STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL

SURPLUS '08
FUND PROJECT

STATE PROJECT NOS. 848-17-0004, 848-18-0007, and 848-19-0006
JCT. LA 628 – JCT. US 61 and
JCT. LA 44 – JCT. US 61
ROUTES LA 3217, LA 3223 and LA 3224
ST. JOHN THE BAPTIST PARISH

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

Edwin Lantzer
6 NOVEMBER 2008

STATE PROJECT NOS. 848-17-0004, 848-18-0007 and 848-19-0006
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NOTICE TO CONTRACTORS (10/08)

Electronic bids and electronic bid bonds for the following project will be downloaded by the Department of Transportation and Development (DOTD) on Wednesday, **Wednesday, December 10, 2008. 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 NOS. 848-17-0004, 848-18-0007 and 848-19-0006
DESCRIPTION: JCT. LA 628 – JCT. US 61 and JCT. LA 44 – JCT. US 61
ROUTES: LA 3217, LA 3223 and LA 3224
PARISH: ST. JOHN THE BAPTIST
LENGTH: 1.91 miles.
TYPE: GRADING, COLD PLANING ASPHALTIC CONCRETE, SUPERPAVE ASPHALTIC CONCRETE OVERLAY, PAVEMENT PATCHING, AND RELATED WORK.
LIMITS: State Project No.848-17-0004: LOCATED ON ROUTE LA 3217 FROM ITS INTERSECTION WITH ROUTE LA 628 to ITS INTERSECTION WITH ROUTE US 61.
LIMITS: State Project No.848-18-0007: LOCATED ON ROUTE LA 3223 FROM ITS INTERSECTION WITH ROUTE LA 44 to ITS INTERSECTION WITH ROUTE US 61.
LIMITS: State Project No. 848-19-0006: LOCATED ON ROUTE LA 3224 FROM ITS INTERSECTION WITH ROUTE LA 44 to ITS INTERSECTION WITH ROUTE US 61.
ESTIMATED COST RANGE: $500,000 to 1,000,000
PROJECT ENGINEER: PERILLOUX, STEVE; 683 N. Morrison Blvd., Hammond, LA 70401; (985) 375-0275.
PROJECT MANAGER: SCHILLING, ALLISON.

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.

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 home page, select ***Doing Business with DOTD*** from the left-hand menu, then select the appropriate letting date found under the ***Construction Letting Information*** pop-up menu. All project specific notices are posted under ***Construction Proposal Documents*** for this project. **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.

MAINTENANCE OF TRAFFIC (08/06): Subsection 104.03 of the 2006 Standard Specifications is amended to include the following requirements.

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

Between October 1 and January 31, the contractor shall maintain the highway in a condition suitable for large scale sugar cane hauling operations and prior thereto shall perform only those items which will not interfere with the condition of the highway for heavy hauling operations. During this period, the contractor shall provide all equipment and material necessary to keep the highway in satisfactory condition. If the contractor does not properly maintain the highway, the Department reserves the right to maintain same with its own equipment, labor and material and deduct costs of such maintenance from payments for the work. If it becomes necessary to suspend construction operations for heavy hauling during the sugar cane season, contract time will not be assessed for said period of suspension; however, maintenance of traffic shall be continued by the contractor during such period of suspension.

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

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

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

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

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

1. Shoulder Subgrade Preparation: Any required embankment widening shall be completed before placement of the asphaltic concrete overlay. All vegetation shall be removed from existing shoulders before beginning temporary or final shoulder construction.

2. Temporary Shoulder Construction: Temporary shoulder construction described herein shall be completed at the end of each day's operations for all asphaltic concrete courses except the final wearing course. There shall be no drop-off from the pavement edge to the shoulder. The contractor shall blade and shape existing shoulder material against, and approximately level with, the top of the pavement surfacing to form a temporary shoulder with a uniform slope from the pavement edge to the existing shoulder line, or to a point 10 feet (3 m) from the pavement edge. If existing shoulder materials are insufficient, the contractor shall furnish, place and shape additional shoulder surfacing materials to form the temporary shoulder. Existing and/or additional materials for temporary shoulders shall be to the satisfaction of the engineer. Compaction shall be by approved methods.

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

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

Item 731-02, Reflectorized Raised Pavement Markers
Item 732-01-C, Plastic Pavement Striping (8" Width)
Item 732-01-E, Plastic Pavement Striping (24" Width)
Item 732-02-A, Plastic Pavement Striping (Solid Line)(4" Width)
Item 732-03-A, Plastic Pavement Striping (Broken Line)(4" Width)
Item 732-04-A, Plastic Pavement Legends & Symbols (Arrow)
Item 732-04-B, Plastic Pavement Legends & Symbols (Double Arrow)
Item 732-04-C, Plastic Pavement Legends & Symbols (Only)
Item 732-04-D, Plastic Pavement Legends & Symbols (RR Crossing)
Item 736-09, Loop Detector
Item 736-10, Underground Junction Box
Item 741-11, Adjusting Water Valve and Meter Box

PAYMENT ADJUSTMENT (03/07): Section 109, Measurement and Payment of the 2006 Standard Specifications and the supplemental specifications thereto, is amended to add the following.

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

109.09 PAYMENT ADJUSTMENT (ASPHALT CEMENTS AND FUELS).

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

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

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

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

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

(b) Performance Graded (PG) Asphalt Cements: The base price index will be the monthly price index in effect at the time of bid opening as shown elsewhere herein. The monthly price indices will be the average, excluding the extreme outliers, of the unit prices for PG 64-22, the average, excluding the extreme outliers, of the unit prices for PG 70-22m, and the average, excluding the extreme outliers, of the unit prices for PG 76-22m. The monthly prices for each of these asphalt materials will be F.O.B. refinery or terminal as determined from the quoted prices effective on the first calendar day of each month from suppliers of these materials. Suppliers considered are those who have requested to participate in the liquid asphalt index determination and have supplied materials on DOTD projects within the past twelve months. These suppliers and materials shall be listed on the Department's Qualified Products List (QPL 41) and must be marketed in Louisiana.

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

If Monthly Price Index exceeds Base Price Index,

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

If Base Price Index exceeds Monthly Price Index,

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

Where:

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

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

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

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

(c) Fuels: The base price index for this project will be the monthly price index in effect when bids are opened for the project. The monthly price index will be the minimum price

quotations for unleaded gasoline and No. 2 diesel fuel listed for the New Orleans area in *Platt's Oilgram and Price Report* effective on the first calendar day of each month.

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

If Monthly Price Index exceeds Base Price Index,

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

If Base Price Index exceeds Monthly Price Index,

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

Where:

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

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

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

ELIGIBLE CONTRACT PAY ITEMS & FUEL USAGE FACTORS FOR FUEL PAYMENT ADJUSTMENT

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

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

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

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

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

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

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

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

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

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

Immediately following final project inspection and prior to final acceptance, the Contractor shall furnish and install an additional project sign, indicating project completion, over the initial "project signs" as described in the project sign detail(s) herein. Following project final acceptance, project signs shall remain for a minimum of sixty days. The Contractor will not be responsible for project signs after the project has been accepted by the Department.

Payment for all project signs within this subsection shall include all labor, materials, tools, and equipment required to complete the work and shall be included in the contract unit price for Item 713-01 Temporary Signs and Barricades.

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

Subsection 732.03, Construction Requirements for Plastic Pavement Marking Material.

Heading (a) is amended as follows.

The first paragraph is deleted and the following substituted.

(a) Equipment for Standard (Flat) Thermoplastic Marking Material: The application equipment shall consist of an extrusion die or a ribbon gun that simultaneously deposits and shapes lines at a thickness of 90 mils (2.3 mm) or greater on the pavement surface. When restriping onto existing thermoplastic markings, only a ribbon gun shall be used. Finished markings shall be continuous and uniform in shape, and have clear and sharp dimensions. Applicators shall be capable of producing various widths of traffic markings. Applicators shall produce sharply defined lines and provide means for cleanly cutting off stripe ends and applying broken lines. The ribbon extrusion die or shaping die shall not be more than 2 inches (50 mm) above the roadway surface during application. A spray application will only be allowed when applying 40 mil (1.0 mm) thermoplastic.

Heading (e) is deleted and the following substituted.

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

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

Subsection 1002.02, Asphalt Material Additives is amended as follows.

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

Table 1002-1
Performance Graded Asphalt Cements

Property	AASHTO Test Method	PG82-22rm[6]	PG76-22m	PG70-22m	PG64-22	PG58-28
		Spec.	Spec.	Spec.	Spec.	Spec.
Tests on Original Binder:						
Rotational Viscosity @ 135°C, Pa·s [1]	T 316	3.0	3.0	3.0	3.0	3.0
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	1.00+ @ 82°C	1.00+ @ 76°C	1.00+ @ 70°C	1.30+ @ 64°C	1.00+ @ 58°C
Flash Point, °C	T 48	232+	232+	232+	232+	232+
Solubility, % [2]	T 44	N/A	99.0+	99.0+	99.0+	99.0+
Separation of Polymer, 163°C, 48 hours, degree C difference in R & B from top to bottom [5]	ASTM D 7173 AASHTO T 53	---	2-	2-	---	---
Force Ductility Ratio (f_2/f_1, 4°C, 5 cm/min., f_2 @ 30 cm elongation)[3]	T 300	---	0.30+	---	---	---
Force Ductility, (4°C, 5 cm/min, 30 cm elongation, kg)[3]	T 300	---	---	0.23+	---	---
Tests on Rolling Thin Film Oven Residue:	T 240					
Mass loss, %	T 240	1.00-	1.00-	1.00-	1.00-	1.00-
Dynamic Shear, 10 rad/s, G*/Sin Delta, kPa	T 315	2.20+ @ 82°C	2.20+ @76°C	2.20+ @ 70°C	2.20+ @ 64°C	2.20+ @ 58°C
Elastic Recovery, 25°C, 10 cm elongation, % [4]	T 301	60+	60+	40+	---	---
Ductility, 25°C, 5 cm/min, cm	T 51	---	---	---	100+	---
Tests on Pressure Aging Vessel Residue:	R 28					
Dynamic Shear, @ 25°C, 10 rad/s, G* Sin Delta, kPa	T 315	5000-	5000-	5000-	5000-	5000- @ 19°C
Bending Beam Creep Stiffness, S, MPa @ -12°C.	T 313	300-	300-	300-	300-	300- @ -18°C
Bending Beam Creep Slope, m value,@ -12°C	T 313	0.300+	0.300+	0.300+	0.300+	0.300+ @ -18°C

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

[2]Not all polymers are soluble in the specified solvents. If the polymer modified asphalt digested in the solvent will not pass the filter media, a sample of the base asphalt used in making the polymer modified asphalt should be tested for solubility. If the solubility of the base asphalt is at least 99.0%, the material will be considered as passing.
[3]AASHTO T 300 except the second peak (f2) is defined as the stress at 30 cm elongation.
[4]AASHTO T 301 except elongation shall be 10 cm.
[5]Prepare samples per ASTM D 7173. Determine softening point of top and bottom per AASHTO T 53.
[6]The quality assurance plan for this product will require the contractors who use this material to submit written documentation of tank cleaning annually. Contractors must have tank mixers. Written certificates of analysis from the asphalt binder supplier confirming rubber source and size distribution of rubber used shall be furnished to the Materials Laboratory.

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

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

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

[1] At the option of Engineer.
[2] Sieve tests may be waived if no application problems are present in the field.

ITEM S-001, SURFACE PREPARATION (ALTERNATE A1) (07/04): This item consists of preparing the existing surfaces for single lift overlays.

Surface tolerances on single-lift overlays over existing surfaces shall be in accordance with Section 502 of the Standard Specifications. The contractor has the option of leveling, grinding, cold planing certain areas, or cold planing the entire project in order to meet surface tolerances. The contractor shall not cold plane more than 1/2 inch (13 mm) (average) from the existing surface. The contractor may retain 100 percent of the reclaimed asphaltic pavement (RAP).

Payment will be made under:

Item S-001, Surface Preparation, per lump sum.

ITEM S-002, ULTRATHIN HMAC WEARING COURSE SYSTEM (3/4 INCH (19 mm) THICK) (ALTERNATE A2) (08/06): The Ultrathin HMAC wearing course system shall consist of a polymer modified emulsion membrane applied with a self priming paver that simultaneously applies an Ultrathin HMAC wearing course. This wearing course system shall be laid a minimum 3/4 inch (19 mm) thick.

Equipment: The self priming paver shall be capable of evenly distributing the polymer modified membrane and applying and leveling the ultrathin wearing course concurrently at a rate of 30 to 92 ft/minute (9.1 to 28.0 m/min.). No wheel or other part of the paving machine shall come in contact with the polymer modified emulsion membrane before the hot mix asphalt concrete wearing course is applied. The machine shall incorporate a receiving hopper, feed system, insulated storage chamber for polymer modified emulsion membrane, spray bar, tanks with calibrated load cells, and a variable width heated screed unit. The screed shall have the ability to crown the pavement with vertically adjusted extensions to accommodate the desired pavement profile. Asphalt plant personnel shall be Certified Technicians in accordance with Section 502. Plant equipment must comply with Section 503.

Materials: The contractor shall keep accurate records, including proof of deliveries of all materials used in this process. The following specifications apply:

(a) Polymer Modified Emulsion Membrane: The paving equipment supplier shall provide the polymer modified emulsion membrane meeting the following specifications:

Table 1
Polymer Modified Emulsion Membrane Physical Properties

Test	AASHTO Method	Specification	90% or Remove
Viscosity, @77°F (25°C), SSF	T 59	20-100	N/A
Test on Residue by Distillation:			
%Residue from Distillation	T 59	63+	62-
Solubility in Trichloroethelyene %	T44	97.5+	N/A
Penetration, 77°F (25°C)	T49	60-150	59-, 151+
Elastic Recovery, %, @20 cm, 50°F (10°C)	T301	58+	57-

(b) Ultrathin Wearing Course:

(1) Asphalt Cement: The asphalt cement shall be PG 76-22m from a source listed on QPL 41.

(2) Aggregate: The aggregate shall be slag or stone from a source listed on QPL 2.
a. Gradation: Seventy-five (75) percent of the total aggregate shall be either slag or crushed stone meeting Friction Rating I or II and the remaining twenty-five (25) percent of the total aggregate shall be Friction Rating I, II or III. The composite gradation shall conform to Table 2.

Table 2
Aggregate Gradation

U.S. (Metric) Sieve	%Passing	JMF Sieve Tolerances
3/4 inch (19 mm)	100	±4%
1/2 inch (12.5 mm)	85-100	±4%
3/8 inch (9.5 mm)	60-80	±4%
No. 4 (4.75 mm)	28-42	±4%
No. 8 (2.36 mm)	22-32	±3%
No. 16 (1.18 mm)	15-23	±2%
No. 30 (600 µm)	10-18	±2%
No. 50 (300 µm)	8-13	±2%
No. 200 (75 µm)	2-6	±1.5%

b. Properties: (Certified Test Report shall be submitted with JMF),

Table 3
Aggregate Physical Properties

Test	Method	Specification
Coarse Aggregate: (plus 4)		
Los Angeles Abrasion, %, Max.	AASHTO T-96	25
Insoluble Residue, %, Min.	ASTM D3042	25
Water Absorption, %, Max.	ASTM C127	2
Flat and Elongated Ratio; 3:1, % Max.	ASTM D4791	25
% Crushed, Two Face, Min.	DOTD TR 306	90
Fine Aggregate: (minus 4)		
Sand Equivalent, Min.	DOTD TR 120	60[1]
Fine Aggregate Angularity, Min.	DOTD TR 121	45

[1]If sand equivalent test fails, the Methylene Blue Test in accordance with AASHTO TP 57-99 will be required with a specification maximum of 10.

(3) Mineral Filler: Mineral filler, if used, shall meet the requirements of Subsection 1003.06(a)(6).

(4) Additives: Anti-stripping additives will be required and shall be from QPL 57.

Mix Design: The contractor shall submit a job mix formula (JMF) for the mixture to be supplied for the project. The mix shall be designed at a minimum 7 percent air voids compacted with a Superpave Gyratory Compactor at 100 gyrations. The design asphalt content shall be a minimum of 4.5 percent and a maximum of 7.0 percent with a maximum draindown of 0.3 percent by weight in accordance with ASTM D 6390. Furthermore, the required film thickness shall be 9-11 microns when calculated using the effective asphalt content in conjunction with the surface area for the composite aggregates in the JMF. The surface area factors are as listed in Table 6.1 of the Asphalt Institute's MS-2 publication entitled "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types", Sixth Edition.

