BOBBY JINDAL
GOVERNOR

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245
www.dotd.la.gov
225-379-1485

WILLIAM D. ANKNER, Ph.D.
SECRETARY

February 4, 2009

STATE PROJECT NO. 450-37-0022
FEDERAL AID PROJECT NO. 4507(502)
MISSISSIPPI RIVER BRIDGE (LULING) CABLE STAY REPLACEMENT
ROUTE I-310
ST. CHARLES PARISH

SUBJECT: ADDENDUM NO. 2 (CONSTRUCTION PROPOSAL REVISION)
ELECTRONIC BIDDING AMENDMENT NO. 1

Gentlemen:

The following proposal revisions dated 2/4/2009 on the captioned project for which bids will be received on Wednesday, February 25, 2009 have been posted on http://www.dotd.la.gov/cgi-bin/construction.asp.

1. Revised the Notice to Contractors. (2 pages)
2. Revised the special provisions entitled **DBE Participation in Federal Aid Construction Contracts; Maintenance of Traffic; Lane Closure Restrictions; Late Lane/ Bridge Opening Penalty; Determination and Extension of Contract Time; Subletting of Contract; Item S-101, Temporary Stay System, Installation and Removal; Item S-102, New Cable Stay System and Installation; Item S-103, Removal of Existing Stay System; Item S-107, Cleaning and Sealing of the Superstructure**; and **Contract Time.** (17 pages)
3. Added the special provisions entitled **Submittal Review Period** and **Critical Path Method.** (6 pages)
4. Revised the quantity for item 713-10 in the Schedule of Items. (1 page)

Please note these revisions in the proposal and bid accordingly. Mandatory electronic bidding is required for this project, and electronic bids and electronic bid bonds must be submitted via www.bidx.com for this letting date.

Sincerely,

Randal D. Sanders

RANDAL D. SANDERS, P. E.
CONTRACTS & SPECIFICATIONS ENGINEER

Attachments
ec: Mr. Brian Buckel
Mr. Michael Stack
Mr. Alan Weber
Mr. Paul Fossier
Ms. Margaret Thompson
Mr. Masood Rasoulian

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, February 25, 2009**. **Paper bids and paper bid bonds will not be accepted.** Electronic bids and electronic bid bonds must be submitted through www.bidx.com prior to the electronic bidding deadline. Beginning at 10:00 a.m., all bids will be downloaded and posted online at http://www.dotd.la.gov/cgi-bin/construction.asp. No bids are accepted after 10:00 a.m.

DBE GOAL PROJECT
STATE PROJECT NO. 450-37-0022
FEDERAL AID PROJECT NO. 4507(502)
DESCRIPTION: MISSISSIPPI RIVER BRIDGE (LULING) CABLE STAY REPLACEMENT
ROUTE: I-310
PARISH: ST. CHARLES
LENGTH: 1.155 miles.
TYPE: REPLACEMENT OF EXISTING STAY CABLES, MISCELLANEOUS BRIDGE REPAIRS, AND RELATED WORK.
LIMITS: State Project No. 450-37-0022: LOCATED ON ROUTE I-310 OVER THE MISSISSIPPI RIVER AT LULING, LOUISIANA.
ESTIMATED COST RANGE: $30,000,000 to $50,000,000
PROJECT ENGINEER: WEBER, ALAN; 13911 Frere Street, Luling, LA, 70070, (504) 465-3474.
PROJECT MANAGER: FOSSIER, PAUL.

CONFERENCE NOTICE TO CONTRACTORS
PRE-BID CONFERENCE (MANDATORY ATTENDANCE)
A mandatory pre-bid conference for this project for all bidders will be held at the DOTD Headquarters auditorium, located at 1201 Capitol Access Road, Baton Rouge, Louisiana 70802, on Tuesday, January 13, 2009 at 10:00 am. All interested parties and prospective bidders are encouraged to attend. All are advised to visit the site prior to bidding.

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

NOTICE TO CONTRACTORS (CONTINUED)

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

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

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

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 **four (4) 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).

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

The contractor shall provide for and maintain 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.

The contractor shall direct special attention to the maintenance of traffic at entrance and exit ramps particularly when construction operations are being conducted on the adjacent travel lanes of interstate highways. Additional signs, barricades, channelizing devices, etc. shall be provided and maintained by the contractor as directed by the engineer and their cost shall be included in the prices bid on the Temporary Signs and Barricades pay items.

The roadway and shoulders shall remain open to traffic as much as possible during nonwork periods as directed by the engineer.

LANE CLOSURE RESTRICTIONS: All lanes shall remain open to traffic except during the times when lane closures are allowed as noted below. Lane closures shall only be allowed while work is being performed. If an exit or entrance ramp is closed, then the exit or entrance ramp in the same direction at the next interchange must be open. Unless specified otherwise, a maximum of one lane per direction can be closed at the same time.

