

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

CONSTRUCTION PROPOSAL



**STATE PROJECT NO. 650-18-0010
M/V ST. FRANCISVILLE RE-POWERING
AND 5 YEAR DRYDOCK
STATEWIDE**



Kevin J. Reed

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**STATE PROJECT NO. 650-18-0010
M/V ST. FRANCISVILLE RE-POWERING
AND 5 YEAR DRYDOCK**

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.

STATE PROJECT NO. 650-18-0010

DESCRIPTION: M/V ST. FRANCISVILLE RE-POWERING AND 5 YEAR DRYDOCK

PARISH: STATEWIDE

TYPE: Dry-docking, Repairs, and Modification as specified elsewhere herein, in accordance with the U.S.C.G. required five (5) year exam, including replacement and alignment of two (2) main engines and two (2) reduction gears, and all other work necessary to install the new engines, including piping, foundation, wiring, alarms, and alignment. All work shall be done in complete accordance with the latest applicable U.S.C.G. Regulations. All equipment furnished, standard practices, and methods of installation shall meet the requirements of good marine practice and the applicable U.S. Coast Guard Regulations.

ESTIMATED COST RANGE: \$1m - \$2.5m

PROJECT ENGINEER: Kevin J. Reed, P.O. Box 94245, Bridge Maintenance, Baton Rouge, LA 70802. Phone: (225) 379-1916.

COST OF PROPOSAL FORMS: \$25.00

COST OF PLANS: N/A

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.

**STATE PROJECT NO. 650-18-0010
M/V ST. FRANCISVILLE RE-POWERING
AND 5 YEAR DRYDOCK**

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. Paper copies of the plans are included in the proposal (no additional charge). The purchase price for paper plans and proposals is non-refundable. Additionally, plans and specifications may be seen at the Project Engineer's office or in Room 101-A of the DOTD's Headquarters Administration Building in Baton Rouge. Upon request, the Project Engineer will show the work.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

108.04 PROSECUTION OF WORK.

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

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

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

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

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

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

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 **NINETY (90) CALENDAR DAYS**.

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.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL 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.

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SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC:

Subsection 107.05 – Federal Aid Participation (04/08), Pages 57 and 58.

Delete the second paragraph.

SECTION 108 – PROSECUTION AND PROGRESS:

Subsection 108.04 – Prosecution of Work (03/05) Pages 74 and 75.

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

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

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

PART II – EARTHWORK

SECTION 202 – REMOVING OR RELOCATING STRUCTURES AND OBSTRUCTIONS:

Subsection 202.06 – Plugging or Relocating Existing Water Wells (03/04), Page 105.

Delete the first sentence and substitute the following.

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

PART III – BASE COURSES

SECTION 302 – CLASS II BASE COURSE:

Subsection 302.05 – Mixing (08/06), Pages 152 and 153.

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

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

SECTION 305 – SUBGRADE LAYER:

Subsection 305.06 – Payment (01/08), Page 184.

Delete the contents of this subsection and substitute the following.

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

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

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

Payment will be made under:

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

SECTION 307 – PERMEABLE BASES:

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

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

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

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

SECTION 308 – IN-PLACE CEMENT TREATED BASE COURSE:

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

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

PART V – ASPHALTIC PAVEMENTS

SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXTURES:

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

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

Table 502-2
Superpave Asphalt Cement Usage

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

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

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

Table 502-3
Aggregate Friction Rating

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

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

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

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

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

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

SECTION 508 – STONE MATRIX ASPHALT:

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

Delete this subsection and substitute the following.

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

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

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

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

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

PART VI – RIGID PAVEMENT

SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT

REHABILITATION:

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

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

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

PART VII – INCIDENTAL CONSTRUCTION

SECTION 701 – CULVERTS AND STORM DRAINS:

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

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

SECTION 701
CULVERTS AND STORM DRAINS

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

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

Usable Soil	203.06(a)
Selected Soil	203.06(b)
Plastic Soil Blanket	203.10
Mortar	702.02
Flowable Fill	710
Portland Cement Concrete	901
Reclaimed Asphaltic Pavement (RAP)	1003.01 & 1003.04(d)
Stone	1003.03(b)
Recycled Portland Cement Concrete	1003.03(c)
Granular Material	1003.07
Bedding Material	1003.08
Concrete Sewer Pipe	1006.02
Reinforced Concrete Pipe	1006.03
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Split Plastic Coupling Bands	1006.07(d)(4)
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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

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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).

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(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

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

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.

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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

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

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

SECTION 1020 – TRAFFIC SIGNALS:

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

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

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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. 595b.

SECTION 1 – GENERAL REQUIREMENTS

1.01 INTENT

It is the intent of these specifications to describe replacement, repair and/or modifications to the Department of Transportation and Development M/V St. Francisville, so as to maintain the vessel's U.S.C.G. certification. All work shall be complete in all respects, tested to the satisfaction of the Department of Transportation and Development, and ready for operation.

Prior to submitting a bid, the Contractor is strongly encouraged to make an onboard survey of the vessel to familiarize their self with the existing arrangements, physical conditions, nature and extent of each work item to be done.

All work shall be done in complete accordance with the latest applicable U.S. Coast Guard Regulations. All equipment furnished, standard practices and methods of installation, shall meet the requirements of good marine practice and the applicable U.S. Coast Guard Regulations.

1.02 PARTICULARS OF VESSEL

Overall Length	=	150'
Beam (extreme)	=	60'
Depth	=	10'
Official Number	=	D510382
Gross Tonnage	=	656

1.03 WORK OVERVIEW

A project schedule of the work items of this document shall be submitted for approval and consent to proceed. Any subsequent scheduling updates shall be submitted to the Project Engineer. Progress shall be due at the end of each DOTD work week. Progress shall be witnessed by a DOTD representative on a daily and weekly basis.

In general, the contractor is to perform the following:

Modifications and repairs: replace, modify, and/or inspect various items as described in these specifications.