The theoretical maximum specific gravity, G_{mm}, shall be measured and reported on the JMF. The JMF shall indicate proportions of aggregate, anti-strip additive and asphalt cement, composite gradations, and mix temperatures. The JMF shall include the target for polymer modified emulsion membrane application rate and the target mix yield based on the minimum thickness and mix gravity and shall be submitted to and approved by the DOTD District Laboratory Engineer. The yield for bid purposes shall be approximately 80 lb/sq yd (43.4 kg/sq m) for a mix 3/4 inch (19 mm) thick. The JMF should also include the results of the tests for draindown, film thickness, boil test, and retained tensile strength. Volumetrics, stability and flow are not required. The District Laboratory Engineer will approve the mix design based on the use of approved material sources and compliance with specifications herein.

Anti-strip will be required at a minimum rate of 0.5 percent by weight of asphalt and shall be used at a rate that is 0.1 percent greater than that which will produce a 90 percent coating when tested in accordance with DOTD TR-317, (Boil Test). The retained tensile strength shall meet or exceed 80 percent when tested in accordance with DOTD TR 322. Specimens for DOTD TR 322 shall be 6 inches (150 mm) in diameter and shall be compacted in accordance with AASHTO TP 4 to 100 gyrations.

Surface Preparation: The project engineer and contractor shall approve the surface preparation prior to start of operation.

(a) Manhole covers, drains, grates, catch basins and other such utility structures shall be protected and covered. Any vegetation at the road edge shall be cut back..

(b) The surface shall be swept clean of dust, dirt, caked clay, and loose foreign material such as waste sugar cane.

(c) Extended thermoplastic markings and raised pavement markers shall be removed.

Weather Limitations: Ultrathin HMAC wearing course system shall comply with the weather limitations of Subsection 502.07(a) except that the surface temperature shall be a minimum of 60°F (15°C) and air temperature must be 60°F (15°C) and rising.

Application: The polymer modified emulsion membrane shall be sprayed by a metered mechanical pressure sprayer at a temperature between 140°F (60°C) and 180°F (80°C). The sprayer shall accurately and continuously monitor the rate of spray, which shall be uniform across the paving width. The undiluted emulsified application rate shall be determined by road conditions and mix type and shall not be less than 0.16 US gal/sq yd (0.725 L/sq m) or more than 0.30 gal/sq yd (1.36 L/sq m) unless approved by the engineer.

The hot mix shall be delivered and applied at a temperature of 315°F (155°C) ± 15°F (9°C) and laid a minimum 3/4 inch (19 mm) thick within 5 seconds of the polymer modified membrane application. The asphalt mixture shall be smoothed over the full lane width using a heated screed to ensure an even mat.

The asphalt mix plant shall produce sufficient quantity of material prior to starting the paving unit and shall provide a continuous supply of material once the operation has begun to prevent any stopping and starting of the paving train.

The use of an MTV complying with Subsection 503.15 will be required.

Compaction of the wearing course shall be carried out using a minimum of 3 passes of a double drum steel wheel roller of sufficient weight to properly seat the aggregate without crushing the aggregate. No vibration will be allowed except at the transverse joints. All compaction shall take place before the material temperature has fallen below 180°F (80°C).

Opening to Traffic: The new pavement shall not be opened to traffic nor shall any roller sit idle on the pavement until the rolling operation is complete and the material has cooled below 160°F (70°C).

Quality Control and Assurance: At the end of each working day, one gallon (Liter) of polymer modified emulsion membrane shall be sampled for acceptance by the District Laboratory. The contractor shall submit written verification of quantities to the project engineer based on the calibrated load cells required on the machine. The total quantity of material shall be divided by the total area sprayed to determine the average emulsion membrane application rate.

The aggregate shall be stored in a well drained dedicated stockpile and shall be tested by the contractor for water absorption, apparent specific gravity, and gradation prior to paving. Any changes in material shall require a new Job Mix Formula submittal and approval.

The mixture shall also be tested for moisture content once every morning, which shall not exceed 0.5 percent.

The mixture spread rate shall be calculated by dividing the tonnage laid, which is obtained from the weigh tickets, per lot, by the area covered. At the asphalt plant, samples of the hot mix shall be tested for gradation, asphalt cement content, and theoretical maximum specific gravity (G_{mm}) at the following frequency. Two (2) samples shall be taken from the first 500 tons (500 Mg) of production. Thereafter, one (1) sample shall be taken from every 500 tons (500 Mg). The test results shall be averaged and the percent payment shall be determined based on the payment adjustment schedules below. The DOTD Certified Asphaltic Concrete Technician will sample and test the mixture during production. The contractor's Certified Asphaltic Concrete Technician shall design and monitor the mixture.

Prior to the beginning of laydown operations and after laydown operations for the project are completed, the contractor shall profile the project using a Department approved profilograph and operator. The Average Profile Index after laydown shall be equal to or less than the original index. Any new highpoints in excess of 0.3 inch in 25 feet or less shall be corrected by diamond grinding. In the event that the final Average Profile Index exceeds the original index the contractor shall correct the finished surface as directed by the Project Engineer.

Measurements: The Ultrathin HMAC wearing course system, which includes the polymer modified emulsion membrane and the Ultrathin HMAC wearing course, will be measured by the square yard (sq m) in place.

For acceptance and material disposition, a lot is defined as one day's production. The contractor shall measure and report, by the gallon (L), the quantities of polymer modified emulsion membrane used. The weights (mass) of asphalt mixture used shall be reported by the Ton (Mg) and yield will be measured in pounds (kg) of asphalt mixture per square yard (sq m) covered. Other additives shall be measured and reported by the contractor and presented to the project engineer for permanent record.

Payment: The Ultrathin HMAC wearing course system will be paid for by the square yard (sq m) placed and accepted. Payment will be subject to the payment adjustment schedules contained herein below. Payment adjustments will be assessed on a per lot basis. The percent payment for the lot will be the lowest value of the seven payment adjustment parameters.

Table 4
Payment Adjustment Schedules

Plant:	Percent of Contract Unit Price per Lot		
	100%	95%	90% or Remove
Theoretical Maximum Specific Gravity (G_{mm}) Deviation from JMF Target	Less than 0.017	0.017-0.025	Greater than 0.025
JMF Sieve Tolerance Limits on Extracted Aggregate			
No. 4 (4.75 mm) Sieve	±4.0	± (4.1-8.0)	± (8.1-12.0)
No. 8 (2.36 mm) Sieve	±3.0	± (3.1-6.0)	± (6.1-9.0)
No. 200 (75 µm) Sieve	±1.5	± (1.6-2.5)	± (2.6-3.5)
Roadway:			
Mixture Yield Negative Deviation from Design Application Rate, lb/sq yd (kg/sq m)	0.0+ (0.0+) JMF Target	0.1-5.0 (0.1-2.7)	5.1+ (2.8+)
Polymer Modified Emulsion Membrane Rate, gallon/sq yd (L/sq m)	0.16+ (0.73+) JMF Target	0.15-0.13 (0.68 – 0.59)	0.12- (0.54-)
Polymer Modified Emulsion Membrane Physical Properties	See Table 1	N/A	See Table 1

Payment will be made at the contract unit price under:

Item S-002, Ultra-thin HMAC Wearing Course System (3/4 Inch (19 mm) Thick), per square yard (sq m).

ITEM S-003, DETECTABLE WARNING TILES (GENERAL ITEMS): This item consists of providing all equipment, materials and labor necessary for the installation of detectable warning tiles on new asphalt or concrete surfaces as per plan details where indicated on the plans or as directed by the engineer. Detectable warning tiles shall be preformed thermoplastic sheets which are heat fused with thermoplastic adhesive material such as the TopMark by Flint Trading, Inc., or approved equal. Installation shall be in accordance with manufacturer's instructions.

Measurement will be made per linear foot of tiles installed and will include all necessary labor, materials and incidentals for installation of detectable warning tiles as shown on the plans, completed and accepted by the engineer. Payment will be made at the contract unit price bid per linear foot.

Payment will be made under:

Item S-003, Detectable Warning Tiles, per linear foot.

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 **forty (40) working 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.

(08/08)

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

(FOR 2006 STANDARD SPECIFICATIONS)

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LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

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

PART I – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION, DEFINITIONS, AND TERMS:
Subsection 101.03 – Definitions (07/07), Pages 3 – 13).

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

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

SECTION 102 – BIDDING REQUIREMENTS:
Subsection 102.09 – Proposal / Bid Guaranty (07/07), Page 19.

Delete the contents of this subsection and substitute the following.

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

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

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

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

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

Delete the second paragraph.

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

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

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

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

PART II – EARTHWORK

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

Delete the first sentence and substitute the following.

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

PART III – BASE COURSES

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

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

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

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

Delete the contents of this subsection and substitute the following.

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

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

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

Payment will be made under:

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

SECTION 307 – PERMEABLE BASES:

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

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

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

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

SECTION 308 – IN-PLACE CEMENT TREATED BASE COURSE:

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

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

PART V – ASPHALTIC PAVEMENTS

SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXTURES:

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

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

Table 502-2
Superpave Asphalt Cement Usage

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

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

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

Table 502-3
Aggregate Friction Rating

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

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

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

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

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

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

SECTION 508 – STONE MATRIX ASPHALT:

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

Delete this subsection and substitute the following.

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

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

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

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

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

PART VI – RIGID PAVEMENT

SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION:

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

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

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

PART VII – INCIDENTAL CONSTRUCTION

SECTION 701 – CULVERTS AND STORM DRAINS:

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

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

SECTION 701
CULVERTS AND STORM DRAINS

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

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

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

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

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

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

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

(e) Material Type Abbreviations:

(1) Reinforced Concrete Pipe:

RCP	Reinforced Concrete Pipe
RCPA	Reinforced Concrete Pipe Arch

(2) Corrugated Metal Pipe:

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

(3) Plastic Pipe:

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

(f) Joint Type Abbreviations:

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

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

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

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

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

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

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

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

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

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

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

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

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

701.06 JOINING PIPE.

(a) Joint Usage:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

701.08 BACKFILLING.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

701.10 CLEANING PIPES.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(i) Concrete collars will be measured per each.

701.13 PAYMENT.

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

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

Table 701-1
Payment Schedule for Plastic Pipe

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

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

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

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

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

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

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

Payment will be made under:

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

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

SECTION 704 – GUARD RAIL:

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

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

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

SECTION 706 – CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING:

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

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

SECTION 706
CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING

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

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

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

706.03 CONSTRUCTION REQUIREMENTS.

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

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

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

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

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

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

(e) Joints:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Payment will be made under:

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

SECTION 713 – TEMPORARY TRAFFIC CONTROL:

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

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

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

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

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

SECTION 729 – TRAFFIC SIGNS AND DEVICES:

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

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

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

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

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

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

SECTION 804 – DRIVEN PILES:

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

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

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

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

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

SECTION 901 – PORTLAND CEMENT CONCRETE:

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

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

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

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

Add the following to Heading (a).

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

SECTION 1001 – HYDRAULIC CEMENT:

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

Delete the contents of this subsection and substitute the following.

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

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

SECTION 1003 – AGGREGATES:

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

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

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

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

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

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

SECTION 1005 – JOINT MATERIALS FOR PAVEMENTS AND STRUCTURES:
Subsection 1005.04 – Combination Joint Former/Sealer (11/05), Pages 782 and 783.

Delete Heading (a) and substitute the following.

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

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

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

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

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

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

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

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

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

SECTION 1006 – CONCRETE AND PLASTIC PIPE:

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

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

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

SECTION 1013 – METALS:

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

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

SECTION 1015 – SIGNS AND PAVEMENT MARKINGS:

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

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

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

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

Delete the contents of this subsection and substitute the following.

1015.05 REFLECTIVE SHEETING.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 1015-3
Accelerated Weathering Standards[1]

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

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

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

Table 1015-4
Reflective Sheeting Performance Standards

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

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

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

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

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

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

Table 1015-5
Manufacturer's Guaranty-Reflective Sheeting

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

[1] From the date of sign installation.

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

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

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

Delete the contents of this subsection and substitute the following.

1015.11 PREFORMED PLASTIC PAVEMENT MARKING TAPE.

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

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

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

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

Table 1015-7
Specific Luminance of Preformed Plastic Tape

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

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

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

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

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

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

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

SECTION 1020 – TRAFFIC SIGNALS:

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

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

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

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

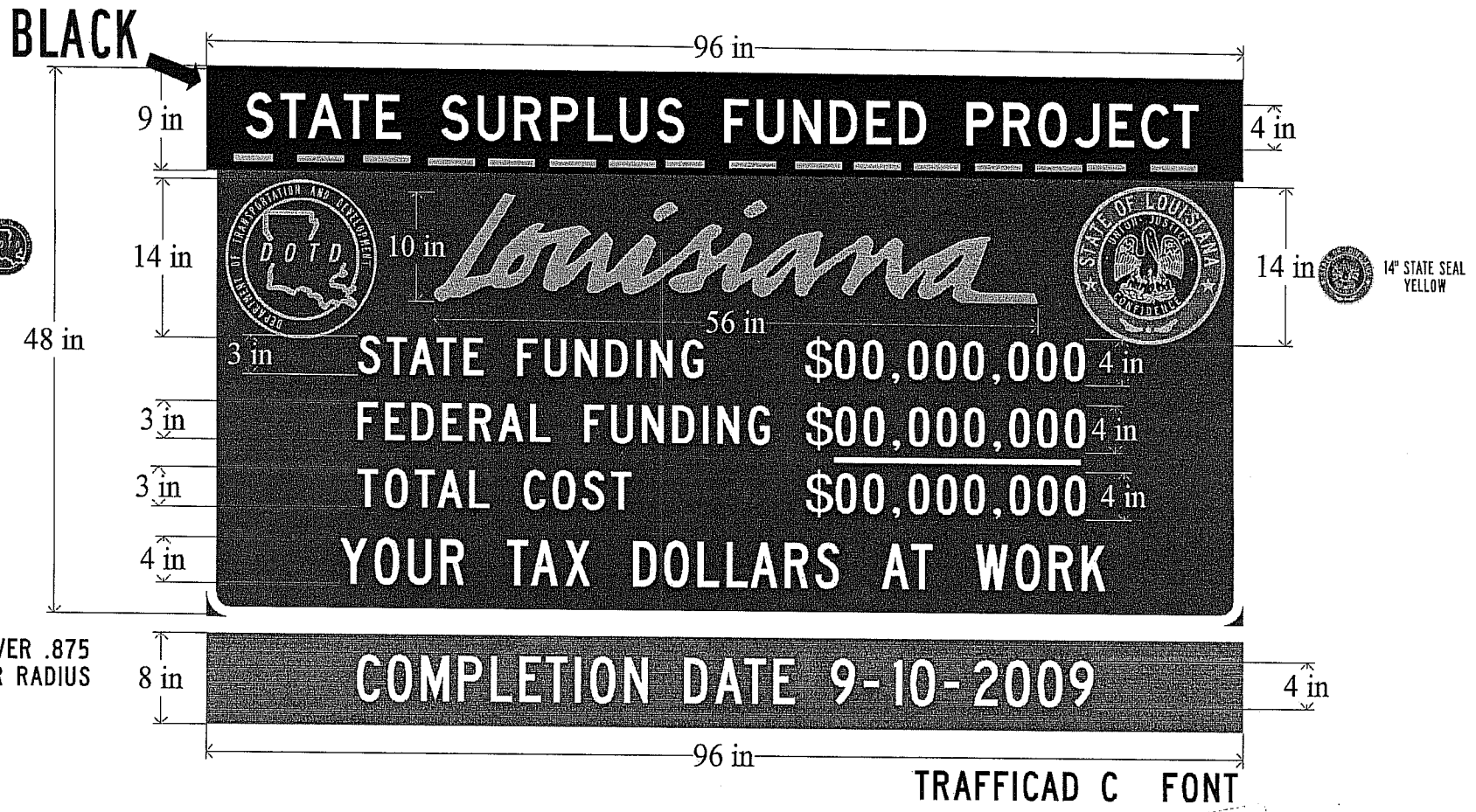
Subsection 1020.04 – Poles for Traffic Signal Systems (06/07), Pages 890 – 894.