Northbound and Southbound bridge short term closures may be permitted upon approval of engineer and LA DOTD
Northbound and Southbound interstate single lane closures (see non-peak traffic operation typical section in plans) shall be allowed only during the following times:

7 pm Fri to 5 am Mon
7 pm Mon to 5 am Tues
7 pm Tues to 5 am Wed
7 pm Wed to 5 am Thurs
7 pm Thurs to 5 am Fri

Before the interstate is closed, all detour signs and warning signs shall be in place to tell the motorist that the interstate will be closed.

No lane closures will be allowed, all lanes shall be open, and all time charges will stop during the New Years, Mardi Gras, Easter, Memorial Day, Independence Day, Labor Day and during Thanksgiving and Christmas holiday periods as defined by the project engineer. No lane closures will be allowed, all lanes shall be open, and all time charges will stop during any contraflow operations.

All lane or bridge closures, even if within the required lane closure times, must be approved by the project engineer, and requests must be submitted 5 days in advance of the lane or bridge closure. The contractor will be charged a lane or bridge closure penalty for any lanes closed without the authorization of the Project Engineer. The penalty will be assessed according to the late lane or bridge opening penalty.
The contractor shall observe the queue during lane closures. If the queue is observed to be greater than 30 minutes, the lane shall be opened until the queue is cleared.

LATE LANE / BRIDGE OPENING PENALTY: A late lane or bridge opening penalty shall be charged to the contractor for any lane or bridge closure on any roadway or ramp which extends beyond the allowable closure times. The penalty shall include short-term closures due to moving operations. The penalty shall be computed in hour increments only with fractions of an hour rounded up to the next whole hour. The penalty shall be assessed as per the following table:

Length of closure beyond the allowable closure times	Hourly penalty as a percentage of the daily penalty
First Hour	25%
Second Hour	25%
Third Hour	25%
Fourth Hour	25%
Remaining Hours	No additional penalty

The late lane or bridge opening penalty shall be assessed at a rate of **$45,000** per day. Any monies assessed for late lane or bridge opening penalties shall be deducted from partial payments due the contractor as stipulated damages.

SUBLETTING OF CONTRACT (02/99): Subsection 108.01 of the Standard Specifications is amended as follows:

The second sentence is deleted and the following substituted.

If such consent is given, the contractor will be permitted to sublet a portion of the work, but shall perform with the contractor's own organization work amounting to at least 30 percent of the total contract amount.

The following items are designated as "Specialty Items:"

Item 731-02, Reflectorized Raised Pavement Markers
Item 732-02-A, Plastic Pavement Striping (Solid Line)(4" Width)
Item 732-03-A, Plastic Pavement Striping (Broken Line)(4" Width)
Item 732-05, Removal of Existing Markings
Item S-003, Impact Attenuators (Construction Zone)
Item S-004, Repair and Restoration of Impact Attenuators
Item S-101, Temporary Stay System, Installation and Removal
Item S-102, New Cable Stay System and Installation
Item S-103, Removal of Existing Stay System
Item S-104, Geometry Control
Item S-108, Web-Enabled Camera System
Item S-114, Repairing Fairing Plate

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 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

ITEM S-101, TEMPORARY STAY SYSTEM, INSTALLATION AND REMOVAL:

This task consists of the supply, installation, and removal of the Temporary Stay Cable System used to provide support to the bridge superstructure during stay cable replacement activities, and provision of Temporary Support System required during construction. The contractor shall supply all labor, supervision, equipment and material required to provide Temporary Stay Cable System and Temporary Support System in accordance with the Plans, specifications, and the Project Engineer.

The Contractor will be responsible for the fabrication of all temporary equipment including stressing chairs, saddles and walers and the components of the Temporary Support System, all of which will remain the property of the Contractor.

All work must be performed in accordance with the traffic control requirements shown in the Plans. The use of construction equipment on the bridge deck (e.g., trucks, lifts, cranes) will be limited by the width of the work area and the capacity of the bridge deck as shown in the plans. The contractor shall submit the magnitude and location of the proposed loads for approval by the engineer. Any deviation from these limits will not be allowed without the written approval of the Engineer.

All work must be performed in accordance with the navigation channel access restrictions shown in the Plans.

The Contractor will be responsible for protection of vehicular and marine traffic against falling objects and other potential hazards resulting from construction activities.

Reference Documents:

Reference documents in order of precedence:

a. Plans
b. Louisiana Bridge Design Manual 2006 Edition
c. American Association of State Highway and Transportation Officials Standard Specifications for Highway Bridges 17th Edition (AASHTO)

d. Recommendations for Stay Cable Design, Testing and Installation by the Post-Tensioning Institute (PTI), 5th Edition, 2007 (PTI Recommendations)

Any conflicts or omissions shall be referred to the Engineer for resolution.