Repair, replace, modify, inspect, and/or perform any additional work resulting from inspections, on a negotiated change order basis with the Department of Transportation. Before performing this work, an itemized list showing the price of material and labor must be submitted to and approved by the Project Engineer. The contractor shall not proceed with any additional work not specified in this document without the approval of the Project Engineer.

1.04 CONTRACT TIME

A total of ninety (90) calendar days will be allowed for completion of the entire project.

1.05 UNITED STATES COAST GUARD

All workmanship, materials and equipment provided by the Contractor shall be to the requirements of the U.S.C.G. The Contractor shall be responsible for notifying the local U.S.C.G. Inspection Office and coordinating with the D.O.T.D. representative on a suitable time or times for inspection of the work.

The Contractor shall be responsible for obtaining U.S.C.G. approval of the systems installed; all necessary stenciling, labeling, instruction plates, etc. are to be furnished and installed. The Contractor shall obtain U.S.C.G. approval of all drawings, schematics, etc. as required. Two (2) copies of all correspondence with the United States Coast Guard are to be furnished to the D.O.T.D. Two (2) copies of operating manuals of equipment furnished are also to be furnished to the D.O.T.D.

1.06 MATERIAL, WORKMANSHIP, AND EQUIPMENT

The Contractor shall use only materials, which comply with the U.S. Coast Guard Regulations. Equipment shall be new, of good quality and must meet the requirements of the U.S. Coast Guard, where applicable.

The Contractor shall perform all work in accordance with good marine practice. All steel work shall be smooth and fair with no protruding sharp edges. All machinery or equipment shall be installed in accordance with the manufacturer's recommendations. Any disturbance of existing areas, either in conjunction with, or incidental to, work to be performed shall be returned to original status. All welders must be certified according to USCG standards.

All new equipment, including paint products, shall be submitted in writing to DOTD Representative before acceptance.

The Contractor shall provide any and all equipment (i.e., lifting equipment, welding machines, oxyacetylene systems, etc.) and facilities (i.e., lighting, scaffolding, etc.) necessary to complete the work.

On all installations, or removals, that require electrical, piping, plumbing, machinist, joiner carpenter, mechanic, ironworkers, welders, painters, equipment operators and laborers; it shall be the Contractor's responsibility to supply all material necessary to complete an effective job, unless such materials are specifically identified in the work items being supplied by the Department.

1.07 VERIFICATION BY CONTRACTOR

The Contractor shall be responsible for verifying all existing physical conditions, dimensions, length, quantities, sizes and shapes provided in the specifications and drawings. Dimensions, lengths, quantities, etc., provided in the specifications and drawings, are for guidance only and shall not relieve the Contractor of his responsibility to check and verify same. Existing paint millage shall be Contractor determined.

1.08 MANUFACTURER'S REPRESENTATIVE

Whenever the specifications require that work be performed or accomplished under the supervision or direction of the manufacturer's representative; such manufacturer's representative shall be required to be present during the opening up, repair, closing up and testing of the work. Further, unless otherwise specified, the cost of such supervision or direction shall be borne by the Contractor and the manufacturer's representative shall be the agent of the Contractor with respect to liability and responsibility.

1.09 GAS FREE CERIFICATE

The Contractor shall obtain at his expense and furnish a copy of the "gas free" or "safe for hot work" certificate to the Engineer before any hot work is done in the engine spaces or other locations on the vessel where hot work is to be performed.

1.10 PROTECTION OF EXISTING EQUIPMENT

The Contractor is to take all necessary precautions to protect all existing machinery and equipment from damage due to work required by these specifications. Final acceptance will be made only upon the satisfaction of the Department of Transportation and Development that such equipment has not been damaged or tampered with. Any equipment that has been damaged or tampered with is the responsibility of the Contractor. Damaged electrical cable resulting from Contractor's work will be replaced at the Contractor's expense.

1.11 WASTE REMOVAL

All waste including: dirt, grit, garbage, debris, oil, water ballast, oil for disposal, bilge water (oily or clean), super chlorinated water, treated water ballast, grease, etc., resulting from work in these specifications shall be removed from the ship by the Contractor on a daily basis in accordance with the requirements of Local, State, or Federal Government Agencies.

1.12 FIRE WATCH

The Contractor shall provide an adequate fire watch with approved fire extinguishers, in the vicinity of hot work performed by the Contractor until all danger of fire has passed. All materials that constitute a fire hazard shall be removed and restored upon completion of work or

adequately protected. Contractor's attention is directed to City and State Regulations on Welding Burning and Fire Watches. Ship's extinguishers shall not be used for fire watch.

1.13 CLEANUP

Upon completion of the work required by these specifications, the Contractor is required to refurbish or return the vessel to the "As-was status" which existed prior to commencing the work.

1.14 REASSEMBLY OF DISASSEMBLED UNITS

The Contractor shall, unless otherwise specifically directed, reassemble all units such as machinery, equipment and fixtures, manhole covers and access plates specified to be opened for inspection, survey or repairs.

1.15 TESTING AND ACCEPTANCE OF THE WORK

No portion of the work either listed herein or to be negotiated within the scope of these specifications shall be considered complete until approved by the D.O.T.D. No work shall be sealed or otherwise hidden until such approval has been obtained. If testing is required to evaluate some portion of work, the Contractor shall furnish any and all services, equipment, material and/or personnel necessary to conduct the test. All work shall be performed to the satisfaction of the Department of Transportation and Development. All deficiencies shall be corrected prior to final acceptance.

1.16 GROUNDING

All exposed, non-current carrying parts of lighting fixtures, receptacles and panels must be mounted so as to establish a positive ground with the vessel's hull.

1.17 CABLE INSTALLATION

The Contractor shall utilize existing wire-ways wherever possible for new cable installations. Cables, when run in a group, shall be supported in metal hangers. Single cables may be supported to single-hole clips.