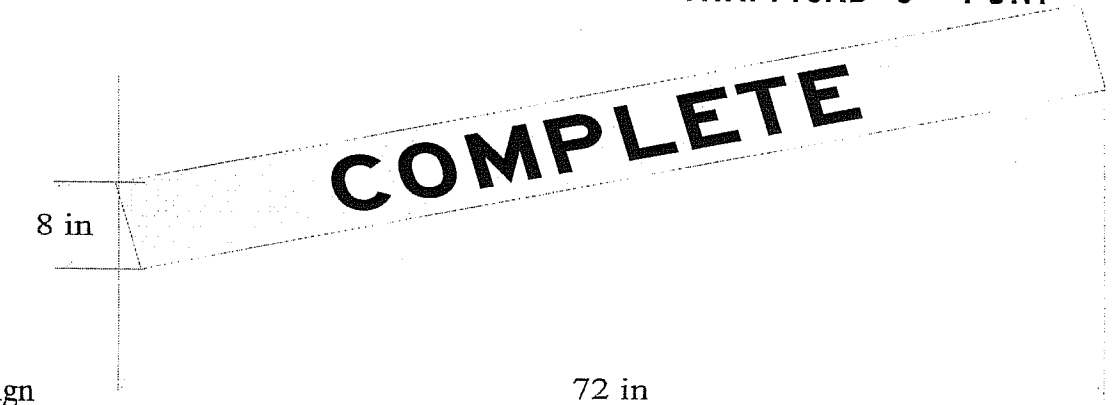
Delete the sixth paragraph of Heading (a), Pedestal Support Signal Poles, and substitute the following.

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

PROJECT SIGN DETAIL - STATE SURPLUS FUNDED
(COLOR ARTWORK FURNISHED UPON REQUEST)

Background=Blue





Additional "Complete" Sign

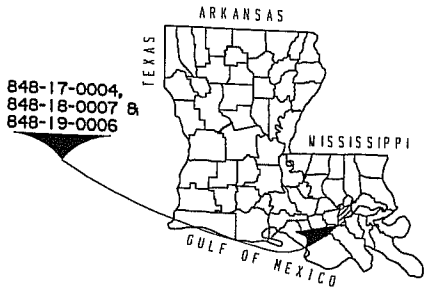
72 in

STANDARD PLANS

DESCRIPTION	REVISION DATE
DW-04	09-16-82
DW-05	03-25-82
EC-01	01-14-94
HS-03	01-03-05
MB-01	01-14-92
PM-01	01-21-98
PED-01	05-05-08

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION
PLANS OF PROPOSED

STATE HIGHWAY



VICINITY MAP

STATE PROJECT NO. 848-17-0004, 848-18-0007 & 848-19-0006

JCT. LA 628 - JCT. US 61
JCT. LA 44 - JCT. US 61

ST. JOHN

LA 3217, LA 3223 & LA 3224

C.S. LOG MILE 0.370
END. S.P. 848-18-0007

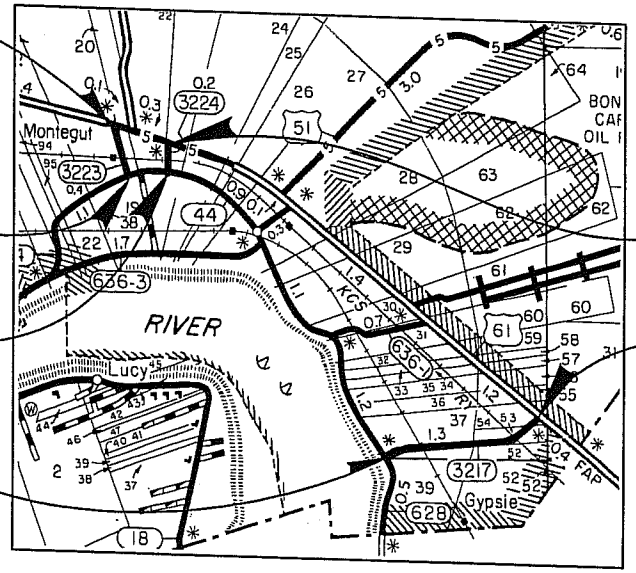
C.S. LOG MILE 0.000
BEG. S.P. 848-18-0007

C.S. LOG MILE 0.000
BEG. S.P. 848-19-0006

C.S. LOG MILE 0.000
BEG. S.P. 848-17-0004

C.S. LOG MILE 0.230
END. S.P. 848-19-0006

C.S. LOG MILE 1.310
END. S.P. 848-17-0004



S.P. 848-17-0004
TRAFFIC DATA
2008A.D.T. = 2,600
2018A.D.T. = 3,400
D = 55%
K = 10%
T = 3%

S.P. 848-18-0007
TRAFFIC DATA
2008A.D.T. = 5,600
2018A.D.T. = 6,200
D = 55%
K = 10%
T = 3%

S.P. 848-19-0006
TRAFFIC DATA
2008A.D.T. = 12,000
2018A.D.T. = 13,300
D = 55%
K = 10%
T = 3%

STATE OF LOUISIANA
ALLISON A. SCHILLING
REG. No. 30265
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9/29/08

RECOMMENDED FOR APPROVAL

ASSISTANT DISTRICT ADMINISTRATOR, ENGINEERING

Connie L. Standley
DISTRICT ADMINISTRATOR

CHIEF ENGINEER

10-17-08
DATE

TYPE OF CONSTRUCTION:
COLD PLANE, PATCHING, ASPHALTIC CONCRETE OVERLAY AND STRIPING

NOTE:
THE 2006 LOUISIANA DOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AS AMENDED BY THE PROJECT SPECIFICATIONS, SHALL GOVERN ON THIS PROJECT.

NO.	DATE	REVISION DESCRIPTION	DATE	RECOMMENDED	DATE	APPROVED

SCHEDULE OF REVISIONS

DISTRICT 62 DESIGN

TITLE SHEET

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	MMG	PARISH	ST. JOHN
CHECKED	AAS		
DETAILED	MMG	FEDERAL PROJECT	
CHECKED	AAS		
DATE SHEET		STATE PROJECT	848-17-0004, 848-18-0007 & 848-19-0006

SHEET NO. 1

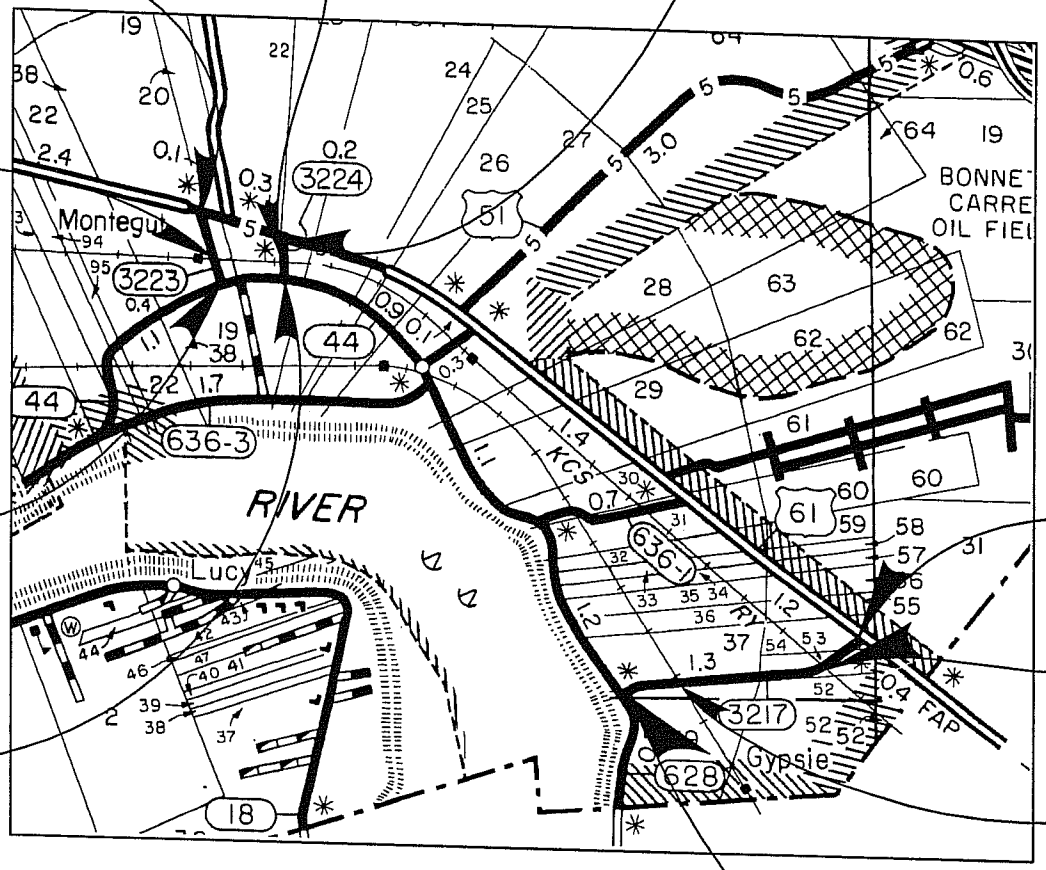
G-1

C.S. LOG MILE 0.370
END. S.P. 848-18-0007

RAILROAD EXCEPTION
C.S. LOG MILE 0.120-0.122
S.P. 848-19-0006

C.S. LOG MILE 0.230
END. S.P. 848-19-0006

RAILROAD EXCEPTION
C.S. LOG MILE 0.170-0.175
S.P. 848-18-0007



C.S. LOG MILE 0.000
BEG. S.P. 848-18-0007

C.S. LOG MILE 1.310
END. S.P. 848-17-0004

RAILROAD EXCEPTION
C.S. LOG MILE 1.090-1.092
S.P. 848-17-0004

C.S. LOG MILE 0.000
BEG. S.P. 848-19-0006

RAILROAD EXCEPTION
C.S. LOG MILE 0.360-0.362
S.P. 848-17-0004

C.S. LOG MILE 0.000
BEG. S.P. 848-17-0004

RAILROAD CROSSINGS

S.P.	C.S.L.M.	LENGTH (FEET)
848-17-0004	0.36-0.362	10.56
848-17-0004	1.09-1.092	10.56
848-18-0007	0.17-0.172	10.56
848-18-0007	0.173-0.175	10.56
848-19-0006	0.12-0.122	10.56

DISTRICT DESIGN

DOTD

LAYOUT MAP

STATE OF LOUISIANA

NO.	DATE	REVISION DESCRIPTION	BY

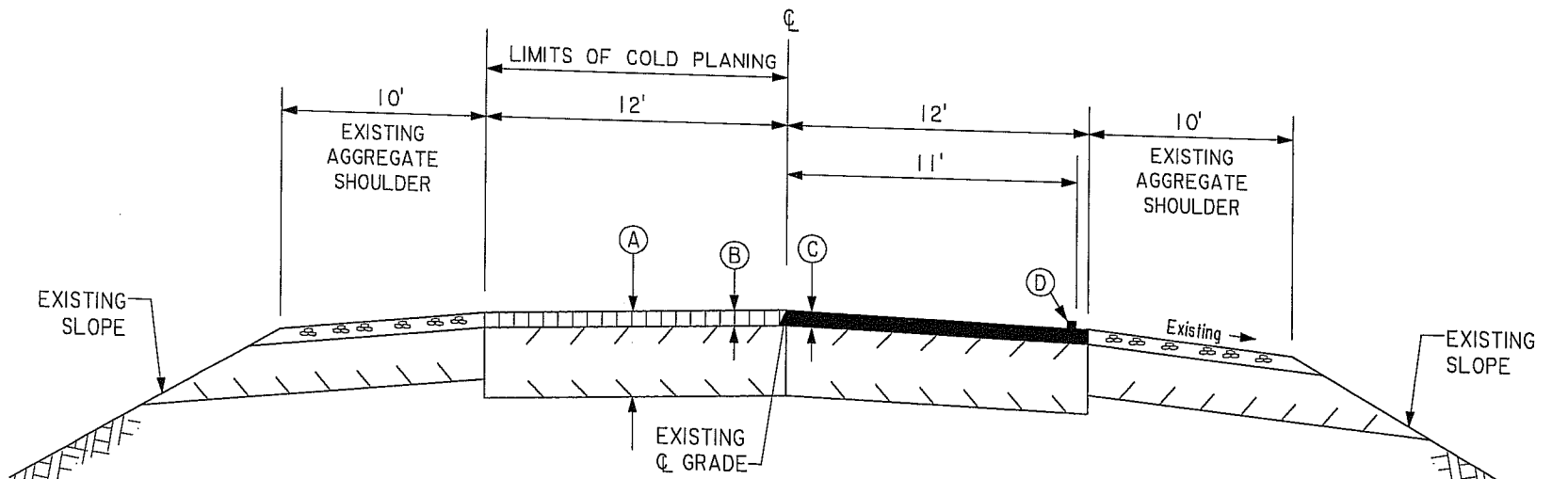
DESIGNED	MMG	PARISH	ST. JOHN
CHECKED	AAS		
DETAILED	MMG	FEDERAL PROJECT	
CHECKED	AAS		
DATE		STATE PROJECT	848-17-0004, 848-18-0007 & 848-19-0006
SHEET		SHEET NO.	1a

SHEET NO.	DESCRIPTION
1	TITLE SHEET
1a	LAYOUT MAP
1b	INDEX TO SHEETS
2-2c	TYPICAL SECTIONS
2d	TURNOUT, PATCHING & JOINT REPAIR DETAIL
2e-2g	CURVE DETAILS & SUPERELEVATION TYPICAL AND TABLE
2h	CONSTRUCTION NOTES
3	ALTERNATE A1: COLD PLANING AND SURFACING TABLE
3a	ALTERNATE A2: ULTRA-THIN HMAC WEARING COURSE SYSTEM
3b-3c	SUMMARY OF ESTIMATED QUANTITIES
4-9	TRAFFIC CONTROL DETAILS
10-13	TRAFFIC SIGNAL INSTALLATION DETAILS
14-16	TRAFFIC SIGNAL INVENTORY
17	BORINGS

INDEX TO SHEETS

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	BET	DATE	
CHECKED	AAS	SHEET	
DETAILED	BET		
CHECKED	AAS		
PARISH	ST. JOHN	STATE PROJECT	848-17-0004, 848-18-0007 & 848-19-0006
		FEDERAL PROJECT	
SHEET NUMBER			1b



TYPICAL HALF SECTION (SHOWING EXISTING RDWY)

TYPICAL HALF SECTION (SHOWING PROPOSED RDWY)

LA 3217 (BAYOU STEEL RD)
CSLM 0.000 - 0.360
CSLM 0.362 - 1.090
CSLM 1.092 - 1.310

(A) EXISTING BASE AND SURFACING

(B) EXISTING ROADWAY TO BE COLD PLANED 2" AVG. DEPTH.

(C) ALT. A1: 2" SUPERPAVE ASPHALTIC CONCRETE (LEVEL 1)(WEARING COURSE)

(D) ROADWAY TO BE STRIPED AT 11'LANE WIDTH

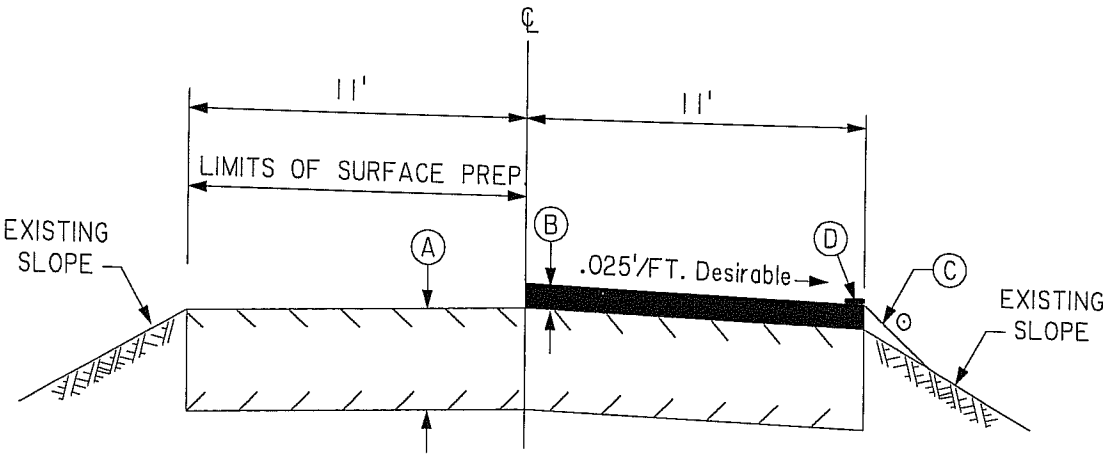
200 CUBIC YARDS OF AGGREGATE PROVIDED TO FILL HOLES IN EXISTING SHOULDER.