Submittal Requirements:

a. Shop, Working and Erection Drawings – Shop, Working and Erection drawings, prepared in accordance with Section 801.03 of Louisiana Standard Specifications for Roads and Bridges, 2006 Edition, shall be required for all components of the Temporary Stay Cable System and Temporary Support System. All Shop, Working and Erection drawings shall be stamped by an engineer licensed to practice civil engineering in the State of Louisiana.
b. Construction Manual – Utilization of Temporary Stay Cable System and Temporary Support System shall be described in the Construction Manual prepared under Special Provision S-102
c. Design Drawings and Calculations – The Contractor shall submit design drawings and calculations for the Temporary Support System. The drawings shall clearly show the details of the proposed system and any strengthening required for existing structures. The load carrying capacity of the system shall be clearly indicated on the drawings. The calculations shall demonstrate the ability of the Temporary Support System and the underlying structures to carry the nominated loads. All design drawings and calculations shall be prepared and stamped by an engineer licensed to practice Civil Engineering in the state of Louisiana.
d. River Traffic Control Schedule – The Contractor shall provide an advance two-week River Traffic Control Schedule to the Engineer and the U.S. Coast Guard indicating any vertical and horizontal marine restrictions during work in the main navigational spans. Included in the schedule is a plan and profile sketch of the bridge. Any marine restrictions shall be shown in the sketch. An example River Control Schedule is included in this specification for reference.
e. Safety Plan and design of equipment/systems used to provide protection of vehicular and marine traffic against falling objects and other hazards resulting from the project. The Safety Plan should address all Contractor activities associated with this project.

Temporary Stay Cable System:

a. The Temporary Stay Cable System shall include all components and cable sizes as shown on the Plans. These components include top supports in the form of saddles at the top of the tower, walers at the bottom supports behind cross-girders, temporary cables, temporary cable anchorages and appurtenance, elements for strengthening of the tower top beneath the saddles, and other related elements. Any alternative for the supply and installation of the Temporary Stay Cable System proposed by the contractor shall be submitted for approval by the Engineer as a Value Engineering Proposal in accordance with Section 105.19 of Louisiana Standard Specifications for Roads and Bridges, 2006 Edition, and shall include adequate engineering backup in the form of calculations and drawings to allow proper review. The submittal must include sufficient drawings and calculations, prepared and stamped by an civil engineer licensed in the state of Louisiana, to demonstrate the adequacy of the alternative system.
b. The temporary stay cables shall be aerodynamically stable throughout the construction. Contractor shall ensure that the temporary stay cables are not subject to vibration. This shall be achieved by use of cable dampers, cross ties or other approved methods or devices.

c. The capacity of the temporary stay cable anchorages shall exceed the minimum breaking load of the temporary stay cables.
d. Strand for Temporary Stay Cables
    1. The stay cables shall be made of weldless low relaxation Grade 270 (270 ksi, 1860 MPa), seven-wire 0.60-in (15.2-mm) -diameter strands meeting or exceeding the requirements of ASTM A416.
    2. Minimum breaking load: 58.6 kip (260 kN) per strand.
    3. Care shall be taken to protect the strands against any damage or cross-section loss during the course of their use.
    4. Strands shall be free of bite marks or other damage in the cable free length.
    5. Temporary cable strands may be reused, provided that previously gripped strand length is removed from the next stressing stage.
    6. The substitution of 0.62-in. diameter strands meeting the requirements of this specification shall be allowed, as long as the proposed cables provide a strand area equal to or greater than the area described in the plans, and the substitution does not conflict with other contract provisions.
e. Temporary Stay Cable Anchorages
    1. Care shall be taken to protect the temporary stay cable anchorages against any damage or corrosion that would affect their capacity during the course of their use
    2. The contractor shall provide test data, for Engineer's approval, to demonstrate the static capacity of the temporary stay cable anchorage system.
f. Miscellaneous components
    1. Walers, saddles, and other components of the Temporary Stay Cable System shall be furnished in accordance with the provisions of Section 807 of the LaDOTD Standard Specifications for Roads and Bridges (2006). Care shall be taken to protect the walers, saddles and other components of the Temporary Stay Cable System against any damage or corrosion that would affect their capacity during the course of their use.

Temporary Support System

a. The erection sequence shown on the Plans requires the use of a Temporary Support System to support temporary stay cables during installation; existing stay cables during removal; and new stay cables during installation. The Plans include a schematic design for a highline proposed as an option for a Temporary Support System.
b. Design and detailing of the Temporary Support System chosen by the Contractor, including any necessary strengthening of the existing structure, is the responsibility of the Contractor. Use of the highline details shown in the Plans does not relieve the Contractor of the responsibility for design of the Temporary Support System. The Temporary Support System shall be independent of the replacement stay cables, temporary stay cables, and existing stay cables still in service.
c. The Temporary Support System shall be designed to meet relevant industry standards. Highline systems shall be designed to meet the requirements of ASME B30.19-2005.

