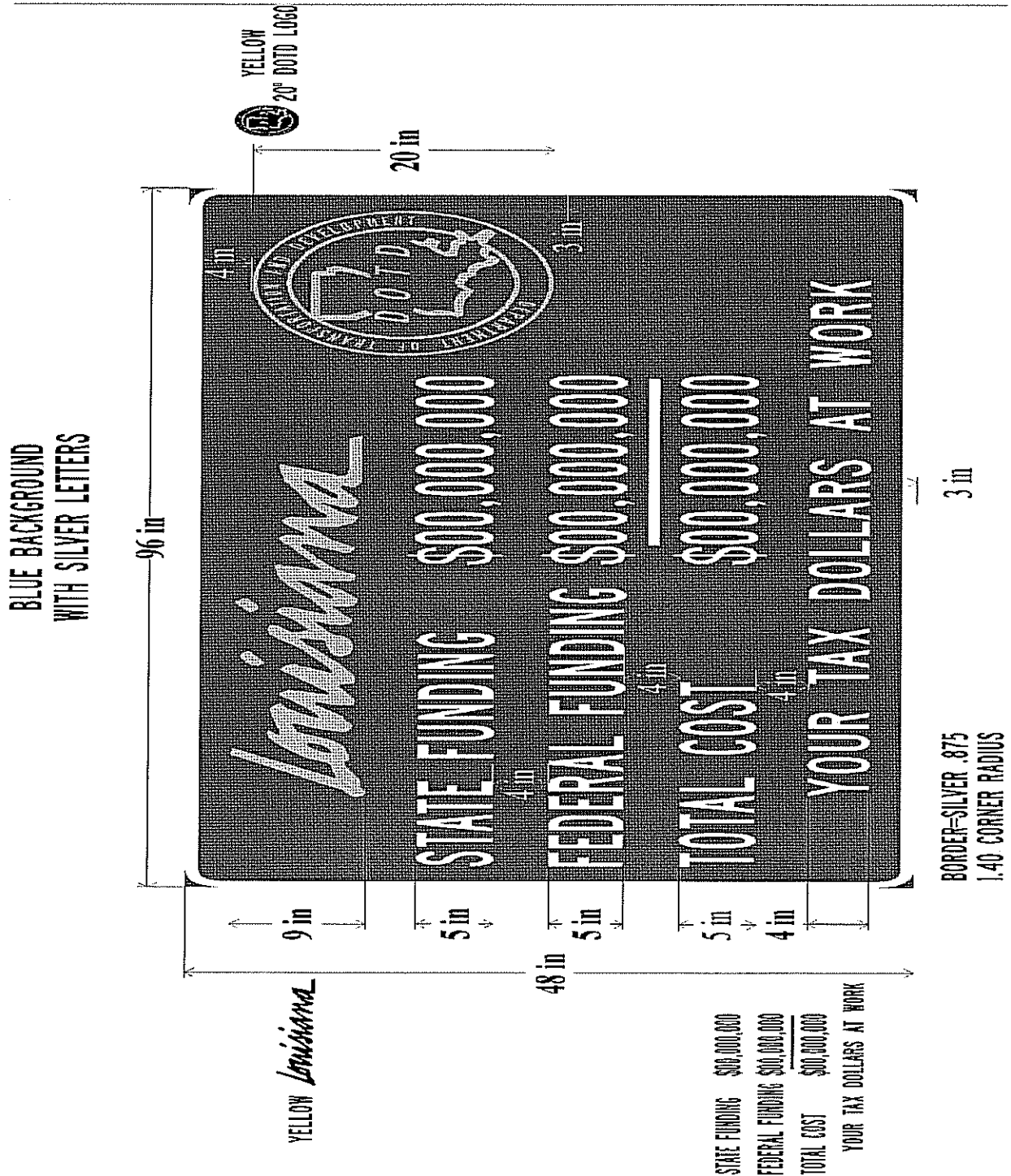
Notary Public

My commission expires:

06/08

PROJECT SIGN
LA TAX DOLLARS AT WORK
(COLOR ARTWORK FURNISHED UPON REQUEST)

Silver Font – TRAFFICAD C



General Decision Number: LA080007 02/08/2008 LA7

Superseded General Decision Number: LA20070011

State: Louisiana

Construction Types: Highway

Counties: Acadia, Ascension, Calcasieu, East Baton Rouge, Lafayette, Lafourche, Livingston, St Landry, St Martin, Terrebonne and West Baton Rouge Counties in Louisiana.