Cables shall be hung from all decks and bulkheads to avoid excessive heat and moisture. All cable hangers, stools, etc., shall be spaced not more than 14 inches apart horizontally and not more than 18 inches apart vertically. Cable clips or straps shall secure the cable to the metal supports without damage to the cable.

Where cables pass through water-tight decks or bulkheads, or enter lighting fixtures or receptacles, stuffing tubes shall be installed. Sealing compound shall be applied around cables where they enter stuffing tubes. Where cables pass through non-water tight decks or bulkheads, cables shall be amply supported to prevent chafing from vibration during operation of the vessel.

All weather deck penetrations for electrical cables shall be stub tubed from the deck weld to the connection box with hard pipe. Utilize armored cable from the connection box to the light receptacle or end use component.

Additionally, any omission of required items not specified but necessary to install a functionally operable system remains the responsibility of the contractor.

1.18 PIPING AND VALVE COLOR CODING

All new and existing pipe and valves shall be color coded as required by U.S.C.G.

1.19 WORK ITEM DESCRIPTIONS

The following scope of work describes the separate items required to be done to the vessel during this modification. It is to be understood by the Contractor that the following applies to each and every item unless specially noted otherwise.

- The Contractor is to provide all labor, material, special equipment, make all removals and restorations, remove and replace interferences and rig and unrig as found necessary in the course of accomplishing the following work items.
- The Contractor shall make all disassembles and subsequent reassemblies to accomplish the following work items.

SECTION 2 – SCOPE OF WORK

DRY-DOCKING

(To be paid under Item NS-FBT-00340, Dry Docking)

The Contractor shall haul the vessel out on a suitable dry-dock, marine railway, or graving dock. The vessel shall be held on dry-dock for sufficient time to allow for completion of all necessary underwater hull work as required by these specifications. The Contractor is to provide all necessary tugboats for shifting, cranes and other equipment essential to the shifting, docking and undocking of the vessel. The vessel is to be shifted on the blocks for inspection of the entire underwater portion of the vessel.

All necessary services including but not limited to the following shall be provided: Shore power, fresh water, sanitation line, and trash disposal. The contractor shall provide a safe and convenient means of boarding the vessel at all times. Ladders will not be permitted.

Because of the U.S. Coast Guard inspection, there must be a minimum 3' of clearance under the hull of the vessel.

DRYDOCK INSPECTION

(To be paid under Item NS-FBT-00360, Dry Docking Inspection)

The Contractor shall be responsible for notifying the local U.S.C.G. Inspection Office and coordinating with the D.O.T.D. Representative on a suitable time or times for inspection. All removals, opening of manways, through hull fittings, tanks, lockers, rooms, voids, lamps and lights, boxes, tanks, etc., shall be the responsibility of the contractor. The Contractor shall also provide personnel and equipment, as required, to assist the U.S.C.G. and the D.O.T.D. personnel in performing the drydock examination. All through hull fittings shall be opened and dismantled for U.S.C.G. inspection. All removals required to accomplish the above shall be reinstalled as original upon completion of any repairs and/or inspections. The Contractor shall clean all voids for USCG inspection.

Any additional repair work required as result of the above will be negotiated as a separate negotiated change order and approved by the DOTD project engineer before the start of work.

HULL PAINTING

(To be paid under Item NS-FBT-00540, Hull Painting)

The contractor shall paint the vessel's hull from keel to main deck including rub rail. Vessel shall be shifted on the blocks for cleaning and painting areas in way of the blocks. All anodes are to be adequately protected from sandblasting operations.

SURFACE PREPARATION

All surfaces to be painted shall be sandblasted to "Commercial Blast Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No 6 (SSPC-

SP6). Moderate to severe rusted or scaled surfaces including corroded welds shall be spot blasted to "Near White Metal Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 10 (SSPC-SP10).

Keel to Main Deck Paint System including Rub Rail

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 white	5
2	International Intergard 264 red	5
3	International Intergard 264 black	5

The vessel's name, hailing port and draft are to be painted white, International Interthan 990 white.

Reference to a specific paint manufacturer/product is intended to denote the quality of the product and not to specifically exclude other acceptable approved equals.

BULLWARK AND DECK PAINTING

(To be paid under Item NS-FBT-00160, Bulwark and Deck Painting)

The contractor shall paint the bulwark and deck, interior and exterior, all deck fittings, vents, automobile gates, as well as the interior and exterior of all life jacket boxes.

BULLWARK AND MAIN DECK SURFACE PREPARATION

All surfaces to be painted shall be sandblasted to "Brush Off Blast Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No 7 (SSPC-SP7). Moderate to severe rusted surfaces shall be spot blasted to "Commercial Blast Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 10 (SSPC-SP10). Any bare metal shall get a spot coat of International Intergard 264 red.

Bullwarks Walking Decks Paint System

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 red primer (spot coat only)	
2	International Intergard 264 red	5
3	International Interthan 990 grey	5

Main Deck Paint System

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 red primer (spot coat only)	
2	International Intergard 264 red	5
3	International Intergard 264 grey	5

Reference to a specific paint manufacturer/product is intended to denote the quality of the product and not to specifically exclude other acceptable approved equals.

VOID AND BALLAST COMPARTMENT TREATMENT & PAINTING

(To be paid under Item NS-FBT-01480, Void and Ballast Compartment Treatment and Painting)

Void and ballast compartment painting shall include the surface preparation, treatment, and painting of all surfaces (top, sides, and bottom) of all void compartments and ballast tanks as specified, including both rudder room, shaft carrier areas and the engine room. The contractor is responsible for the protection of all equipment in the associated areas. All surfaces in each compartment shall be thoroughly cleaned of dirt, mud, algae, mold and mildew. The contractor shall solvent clean or degrease any oil or other contaminants to Steel Structures Painting Council Surface Preparation No. 1 (SSPC SP-1). The all compartments and ballast must be high pressure fresh water blasted with a mixture of bleach and water due to mold, 3500 PSI minimum. All peeling paint must be removed. Moderate to severe rusted surfaces in all voids and compartments shall be cleaned to "Power Tool Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 11 (SSPC-SP11). Areas cleaned to the metal shall first receive a coat of International Intergard 264 red. Remove all residual debris, maintain surface preparation. The contractor shall paint with the top coat consisting of International Interthan 990 red, 5 mils, and a finish coat of Interthan 990 off-white or approved equal.