Construction Requirements

a. General: Field workmanship shall be in accordance with best practice, and all work shall conform to the LaDOTD Standard Specifications for Roads and Bridges (2006), as amended

by these Special Provisions, and other such standards as are referenced herein or on the Plans.

b. Handling and Installation
   1. The temporary stay cables shall be protected against corrosion, heat, abrasion and other harmful effects throughout the fabrication and installation process.
   2. Flame cutting of the strands shall not be permitted
   3. Strands within a cable shall be installed parallel to each other
   4. Damaged strands shall be replaced.
c. Erection Stages and stressing requirements: Refer to the requirements of Special Provision S-102 and Plans for a description of the construction stages and stressing requirements.

Inspection Buggy: The contractor may request the use of the LA DOTD cable inspection buggy. It can be made available any non-holiday with a 24 hr. advance notice. The contractor assumes full liability when using the inspection buggy. Any damage to the inspection buggy shall be repaired at no direct payment. The buggy is stored at the LA DOTD Baton Rouge Bridge Maintenance Facility on Foss Drive.

Removal: The contractor shall supply all labor and equipment necessary to install and remove the Temporary Stay Cable System and Temporary Support System on each of the four bridge quadrants as required by the construction sequence shown in the Plans. All components of the Temporary Stay Cable System and Temporary Support System shall remain the property of the contractor and shall be removed from the site upon completion of the work. All open bolt holes shall be filled with an appropriately sized, AASHTO M-164, Type 3, bolt in accordance with Section 807.21.

Payment: Payment will be made at the contract price for Temporary Stay Cable System, Installation and Removal, which shall include all materials, tools, equipment, labor, incidentals and the performance of all work necessary to complete this task.

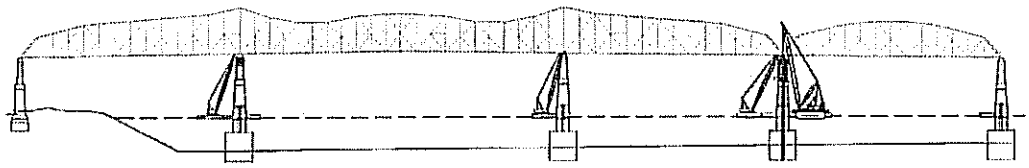
Payment will be made based on a percentage of work completed under:
Item S-101, Temporary Stay System, Installation and Removal, per lump sum.

MASSMAN CONSTRUCTION CO.

TWO-WEEK River Control Schedule
Huey P. Long – Substructure Widening
Lower Mississippi River Mile – 106.1

AS-OF September 12th 2007

Pier III Structural Steel Erection



CONFIRMED - WEEK

WEEK 1	*Date*	*Date*	*Date*	*Date*	*Date*	*Date*
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Type of						
Control						
Slow Bell	Min Wake 9am-3pm		Min. Wake 9am-3pm		Min. Wake 9am-3pm	
12 Hour		Closure (12hr) 6am-6pm		Backup (12hr) 6am-6pm		
6 Hour				Closure (6hr) 8am-2pm		Backup (6hr) 8am-2pm

PROPOSED - WEEK

WEEK 2	*Date*	*Date*	*Date*	*Date*	*Date*	*Date*
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Type of						
Control						
Slow Bell	Min. Wake 9am-3pm	Min Wake 9am-3pm	Min. Wake 9am-3pm	Min. Wake 9am-3pm		
12 Hour						
6 Hour					Closure (6hr) 8am-2pm	Backup (6hr) 8am-2pm

Data Prepared by: Clair Stewart
cstewart@massman.net

ITEM S-102, NEW CABLE STAY SYSTEM AND INSTALLATION:

This task consists of supply and installation of a new parallel strand stay cable system including qualification testing. The Contractor shall supply all labor, supervision, equipment and material for the New Stay Cable System in accordance with the Plans, specifications, and the Project Engineer.

All work must be performed in accordance with the traffic control requirements shown in the Plans. The use of equipment on the bridge deck (e.g. trucks, lifts, cranes, etc.) will be limited by the width of the work area and the capacity of the bridge deck as shown in the Plans. The Contractor shall submit the magnitude and location of proposed loads for approval by the Engineer. Any deviation from these limits will not be allowed without the written approval from the Engineer

The Contractor will be responsible for protection of vehicular and marine traffic against falling objects and other potential hazards resulting from construction activities, in accordance with the safety plan prepared under Special Provision S-101.

Experience and Submittal Requirements:

The contractor shall submit the qualifications to perform the work included for this special provision for approval by the DOTD Chief Construction Engineer. The contractor's or sub-contractor's stay cable system installation qualifications shall meet or exceed the experience requirements as noted in this section.

The contractor or sub-contractor shall have direct recent experience in the construction of stay cable systems and shall submit descriptions of that experience. The descriptions of the stay cable projects shall contain names and telephone numbers of owner representatives who can verify the contractor or sub-contractor's recent direct participation on those projects.