20-YEAR ESAL= 227,505 ESAL'S

SHEET NUMBER 2
PARISH ST. JOHN
FEDERAL PROJECT
STATE PROJECT 848-17-0004
DESIGNED BET
CHECKED AAS
DETAILED BET
CHECKED AAS
DATE
SHEET

TYPICAL SECTION

NO. DATE REVISION DESCRIPTION BY



TYPICAL HALF SECTION FOR COLD PLANING

TYPICAL HALF SECTION FOR PROPOSED ROADWAY

LA. 3223 (ELM)
CSLM 0.000 - 0.170
CSLM 0.175 - 0.370

Ⓐ EXISTING ASPHALTIC CONCRETE ROADWAY REMAINING AFTER SURFACE PREPARATION

Ⓑ ALT. A1: REQUIRED 2" AVG. SUPERPAVE ASPHALTIC CONCRETE (LEVEL 1) (WEARING COURSE)

Ⓒ REQUIRED BORROW MATERIAL

Ⓓ ROADWAY TO BE STRIPED AT 11'LANE WIDTH

20 YEAR ESALS = 418,145 ESALS's

⊙ MATCH EXISTING (NOT STEEPER THAN 3:1)

SHEET NUMBER 2a
PARISH ST. JOHN
FEDERAL PROJECT
STATE PROJECT 848-18-0007
DESIGNED BET
CHECKED AAS
DETAILED BET
CHECKED AAS
DATE
SHEET

TYPICAL SECTION

NO. DATE REVISION DESCRIPTION BY

C-5

15-OCT-2008 07:47
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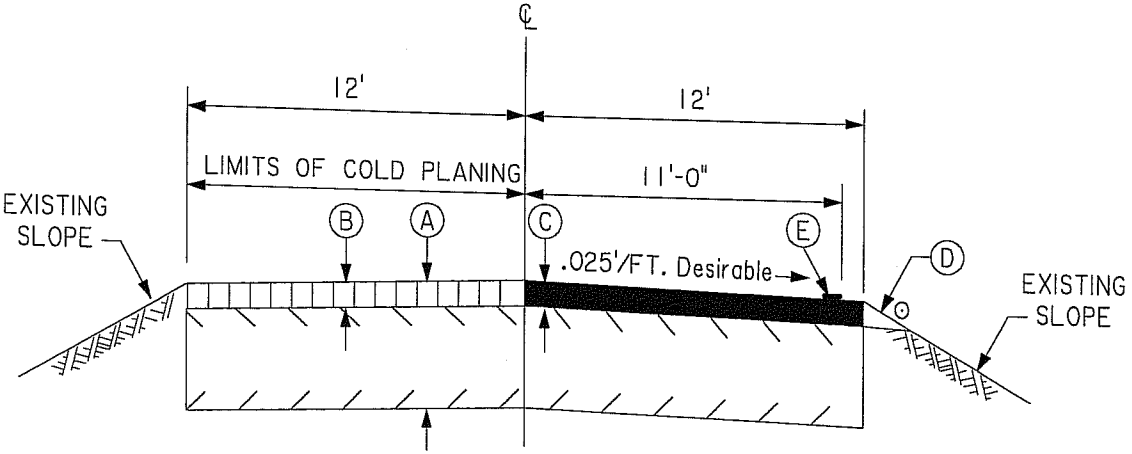

TYPICAL HALF SECTION FOR COLD PLANING

TYPICAL HALF SECTION FOR PROPOSED ROADWAY

LA. 3224 (HEMLOCK ST)
CSLM 0.000 - 0.120
CSLM 0.122 - 0.230

Ⓐ EXISTING BASE AND SURFACING

Ⓑ EXISTING ROADWAY TO BE COLD PLANED 2" AVG. DEPTH

Ⓒ ALT. A1: REQUIRED 2" AVG. SUPERPAVE ASPHALTIC CONCRETE (LEVEL 1F) (WEARING COURSE)

Ⓓ REQUIRED BORROW MATERIAL

Ⓔ ROADWAY TO BE STRIPED AT 11'LANE WIDTH

20 YEAR ESALS = 896,026 ESAL's

⊙ MATCH EXISTING (NOT STEEPER THAN 3:1)

SHEET NUMBER 2b
PARISH ST. JOHN
FEDERAL PROJECT
STATE PROJECT 848-19-0006
DESIGNED BET CHECKED AAS
DETAILED BET CHECKED AAS
DATE SHEET
TYPICAL SECTION
NO. DATE REVISION DESCRIPTION BY

15-OCT-2008 07:47
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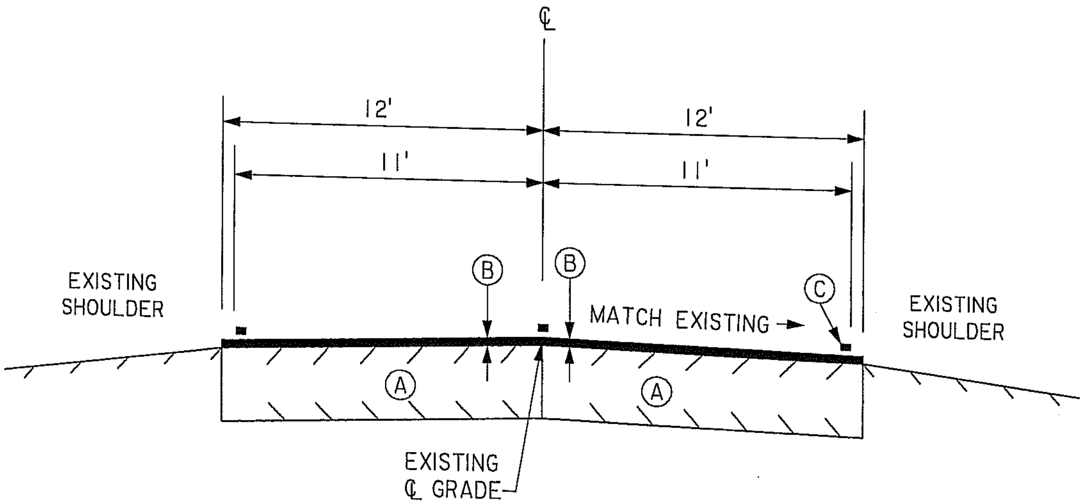
G-6
9-G



TYPICAL SECTION
(SHOWING PROPOSED RDWY)

LA 3217 (BAYOU STEEL RD)
LA 3223 (ELM)
LA 3224 (HEMLOCK)

(A) EXISTING BASE AND SURFACING

(B) ALT A2: 3/4" ULTRA-THIN HMAC WEARING COURSE SYSTEM

(C) ROADWAY TO BE STRIPED AT 11' LANE WIDTH

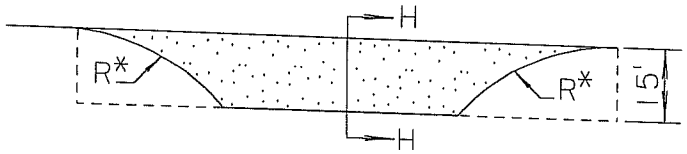
NO.	DATE	REVISION DESCRIPTION	BY

TYPICAL SECTION

DESIGNED BET
CHECKED AAS
DETAILED BET
CHECKED AAS
DATE
SHEET

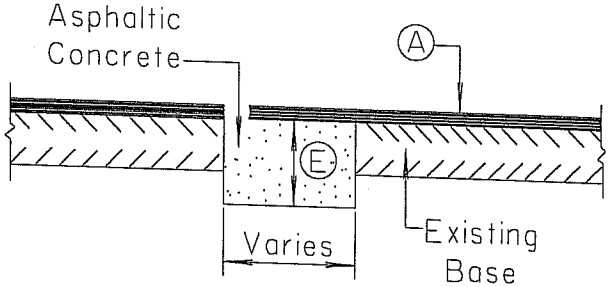
PARISH ST. JOHN
FEDERAL PROJECT
STATE PROJECT 848-17-0004, 848-18-0007, 848-19-0006

SHEET NUMBER 2c

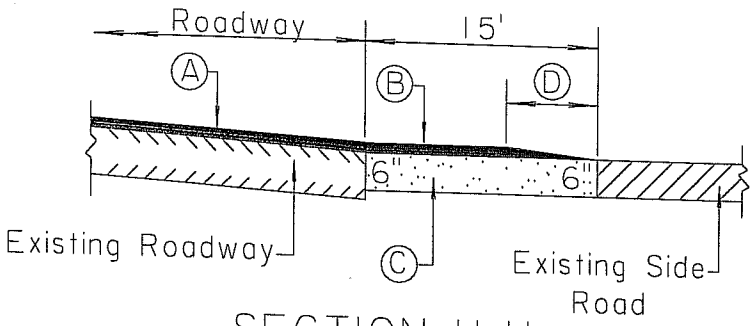


DETAIL OF APRON AT TURNOUT (TYPICAL)

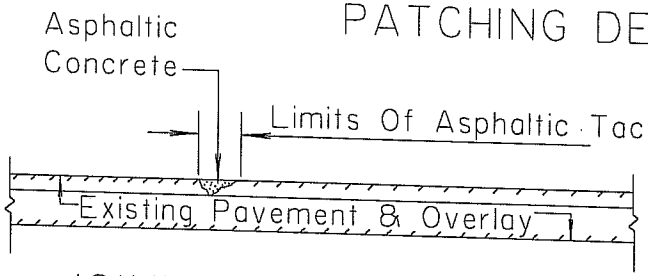
* Match Existing Radius



PATCHING DETAIL



SECTION H-H



JOINT REPAIR DETAIL

Ⓐ Superpave Asphaltic Concrete (Courses And Types As Shown On Roadway Typical Section)

Ⓑ Superpave Asphaltic Concrete (Wearing Course)(Type and Depth To Match Roadway Overlay)(To Apply To Existing And New Paved Turnouts) Quantity Included In Item No. 502-01-A

Ⓒ Superpave Asphaltic Concrete , Incidental Paving (Level A). Also, When Paved Aprons Are Placed In Two Lifts, Binder Course May Be Used In The First Lift. (To Apply To New Paved Turnouts) Quantity Included In Item No 502-01-A

Ⓓ As Determined By The Project Engineer.

Ⓔ 12" Min. (Patching Shall Extend To Bottom Of Existing Base)(Roadway)
6" Min. (Patching Shall Extend To Bottom Of Existing Base)(Shoulders)

NOTE : USE DETAILS APPLICABLE TO THIS PROJECT

SHEET NUMBER 2d
PARISH ST. JOHN
FEDERAL PROJECT
STATE PROJECT 848-17-0004, 848-18-0007 & 848-19-0006
DESIGNED BET CHECKED AAS
DETAILED BET CHECKED AAS
DATE SHEET

TURNOUT, PATCHING & JOINT REPAIR DETAIL

NO. DATE REVISION DESCRIPTION BY

CONSTRUCTION NOTES

1.) "LOW SHOULDER" SIGNS SHALL BE ERECTED AT BOTH ENDS OF EACH JOB AND AT THE MIDDLE OF LA 3217 AS WELL IN BOTH DIRECTIONS. "DO NOT PASS" SIGNS SHALL TO BE ERECTED AT THE BEGINNING OF EACH NO PASSING ZONE AND EVERY 1,500' WITHIN THE ZONE ALONG WITH A "PASS WITH CARE" SIGN AT THE END. SHALL BE PAID FOR UNDER ITEM 713-01.

2.) ALL STRIPING AND SIGNING SHALL CONFORM TO THE MUTCD, PM-01, AND E.D.S.M. VI.4.1.1. THE CONTRACTOR WILL BE REQUIRED TO REPLACE THE YELLOW DASHED LINES ACROSS US 61 AT LA 3223 & LA 3224 IF DIRECTED BY THE P.E.

3.) THE CONTRACTOR SHALL CONSTRUCT A FULL DEPTH, STRAIGHT CROSS CUT, PERPENDICULAR TO THE CENTER LINE AT THE BEGINNING AND END OF THE COLD PLANED AREAS AND SHALL BE PAID FOR UNDER ITEM 509-01.

4.) THE CONTRACTOR SHALL PROVIDE A 10' LONG PAPER JOINT TO BE CONSTRUCTED WITH HOT OR COLD MIX AND SHALL BE PAID FOR IN ITEM 502-01.

5.) THE CONTRACTOR SHALL RETAIN 75 PERCENT (APPROXIMATELY 982 CUBIC YARDS IN-PLACE) OF THE RAP MATERIAL GENERATED FROM COLD PLANING. RAP MATERIAL NOT RETAINED BY THE CONTRACTOR (APPROXIMATELY 327 CUBIC YARDS IN-PLACE) SHALL BE HAULED AND STOCKPILED AT THE LAPLACE MAINTENANCE STORAGE SITE LOCATED AT 997 BERT STREET LAPLACE, LA 70068.

6.) THE CONTRACTOR SHALL CONSTRUCT ALL DRIVEWAY CONNECTIONS USING DESIRABLE FLARE RATES AS SHOWN ON STANDARD PLAN DW-04 UNLESS A DETERMINATION IS MADE BY THE PROJECT ENGINEER ON A PER DRIVEWAY BASIS WHEN EXISTING CONDITIONS PREVENT DESIRABLE RATES. GUIDANCE ON DRIVEWAY CONNECTION GRADES MAY BE OBTAINED FROM STANDARD PLAN DW-05.

7.) AFTER OVERLAY OPERATIONS ARE COMPLETE, THE CONTRACTOR SHALL PROVIDE TO THE PROJECT ENGINEER PLOTTED CROSS SECTIONS OF THE COMPLETED SURFACE (INCLUDING SURFACED SHOULDERS) WITHIN EACH CURVE AREA TO VERIFY THAT APPROPRIATE SUPERELEVATION RATES HAVE BEEN CONSTRUCTED WITHIN THE FINISHED SECTION. CROSS SECTIONS SHALL BE TAKEN AT THE BEGINNING OF THE TRANSITION, THE PC, THE BEGINNING OF FULL SUPER, THE VICINITY OF THE PI, THE END OF FULL SUPER, THE PT AND THE END OF THE TRANSITION. ALL COSTS ASSOCIATED WITH THE CROSS SECTION WORK TO BE PAID FOR UNDER BID ITEM 740-01.

8.) EXISTING TURNOUTS SHALL BE LEFT IN PLACE OR COLD PLANED AND OVERLAYED, ALL AS DIRECTED BY THE PROJECT ENGINEER.

9.) WRITTEN NOTIFICATION SHALL BE PROVIDED TO THE DISTRICT TRAFFIC OPERATIONS OFFICE FIVE DAYS PRIOR TO ANY SIGNAL WORK.

10.) ALL REQUIRED TRANSITIONS SHALL BE AS DIRECTED BY THE PROJECT ENGINEER. (BRIDGE APPROACHES, ETC.)

SHEET NUMBER 2h

PARISH ST. JOHN

FEDERAL PROJECT

STATE PROJECT 848-17-0004, 848-18-0007, 848-19-0006

DESIGNED BET CHECKED AAS

DETAILED BET CHECKED AAS

DATE

SHEET

CONSTRUCTION NOTES

NO. DATE REVISION DESCRIPTION BY

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6-D

ALTERNATE A1: COLD PLANING AND SURFACING

C.S.L.M.	C.S.L.M.	DESCRIPTION	LENGTH (Feet)	COLD PLANING ASPHALTIC PAVEMENT (2" AV. DEPTH)		SUPERPAVE ASPHALTIC CONCRETE		
				WIDTH (Feet)	Sq. Yard	WIDTH (Feet)	Sq. Yard	2" WEARING COURSE (Ton)
S.P.848-17-0004								
0.000	0.360	ROADWAY	1,901	24	5,069	24	5,069	557.6
0.360	0.362	RAILROAD EXCEPTION	11					
0.362	1.090	ROADWAY	3,844	24	10,251	24	10,251	1,127.6
1.090	1.092	RAILROAD EXCEPTION	11					
1.092	1.310	ROADWAY	1,151	24	3,069	24	3,069	337.6
ADDITIONAL FOR TURNLANE			VARIES	VARIES	1,655	VARIES	1,655	182.1
		TOTAL :			20,044			2,204.9
S.P.848-19-0006								
0.000	0.120	ROADWAY	634	24	1,691	24	1,691	186.0
0.120	0.122	RAILROAD EXCEPTION	11					
0.122	0.230	ROADWAY	570	24	1,520	24	1,520	167.2
ADDITIONAL FOR RADIUS & TURNLANES			VARIES	VARIES	310	VARIES	310	34.1
		TOTAL :			3,521			387.3

C.S.L.M.	C.S.L.M.	DESCRIPTION	LENGTH (Feet)	SURFACE PREPARATION		SUPERPAVE ASPHALTIC CONCRETE		
				WIDTH (Feet)	Sq. Yard	WIDTH (Feet)	Sq. Yard	2" WEARING COURSE (Ton)
S.P.848-18-0007								
0.000	0.170	ROADWAY	898	22	2,195	22	2,195	241.5
0.170	0.175	RAILROAD EXCEPTION	26					
0.175	0.370	ROADWAY	1,030	22	2,518	24	2,747	302.1
		TOTAL :	-		4,713			543.6