The contractor shall be responsible for cleaning the entire engine room, bilges and floor plate structure. All framing, piping, girders, channel and bulkheads shall be cleaned of all dirt, grime, oil, sludge, grit, and thoroughly dried. The console in the engine room will be stripped and primed and painted to have a smooth surface. All holes will be repaired. The contractor is responsible for the protection of all engine room equipment. The engine room walls and above shall receive a finish coat of International Interthan 990 white, while the bilge shall receive two (2) coats of International Interthan 990 red.

Void and Ballast Compartment Paint System

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 red primer (spot coat only)	
2	International Intergard 264 red (void and ballast compartments)	5
3	International Interthan 990 off-white (void and ballast compartments)	5
4	International Interthan 990 white (engine room)	5
	International Interthan 990 white (engine room bilge)	5

Reference to a specific paint manufacturer/product is intended to denote the quality of the product and not to specifically exclude other acceptable approved equals.

CABIN PAINTING

(To be paid under Item NS-FBT-01520, Wheelhouse Painting)

The cabin painting shall include the outside cabin, passenger area, crew area, galley, all bathrooms, and the pilot house. The contractor is responsible for the removal, protection and reinstallation of all equipment in the associated areas. This equipment shall include but is not

limited to refrigerators, stoves, air conditioners, water fountains, etc. The contractor shall not remove the CO2 system but shall be responsible for its protection. Reference to a specific paint manufacturer/product is intended to denote the quality of the product and not to specifically exclude other acceptable approved equals.

CABIN SURFACE PREPARATION (OUTSIDE CABIN)

All surfaces shall be blasted to "Brush-Off Blast Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 7 (SSPC-SP7).

Moderate to severely corroded weld areas shall be spot blasted to "Commercial Blast Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 6. Remove all residual debris, maintain surface preparation. Where abrasive blasting is not feasible or permissible, the contractor shall clean moderate to severely corroded areas and welds to "Power tool Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 11 (SSPC-SP11). Any bare metal shall be coated with Intergard 264 red as a spot primer.

Cabin Paint System (outside cabin)

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 red primer (spot coat only)	
2	International Interthan 990 white	5
3	International Interthan 990 white	5

SURFACE PREPARATION CABIN DECK (FLOOR)

All deck/floor surfaces to be painted shall be sandblasted to "Brush Off Blast Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No 7 (SSPC-SP7). Moderate to severe rusted surfaces shall be spot blasted to "Commercial Blast Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 10 (SSPC-SP10). Any bare metal shall get a spot coat of International Intergard 264 red. The floor of the CO2 room shall be cleaned to "Solvent Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No 1 (SSPC-SP1) and the paint shall be applied by brush.

Cabin Deck/Floor Paint System

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 red primer (spot coat only)	
2	International Intergard 264 red	5
3	International Intergard 264 grey	5

INTERIOR WALLS AND OVERHEAD SURFACE PREPARATION

All interior walls and over head of the cabin area, including CO2 room, galley, passenger room, crew room, storage areas and heads, shall be solvent cleaned or degrease any oil or other contaminants to Steel Structures Painting Council Surface Preparation No. 1 (SSPC SP-1). The all voids and compartments must be high pressure fresh water blasted with a mixture of bleach and water due to mold, 3500 PSI minimum. Moderate to severe rusted surfaces shall be spot cleaned to "Power Tool Cleaning" requirements according to Steel Structures Painting Council

Surface Preparation Specification No. 11 (SSPC-SP11). Any bare metal shall get a spot coat of International Intergard 264 red.

Remove all residual debris, maintain surface preparation. The contractor shall apply a finish coat of International Interthan 990 white. The walls of the CO2 room are galvanized thus shall not be painted.

Interior Walls and Overhead Paint System

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 red primer (spot coat only)	
2	International Interthan 990 white	5

PILOT HOUSE SURFACE PREPARATION

Including stairway into pilot house. All surfaces, walls, steps and overhead, shall be cleaned to "Solvent Cleaning" requirements according to Steel Structures Painting Council Surface Preparation Specification No. 1 (SSPC-SP1). Remove all residual debris, maintain surface preparation. The contractor shall apply a finish coat of International Interthan 990 white. The step shall be interthan 990 black.

Pilot House Paint System

Coats	Material Description and Systems	MIN DFT (mils)
1	International Intergard 264 red primer (spot coat only)	
2	International Interthan 990 white	5
3	International Interthan 990 black (steps only)	5

Reference to a specific paint manufacturer/product is intended to denote the quality of the product and not to specifically exclude other acceptable approved equals.

PROPELLER

(To be paid under Item NS-FBT-00900, Propeller)

The contractor shall purchase two new 62” dia X 54 deg pitch, 4 blade propellers, one LH (stbd) and one RH (port). The propellers on the MV St Francisville turn inward when traveling forwards. The new propellers and all couplings shall be “blue fit” with their respective shafts, by a qualified vendor, all fittings to be to the satisfaction of the U.S.C.G. and the D.O.T.D. Representative.

RUDDER

(To be paid under Item NS-FBT-01300, Rudders and Steering Bushings and Bearings)

The contractor shall uncouple and completely remove the rudder from the vessel. Check the rudders for any damage, and pressure test the rudders. All stuffing boxes shall be removed and new seals to be installed. Upon completion of shaft inspection, reassemble shafts to original working order and repack stuffing boxes on the rudder shafts. All rudder post bushings, keys, key ways, quadrant and jockey bar pins and bushings, and all hydraulic rams pins and bushings shall be remanufactured.