The contractor shall designate senior personnel with recent demonstrated technical experience in stay cable construction to be directly involved in the project throughout the stay cable replacement operations. The contractor shall submit the name, qualifications and experience records of senior personnel directly involved with the stay cable replacement operations.

The contractor shall submit the stay cable qualifications prior to initiation of construction of this work. Within 20 days of submittal of the qualification submittal, the engineer shall approve or reject the qualification submittal. If the contractor submittal is not approved, the contractor shall resubmit any changes in the contractor or sub-contractor's qualifications submittal for approval within 14 days.

Reference Documents:
Reference documents in order of precedence:

e. Plans
f. Louisiana Bridge Design Manual 2006 Edition

g. American Association of State Highway and Transportation Officials Standard Specifications for Highway Bridges 17th Edition (AASHTO)
h. Recommendations for Stay Cable Design, Testing and Installation by the Post-Tensioning Institute (PTI), 5th Edition (PTI Recommendations)

Any conflicts or omissions shall be referred to the Engineer for resolution.

Contractor Submittal Requirements:

a. Drawings – 60 days after the Award of Contract, the Contractor shall submit Shop and Working drawings, in accordance with Section 801.03 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition, for all components of the New Stay Cable System. All working drawings shall be stamped by an engineer licensed to practice civil engineering in the State of Louisiana.
b. Construction Manual – The Contractor shall submit for review and approval a construction manual detailing all erection procedures. The construction manual shall be stamped by an engineer licensed to practice civil engineering in the State of Louisiana.
c. Test Reports – Prior to the installation of any new stay cable components, the contractor shall submit for approval test reports prepared by an independent laboratory demonstrating the satisfactory performance of the proposed stay cable system in accordance with the testing requirements of this special provision.
d. User Manual – At the completion of the project, the Contractor shall submit an Inspection and Maintenance Manual for the New Stay Cable System, in accordance with PTI Recommendations article 7.7.
e. HDPE Sheathing Pipe Color Sample – Prior to purchasing sheathing pipes, the contractor shall submit a sample of HDPE sheathing pipe for approval of color

New Stay Cable System:

a. The New Stay Cable System shall include all components and cable sizes as shown on the Plans. It shall include dampers, exit pipes, anti-vandalism tubes, cross ties, anchorage chairs and any other related items.
b. The New Stay Cable System shall allow for individual replacement of the stay cable strands.
c. All new stay cables shall be installed with damping devices to prevent excessive vibrations.

The Contractor shall supply damping devices that meet the following criteria:

1- Internal viscous dampers shall be designed and fabricated by the Contractor and installed at both tower and deck anchorage zones as shown in the plans. Alternative means can be submitted for Engineer's review and approval.
2- The damping system shall provide minimum 6% logarithmic decrement for all levels of vibration amplitude in addition to cable intrinsic damping.
3- Dampers shall suppress vibrations occurring in all directions (in-plane & out-of-plane) at a constant rate.
4- The Contractor shall design the damping system based on actual damping curves. Calculations and design shall be submitted for Engineer's review and approval.
5- The Contractor shall provide laboratory test results for durability and performance through dynamic testing in accordance with a test procedure approved by the engineer. There shall not be a significant deterioration of the damping curve at the completion of testing. Dampers shall have a service life of at least 20 years.

6- The performance of dampers shall be also field tested by the Contractor. Such test shall include field measurement of damping of the new stay cables before and after installation of the dampers.
7- The proposed damping system shall be fully integrated with the New Stay Cable System with minimal aesthetic impact. The damping system and attachment to the new cables shall be protected against moisture penetration and water leakage.
8- The damping system shall be designed in a manner to allow easy inspection, maintenance and/or replacement during the life of the bridge.
9- Surface of the stay cable sheathing pipes shall include a helical fillet. This surface configuration shall not increase significantly the drag coefficient of the cables. The Contractor shall submit the surface configuration to the Engineer for approval.
10- Transverse ties between vertically paired cables shall be supplied as shown on the plans.