HIGHWAY CONSTRUCTION PROJECTS (does not include building structures in rest area projects)

Modification Number	Publication Date
0	02/08/2008

* SULA2004-015 08/03/2004

	Rates	Fringes
Carpenter (including formbuilding/formsetting).....	\$ 11.88	
Cement Mason/Concrete Finisher.....	\$ 12.58	
Electrician (including traffic signal wiring and installation).....	\$ 12.36	
Ironworker, Reinforcing	\$ 12.33	
Laborers		
Asphalt Raker.....	\$ 8.95	
General including landscape/erosion.....	\$ 8.48	
Guardrail.....	\$ 8.21	1.80
Jack Hammer/Vibrator.....	\$ 8.92	
Mason Tender.....	\$ 8.63	
Pipelayer.....	\$ 9.71	1.12
Striping/Pavement Marker including paint striping and attachment of reflector buttons.....	\$ 7.93	
Traffic Control including flagger, sign placement, barricades, and cones.....	\$ 8.15	
Painter, Brush, Spray and Roller.....	\$ 13.40	2.55
Piledriverman.....	\$ 13.97	
Power Equipment Operators		
Air Compressor.....	\$ 9.04	
Asphalt Distributor.....	\$ 9.11	
Asphalt Paving Machine.....	\$ 13.30	0.18
Asphalt Screed.....	\$ 11.86	
Asphalt/Aggregate Spreader..	\$ 10.49	
Backhoe/Excavator.....	\$ 11.31	
Bobcat/Skid Loader.....	\$ 10.00	

Broom/Sweeper.....	\$ 9.30
Bulldozer.....	\$ 12.00
Concrete Saw.....	\$ 9.00
Crane.....	\$ 14.82
Front End Loader.....	\$ 9.60
Mechanic.....	\$ 11.97
Milling/Cold Planing Machine	\$ 13.08
Motor Grade/Blade.....	\$ 11.68
MTV/Shuttlebuggy.....	\$ 10.43
Post Drive including	
guardrails.....	\$ 10.96
Roller.....	\$ 9.97
Stabilizer.....	\$ 9.44
Trackhoe.....	\$ 12.59
Tractor.....	\$ 11.90
Trenching/Boring Machine....	\$ 8.50
Truck drivers	
Dump (all types).....	\$ 10.19
Flatbed.....	\$ 9.46
Lowboy.....	\$ 12.48
Pickup including paint truck	\$ 9.90
Tack.....	\$ 9.28
Water.....	\$ 10.60

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

**STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND
DEVELOPMENT**



**CONSTRUCTION PROPOSAL
INFORMATION
FOR**

FEDERAL AID PROJECT

**STATE PROJECT NOS. 817-41-0008 and 744-17-0038
O'NEAL LANE (JCT. I-12 TO JCT. US 190)
ROUTE LA 3245
EAST BATON ROUGE PARISH**

**CONTRACT TIME FORM
COST-PLUS-TIME BIDDING PROCEDURE
(A + B) METHOD**

STATE PROJECT NOS.	<u>817-41-0008 and 744-17-0038</u>
FEDERAL AID PROJECT NOS.	<u>1700(503) and 1708(515)</u>
NAME OF PROJECT	<u>O'NEAL LANE (JCT. I-12 TO JCT. US 190)</u>
ROUTE	<u>LA 3245</u>
PARISH	<u>EAST BATON ROUGE</u>

CONTRACT TIME

The bidder shall determine the number of calendar days required for completion and final acceptance of the project and shall state this required time, in words, in the space provided below. The maximum allowable contract time for this project is **two hundred seventy (270) calendar days**. The proposed completion time will be a factor used in considering bids for award of contract in accordance with the special provision, COST-PLUS-TIME BIDDING PROCEDURE (A+B METHOD). The stated number of calendar days required for completion will be the contract time for this project should the bidder be successful. Bids not including a contract time, or showing contract time in excess of the maximum allowable amount, will be considered irregular and will be rejected.