DISTRICT DESIGN

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT DOTD

COLD PLANING AND SURFACING TABLE

STATE OF LOUISIANA

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	BET	PARISH	ST. JOHN
CHECKED	AAS		
DETAILED	BET	FEDERAL PROJECT	
CHECKED	AAS		
DATE SHEET		STATE PROJECT	848-17-0004,848-18-0007 848-19-0006

SHEET NO. 3

ALTERNATE A2 - ULTRA-THIN HMAC WEARING COURSE SYSTEM

C.S.L.M.	C.S.L.M.	DESCRIPTION	LENGTH (Feet)	3/4" Ultra-Thin HMAC Wearing Course System	
				WIDTH (Feet)	Sq. Yard
S.P.848-17-0004					
0.000	0.360	ROADWAY	1,901	24	5,069
0.360	0.362	RAILROAD EXCEPTION	11		
0.362	1.090	ROADWAY	3,844	24	10,251
1.090	1.092	RAILROAD EXCEPTION	11		
1.092	1.310	ROADWAY	1,151	24	3,069
		ADDITIONAL FOR TURNLANE	VARIES	VARIES	1,655
S.P.848-18-0007					
0.000	0.170	ROADWAY	898	22	2,195
0.170	0.175	RAILROAD EXCEPTION	26		
0.175	0.370	ROADWAY	1,030	22	2,518
S.P.848-19-0006					
0.000	0.120	ROADWAY	634	24	1,691
0.120	0.122	RAILROAD EXCEPTION	11		
0.122	0.230	ROADWAY	570	24	1,520
		ADDITIONAL FOR RADIUS & TURNLANES	VARIES	VARIES	310
		TOTAL :			28,278

DISTRICT DESIGN

DOTD TRANSPORTATION AND DEVELOPMENT LOUISIANA

ULTRA-THIN HMAC WEARING COURSE SYSTEM

STATE OF LOUISIANA

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	BET	PARISH	ST.JOHN
CHECKED	AAS		
DETAILED	BET	FEDERAL PROJECT	
CHECKED	AAS		
DATE		STATE PROJECT	848-17-0004, 848-18-0007, 848-19-0006
SHEET			

SHEET NO. 3a

DATED 09/29/08 16:05:45

STATE PROJECT	PARISH	SHEET NO.
848-17-0004	ST JOHN	3b
848-18-0007	ST JOHN	
848-19-0006	ST JOHN	

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY S.P. NO. 848-17-0004	QUANTITY S.P. NO. 848-18-0007	QUANTITY S.P. NO. 848-19-0006	TOTAL QUANTITY
	GENERAL ITEMS					
203-07	BORROW (VEHICULAR MEASUREMENT)	CUYD		21	13	34
401-02	AGGREGATE SURFACE COURSE (ADJUSTED VEHICULAR MEASUREMENT)	CUYD	200			200
502-01-A	SUPERPAVE ASPHALTIC CONCRETE, DRIVES, TURNOUTS AND MISCELLANEOUS	TON	93.9	286.1	141.6	521.6
510-01-B	PAVEMENT PATCHING (12" MINIMUM THICKNESS)	SQYD	393	111	69	573
702-04-A	ADJUSTING MANHOLES	EACH		6		6
713-01	TEMPORARY SIGNS & BARRICADES	LUMP	68.60%	19.40%	12%	LUMP
713-02-C	TEMPORARY PAVEMENT MARKINGS (8" WIDTH)	LNFT	180		396	576
713-02-E	TEMPORARY PAVEMENT MARKINGS (24" WIDTH)	LNFT	402	136	294	832
713-03-A	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE)(4" WIDTH)(4' LENGTH)	MILE	2.620	0.740	0.460	3.820
713-03-B	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE)(4" WIDTH)(10' LENGTH)	MILE	1.424			1.424
713-04-A	TEMPORARY PAVEMENT MARKINGS (SOLID LINE)(4" WIDTH)	MILE	9.777	2.960	1.840	14.577
713-05-A	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (ARROW)	EACH			8	8
713-05-C	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (ONLY)	EACH			2	2
713-05-D	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (RR CROSSING)	EACH	8	4	4	16
716-01-A	MULCH (VEGETATIVE)	TON		0.1	0.1	0.2
717-01	SEEDING	LB		1	1	2
718-01	FERTILIZER	LB		45	28	73
727-01	MOBILIZATION	LUMP	68.60%	19.40%	12%	LUMP
731-02	REFLECTORIZED RAISED PAVEMENT MARKERS	EACH	174	50	32	256
732-01-C	PLASTIC PAVEMENT STRIPING (8" WIDTH)	LNFT	90		198	288
732-01-E	PLASTIC PAVEMENT STRIPING (24" WIDTH)	LNFT	201	68	147	416
732-02-A	PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH)	MILE	4.885	1.480	0.920	7.285

DATED 09/29/08 16:05:45

STATE PROJECT	PARISH	SHEET NO.
848-17-0004	ST JOHN	3c
848-18-0007	ST JOHN	
848-19-0006	ST JOHN	

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY S.P. NO. 848-17-0004	QUANTITY S.P. NO. 848-18-0007	QUANTITY S.P. NO. 848-19-0006	TOTAL QUANTITY
732-03-A	PLASTIC PAVEMENT STRIPING (BROKEN LINE)(4" WIDTH)	MILE	0.710			0.710
732-04-A	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ARROW)	EACH			4	4
732-04-B	PLASTIC PAVEMENT LEGENDS & SYMBOLS (DOUBLE ARROW)	EACH			1	1
732-04-C	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ONLY)	EACH	4	2	2	8
732-04-D	PLASTIC PAVEMENT LEGENDS & SYMBOLS (RR CROSSING)	EACH	4	2	2	8
735-01	MAILBOXES					
735-02	MAILBOX SUPPORTS (SINGLE)	EACH		49		49
735-04	MAILBOX SUPPORTS (MULTIPLE)	EACH		26		26
736-09	LOOP DETECTOR	EACH		4		4
736-10	UNDERGROUND JUNCTION BOX	LNFT		600	1,800	2,400
740-01	CONSTRUCTION LAYOUT	EACH		1	2	3
741-11	ADJUSTING WATER VALVE AND METER BOX	LUMP	68.60%	19.40%	12%	LUMP
S-003	DETECTABLE WARNING TILES	EACH		1	1	2
		LNFT		4.0		4.0
	ALTERNATE A-1					
502-01	SUPERPAVE ASPHALTIC CONCRETE	TON	2,204.9	543.6	387.3	3,135.8
509-01	COLD PLANING ASPHALTIC PAVEMENT	SQYD	20,044		3,521	23,565
509-02	CONTRACTOR RETAINED RECLAIMED ASPHALTIC PAVEMENT	CUYD	-835		-147	-982
S-001	SURFACE PREPARATION	LUMP		100%		LUMP
	ALTERNATE A-2					
S-002	ULTRA-THIN HMAC WEARING COURSE SYSTEM (0.75 INCH THICK)	SQYD	20,044	4,713	3,521	28,278

GENERAL PROVISIONS

- All Temporary Traffic Control Devices used shall be in accordance with the LaDOTD Standard Specifications for Roads and Bridges, the Manual on Uniform Traffic Control Devices (MUTCD), and shall meet the National Cooperative Highway Research Program (NCHRP) 350 for Test Level 3 requirements.
- Materials used for Temporary Traffic Controls shall be in accordance with the LaDOTD Standard Specifications for Roads and Bridges and when applicable the LaDOTD Qualified Products List (QPL).
- No temporary traffic controls shall be erected without the approval of the Project Engineer and until work is about to begin, unless they are covered.
- No lane closures, lane shifts, diversions, or detours shall occur without the authorization of the Project Engineer.
- Responsibility is hereby placed upon the contractor for the installation, maintenance, and operation of all temporary traffic control devices called for in these plans or required by the Project Engineer for the protection of the traveling public as well as all Department and construction personnel.
- The contractor shall also be responsible for the maintenance of all permanent signs and pavement markings left in place as essential to the safe movement and guidance of traffic within the project limits.
- The District Traffic Operations Engineer (DTOE) shall serve as a technical advisor to the Project Engineer for all Traffic Control matters.
- "Road Work Next XX Miles" sign shall be required on all projects equal to or greater than 2 miles and located at the begining of the project unless otherwise noted. The distance on the sign shall be stated to the nearest whole mile. The sign shall be a minimum 36"X60" unless otherwise noted.
- Warning signs used for lane closures or lane shifts in which the roadway shall be returned to full public use within 12 hours or less may be placed on NCHRP350 approved portable sign frames.
- If the spacing on the plans need to be altered, the new spacings need to be approved by the Project Engineer.

SPEED LIMITS

- Speed limits shall be lowered by 10 mph for any construction, maintenance, or utility operation that requires one or more of the following:
  (A) the condition of the original highway is degraded due to milled surfaces or uneven pavements;
  (B) work is in progress in the immediate vicinity of the travel way requiring lane closures, lane width reductions, or low speed diversions; (C) workers present on the shoulder within 2' of the edge of traveled way without barrier protection.
- The reduced speed zone shall only apply to those portions of the project limits affected. The Project Engineer may allow SPEED LIMIT WHEN FLASHING signs to supplement reduced speed zones.
- At the end of the reduced speed zone, a speed limit sign displaying the original speed limit before construction shall be installed.
- If conditions warrant, the District Traffic Operations Engineer may authorize the reduction of the speed limit by more than 10 mph.

PAVEMENT MARKINGS (see QPL)

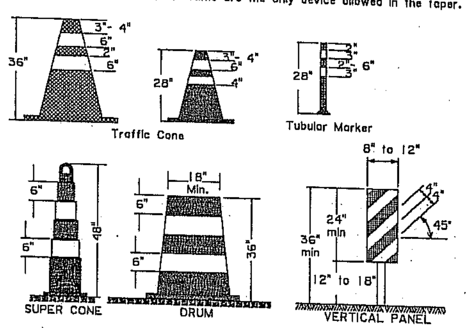
- All pavement markings within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding (Existing striping shall not be painted over with black paint or covered with tape).
- If special pavement markings are needed, they shall be reflectorized, removable, and accompanied by the proper signage.
- Temporary Raised Pavement Markers (RPMs) may be added to supplement temporary striping in areas of transition, in tapers, in detours, and in other areas of need as directed by the Project Engineer.
- Materials and placement of temporary pavement markings shall conform to section 713 of the Standard Specifications. If no pay item exists, temporary markings will be considered incidental to traffic control.

SIGNS

- All signs used for temporary traffic controls shall follow the Department's Traffic Control (TC) details and the MUTCD. Signs shown in the TC illustrations are typical and may vary with each specific condition.
- More appropriate signing for a specific condition may be required or substituted with the approval of the Project Engineer and reviewed by the District Traffic Operations Engineer.
- When projects are separated by less than one mile, they shall be signed as one project.
- At no time shall signs warning against a particular operation be left in place once the operation has been completed or where the obstacle has been removed.
- Signs over 10 sq ft shall be mounted on two post and signs over 20 sq ft shall be mounted on at least three post.
- Signs shall have a minimum of two bolts per post.
- Permanent signs no longer applicable or in conflict shall be removed or covered with a strong, lightweight, opaque material.
- Warning signs used for temporary traffic controls shall meet the following guidelines unless otherwise noted in the plans: (A) size shall be 48" x 48", (B) see the Departments Standard Specifications and the QPL for sheeting information, (C) a minimum of a 2 lb U-Channel post shall be used driven to a minimum depth of 3', (D) sign height shall be a minimum of 5' above the roadway surface unless there is a concern for pedestrians or bicycle traffic in which it shall be a minimum of 7', (E) lateral distance of signs shall be a minimum of 6' from the edge of shoulder or edge of pavement if no shoulder exist and 2' from the back of curb in urban areas.
- Vinyl Roll Up signs will be allowed for short term (less than 12 hours) daytime work provided that they meet all size, color, retroreflectivity requirements, and NCHRP 350.
- Mesh rollup signs shall not be allowed on any project.
- All signs shall be removed or covered when no longer applicable.
- Contractor shall use caution not to damage existing signs which remain in place. Any DOTD signs damaged by work operations shall be replaced.

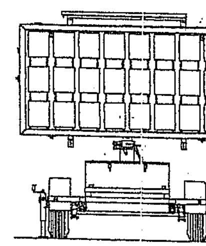
CHANNELIZING DEVICES

- The following devices may be used: Tubular Markers, Vertical Panels, Cones, Drums, and Super Cones. Drums (at standard spacing) and Super Cones (at ½ standard spacing) are the only devices allowed to be used in taper areas on the Interstate system during daylight hours. Only drums can be used in tapers during night operations.
- The spacing of channelizing devices in a taper should not exceed a distance in feet equal to 1.0 times the posted speed limit in mph (with a maximum of 50 feet).
- The spacing of channelizing devices in a tangent should not exceed a distance in feet equal to 2.0 times the posted speed limit in mph (with a maximum of 100 feet) unless otherwise noted.
- Retroreflective material pattern used on super cones shall match that used on drums.
- 28" traffic cones are not allowed on: 1) Interstates, 2) Highways with speeds greater than 40 mph. During night time operations: 1) 28" and 36" cones are not allowed, 2) drums are the only device allowed in the taper.



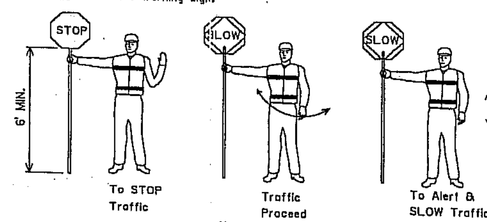
PORTABLE CHANGEABLE MESSAGE SIGNS

- When working within the traveled way, including shoulders and auxiliary lanes, Changeable Message Signs (CMS) shall be used on all Interstate Highways and on all other roadways (where space is available) with an ADT greater than 20,000 and should be delineated with retroreflective TTC devices. CMS will be paid for by each.
- When used in advance of a lane closure or a lane shift, the CMS should be placed on the right hand side of the road a minimum distance of 2 miles in advance of the taper for Interstates and to be determined by the Engineer on other highways.
- If vehicles are queing beyond the 2 mile CMS, an additional CMS should be placed on the right hand side of the road approximately 5 miles in advance of the taper for interstates.
- CMS messages shall be approved by the District Traffic Operations Engineer (DTOE).
- When Portable Changeable Message signs are not being used, they should be removed; if not removed, they should be shielded by guardrail or barriers; or if the previous two options are not feasible, they should be delineated with retroreflective TTC devices.



FLAGGERS

- All flaggers must be qualified. The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties. A Qualified Flagger is one that has completed courses such as those offered by the American Traffic Safety Services Association (ATSSA), The Associated General Contractors of America (AGC) or other courses approved by the Louisiana DOTD's Work Zone Task Force. The contractor shall be responsible for getting the flagger course approved.
- When utilized, a flagger shall use a minimum 18 inch octagonal shape sign on a minimum 6' stop/slow padcle and wear ANSI Class 2 Lime Green vest during day time operations and ANSI Class 3 Lime Green ensemble during night operations. In all flagging operations, the flagger must be visible from the flagger advance warning sign.



Use of Hand Sign

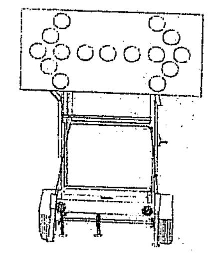
TYPE III BARRICADES

- All barricades shall use Type 3 High Intensity Sheeting on both sides of the barricade.
- All Type III Barricades shall be a minimum of 8 feet in length and must meet NCHRP 350 requirements.
- When signs and lights are to be mounted to a barricade, they must meet NCHRP 350 requirements.

MUTCD Website:
http://mutcd.fhwa.dot.gov/

FLASHING ARROW PANELS

- Flashing Arrow Panels shall be used for lane closures on all facilities with 2 or more lanes in a single direction and a speed limit greater than 35 mph.
- When used, flashing arrow panels should be located on the shoulder at the beginning of the taper.
- Where the shoulder width is limited, the flashing arrow panel should be placed within the closed lane as close to the beginning of the taper as practical.
- All Flashing Arrow Panels used on high speed roadways (45 mph and greater) shall be 4' x 8' Type C.
- When Flashing Arrow Panels signs are not being used, they should be removed; if not removed, they should be shielded by guardrail or barriers; or if the previous two options are not feasible, they should be delineated with retroreflective TTC devices.

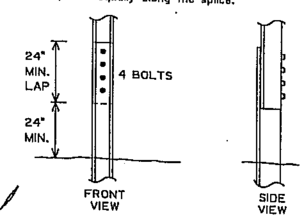


LIGHTING (see QPL)

- When used for overnight closures, lighting shall supplement all barricades that are placed in a closed lane or that extend across a highway. Two Type B High Intensity lights shall be used per lane closed in rural areas. In urban areas two Type A Low Intensity Lights may be used where adequate ambient lighting is available.
- One Type B High Intensity light shall be used to supplement the first sign (or pair of signs) that gives warning about a lane closure during night time operations.
- Type C steady burn lights shall be used on all channelizing devices in the taper as well as the first two devices in the tangent, for night use.