d. The Contractor shall ensure the stay cables are aerodynamically stable during construction.
e. The capacity of stay cable anchorages shall exceed the minimum breaking load of the cables.
f. The stressing end anchorage shall be equipped with a ring nut to allow for future cable force adjustment with a minimum adjustment length of 4 in. (100 mm).
g. The stay cables shall be protected with weather resistant HDPE pipe with an outer, white, ultraviolet resistant layer meeting the requirements of the PTI Recommendations. The color of the HDPE sheathing pipe shall be approved by the Engineer.
h. Portions of the stay cables accessible from the bridge deck shall be protected by an anti-vandalism tube as shown on the Plans. The Contractor shall be responsible to develop the details of anti vandalism tubes to meet the following criteria:
   1. Anti-vandalism tubes shall extend from the lower exit pipe to a minimum of 10 ft vertically above the bridge deck.
   2. Anti-vandalism tube components and connections shall be weather tight and shall not breach the corrosion protection system provided by the stay cable sheathing pipes.
   3. Anti-vandalism tubes shall accommodate cable sag and potential misalignment between the cable and the exit pipe.
   4. Anti-vandalism tubes shall be removable to allow inspection of dampers and cables within the lower exit pipes.
   5. Material type, thickness and details of anti-vandalism tubes shall provide protection against fire and mechanical harm.
i. Strand for Stay Cables
   1. The stay cables shall be made of weldless low relaxation Grade 270 (270 ksi, 1860 MPa), seven-wire 0.60-in (15.2-mm) diameter strands meeting or exceeding the requirements of ASTM A416.
   2. Minimum breaking load: 58.6 kip (260 kN) per strand.
   3. The strands shall be individually protected with High Density Polyethylene (HDPE) sheathing and all voids within a strand shall be filled with a corrosion resistant material, all meeting the PTI Recommendations.
   4. The substitution of 0.62-in. diameter strands meeting the requirements of this specification shall be allowed, as long as individual cables provide a strand area equal to or greater than the total area of strands (excluding monitoring strands) described in the plans, and the substitution does not conflict with other contract provisions. A total of 24

monitoring strands, no more than one per each cable, distributed among all cables, shall be added.

j. Stay Cable Anchorages
   1. Anchorage assemblies shall be protected at all times against corrosion. The ends of the strands and wedges shall be protected by a removable cap injected with a corrosion protective material. The removable caps and anchorage blockout cover plates shall be painted using a pre-qualified paint system, approved by the Engineer, in accordance with Section 811 of the Standard Specifications.
   2. The lower anchorage chairs, bearing plates, guide pipes and anti-vandalism tubes shall be painted using a pre-qualified paint system, to be approved by the Engineer, in accordance with Section 811 of the Standard Specifications. The top coat color of guide pipes and anti-vandalism tubes shall match the color of the stay cable sheathing pipes.
   3. The upper guide pipes and bearing plates shall be painted using a pre-qualified paint system, to be approved by the Engineer, in accordance with Section 811 of the Standard Specifications. The top coat color of the guide pipes shall match the color of the stay cable sheathing pipes.

k. Cable Cross Ties
   1. Stay cable cross ties and connections shall be provided as shown on plans
   2. All cross tie components, including cable bands, turnbuckles, bolts, and miscellaneous hardware shall be Grade 316 stainless steel.
   3. Cable cross tie connection details shall provide positive connection between cable sheathing pipes and strand at cross-tie locations and allow unimpeded replacement of individual strands.

Testing

The New Stay Cable System shall be tested at an independent laboratory, selected by the contractor and approved by the Engineer, in accordance with Section 4 of the PTI Recommendations, except as noted below. The stress range for the testing shall be in accordance with Table 3.1 of the PTI Recommendations.

In lieu of the leak test requirements of PTI Section 4.1.6, a single cable assembly, representative of the average cable size, shall be subjected to a water tightness test in accordance with Section 6.2.3 Leak Tightness Testing, of FIB Bulletin 30, Acceptance of Stay Cable Systems Using Prestressing Steels, 2005.

The acceptance testing requirements of PTI Section 4.2 shall be reduced to two cable specimens, representing the largest and the smallest cable sizes. The two specimens shall be tested in accordance with Section 4.2 of the PTI Recommendations, 5th Edition. Both tests shall include ultimate strength tests at the completion of the fatigue testing.

Tests must be completed and final test reports approved prior to the installation of any stay cable components in the bridge

The quality of the New Stay Cable System components shall be tested in accordance with Section 3 of the PTI Recommendations:

a. Strands: Art. 3.2.2.1
b. High density polyethylene for sheathed strands: Art. 3.3.6
c. Corrosion inhibiting coating for the strand wires: Art. 3.3.8
d. Performance tests for individually sheathed strands: 3.3.9
e. Stay cable polyethylene pipe: Art. 3.5.3

Construction Requirements

a. General: This work shall include all construction operations related to the replacement of the stay cables on the Hale Boggs Bridge. Field workmanship shall be in accordance with best practice, and all work shall conform to these special provisions and other specifications as appropriate. All work must be performed in accordance with the traffic control requirements shown in the Plans.

b. Definitions: The following definitions shall apply to the installation of stay cables:
Extension – the change in the length of a strand between anchorages.
Projection – the movement of a strand, measured relative to the anchorage.
"Extension" is the result of the change in the strain in the strand plus the change in sag, whereas "projection" is "extension" plus the change in distance between the anchorages as a result of deformations in the structure (i.e. the deck and the pylon). Projection can be measured directly, but extension can only be determined if the movements of the anchorages at the pylon and the deck are known.

c. Handling and Installation
   1. The stay cables shall be protected against corrosion, heat, abrasion and other harmful effects throughout the fabrication and installation process.
   2. Flame cutting of the strands shall not be permitted
   3. The minimum bending radius of the cable during installation shall be 25 times the diameter of the cable sheath.
   4. Strands within a cable shall be installed parallel to each other
   5. The stay cable guide pipes shall be installed within 0.4 degrees of the designed pipe alignment.
   6. All damage to stay cable components shall be repaired before installation of the stay cable. Damaged strands shall be replaced.