CONTRACT TIME (Calendar Days To Completion, In Words)
<div style="border-bottom: 1px solid black; height: 40px; width: 100%;"></div> <div style="text-align: right;">Calendar Days</div>

Form CS-01
A + B
12/04

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) _____, 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 NOS. 817-41-0008 and 744-17-0038, FEDERAL AID PROJECT NOS. 1700(503) and 1708(515), O'NEAL LANE (JCT. I-12 TO JCT. US 190), located in EAST BATON ROUGE PARISH, ROUTE LA 3245**, 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)
By _____
Authorized Officer-Owner-Partner

Typed or Printed Name

If a Joint Venture, Second Partner
By _____
Authorized Officer-Owner-Partner

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



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 1

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0001	201-01-00100	Clearing and Grubbing		LUMP SUM
				Dollars
				Cents
0002	202-01-00100	Removal of Structures and Obstructions		LUMP SUM
				Dollars
				Cents
0003	202-02-06020	Removal of Concrete Box Culverts STA 10+698.5; 2-3.0m x 3.0m x 12m	1.000	each
				Dollars
				Cents
0004	202-02-06020	Removal of Concrete Box Culverts STA 11+030; 2-1.5m x 1.5m x 17m	1.000	each
				Dollars
				Cents
0005	202-02-06080	Removal of Concrete Combination Curb and Gutter	307.500	ln m
				Dollars
				Cents
0006	202-02-06100	Removal of Concrete Walks and Drives	4,112.000	sq m
				Dollars
				Cents
0007	202-02-32500	Removal of Portland Cement Concrete Pavement	9,753.000	sq m
				Dollars
				Cents
0008	202-02-38500	Removal of Surfacing and Stabilized Base	12,884.000	sq m
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 2

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0009	202-02-40100	Removal of Traffic Signal Equipment	1.000	lump
				Dollars
				Cents
0010	203-01-00100	General Excavation	14,223.000	cu m
				Dollars
				Cents
0011	203-02-00100	Drainage Excavation	455.000	cu m
				Dollars
				Cents
0012	203-03-00100	Embankment	12,192.000	cu m
				Dollars
				Cents
0013	204-02-00100	Temporary Hay or Straw Bales	666.000	each
				Dollars
				Cents
0014	204-05-00100	Temporary Sediment Check Dams (Hay)	4.000	each
				Dollars
				Cents
0015	204-05-00200	Temporary Sediment Check Dams (Stone)	1.000	each
				Dollars
				Cents
0016	204-06-00100	Temporary Silt Fencing	2,102.000	ln m
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 3

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0017	302-02-03000	Class II Base Course (200 mm Thick)	351.300	sq m
				Dollars
				Cents
0018	302-02-05060	Class II Base Course (250 mm Thick) (Stone or Crushed Slag)	45,621.200	sq m
				Dollars
				Cents
0019	304-01-00100	Lime	170.000	Mg
				Dollars
				Cents
0020	304-05-00100	Lime Treatment (Type E)	170.000	Mg
				Dollars
				Cents
0021	402-01-00100	Traffic Maintenance Aggregate (Vehicular Measurement)	2,000.000	cu m
				Dollars
				Cents
0022	502-01-00100	Superpave Asphaltic Concrete	39.700	Mg
				Dollars
				Cents
0023	502-01-00200	Superpave Asphaltic Concrete, Drives, Turnouts and Miscellaneous	51.200	Mg
				Dollars
				Cents
0024	509-01-00100	Cold Planing Asphaltic Pavement	404.000	sq m
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 4