ALLOWABLE LAP SPLICE FOR U-CHANNEL POST

- U-Channel posts may be spliced where long lengths are required. The upper section shall overlap the lower section by at least 24 inches. The bottom edge of the upper section of the splice shall be a minimum of 24 inches above the ground. The spliced sections shall be secured with at least four ⁵⁄₁₆inch diameter hex bolts spaced equally along the splice.

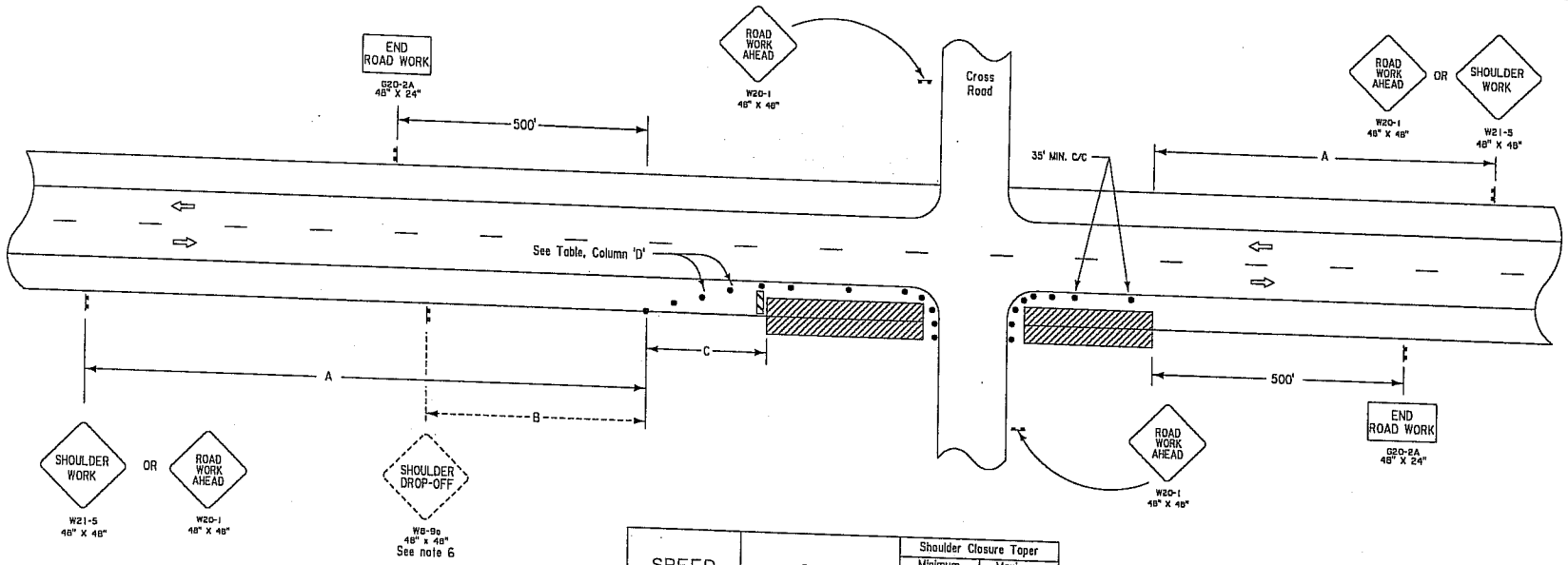


STATE OF LOUISIANA — CARL E. COURVILLE, REG. No. 29312, REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
January 25, 2008

DESIGNED	E. COURVILLE
CHECKED	J. COLVIN
DETAILED	D. SOWARDS
CHECKED	J. COLVIN
DATE	01/25/2008
PARISH	ST. JOHN
STATE PROJECT	848-17-0004, 848-18-0007 & 848-19-0006
SHEET NUMBER	4

TEMPORARY TRAFFIC CONTROL
GENERAL NOTES SHEET
SPECIAL DETAIL TC-00

TRAFFIC ENGINEERING



SPEED LIMIT	Spacing		Shoulder Closure Taper	
	'A'	'B'	Minimum Taper Length 'C'	Maximum Device Spacing 'D'
35 mph	500'	250'	100'	25'
45 mph	1000'	350'	200'	45'
≥55 mph	1500'	500'	250'	50'

If horizontal curve radius is less than 300', devices spacing shall be 25'.

LEGEND

- Traffic Sign
- Channelizing Devices
- Work Area
- Type III Barricades

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. THIS LAYOUT REPRESENTS TRAFFIC CONTROLS REQUIRED FOR WORKERS AND EQUIPMENT OPERATING WITHIN THE CLEAR ZONE FOR MORE THAN 1 HOUR. LESS THAN 1 HOUR, SEE FIG. TA-4 OF THE MUTCD. PORTABLE SIGNS MAY BE USED FOR WORK LASTING LESS THAN 3 DAYS.

2. NO SIGNS OR BARRICADES ARE REQUIRED FOR EQUIPMENT OPERATING OR WORK IN PROGRESS OUTSIDE THE CLEAR ZONE.

3. SIGNS AND BARRICADES SHALL BE COVERED OR REMOVED DURING NONWORKING HOURS UNLESS A DROP-OFF OR PHYSICAL OBSTRUCTION REMAINS WITHIN THE CLEAR ZONE.

4. TRAFFIC CONES MAY BE USED AS CHANNELIZING DEVICES ALONG THE WORK AREA DURING DAYLIGHT HOURS ONLY.

5. WORK OR EQUIPMENT CONFINED TO A SPOT LOCATION (LESS THAN 200 FEET) SHALL BE MARKED BY CHANNELIZING DEVICES SPACED AT 25 FEET OR BY A VEHICLE WITH A YELLOW REVOLVING LIGHT OR YELLOW STROBE LIGHT VISIBLE TO ONCOMING TRAFFIC. WORK EXTENDING MORE THAN 200 FEET OF ROADWAY LENGTH SHALL BE MARKED WITH APPROPRIATE DEVICES SPACED AS NOTED IN THE TABLE.

6. SHOULDER DROP-OFFS

   A. WHEN A SHOULDER DROP-OFF GREATER THAN 2" BUT LESS THAN 6" EXISTS, A "SHOULDER DROP-OFF" SIGN WILL FOLLOW THE "SHOULDER WORK" SIGN. WHEN THE DROP-OFF EXCEEDS 6", THE "SHOULDER DROP-OFF" SIGN SHALL BE REPLACED BY A "NO SHOULDER" SIGN.

   B. IF THE SPEED LIMIT IS GREATER THAN 45 MPH AND THE DROPOFF IS 10" OR GREATER WITHIN 2' OF THE TRAVEL LANE DURING NONWORKING HOURS, A PORTABLE BARRIER SHALL BE USED.

7. A TEMPORARY EDGELINE OR CHANNELIZING DEVICE SHALL BE PLACED AT THE PAVEMENT EDGE ADJACENT TO THE DROP-OFF DURING NONWORKING HOURS WHEN THE DROPOFF IS GREATER THAN 2".

8. SPEED LIMIT IN THE ABOVE TABLE REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION. IF WORKERS ARE PRESENT WITHIN 2' OF TRAVEL LANE, SPEED LIMIT MAY NEED TO BE REDUCED.

9. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO CONFLICTING OPERATIONS OR PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.

10. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.

11. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

12. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.

STATE OF LOUISIANA
CARL E. COURVILLE
REG. No. 28312
REGISTERED PROFESSIONAL ENGINEER IN
CIVIL ENGINEERING
JANUARY 25, 2008

SHEET NUMBER 5

PARISH	FEDERAL PROJECT	STATE PROJECT
ST. JOHN		848-17-0004, 848-18-0007 & 848-19-0006

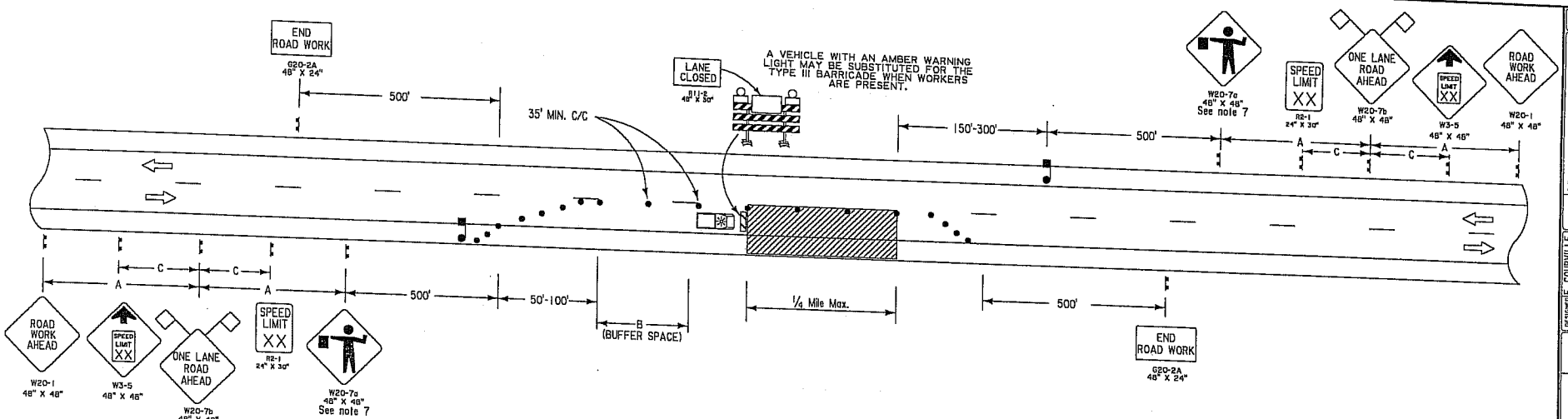
	DESIGNED	DETAILED	CHECKED	DATE	SHEET
	C. COURVILLE	D. SOWARDS	J. COLVIN	01/25/2008	

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC CONTROL LAYOUT
FOR WORK LESS THAN 15' FROM THE TRAVELED LANE

OFFICIAL DETAIL TC-01

TRAFFIC ENGINEERING



SPEED LIMIT (See note 5)	Spacing		
	"A"	"B"	"C"
35 mph	500'	250'	N/A
45 mph	1000'	360'	500'
55 mph	1500'	495'	800'

SIGN SPACING TO BE ADJUSTED FOR HORIZONTAL & VERTICAL CURVES.

LEGEND

- Traffic Sign
- Flagger
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. CONDITIONS REPRESENTED ARE FOR WORK WHICH REQUIRES CLOSING TRAFFIC LANES DURING DAYLIGHT HOURS ONLY. PORTABLE SIGNS MAY BE USED FOR WORK LASTING LESS THAN 3 DAYS.
2. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.
3. CHANNELIZING DEVICES MAY BE PLACED UP TO 2' BEYOND CENTER-LINE ONLY AT SPECIFIC LOCATIONS WHERE ACTUAL WORK ACTIVITY IS TAKING PLACE. A 10' MINIMUM TRAVELED LANE SHOULD BE MAINTAINED WHERE PRACTICAL. CHANNELIZING DEVICES SHALL BE RETURNED TO THE CENTERLINE WHEN THE WORK ACTIVITY HAS PASSED.
4. SPACING OF CHANNELIZING DEVICES IN THE TAPER SHOULD BE NO MORE THAN 20'. A MINIMUM OF 5 CHANNELIZING DEVICES ARE TO BE USED IN THE TAPER.
5. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
6. TO PREVENT VEHICLES FROM ENTERING THE WORK AREA AGAINST THE FLOW OF TRAFFIC, AN ADDITIONAL FLAGGER SHALL BE STATIONED AT EACH INTERSECTION, MAJOR DRIVEWAY, RAILROAD CROSSING OR CROSSING WITHIN THE WORK AREA.
7. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN FLAGGERS AT ALL TIMES. THE FLAGGER SHALL BE VISIBLE FROM FLAGGER SIGN.
8. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED BY THE CONTRACTOR.
9. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
10. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.
11. NEITHER WORK ACTIVITY NOR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIALS SHALL OCCUR WITHIN THE BUFFER SPACE.

STATE OF LOUISIANA
CARL E. COURVILLE
REG. NO. 29312
REGISTERED PROFESSIONAL ENGINEER IN
CIVIL ENGINEERING
JANUARY 15, 2009

TRAFFIC CONTROL LAYOUT
FOR LANE CLOSURE LESS THAN 1/4 MILE IN LENGTH

SPECIAL DETAIL: TC-02

TRAFFIC ENGINEERING

SHEET NUMBER	6
PARISH	ST. JOHN
FEDERAL PROJECT	
STATE PROJECT	848-17-0004, 848-18-0007 & 848-19-0006
DESIGNED	E. COURVILLE
DETAILED	J. COLVIN
CHECKED	D. SONARUS
DETAILED	J. COLVIN
DATE	01/29/2008
SHEET	8F

REVISION DESCRIPTION | DATE | NO.

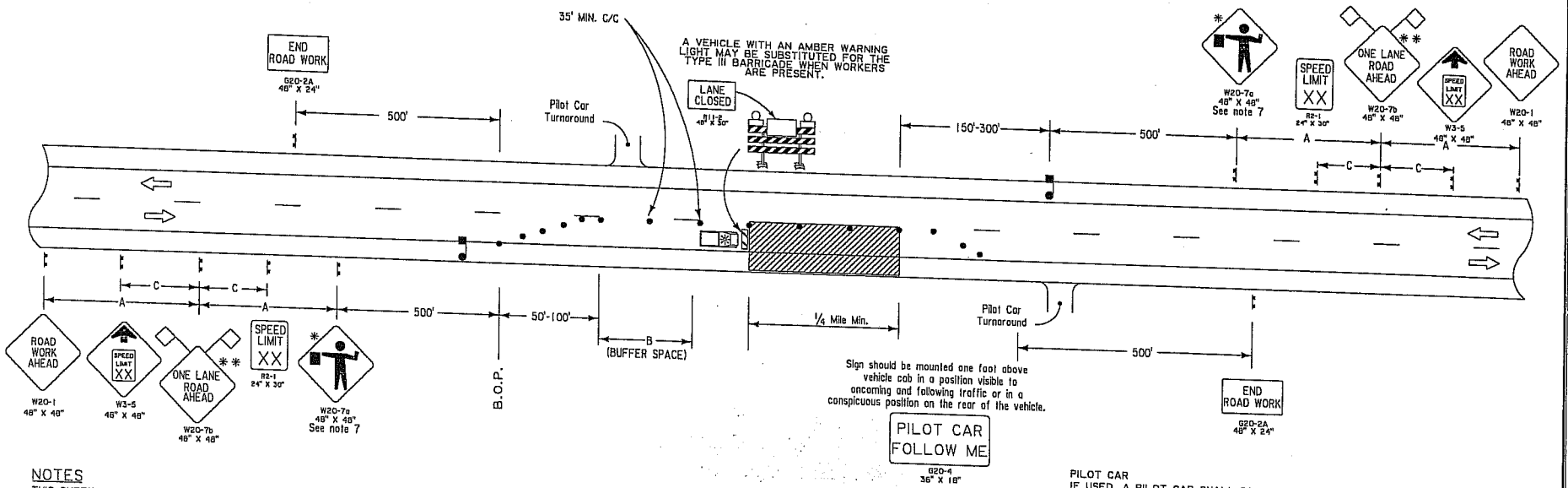
G-16

29-SEP-2008 08:57

R:\Overlay Projects\848-17-0004, 848-18-0007 & 848-19-0006 Surplus 08-09\dgn\TC-03.dgn

* REMOVE OR COVER WHEN NO LONGER APPLICABLE.

** REPLACE WITH "ROAD WORK ½ MILE" WHEN NO LONGER APPLICABLE.



NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.

2. CHANNELIZING DEVICES MAY BE PLACED UP TO 2' BEYOND CENTERLINE ONLY AT SPECIFIC LOCATIONS WHERE ACTUAL WORK ACTIVITY IS TAKING PLACE. A 10' MINIMUM TRAVELED LANE SHOULD BE MAINTAINED WHERE PRACTICAL. CHANNELIZING DEVICES SHALL BE RETURNED TO THE CENTERLINE WHEN THE WORK ACTIVITY HAS PASSED.

3. SPACING OF CHANNELIZING DEVICES IN THE TAPER SHOULD BE NO MORE THAN 20'. A MINIMUM OF 5 CHANNELIZING DEVICES ARE TO BE USED IN THE TAPER.

4. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.