d. Erection Stages: See the Plans for detailed description of the erection stages.

e. Stressing Requirements: The Stay Cable Installer may use the strand-by-strand stressing method or stress the stay cables as a single unit with a multi strand jack. When using strand-by-strand installation, the minimum elongation for any step shall be 2 in. (50 mm).
   1. Jacks and gauges for stay cable stressing shall be calibrated with a load cell prior to the beginning of stay cable installation and every six months thereafter.
   2. Stay cable stressing sequence shall be according to the information provided in the Plans.
   3. Geometry control of the bridge towers and superstructure and cable force verification shall be conducted in accordance with Special Provision S-104, Geometry Control and Cable Force Verification.

   For each stressing stage, the Engineer will provide the Contractor with the following data:
   1. Limits to the stay cable loads for all stressing stages,
   2. The estimated deck stiffness for calculating the decay curve for strand-by-strand installation,
   3. The estimated deflection of the deck, before and after stressing.

   For each stressing stage, The Contractor shall provide the following data:
   1. The stressing force in each strand, when using the strand-by-strand stressing method, or the total force in the stay cable when a multi-strand stressing method is used.

2. The position of the locking nut together with the protruding length of strand at each anchorage.

Permanent records shall be established by the Contractor during each stay cable installation. Information recorded shall include:

1. An estimate of the total force in each cable,
2. The actual measured stay cable projections.
3. Ambient temperature and weather conditions; and
4. Deck loading/traffic conditions.

The force in the stay cables shall not deviate from the specified values by more than 5%. If the force varies by more than 5% from the predicted values, stressing operations shall halt and the Engineer shall be consulted, so that overall structural capacity and deformation may be checked and appropriate adjustments implemented.

The Stay Cable Installer shall develop procedures to ensure that, after all stressing stages, the tension in each strand of each stay cable is equalized, within a range of +/- 2.5% of the strand ultimate tensile strength.

The number of stressed strands at each stressing stage shall not deviate from the stressing plan shown on the Plans by more than two strands total.

Alternatives: Any alternative for the supply and installation of the New Stay Cable System proposed by the contractor shall be submitted for approval by the Engineer as a Value Engineering Proposal in accordance with Section 105.19 of Louisiana Standard Specifications for Roads and Bridges, 2006 Edition, and shall include adequate engineering backup in the form of calculations and drawings to allow proper review.

Payment: Payment will be made at the contract price for Supply and Installation of New Stay Cable System, which shall include all materials, tools, equipment, labor, incidentals and the performance of all work necessary to complete this task.

Payment will be made based on a percentage of the work completed under:
Item S-102, New Cable Stay System and Installation, per lump sum.

ITEM S-103, REMOVAL OF EXISTING STAY SYSTEM:

This task consists of detensioning, removing, and disposing of the existing stay cable system. The Contractor shall supply all labor, supervision, equipment and material to remove the existing stay cables in accordance with the Plans, specifications, and the Project Engineer.

All work must be performed in accordance with the traffic control requirements shown in the Plans. The use of equipment on the bridge deck (e.g., trucks, lifts, cranes) will be limited as indicated in the Plans. The contractor shall submit the magnitude and location of proposed loads for approval by the engineer. Any deviation from these limits will not be allowed without the written approval of the Engineer.

The Contractor will be responsible for protection of vehicular and marine traffic against falling objects and other potential hazards resulting from construction activities, in accordance with the safety plan prepared under Special Provision S-101.

Description of Work:

a. Detensioning: Existing cables shall be detensioned incrementally, in accordance with the construction sequence shown on the Plans. Detensioning shall be executed in a controlled manner to avoid damage to the structure, replacement stay cables, temporary stay cables and hardware, or existing stay cables still in service. Jacking for detensioning shall take place at the lower anchorage.
   The Contractor shall prepare a design for jacking equipment to detension the existing stay cables. The Contractor shall submit detailed drawings of the proposed jacking equipment for detensioning the existing stay cables for review and approval by the Engineer.
   Shop drawings for the original equipment used for stay cable installation are included in the 1981 Prescon shop drawings that are included in the documentation for this project. Damage has been observed to several of the original stressing sockets and pre-bid inspection of the anchorages is invited to establish the current condition. The Contractor is responsible for the design of the jacking equipment and detensioning procedure.
b. Temporary Support System: During and following detensioning, the existing stay cables shall be supported along their length to avoid damage to the structure, replacement stay cables, temporary stay cables and hardware, or existing stay cables still in service. The Temporary Support System provided under Special Provision S-101, Temporary Stay Cable System, Installation and Removal, shall include provision for support of existing stay cables during their removal. Refer to Special Provision S-101 for requirements of the Temporary Support System.
c. Cutting: No cutting of the stay cable will be allowed until the stay cable is fully detensioned. No flame cutting will be allowed while the stay cable is in place.
d. Removal: Following detensioning, the stay cable shall be removed from the bridge. The removal method shall insure that no damage occurs to the structure, replacement stay cables, or existing stay cables still in service.
e. Storage and Disposal: Contractor to save and store 100 foot of the existing stay cable (HDPE pipe and grouted wire) for future use by LA DOTD. Contractor to transport the stay cable to the LA DOTD Luling Maintenance Yard in Luling, La at the direction of the project engineer. All other removed material shall become the property of the Contractor and the Contractor shall be responsible for their removal and disposal in accordance with Section 202 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition.