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0025	510-01-00200	Pavement Patching (300 mm Minimum Thickness)	301.000	sq m
				Dollars
				Cents
0026	510-02-00100	Pavement Widening	104.700	sq m
				Dollars
				Cents
0027	601-01-00300	Portland Cement Concrete Pavement (225 mm Thick)	42,478.200	sq m
				Dollars
				Cents
0028	601-02-00700	Portland Cement Concrete Pavement (200 mm Thick) (Crossovers & Turnouts)	120.800	sq m
				Dollars
				Cents
0029	601-02-00900	Portland Cement Concrete Pavement (225 mm Thick) (Crossovers & Turnouts)	1,539.000	sq m
				Dollars
				Cents
0030	601-03-00700	Portland Cement Concrete Shoulder (200 mm Thick)	389.500	sq m
				Dollars
				Cents
0031	701-01-01100	Cross Drain Pipe (1350 mm RCP)	94.000	ln m
				Dollars
				Cents
0032	701-02-01040	Cross Drain Pipe Arch (900 mm Equiv. RCPA)	17.000	ln m
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 5

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0033	701-02-01060	Cross Drain Pipe Arch (1050 mm Equiv. RCPA)	32.000	In m
				Dollars
				Cents
0034	701-03-01000	Storm Drain Pipe (375 mm RCP/PP)	1,500.000	In m
				Dollars
				Cents
0035	701-03-01020	Storm Drain Pipe (450 mm RCP/PP)	287.000	In m
				Dollars
				Cents
0036	701-03-01040	Storm Drain Pipe (600 mm RCP/PP)	726.500	In m
				Dollars
				Cents
0037	701-03-01060	Storm Drain Pipe (750 mm RCP/PP)	274.000	In m
				Dollars
				Cents
0038	701-03-01080	Storm Drain Pipe (900 mm RCP/PP)	360.900	In m
				Dollars
				Cents
0039	701-03-01090	Storm Drain Pipe (1050 mm RCP/PP)	135.500	In m
				Dollars
				Cents
0040	701-03-01100	Storm Drain Pipe (1200 mm RCP/PP)	133.000	In m
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 6

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0041	701-03-01120	Storm Drain Pipe (1350 mm RCP)	120.000	In m
				Dollars
				Cents
0042	702-02-00300	Manholes (R-CB-11 MOD)	11.000	each
				Dollars
				Cents
0043	702-03-00100	Catch Basins (CB-01(M))	73.000	each
				Dollars
				Cents
0044	702-03-00500	Catch Basins (CB-06(M))	77.000	each
				Dollars
				Cents
0045	702-03-00600	Catch Basins (CB-07(M))	8.000	each
				Dollars
				Cents
0046	702-03-00700	Catch Basins (CB-08(M))	9.000	each
				Dollars
				Cents
0047	702-04-00200	Adjusting Catch Basins	4.000	each
				Dollars
				Cents
0048	702-08-00100	Side Drain Safety End (Type I)	1.000	each
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 7

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0049	703-03-00100	Perforated Pipe Underdrains	2,866.500	In m
				Dollars
				Cents
0050	705-06-00200	Chain Link Fence (1500 mm Height)	126.000	In m
				Dollars
				Cents
0051	706-01-00100	Concrete Walk (100 mm Thick)	7,615.900	sq m
				Dollars
				Cents
0052	706-02-00200	Concrete Drive (150 mm Thick)	3,555.600	sq m
				Dollars
				Cents
0053	706-03-00300	Incidental Concrete Paving (150 mm Thick)	131.200	sq m
				Dollars
				Cents
0054	706-04-00100	Handicapped Curb Ramps	14.000	each
				Dollars
				Cents
0055	707-01-00100	Concrete Curb	4,273.200	In m
				Dollars
				Cents
0056	707-03-00100	Combination Concrete Curb and Gutter	48.000	In m
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 8