SHAFTS

(To be paid under Item NS-FBT-01420, Shafts)

The contractor shall uncouple and completely remove the shafts from the vessel. Upon removal of the tail shafts, all bearings shall be inspected by the contractor and the D.O.T.D. Representative. The Contractor shall disassemble and survey the Kabelco water seals and provide report to the DOTD representative. Each shaft shall be sent to a qualified machine shop and check for trueness. All couplings shall be pulled from the shaft end and drive end. Couplings shall be checked for squareness. All shaft carrier bearings shall be dismantled for inspection. The bore and fit up shall have micrometer readings taken by a qualified machinist.

The contractor shall furnish material and repair shafts, and undercut, weld, and re-machine journals and coupling keyways. All findings shall be reported to the D.O.T.D. Representative in writing. Upon completion of the shaft inspection, the contractor shall reassemble the shafts to their original working order. All removals required to accomplish the above shall be reinstalled as original upon the completion of any repairs and/or inspections.

SONIC GAUGING

(To be paid under Item NS-FBT-01440, Sonic Gauging)

The hull, vehicle deck, keel coolers, and sea chests shall be sonic gauged for thickness and uniformity according to the U.S.C.G. requirements governing gauging of metals. A detailed drawing showing the gauge readings shall be submitted by the Contractor to the D.O.T.D. Representative and U.S.C.G for approval.

The gauge reading spacing shall be as follows:

Deck-Side to side every 5 feet; forward to aft every 10 feet.

Bottom- Same as Deck; gauge all struts.

Sides- Two (2) shots vertically: 2.5 feet down from deck and 2.5 feet up from bottom, every 20 feet forward to aft.

Bottom Knuckle-One shot every 10 feet forward to aft.

Care is to be taken not to gauge on frames or laps.

If a low gauge reading is found, additional shots may be taken in that area at the discretion of the D.O.T.D. Representative.

FUEL TANK

(To be paid under Item NS-FBT-00500, Fuel Tank)

All fuel oil tanks shall be opened, cleaned of any sludge or residue and put in a Gas Free/Safe for Men fire condition. Any fuel on board the vessel at the time of dry docking shall be removed and stored by the contractor in a clean vessel. The amount of fuel shall be measured at the time

of removal and the same amount replaced by the contractor when the vessel departs. The Contractor shall also test the fuel before removing and also before the fuel is returned to the vessel. There will be less than 5000 gallons of fuel on the vessel.

The Contractor shall also clean, make free and repack main deck shut off valves. All valves must be labeled with engraved metal labels ¼” letters minimum 1/16” engraved. The contractor shall also clean, make free, and repack side access covers and hydrotest the fuel tank.

MISCELLANEOUS STEEL REPAIRS

(To be paid under Item NS-FBT-00740, Miscellaneous Steel Repairs)

The contractor shall replace, complete in all aspects, damaged and/or deteriorated steel in the vessel at random locations as directed by the DOTD representative. The contractor shall quote such miscellaneous steel repairs on a lump sum basis, based on 1,000 lbs. of repair.

The miscellaneous steel repair price per pound shall include all steel including, but not limited to, flat plate, rolled plate, knuckled plate, pipe, split pipe, or rolled structural shapes. It shall also include any fabrication, including, but limited to cutting, welding, forming, rolling, bending, and fitting. The DOTD representative shall designate the area of steel as being the smallest rectangle or square that can be cut from new plate which shall fit over the damaged or deteriorated area. The steel weight shall be computed using the area determined and the replacement plating unit weight. The weight of shapes and piping shall be calculated using actual linear measurement.

The miscellaneous steel repair price per pound shall include all surface treatment. Also it shall include all removals necessary. Disposal of all steel removed shall be as directed by the DOTD representative. The Contractor shall properly dispose of steel as directed by the DOTD representative.

SEWAGE TREATMENT UNIT

(To be paid under Item NS-FBT-01380, Sewage Treatment Unit)

The piping from the discontinued bathrooms shall be removed from the sewage system.

The Contractor shall flush, clean and inspect the Owens Clean Tank sewage treatment unit and associated piping and wiring. Additional servicing shall be performed by a qualified vendor as required upon disassembly of the unit, and shall be negotiated by separate change order. The contractor shall reinstall the reconditioned unit and all associated piping and wiring.

MANHOLES AND ACCESS OPENINGS

(To be paid under Item NS-FBT-00720, Manholes)

The contractor shall open and inspect the condition of all manholes and access openings. The contractor shall rework all latches. The contractor shall fabricate and install new gaskets on all.

SEA CHEST AND BILGE SUCTION PIPING AND VALVES
(To be paid under Item NS-FBT-01320, Sea Chest and Bilge Suction Valves)

The contractor and department representative determine condition of all sea chest and bilge piping and valves by inspection and hydro testing. The contractor shall furnish material and recondition all sea chest and bilge suction valves, (clean, repack, recondition seats). Any additional repairs shall be negotiated as per change order.

REPLACEMENT AND ALIGNMENT OF NEW MAIN ENGINES
(To be paid under Item NS-FBT-01240, Replacement of Main Engines)

The Contractor shall purchase and install two (2) new engines, one right hand and one left hand service, two new gears, and shall retrofit the M/V St Francisville to accommodate the new equipment. The STBD side service shall be left hand while the port service is right hand. These engines must meet all of EPA standards for emission control and must be approved by the DOTD Rep. The replacement main engines will be Caterpillar C32 ACERT V12, turbo charged, A4 ECM, 4 stroke, unrestricted rating 750 BHP @ 1800 RPM, Tier 2 or approved by DOTD representative equal. The engine's flywheel is 14". The engines must come equipped with turbo starters, emergency shut down governors, cam lock fitting for oil changes, low lube alarms, high temp alarms, speed/temp/pressure shutdowns, and a full set of gauges for engine room. The new engines shall be integrated into the existing alarm panel. The engines shall be keel cooled and includes jacket water expansion tanks shall be sized to handle 100L external volume and the aux/aftercooler tank sized to handle 60L external volume. The contractor shall inspect the existing main engine coolers, and verify the existing coolers are sufficiently sized for the vessel's main engines.