5. TO PREVENT VEHICLES FROM ENTERING THE WORK AREA AGAINST THE FLOW OF TRAFFIC, AN ADDITIONAL FLAGGER SHALL BE STATIONED AT EACH INTERSECTION, MAJOR DRIVEWAY, RAILROAD CROSSING OR CROSSING WITHIN THE WORK AREA.

6. WITH THE APPROVAL OF THE ENGINEER, THE LENGTH OF THE WORK AREA MAY, FOR A SHORT DURATION, BE CHANGED TO AS MUCH AS ONE-HALF MILE MAXIMUM TO IMPROVE THE SIGHT DISTANCE TO THE FLAGGER. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN THE FLAGGERS AT ALL TIMES.

7. FOR PROJECTS IN RURAL AREAS THE DISTANCE BETWEEN FLAGGERS SHALL NOT EXCEED 2.5 MILES FOR A.D.T. (AVERAGE DAILY TRAFFIC) OF LESS THAN 2,500 AND 2.0 MILES FOR A.D.T. FROM 2,500 TO 5,000. DISTANCE BETWEEN FLAGGERS SHALL NOT EXCEED 1.5 MILES FOR A.D.T. GREATER THAN 5,000 VEHICLES.

8. THE CONTRACTOR MAY EXTEND THE LANE CLOSURE AN ADDITIONAL 1.0 MILE UNDER THE FOLLOWING PROVISIONS:

   (A) THE LANE CLOSURE EXTENSION IS PERMITTED ONLY DURING NON-PEAK HOURS.

   (B) ONCE THE TRAFFIC CONTROL DEVICES HAVE BEEN PLACED TO EXTEND THE LANE CLOSURE, THE TRAFFIC CONTROL DEVICES AT THE BEGINNING OF THE TRAFFIC CONTROL SHALL BE MOVED DOWNSTREAM TO LIMIT THE WORK AREA TO THE DISTANCE DEFINED IN NOTE 7.

9. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.

10. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

11. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN FLAGGERS AT ALL TIMES. THE FLAGGER SHALL BE VISIBLE FROM FLAGGER SIGN.

12. TYPE III BARRICADES SHALL BE PLACED IN THE CLOSED LANE AT A 1000' INTERVAL WHERE NO ACTIVE WORK IS ON GOING AND THE LANE MUST REMAIN CLOSED. TYPE III BARRICADES ARE ALSO REQUIRED BEFORE EACH OR GROUP OF UNFILLED HOLES OR HOLES FILLED WITH TEMPORARY MATERIAL, OR WHERE UNCURED CONCRETE EXISTS.

13. THE CONTRACTOR CAN USE EITHER A PILOT CAR OR CHANNELIZING DEVICES IN THE TANGENT SECTION. IF A PILOT CAR IS REQUIRED THEN THE CONTRACTOR IS NOT REQUIRED TO HAVE CHANNELIZING DEVICES IN THE TANGENT SECTION.

14. NEITHER WORK ACTIVITY NOR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIALS SHALL OCCUR WITHIN THE BUFFER SPACE.

PILOT CAR

IF USED, A PILOT CAR SHALL BE USED TO GUIDE A QUEUE OF VEHICLES THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE OR DETOUR. IT SHALL BE USED IN RESTRICTED VISIBILITY OPERATIONS SUCH AS LIME OR CEMENT STABILIZATION, CHIP SEALS, OR OPERATIONS IN HILLY OR CURVY TERRAINS WHERE FLAGGERS CAN'T SEE EACH OTHER (REQUIRE A CLEAR LINE-OF-SIGHT). PILOT CARS ARE NOT REQUIRED IN CONFINED OPERATIONS SUCH AS STRIPING OR OTHER LIMITED LANE CLOSURE OPERATIONS LESS THAN 250' (i.e. CROSS DRAIN INSTALLATIONS UNLESS THERE ARE MULTIPLE CROSS DRAINS WITH A CONTINUOUS LANE CLOSURE). THE OPERATION OF THE PILOT VEHICLE SHALL BE COORDINATED WITH FLAGGING OPERATIONS OR OTHER CONTROLS AT EACH END OF THE ONE-LANE SECTION.

SPEED LIMIT (See note 4)	Spacing		
	"A"	"B"	"C"
35 mph	500'	250'	N/A
45 mph	1000'	360'	500'
55 mph	1500'	495'	800'

STATE OF LOUISIANA
CARL E. COURVILLE
REG. No. 29312
REGISTERED PROFESSIONAL ENGINEER
IN ENGINEERING
January 15, 2008

LEGEND

- Traffic Sign
- Flagger
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light

SHEET NUMBER 7

PARISH: ST. JOHN

FEDERAL PROJECT:

STATE PROJECT: 848-17-0004, 848-18-0007 & 848-19-0006

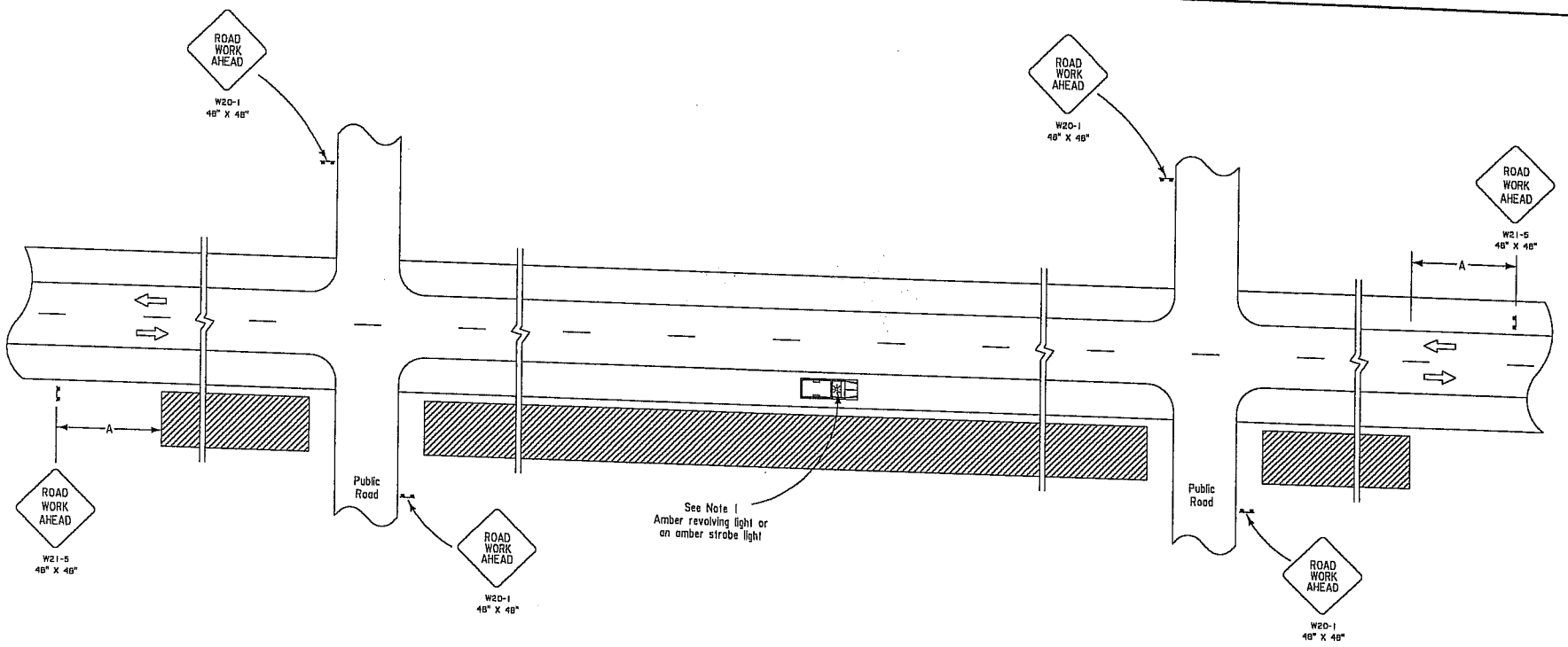
DESIGNED: C. COURVILLE
DETAILED: J. COLVIN
CHECKED: D. SONNIER
CHECKED: L. COLVIN
DATE: 01/25/2008
SHEET:

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC CONTROL LAYOUT
FOR LANE CLOSURE GREATER THAN ½ MILE IN LENGTH
(SUITABLE FOR MOVING OPERATIONS)

SHEET TC-03

TRAFFIC ENGINEERING



LEGEND

Traffic Sign

Work Area

SPEED LIMIT	Spacing
	'A'
35 mph	500'
45 mph	1000'
55 mph	1500'

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. THIS LAYOUT REPRESENTS TRAFFIC CONTROLS REQUIRED FOR WORKERS AND EQUIPMENT OPERATING OUTSIDE OF CLEAR ZONE. IF THE OPERATION RESULTS IN EQUIPMENT OR OTHER VEHICLES BEING PARKED WITHIN THE CLEAR ZONE, BUT NOT WITHIN THE ROADWAY EACH VEHICLE SHALL HAVE AN AMBER LIGHT.
2. WHEN A WORK AREA HAS BEEN ESTABLISHED ON ONE SIDE OF THE ROADWAY ONLY, THERE SHALL BE NO PARKING ON THE OPPOSITE SHOULDER WITHIN 500 FEET OF THE WORK AREA.
3. SPEED LIMIT REFERS TO THE LEGALLY ESTABLISHED SPEED LIMIT BEFORE CONSTRUCTION.
4. AN ADDITIONAL "ROAD WORK AHEAD" SIGN SHALL BE PLACED AT EACH PUBLIC ROAD INTERSECTING THE PROJECT WITHIN THE WORK AREA.
5. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
6. MINIMUM CONSTRUCTION SIGNING: ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.

STATE OF LOUISIANA
CARL E. COURVILLE
REGISTERED PROFESSIONAL ENGINEER
CIVIL
JANUARY 25 2008

SHEET NUMBER 8

DESIGNED	E. COURVILLE
CHECKED	D. COLVIN
DETAILED	D. SOWARDS
CHECKED	D. COLVIN
DATE	01/25/2008
SHEET	

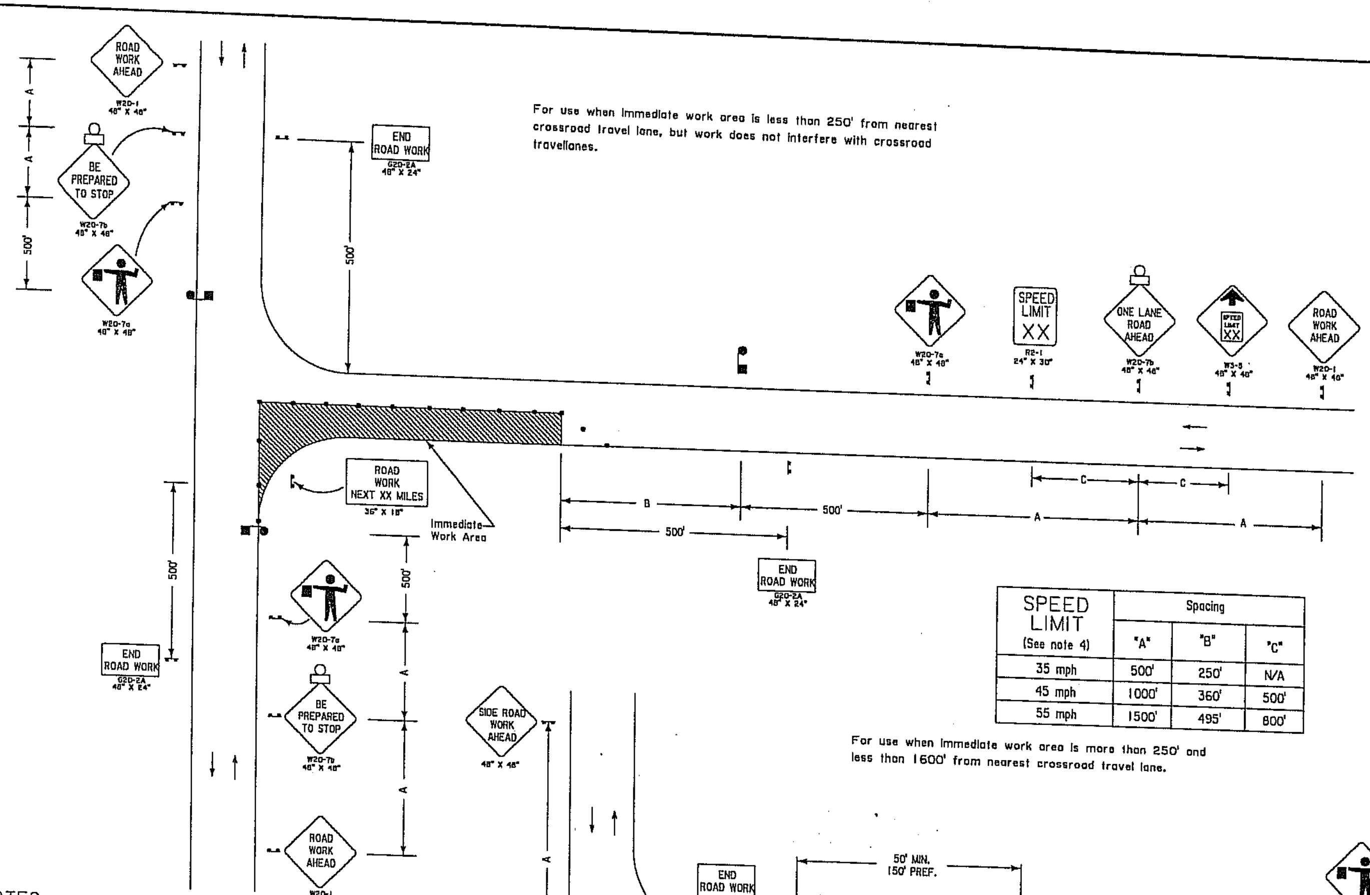
PARISH: ST. JOHN
FEDERAL PROJECT:
STATE PROJECT: B. 848-17-0004, 848-18-0007, B. 848-19-0006

TRAFFIC CONTROL LAYOUT
FOR WORK GREATER THAN 15' FROM THE TRAVELED LANE

STANDARD SHEET NO. TC-05

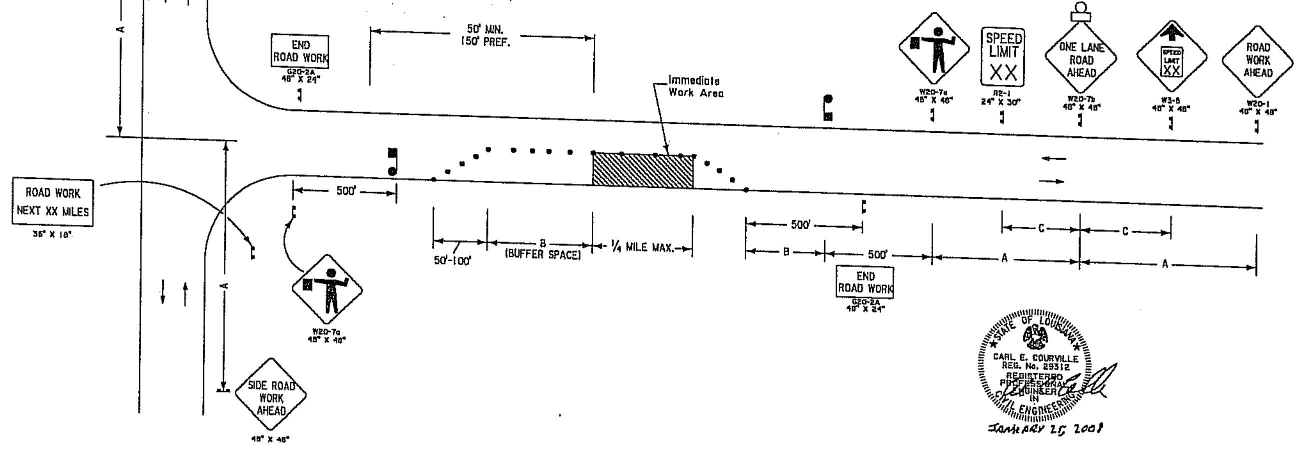
TRAFFIC ENGINEERING

For use when immediate work area is less than 250' from nearest crossroad travel lane, but work does not interfere with crossroad travellanes.



SPEED LIMIT (See note 4)	Spacing		
	"A"	"B"	"C"
35 mph	500'	250'	N/A
45 mph	1000'	360'	500'
55 mph	1500'	495'	800'

For use when immediate work area is more than 250' and less than 1600' from nearest crossroad travel lane.



LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Flagger
- Type B Light

NOTES

THIS SHEET SHALL BE USED WITH THE "TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET (TC-00)".