Contractor Submittals:

a. Drawings - All drawings shall be prepared and submitted in accordance with Section 801.03 of Louisiana Standard Specifications for Roads and Bridges, 2006 Edition. All working drawings shall be stamped by an engineer licensed to practice civil engineering in the State of Louisiana. Submittals shall be prepared for:

   i. Detailed design drawings of the proposed jacking equipment for detensioning the existing stay cables.

ii. Working drawings showing the procedure for detensioning the existing stay cables using the above jacking equipment.

b. Cutting Procedure – Contractor shall submit for approval a detailed description of proposed cable cutting procedure including equipment and methods to be utilized.

Payment: Payment will be made at the contract price for Removal of Existing Stay Cable System, lump sum, which shall include all materials, tools, equipment, labor, freight, incidentals and the performance of all work necessary to complete this task. Payment will be made based on a percentage of the work completed under:

Payment will be made based on a percentage of the work completed under:

Item S-103, Removal of Existing Stay System, per lump sum.

ITEM S-107, CLEANING AND SEALING OF THE SUPERSTRUCTURE:

The primary objective of this item is to clean the towers of animal droppings and other debris to lessen corrosive environment for the steel, provide a safe environment for maintenance and inspection personnel, and to seal all openings in the towers and elsewhere in the superstructure to prevent accumulation of such debris in the future.

The scope includes:

- Removal and disposal of all debris within the two main towers.
- Pressure washing of interior of two main towers at Levels 1 and 2, 5, to 8 (including the lower strut), Level 22 to roof (including upper strut and anchorage chambers), and two additional levels per tower leg as directed by the Engineer. Wash water shall be free of solids and contaminants sufficient to be qualified as potable water.
- Removal of pressure wash water and drying of the interior of towers.
- Removal and disposal of debris within the deck superstructure between two interior diaphragms ID 5 and 6 including Cross Girder 1, and ID 46 to 47 including Cross Girder 12, and an additional two cross girders and 180 ft of the main box girder as directed by the Engineer.
- Maintaining existing drainage channels in the superstructure and eliminating the potential for water ponding.
- All access hatches, including roof scuttles, shall be repaired so that they can be sealed and locked.
- Small openings (larger then 1") shall be sealed, and netting or other appurtenances shall be repaired or installed on openings to prevent birds from getting into the towers, main box girders or cross girders.

Contractor shall formulate a detailed execution and disposal plan and submit the plan for review and approval by appropriate permitting agencies, if required. The Contractor shall then submit this plan to the Engineer for consideration and approval prior to start of the work. The execution plan shall include the process and details such as pressure of water used for washing, type of sealing, netting, and other appurtenances to be used for holes and openings. Any follow-up cleaning within duration of this contract shall be the responsibility of the Contractor.

The Contractor will be responsible for protection of vehicular and marine traffic against falling objects and other potential hazards resulting from construction activities, in accordance with the safety plan prepared under Special Provision S-101.

Payment will be made at the contract lump sum price under:

Item S-107, Cleaning and Sealing of the Superstructure, per lump sum.

CONTRACT TIME: 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 120 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, 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.

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.

SUBMITTAL REVIEW PERIOD FOR ITEMS S-101, S-102, S-103, S-107, S-108, S-109, S-110, S-111, S-112, S-113, AND S-114:
The Engineer shall have up to 30 days for review of each submittal, including resubmittals.

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 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:

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

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.

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 Subsection108.09.

(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

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.

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
713-10	175	EACH	TEMPORARY PRECAST CONCRETE BARRIER MOVEMENT _____ DOLLARS _____ CENTS
727-01	LUMP	LUMP SUM	MOBILIZATION _____ DOLLARS _____ CENTS
731-02	205	EACH	REFLECTORIZED RAISED PAVEMENT MARKERS _____ DOLLARS _____ CENTS
732-02-A	3.422	MILE	PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH) _____ DOLLARS _____ CENTS
732-03-A	1.534	MILE	PLASTIC PAVEMENT STRIPING (BROKEN LINE)(4" WIDTH) _____ DOLLARS _____ CENTS
732-05	7.000	MILE	REMOVAL OF EXISTING MARKINGS _____ DOLLARS _____ CENTS