The contractor shall thoroughly clean both the interior and exterior of the existing coolers, and pressure test per manufacturer's maintenance procedures. The contractor shall inspect all existing main engine cooling water piping. The contractor shall also thoroughly inspect all main engine cooling system components, including the water pumps, day tanks, etc.

The contractor shall pressure test, per manufacturer's maintenance procedures, the coolers and main engine cooling system water piping after installation and repair work has been accomplished. After all inspection, repairs, and replacements are complete, the contractor shall flush and clean the system. A diesel engine corrosion inhibitor such as NalCool 3000 or approved equal shall be used in the system.

The Contractor is responsible for all work involved in the removal and installation of the engines, exhaust, couplings, block drives, gears, piping, foundation, wiring, alarms, alignment, etc. The contractor is also responsible for the proper selection of the torque coupling to insure proper isolation of the engine's torque throughout the engine operating range, based on the torque analysis, TVA, after installation. The Contractor is responsible for the alignment of the gears (MG 5222), couplings, shafts and main engine. The DOTD Rep. and the Engine Manufacture Rep. must witness and agree upon the measurements.

STABILITY LETTER

The Contractor must communicate with the DOTD Representative and the USCG to determine whether the weight differential between the new main engines and old main engines will have an effect on the vessel's existing stability letter.

If a new stability letter is required, the shipyard will contract the services of a qualified marine architect to obtain a new stability letter.

The contractor must supply 5 sets of manuals and a written copy of the warranty for all equipment installed. Any additions, repairs or replacement required as a result of the above will be negotiated as a separate change order.

Detailed engine specs:

AIR INLET SYSTEM

- Aftercooler - sea water/separate circuit, corrosion resistant (air side)
- Air cleaner/fumes disposal (closed system) w/ Service Indicator (shipped Loose)
- Turbocharger, jacket water-cooled turbine hsg
- Turbocharger inlet, 152 mm (6 in) OD straight connection

CONTROL SYSTEM

- Electronic governing (A4 ECM)
- Cold mode start strategy
- Programmable low idle
- Electronic diagnostics and fault logging
- Engine and transmission monitoring (speed, temperature, pressure)
- Fuel/air ratio control
- Momentary start/stop logic
- ECM Controlled engine Pre-lube and cranking
- ECM controlled engine cool-down
- High Temp braided engine harness with 70pin customer connector and service tool connector

COOLING SYSTEM

- Jacket water pump, gear driven, centrifugal
- Keel cooling - Separate circuit, Includes expansion tank for both circuits (14psi cap), thermostat and housing (fully open temp 85C) (JW expansion tank sized to handle 100L external volume, Aux/Aftercooler tank sized to handle 60L external volume) (14psi pressure cap is required for customer supplied auxiliary tanks as well)
- JW connections: 4'(101.6mm) ID weld flange (Note: water connections are opposite service side)
- Aux Water connection: In - 3.5' (89mm) Hose connection,

Out - 2.5'(63.5mm) Hose connection (Note: water connections are opposite service side) (AFTERCOOLER MAX INLET WATER TEMP 52C)

EXHAUST SYSTEM

Manifold & Turbocharger, water-cooled
130mm (5.12 in) ID round flanged outlet

FLYWHEELS & FLYWHEEL HOUSINGS

Flywheel, SAE No. 0, 136 teeth
Flywheel housing, SAE No. 0
SAE standard rotation

FUEL SYSTEM

Fuel filter, RH service on Port, LH service on Starboard
(Fuel connections size: ORFS -10 inlets, ORFS -8 outlets)
Fuel transfer pump
Fuel priming pump

INSTRUMENTATION

Graphical Unit (Marine Power Display) for Analog or digital display of:
Engine Oil Pressure, Temperature
Engine Jacket Water Temperature
Fuel Pressure, Temperature
Transmission Pressure, Temperature
Engine Speed
Engine Hours
System DC Voltage
Restible Trip Parameters
Instantaneous Fuel Consumption
Total Fuel Consumed
Alarm Horn
Percent Load
Boost Pressure
Internal Override and control switches
Local/remote throttle
Torque limit override
Protection override
Pre-lube override
Crank override
24pin customer connector (for use with remote panel)
Local Key switch for Power on/off
Start/Stop buttons
Local stop button

Backup ECM ready light
Backup ECM active light
Over speed shutdown notification light
Remote stop notification light

LUBE SYSTEM

Crankcase breather
Oil filter, spin-on, RH service on Port, LH service on Starboard
Oil pan, center sump
Deep sump pan (500hr oil change interval)
Oil filler, RH service on Port, LH service on Starboard
Dipstick, RH service on Port, LH service on Starboard
Oil pump, gear driven

MOUNTING SYSTEM

Front support – adjustable

PROTECTION SYSTEM

A4 ECM Electronic Monitoring System provides customer programmable engine de-rate strategies to protect against adverse operating conditions
Remote Stop push button (Located on Electronic Instrument Panel)

GENERAL

Crankshaft Vibration damper
Lifting eyes
(1) RH and (1) LH
Literature
Side Access Block
Dual groove v-belt crankshaft pulley

REPLACEMENT AND ALIGNMENT OF NEW GEARS (To be paid under Item NS-FBT-00680, Main Drive Gears)

The contractor shall purchase and install (2) 5222 Twin Disc gear with a 5:1 ratio rated up to 805hp and two (2) Torsion Control Products couplings Z-35015 or approved by DOTD representative equal. The contractor shall insure the correct coupling and spring rate is applied by providing a detailed system TVA review. The contractor is responsible for modifications to install new gears. Gears must have full set of gauges and alarms. Contractor is responsible for all alignments from shaft to engine. The contractor is responsible for all piping and electrical work involved on installation.