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0057	708-01-00100	Right-of-Way Monument	73.000	each
				Dollars
				Cents
0058	711-01-03000	Riprap (15 kg, 350 mm Thick)	131.000	sq m
				Dollars
				Cents
0059	711-04-00100	Geotextile Fabric	131.000	sq m
				Dollars
				Cents
0060	712-01-00100	Concrete Cast-in-Place Revetment (100 mm Thick)	501.000	sq m
				Dollars
				Cents
0061	712-01-00300	Concrete Cast-in-Place Revetment (150 mm Thick)	235.000	sq m
				Dollars
				Cents
0062	713-01-00100	Temporary Signs and Barricades		LUMP SUM
				Dollars
				Cents
0063	713-02-00100	Temporary Pavement Markings (100 mm Width)	4,340.000	ln m
				Dollars
				Cents
0064	717-01-00100	Seeding	84.000	kg
				Dollars
				Cents



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Louisiana Department of Transportation and Development
Proposal Schedule of Items

Page: 9

Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0065	718-01-00100	Fertilizer	2,801.000	kg
				Dollars
				Cents
0066	722-02-00100	Project Site Laboratory (Equipped)	1.000	each
				Dollars
				Cents
0067	725-01-00100	Temporary Detour Roads	1,907.700	sq m
				Dollars
				Cents
0068	726-01-00100	Bedding Material	2,758.200	cu m
				Dollars
				Cents
0069	727-01-00100	Mobilization		LUMP SUM
				Dollars
				Cents
0070	729-01-00100	Sign (Type A) R10-12 (61.0cm x 76.2cm)	11.000	sq m
				Dollars
				Cents
0071	729-01-00100	Sign (Type A) R10-10L (61.0cm x 76.2cm)	3.000	sq m
				Dollars
				Cents
0072	729-01-00100	Sign (Type A) R3-6L (76.2cm x 91.4cm)	1.000	sq m
				Dollars
				Cents



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Proposal Schedule of Items

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Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0073	729-01-00100	Sign (Type A) R3-5R (76.2cm x 91.4cm)	1.000	sq m
				Dollars
				Cents
0074	729-01-00100	Sign (Type A) BURIED TRAFIC FIBER OPTICS CABLE (102mm x 305mm)	7.000	sq m
				Dollars
				Cents
0075	729-01-00100	Sign (Type A) R3-5L (76.2cm x 91.4cm)	4.000	sq m
				Dollars
				Cents
0076	729-21-00100	U-Channel Post	14.000	each
				Dollars
				Cents
0077	731-02-00100	Reflectorized Raised Pavement Markers	749.000	each
				Dollars
				Cents
0078	732-01-01000	Plastic Pavement Striping (100 mm Width) (Thermoplastic 90 mil)	10,386.000	In m
				Dollars
				Cents
0079	732-01-01020	Plastic Pavement Striping (150 mm Width) (Thermoplastic 90 mil)	138.000	In m
				Dollars
				Cents



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Contract ID: 817-41-0008

Project(s): 744-17-0038, 817-41-0008

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0080	732-01-01040	Plastic Pavement Striping (200 mm Width) (Thermoplastic 90 mil)	342.000	In m
				Dollars
				Cents
0081	732-01-01080	Plastic Pavement Striping (600 mm Width) (Thermoplastic 90 mil)	232.000	In m
				Dollars
				Cents
0082	732-04-01040	Plastic Pavement Legends and Symbols (Arrow - Double)	2.000	each
				Dollars
				Cents
0083	732-04-01080	Plastic Pavement Legends and Symbols (Arrow - Left Turn)	38.000	each
				Dollars
				Cents
0084	732-04-15020	Plastic Pavement Legends and Symbols (ONLY)	8.000	each
				Dollars
				Cents
0085	732-05-00100	Removal of Existing Markings	0.500	km
				Dollars
				Cents
0086	735-01-00100	Mailboxes	10.000	each
				Dollars
				Cents
0087	735-02-00100	Mailbox Supports (Single)	8.000	each
				Dollars
				Cents