The Contractor is responsible for all work involved in the removal and installation of the engines, exhaust, couplings, block drives, gears, piping, foundation, wiring, alarms, alignment, etc. The contractor is also responsible for the proper selection of the torque coupling to insure proper isolation of the engine's torque throughout the engine operating range, based on the

torque analysis, TVA, after installation. The Contractor is responsible for the alignment of the gears (MG 5222), couplings, shafts and main engine. The DOTD Rep. and the Engine Manufacture Rep. must witness and agree upon the measurements.

The contractor must supply 5 sets of manuals and a written copy of the warranty for all equipment installed. Any additions, repairs or replacement required as a result of the above will be negotiated as a separate change order.

MAIN ENGINE EXHAUST

(To be paid under Item NS-FBT-00700, Main Engine Exhaust)

The Contractor is responsible for all exhaust modifications including silencers, insulation wrap, extensions, flexes etc. The silencers must be hospital grade silencers or approved by DOTD representative equal. The size of the silencers shall be determined by the engine manufacturer and shall be based on the engines specified and a max exhaust length of 30 feet and with four (4) 90 degree elbows. Exhaust routing must be approved by DOTD representative.

ENGINE DAY TANKS

(To be paid under Item NS-FBT-00400, Engine Day Tanks)

The Contractor shall inspect, flush and clean the day tanks and assure they meet the requirements of the engine manufacturer. The contractor shall replace the drain plugs with new, stainless steel.

KEEL COOLERS

(To be paid under Item NS-FBT-00640, Keel Coolers)

The new main engines, as specified elsewhere herein, require an additional and separate cooling system per each engine, for the aux/aftercooler. Grid coolers shall be Fernstrum Gridcoolers Z series, copper-nickel, or approved equal. The contractor shall provide and install the two (2) new grid coolers, miscellaneous piping and fittings as required, and fabricate and install guards for the new grid coolers. The coolers shall be sized in accordance with the engine manufacturer requirements.

GATES

(To be paid under Item NS-FBT-00520, Gates)

The Contractor shall remove both old gates and all rollers, build one spare aluminum gate, build new roller systems, as per the existing gate dimensions, or approved by DOTD representative equal, and reinstall gates with new rollers. The spare gate shall be similar to the existing gates but used as a spare for either side of the vessel.

ANODES

(To be paid under Item NS-FBT-00100, Anodes)

Upon dry-docking, the anodes shall be inspected by the D.O.T.D representative. Replacement of anodes will be determined by the DOTD rep and executed via change order.

INSPECT PIPING

(To be paid under Item NS-FBT-00600, Inspect Piping)

The contractor shall inspect all screens, strainers and piping (including deck, sink, lavatories, drinking fountain, water, etc). The contractor shall inspect and hydro test the bilge and fire protection systems piping. The bilge and fire protection system piping shall be free of obstructions and debris. The D.O.T.D. Representative shall approve all test records. All replaced piping shall be color coded as approved by the USCG and DOTD representative.

STEERING SYSTEM

(To be paid under Item NS-FBT-01460, Steering System)

The contractor shall replace the old hydraulic steering hoses with new.

FIRE SYSTEM PIPING

(To be paid under Item NS-FBT-00460, Fire System Piping)

Contractor shall install two new 2” check valves in the discharge side of the firefighting system.

CLEAN AND INSPECT FRESH WATER TANK

(To be paid under Item NS-FBT-00200, Clean and Inspect Fresh Water Tank)

The fresh water tank shall be opened inspected. The contractor shall water blast with high pressure fresh water using 3500 PSI minimum. All scale and residue shall be removed. The tank’s interior shall receive one top coat of International Interline 925. Reference to a specific paint manufacturer/product is intended to denote the quality of the product and not to specifically exclude other acceptable approved equals. The contractor shall replace approx 15 copper piping to the fresh water tank.

AIR COMPRESSORS AND RECEIVER TANKS

(To be paid under Item NS-FBT-00020, Air Compressors and Receiver Tanks)

The contractor shall remove both air compressors and have them rebuilt and certified at a certified dealer. The contractor must remove and replace with new, pressure release valves and low pressure alarms. Compressors shall be checked by a certified technician. All piping shall be inspected and hydro tested. Any changes will be negotiated with a separate change order.

SEA TRAILS

(To be paid under Item NS-FBT-01340, Sea Trails)

The contractor shall be responsible for supplying technicians for final inspection and sea trails. The test will include all alarms, emergency equipment and machinery equipment test. The Department of Transportation shall supply the crew for all drills required by USCG. The crew will be 1 Master, 1 Chief Engineer, 2 Deckhands and the Louisiana Department and Development Representative.

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



**CONSTRUCTION PROPOSAL
INFORMATION
FOR**

**STATE PROJECT NO. 650-18-0010
M/V ST. FRANCISVILLE RE-POWERING
AND 5 YEAR DRYDOCK
STATEWIDE**

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 and (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 NO. 650-18-0010, M/V ST. FRANCISVILLE RE-POWERING AND 5 YEAR DRYDOCK, STATEWIDE**, if the bid is accepted and the Principal, within the specified time, enters into the contract in writing and gives bond with Surety acceptable to the Department for payment and performance of said contract, this obligation shall be void; otherwise to remain in effect.

Principal (Bidder or First Partner to Joint Venture) If a Joint Venture, Second Partner
By _____ By _____
Authorized Officer-Owner-Partner Authorized Officer-Owner-Partner
Typed or Printed Name Typed or Printed Name

Surety
By _____ (Seal)
Agent or Attorney-in-Fact
Typed or Printed Name

To receive a copy of the contract and subsequent correspondence / communication from LA DOTD, with respect to the bid bonds, the following information must be provided:
Bonding Agency or Company Name Address
Agent or Representative Phone Number / Fax Number



Louisiana Department of Transportation and Development
Proposal Schedule of Items

Contract ID: 650-18-0010

Project(s): 650-18-0010

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0001	NS-FBT-00020	Air Compressors and Receiver Tanks	1.000	EACH
				Dollars
				Cents
0002	NS-FBT-00100	Anodes		LUMP SUM
				Dollars
				Cents
0003	NS-FBT-00160	Bulwark and Deck Painting		LUMP SUM
				Dollars
				Cents
0004	NS-FBT-00200	Clean and Inspect Fresh Water Tank		LUMP SUM
				Dollars
				Cents
0005	NS-FBT-00340	Dry Docking		LUMP SUM
				Dollars
				Cents
0006	NS-FBT-00360	Dry Docking Inspection		LUMP SUM
				Dollars
				Cents
0007	NS-FBT-00400	Engine Day Tanks		LUMP SUM
				Dollars
				Cents
0008	NS-FBT-00460	Fire System Piping		LUMP SUM
				Dollars
				Cents



Louisiana Department of Transportation and Development
Proposal Schedule of Items

Contract ID: 650-18-0010

Project(s): 650-18-0010

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0009	NS-FBT-00500	Fuel Tank		LUMP SUM
				Dollars
				Cents
0010	NS-FBT-00520	Gates		LUMP SUM
				Dollars
				Cents
0011	NS-FBT-00540	Hull Painting		LUMP SUM
				Dollars
				Cents
0012	NS-FBT-00600	Inspect Piping		LUMP SUM
				Dollars
				Cents
0013	NS-FBT-00640	Keel Coolers		LUMP SUM
				Dollars
				Cents
0014	NS-FBT-00680	Main Drive Gears		LUMP SUM
				Dollars
				Cents
0015	NS-FBT-00700	Main Engine Exhaust		LUMP SUM
				Dollars
				Cents
0016	NS-FBT-00720	Manholes		LUMP SUM
				Dollars
				Cents



Louisiana Department of Transportation and Development
Proposal Schedule of Items

Contract ID: 650-18-0010

Project(s): 650-18-0010

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0017	NS-FBT-00740	Miscellaneous Steel Repairs		LUMP SUM
				Dollars
				Cents
0018	NS-FBT-00900	Propeller		LUMP SUM
				Dollars
				Cents
0019	NS-FBT-01240	Replacement of Main Engines		LUMP SUM
				Dollars
				Cents
0020	NS-FBT-01300	Rudders and Steering Bushings and Bearings		LUMP SUM
				Dollars
				Cents
0021	NS-FBT-01320	Sea Chest and Bilge Suction Valves		LUMP SUM
				Dollars
				Cents
0022	NS-FBT-01340	Sea Trails		LUMP SUM
				Dollars
				Cents
0023	NS-FBT-01380	Sewage Treatment Unit		LUMP SUM
				Dollars
				Cents
0024	NS-FBT-01420	Shafts		LUMP SUM
				Dollars
				Cents



Louisiana Department of Transportation and Development
Proposal Schedule of Items

Contract ID: 650-18-0010

Project(s): 650-18-0010

SECTION: 1

General Items

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0025	NS-FBT-01440	Sonic Gauging		LUMP SUM
		_____		Dollars
		_____		Cents
0026	NS-FBT-01460	Steering System		LUMP SUM
		_____		Dollars
		_____		Cents
0027	NS-FBT-01480	Void and Ballast Compartment Treatment and Painting		LUMP SUM
		_____		Dollars
		_____		Cents
0028	NS-FBT-01520	Wheelhouse Painting		LUMP SUM
		_____		Dollars
		_____		Cents

Section: 1

Total: _____

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 NO(S). 650-18-0010

FEDERAL AID PROJECT NO(S). N/A

NAME OF PROJECT M/V ST. FRANCISVILLE RE-POWERING AND 5 YEAR DRYDOCK

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.

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BIDDER SIGNATURE REQUIREMENTS (APPLICABLE TO ALL PROJECTS)

THIS BID FOR THE CAPTIONED PROJECT IS SUBMITTED BY:

(Name of Principal (Individual, Firm, Corporation, or Joint Venture))

(If Joint Venture, Name of First Partner)

(Louisiana Contractor's License Number of Bidder or First Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

(If Joint Venture, Name of Second Partner)

(Louisiana Contractor's License Number of Second Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

ACTING ON BEHALF OF THE BIDDER, THIS IS TO ATTEST THAT THE UNDERSIGNED DULY AUTHORIZED REPRESENTATIVE OF THE ABOVE CAPTIONED FIRM, CORPORATION OR BUSINESS, BY SUBMISSION OF THIS BID, AGREES AND CERTIFIES THE TRUTH AND ACCURACY OF ALL PROVISIONS OF THIS PROPOSAL, INCLUSIVE OF THE REQUIREMENTS, STATEMENTS, DECLARATIONS AND CERTIFICATIONS ABOVE AND IN THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY. EXECUTION AND SIGNATURE OF THIS FORM AND SUBMISSION OF THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY SHALL CONSTITUTE AN IRREVOCABLE AND LEGALLY BINDING OFFER BY THE BIDDER.

(Signature)

(Printed Name)

(Title)

(Date of Signature)

(Signature)

(Printed Name)

(Title)

(Date of Signature)

CONTRACTOR'S TOTAL BASE BID \$ _____

IT IS AGREED THAT THIS TOTAL, DETERMINED BY THE BIDDER, IS FOR PURPOSES OF OPENING AND READING BIDS ONLY, AND THAT THE LOW BID FOR THIS PROJECT WILL BE DETERMINED FROM THE EXTENSION AND TOTAL OF THE BID ITEMS BY DOTD.

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