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Contract ID: 817-41-0008

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General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0088	735-04-00100	Mailbox Supports (Multiple)	1.000	each
				Dollars
				Cents
0089	736-01-00100	Trenching and Backfilling	210.000	In m
				Dollars
				Cents
0090	736-03-00100	Jacked or Bored Conduit (25 mm HPDE, Sch 80)	1,030.000	In m
				Dollars
				Cents
0091	736-03-00200	Jacked or Bored Conduit (50 mm HPDE, Sch 80)	3,260.000	In m
				Dollars
				Cents
0092	736-03-00300	Jacked or Bored Conduit (75 mm HPDE, Sch 80)	605.000	In m
				Dollars
				Cents
0093	736-04-04080	Signal Support (7.5 m Single Mast Arm)	5.000	each
				Dollars
				Cents
0094	736-04-04100	Signal Support (9 m Single Mast Arm)	3.000	each
				Dollars
				Cents
0095	736-04-04120	Signal Support (10.5 m Single Mast Arm)	2.000	each
				Dollars
				Cents



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General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0096	736-04-04140	Signal Support (12 m Single Mast Arm)	1.000	each
				Dollars
				Cents
0097	736-04-04160	Signal Support (13.5 m Single Mast Arm)	5.000	each
				Dollars
				Cents
0098	736-04-04180	Signal Support (15 m Single Mast Arm)	5.000	each
				Dollars
				Cents
0099	736-04-04220	Signal Support (18 m Single Mast Arm)	1.000	each
				Dollars
				Cents
0100	736-05-02000	Signal Heads (3 Section, 300 mm Led Lens, R, Y, G)	42.000	each
				Dollars
				Cents
0101	736-05-02020	Signal Heads (3 Section, 300 mm Led Lens, R, LT, Y, LT. G)	5.000	each
				Dollars
				Cents
0102	736-05-04000	Signal Heads (5 Section, 300 mm Led Lens, R, LT. Y, Y, LT. G, G)	10.000	each
				Dollars
				Cents
0103	736-05-04020	Signal Heads (5 Section, 300 mm Led Lens, R, Y, RT. Y, G, RT. G)	4.000	each
				Dollars
				Cents



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General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0104	736-06-00100	Signal Service	5.000	each
				Dollars
				Cents
0105	736-06-00200	Signal Service (Pedestal Required)	4.000	each
				Dollars
				Cents
0106	736-08-02020	Signal Controller (TS-2, Type 2; Type 6 Cabinet)	5.000	each
				Dollars
				Cents
0107	736-08-02040	Signal Controller (TS-2, Type 2; Type 6 Cabinet, on Existing Base)	1.000	each
				Dollars
				Cents
0108	736-09-00100	Loop Detector	300.000	in m
				Dollars
				Cents
0109	736-10-00300	Underground Junction Box (Type F)	32.000	each
				Dollars
				Cents
0110	736-10-00500	Underground Junction Box (Type H)	5.000	each
				Dollars
				Cents
0111	736-10-00600	Underground Junction Box (Type I)	9.000	each
				Dollars
				Cents



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General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0112	736-10-00700	Underground Junction Box (Type J)	9.000	each
				Dollars
				Cents
0113	736-11-00100	Conduit (12.5 mm HDPE, Schedule 80)	36.000	In m
				Dollars
				Cents
0114	736-11-00300	Conduit (50 mm HDPE, Schedule 80)	181.000	In m
				Dollars
				Cents
0115	736-11-00400	Conduit (75 mm HDPE, Schedule 80)	65.000	In m
				Dollars
				Cents
0116	736-12-01040	Conductor (2c, #14 awg)	1,900.000	In m
				Dollars
				Cents
0117	736-12-02000	Conductor (3c, 6 gauge / #6 awg)	360.000	In m
				Dollars
				Cents
0118	736-12-04000	Conductor (6c, #14 awg)	100.000	In m
				Dollars
				Cents
0119	736-12-06000	Conductor (10c, #14 awg)	2,050.000	In m
				Dollars
				Cents



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General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0120	736-12-08000	Conductor (Video Sureveillance)	60.000	In m
				Dollars
				Cents
0121	740-01-00100	Construction Layout		LUMP SUM
				Dollars
				Cents
0122	805-01-00200	Class A Concrete (Pipe Headwalls)	32.700	cu m
				Dollars
				Cents
0123	805-01-00300	Class A Concrete (Box Culvert Headwalls)	114.220	cu m
				Dollars
				Cents
0124	805-12-01000	Reinforced Concrete Box Culverts (1200 mm x 1200 mm)	530.000	In m
				Dollars
				Cents
0125	805-12-01020	Reinforced Concrete Box Culverts (1500mm x 1200mm)	320.000	In m
				Dollars
				Cents
0126	805-12-05000	Reinforced Concrete Box Culverts (2400 mm x 2400 mm)	154.000	In m
				Dollars
				Cents
0127	805-12-07000	Reinforced Concrete Box Culverts (3000 mm x 3000 mm)	60.000	In m
				Dollars
				Cents



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General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0128	806-01-00100	Deformed Reinforcing Steel	7,754.000	kg
				Dollars
				Cents
0129	NS-600-00220	Saw Cutting Portland Cement Concrete Pavement	15,000.000	mmlm
				Dollars
				Cents
0130	NS-736-00020	Video Detector (MVP) Device	20.000	each
				Dollars
				Cents
0131	NS-736-00040	Video Detector (MVP) System	5.000	each
				Dollars
				Cents
0132	NS-ITS-04020	Fiber Optic Cable, SM, Furnish & Install, 13-48 Fibers	3,850.000	In m
				Dollars
				Cents
0133	NS-ITS-04250	Fiber Optic Drop Cable, SM, 12 Strand, Furnish & Install	40.000	each
				Dollars
				Cents
0134	NS-ITS-04260	Fiber Optic Patch Cord, SM, 4 Strand, Furnish & Install	12.000	each
				Dollars
				Cents
0135	NS-ITS-04425	Fiber Optic Connection Patch Panel, Outdoor, Furnish & Install	6.000	each
				Dollars
				Cents



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Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0136	NS-ITS-05025	Splice Closure, Outdoor, Furnish & Install	6.000	each
				Dollars
				Cents
0137	NS-ITS-09080	Local Ethernet Switch, Furnish & Install	6.000	each
				Dollars
				Cents
0138	NS-ITS-12000	Communications System Integration		LUMP SUM
				Dollars
				Cents
0139	NS-MSC-00120	Drainage Structure Double Open Top C.B.	2.000	each
				Dollars
				Cents

Section: 1

Total:

Items Total:

Cost Plus Time	Road User Cost Per Unit	Unit Type	Number of Units Bid
01 CALENDAR DAYS	3,000.00	Days	

Total Bid:

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 NOS. 817-41-0008 and 744-17-0038

FEDERAL AID PROJECT NOS. 1700(503) and 1708(515)

NAME OF PROJECT O'NEAL LANE (JCT. I-12 to JCT. US 190)

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.

CS-14A

08/06

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 INFORMATIONAL BID**

It is agreed that the total bid shown below, determined by the bidder, is for purposes of opening and reading bids only and that the low bidder for this project will be determined in accordance with the special provision entitled **COST-PLUS-TIME BIDDING PROCEDURE (A+B METHOD)**, as determined by the Department.

A = Summation of products of the quantities shown in the Schedule of Items multiplied by the unit prices.

A = _____

B = Bidders proposed contract time multiplied by the Daily User Cost (\$3000).

B = _____ Calendar Days x \$3000

B = _____

Contractor's Total Bid (A + B) _____

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08/06