1. IF REDUCED SPEED LIMIT IS REQUIRED, THEN APPLICABLE SPEED LIMIT TO BE DETERMINED IN THE FIELD, TO BE AS HIGH AS PRACTICABLE AND NEVER LOWER THAN 20 MPH.
2. VISUAL OR RADIO CONTACT SHALL BE REQUIRED BETWEEN THE FLAGGERS AT ALL TIMES.
3. ANY SIGNS IN CONFLICT WITH CONSTRUCTION SIGNING SHALL BE REMOVED OR COVERED.
4. MINIMUM CONSTRUCTION SIGNING; ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED UNDER ITEM 713-01.
5. ANY SIGN NOT APPLICABLE FOR NIGHT TIME USE SHALL BE EITHER REMOVED OR COVERED AT THE END OF EACH DAY.
6. NEITHER WORK ACTIVITY NOR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIALS SHALL OCCUR WITHIN THE BUFFER SPACE.

STATE OF LOUISIANA
CARL E. COURVILLE
REG. No. 29312
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
January 25 2008

DESIGNED	E. COURVILLE	PARISH	ST. JOHN
CHECKED	J. COLVIN		
DETAILED	D. SOWARDS	FEDERAL PROJECT	
CHECKED	J. COLVIN		
DATE	01/25/2008	STATE PROJECT	848-17-0004, 848-18-0007 & 848-19-0006
SHEET		SHEET NUMBER	9

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC CONTROL LAYOUT
FOR LANE CLOSURES ON TWO LANE UNDIVIDED HIGHWAYS DURING OVERLAYS AND MOVING OPERATIONS

SPECIAL DETAIL: TC-15

DOTD

TRAFFIC ENGINEERING

NO. 1 CONDUCTORS/CABLES

A. ALL CONDUCTORS AND CABLES FROM SIGNAL HEADS AND DETECTORS SHALL BE RUN IN UNDERGROUND CONDUIT, RISERS ON POLES OR ON MESSENGER CABLE SHALL BE RUN IN THE MOST DIRECT ROUTE TO THE CONTROLLER CABINET IN ACCORDANCE WITH THE PLANS.

B. A SPARE LENGTH OF CABLE SHALL BE INSTALLED AS SHOWN ON LADOTD STANDARD DETAIL SHEETS LABELED "SPAN WIRE INSTALLATION DETAILS" AND "JUNCTION BOX AND PULL BOX". SIX FEET OF SPARE SIGNAL, LOOP LEAD-IN, COMMUNICATION, AND SERVICE CABLE, SHALL BE INSTALLED IN EACH BASE MOUNTED CABINET IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

NO. 2 CONDUIT

A. ALL UNDERGROUND CONDUIT AND ELBOWS SHALL BE SCHEDULE 80, PE (POLYETHYLENE) CONDUIT, SCHEDULE 80, SHALL BE USED FOR JACKING OR BORING. PVC (POLYVINYL CHLORIDE) CONDUIT, SCHEDULE 80, SHALL BE USED FOR TRENCHING AND BACKFILLING.

B. CONDUIT SHALL HAVE BELL BUSHINGS INSTALLED ON OPEN ENDS, AND INSTALLED AT A MINIMUM DEPTH OF 18". ALL CONDUIT SHALL BE INSTALLED BELOW DITCH INVERT WHERE APPLICABLE.

C. ALL CONDUIT CONNECTIONS SHALL BE SEALED WITH A WATERPROOF SEALING COMPOUND. ALL CABLE AND WIRE ENTRANCES SHALL BE SEALED AFTER INSTALLATION.

NO. 3 FOUNDATION DISPOSAL

THE CONTRACTOR SHALL DISPOSE OF ALL EXISTING CONTROLLER AND POLE BASE FOUNDATIONS. POLE BASE FOUNDATIONS SHALL BE SHAVED 24" BELOW NATURAL GROUND AND BACK FILLED. REMOVAL OF FOUNDATIONS SHALL BE IN ACCORDANCE WITH SECTION 202 OF THE LADOTD STANDARD SPECIFICATIONS.

NO. 4 HORIZONTAL CLEARANCE

A. MINIMUM CLEARANCES FOR TRAFFIC SIGNAL SUPPORTS AND APPARATUS SHALL BE IN ACCORDANCE WITH THE CURRENT ADOPTED EDITION OF THE MUTCD

B. IN RURAL AREAS OR UNCURBED URBAN AREAS, THE REQUIRED POLES SHALL BE LOCATED AS FAR AS PRACTICABLE BEYOND THE PAVEMENT EDGE. A MINIMUM CLEARANCE OF 2 FEET OUTSIDE THE SHOULDER OR A MINIMUM CLEARANCE OF 10 FEET OUTSIDE THE PAVEMENT EDGE, WHICHEVER IS GREATER, SHALL BE PROVIDED.

C. IN CURBED AREAS, POLES SHALL BE PLACED AS FAR AS PRACTICABLE FROM THE EDGE OF THE TRAVEL LANE. A MINIMUM CLEARANCE OF 2 FEET BEHIND CURB SHALL BE MAINTAINED.

NO. 5 INTERSECTION SPECIFIC NOTES

SEE INDIVIDUAL INTERSECTION PLAN SHEETS

NO. 6 JUNCTION BOXES

A. JUNCTION BOXES SHALL BE HEAVY DUTY DESIGN AND SHALL CONFORM WITH CURRENT LADOTD STANDARD DETAILS.

B. THE MAXIMUM DISTANCE BETWEEN JUNCTION BOXES SHALL BE 500 FEET. THE MAXIMUM DISTANCE BETWEEN JUNCTION BOXES USED FOR FIBER OPTIC OR INTERCONNECT COMMUNICATIONS CABLE SHALL BE 1000 FEET.

NO. 7 PROPERTY DAMAGE

ANY PROPERTY DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE THE CONTRACTORS RESPONSIBILITY.

NO. 8 POWER SERVICE

A. THE POWER SOURCE SHOWN ON THE DRAWINGS IS APPROXIMATE AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF THE POWER SOURCE.

B. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH AND PAY THE POWER COMPANY FOR TEMPORARY AND PERMANENT ELECTRICAL SERVICE AND SHALL VERIFY THE EXACT LOCATION AND POINTS OF ATTACHMENT BEFORE INSTALLATION IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

NO. 9 POWER DISCONNECT

A. FROM THE POWER DISCONNECT, A 1" CONDUIT WITH THREE #6 AWG-IC STRANDED COPPER TYPE THHN OR THWN INSULATION SHALL BE TURNED UP TO THE POWER COMPANY SERVICE POLE TO A HEIGHT DESIGNATED BY THE POWER COMPANY. THE CONTRACTOR SHALL TERMINATE THE CONDUIT WITH A THREADED SERVICE ENTRANCE FITTING (WEATHER HEAD) AND WIRES SHALL BE A MINIMUM OF 2 FEET BEYOND THE WEATHER HEAD TO ALLOW CONNECTION TO POWER COMPANY WIRING WITH A DRIP LOOP.

B. THE CONTRACTOR SHALL COORDINATE POWER SERVICE CONNECTION WITH UTILITY COMPANY.

C. FROM THE POWER DISCONNECT TO THE CONTROLLER, A 1" CONDUIT WITH THREE #6 AWG-IC SHALL BE INSTALLED. MEASUREMENT FOR SIGNAL SERVICE PAYMENT WILL BE IN ACCORDANCE WITH PEDESTAL MOUNTED POWER DISCONNECT.

D. A POWER DISCONNECT MUST BE LOCATED WITHIN 20 FEET OF THE SIGNAL CONTROLLER CABINET. IF THE POWER SOURCE IS OVER 20 FEET FROM THE CONTROLLER, A SEPARATE PEDESTAL MOUNTED POWER DISCONNECT MUST BE PROVIDED AT THE CONTROLLER LOCATION.

NO. 10 RIGHT-OF-WAY

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WORKING WITHIN THE RIGHT-OF-WAY LIMITS.

B. THE RIGHT-OF-WAY LIMITS SHOWN ON THE PLANS IS NOT GUARANTEED TO BE ACCURATE. A THOROUGH RIGHT-OF-WAY INVESTIGATION IS RECOMMENDED TO BE DONE BY THE USER AGENCY PRIOR TO CONSTRUCTION OF THESE PLANS TO DETERMINE IF ADDITIONAL RIGHT-OF-WAY IS REQUIRED.

NO. 11 SIGNAL CONTROLLER

ALL SIGNAL CONTROLLERS SHALL BE NEMA, 8 PHASE, CONTROLLERS THAT MEET CURRENT LADOTD STANDARDS AND SPECIFICATIONS, AND LADOTD TRAFFIC CONTROL STANDARD 18A.

NO. 12 SIGNAL CONTROLLER CABINET

A. ALL CABINETS SHALL BE LADOTD TYPE 6 CABINETS UNLESS OTHERWISE NOTED.

B. THE CONTROLLER CABINET SHALL BE ORIENTED SUCH THAT TRAFFIC ENGINEERING AND SIGNAL PERSONNEL CAN FACE THE INTERSECTION WHEN OPENING THE CABINET. THE BACK OF THE CONTROLLER SHALL PARALLEL THE MAIN ROADWAY.

C. A 3' X 5' X 4" CONCRETE PAD SHALL BE POURED IN FRONT OF CONTROLLER BASE ABOVE GROUND LEVEL TO PROVIDE AN ALL WEATHER STANDING AREA FOR SERVICE PERSONNEL.

NO. 13 SIGNAL DETECTORS

A. LOOPS SHALL CONSIST OF A CONTINUOUS LENGTH OF IMSA 51-7 #14 AWG, COPPER INSULATED WIRE WITH 19 STRANDS. (INSULATION SHALL BE 0.035 INCH XLPE WITH POLYETHYLENE LOOSE TUBE. THE TUBE SHALL HAVE A MAXIMUM O.D. OF 250 MILS.)

B. SLOTS SHALL BE DRY AND CLEANED OF LOOSE MATERIAL AND THE WIRE SHALL BE CAREFULLY INSTALLED TO ENSURE INSULATION IS NOT DAMAGED. LOOP WIRE SHALL BE INSTALLED USING WOOD INSTRUMENTS. METAL OBJECTS SHALL NOT BE USED WHILE PLACING WIRE IN SLOTS.

C. THE PROJECT ENGINEER SHALL APPROVE THE DEPTH AND CLEANLINESS OF EACH DETECTOR LOOP SLOT BEFORE THE CONTRACTOR PLACES WIRE IN THE SLOT.

D. SHIELDED CABLE SHALL BE SPLICED TO LOOP WIRE AT A PULL BOX NEAREST THE LOOP (OR LOCATION SPECIFICALLY DESIGNATED ON THE PLANS) AND SHALL BE CONTINUOUS TO THE TERMINATION PANEL IN THE CONTROLLER CABINET. NO SPLICE SHALL BE PERMITTED BETWEEN THE LOOP LEAD-IN AND THE TERMINATION PANEL.

E. LOOPS OPERATING ON THE SAME PHASE SHALL BE WIRED IN SERIES. A SINGLE LOOP LEAD-IN WIRE SHALL BE RAN FROM THE JUNCTION BOX TO THE CONTROLLER.

NO. 14 SIGNAL EQUIPMENT LOCATION

A. LOCATIONS OF POLES, SIGNALS, LOOP DETECTORS, SYSTEM SENSORS, CONTROLLERS AND JUNCTION BOXES ARE APPROXIMATE. EXACT LOCATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER.

B. THE CONTRACTOR SHALL STAKE THE LOCATION OF EACH POLE FOUNDATION AND NOTIFY THE PROJECT ENGINEER FOR CONCURRENCE IN THE LOCATION BEFORE PROCEEDING WITH THE INSTALLATION OF THE POLE FOUNDATION.

C. ONCE THE POLE FOUNDATION IS INSTALLED, MAST ARM LENGTHS SPECIFIED ON PLANS ARE TO BE VERIFIED TO ORDER THE MATERIALS. IF A TIME EXTENSION IS NEEDED, IT SHALL BE AT THE DISCRETION OF THE PROJECT ENGINEER TO GRANT THE EXTENSION.

NO. 15 SIGNAL EQUIPMENT REMOVAL

A. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT AND CONTROL DEVICES AT EACH INTERSECTION SHALL BE REMOVED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.

B. THE CONTRACTOR SHALL DELIVER ALL SALVAGEABLE TRAFFIC SIGNAL EQUIPMENT AND TRAFFIC CONTROL DEVICES TO THE OWNER.

C. THE REMOVAL AND DELIVERY OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT AND TRAFFIC CONTROL DEVICES TO THE OWNER SHALL BE PAID FOR UNDER ITEM FOR "REMOVAL OF TRAFFIC SIGNAL EQUIPMENT".

NO. 16 SIGNAL POLE HEIGHT

A. THE CONTRACTOR SHALL PROVIDE HEIGHTS THAT ARE SUFFICIENT TO ENSURE THAT THE BOTTOM OF THE LOWEST SIGNAL ON AN ASSEMBLY IS NOT LESS THAN 17' ABOVE THE PAVEMENT. FOR MAXIMUM HEIGHT REFER TO THE MUTCD, CURRENT ADOPTED EDITION.

B. SIGNAL HEAD ALIGNMENT AND CLEARANCE SHALL BE IN ACCORDANCE WITH THE LADOTD SIGNAL MANUAL.

NO. 17 SIGNAL POLE LOADING

ALL FURNISHED METAL STRAIN POLES SHALL HAVE A MINIMUM WORKING LOAD CAPACITY OF 4,000 POUNDS APPLIED ONE (1) FOOT BELOW TOP OF POLE, UNLESS OTHERWISE SPECIFIED.

NO. 18 SIGNAL POLE FINISH REPAIR

IF HOT-DIPPED GALVANIZED STEEL POLES ARE DAMAGED, THE DAMAGED GALVANIZED AREA SHALL BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH SUBSECTION 811.12 OF THE LADOTD STANDARD SPECIFICATIONS.

NO. 19 SIGNAL POLE ELECTRICAL CLEARANCES

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER CLEARANCES FROM EXISTING UTILITY LINES AND LUMINARIES IN ACCORDANCE WITH THE NATIONAL ELECTRICAL SAFETY CODE.

NO. 20 STANDARDS

A. ALL WORK SHALL CONFORM TO LADOTD'S LATEST EDITION OF THEIR STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, AND THE PROJECT SPECIAL PROVISION SPECIFICATIONS.

B. ALL SIGNS, SIGNALS, PAVEMENT MARKINGS AND TEMPORARY TRAFFIC CONTROL DEVICES ARE TO CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) (MILLENNIUM EDITION AND ALL SUBSEQUENT ADOPTED REVISIONS).

NO. 21 TRAFFIC CONTROL, EXISTING SIGNALS

A. THE CONTRACTOR, SHALL BE RESPONSIBLE FOR THE CONTINUAL OPERATION OF THE EXISTING OR TEMPORARY TRAFFIC SIGNALS DURING THE PERIOD OF CONSTRUCTION WHICH INCLUDES RELOCATING POLES, DETECTORS, SIGNAL HEADS, AND OTHER ITEMS, AND SHALL PROVIDE TEMPORARY POLES OR OTHER MATERIALS NECESSARY TO ENSURE THE CONTINUAL OPERATION OF THE SIGNAL AND COMMUNICATION EQUIPMENT AT ALL TIMES. WHERE VEHICLE DETECTORS ARE PRESENT, VEHICLE DETECTION MUST BE MAINTAINED.

B. THE CONTRACTOR SHALL SCHEDULE WORK SO THAT THE CHANGEOVER FROM THE EXISTING SIGNAL EQUIPMENT TO THE NEW SIGNAL EQUIPMENT SHALL BE DONE PROMPTLY.

C. THE CHANGEOVER SHALL BE SCHEDULED DURING NON PEAK HOUR TRAFFIC CONDITIONS UNLESS DIRECTED OTHERWISE BY THE PROJECT ENGINEER, AS ADVISED BY THE OFFICE OF THE DISTRICT TRAFFIC OPERATIONS ENGINEER.

NO. 22 TRAFFIC CONTROL, POLICE ASSISTANCE

THE CONTRACTOR SHALL PROVIDE POLICE SUPERVISION OF TRAFFIC ANYTIME THE TRAFFIC SIGNAL SYSTEM IS NOT IN OPERATION, IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

NO. 23 UTILITIES, UNDERGROUND

A. UNDERGROUND UTILITIES MAY EXIST IN THE CONSTRUCTION AREAS. THE LOCATION AND TYPE SHOWN IS NOT GUARANTEED TO BE ACCURATE NOR ALL INCLUSIVE. THE INFORMATION IS SHOWN SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE ENGINEER DOES NOT GUARANTEE ACCURACY OR GUARANTEE THAT ALL UTILITIES ARE SHOWN.

B. BEFORE ANY EXCAVATIONS, THE CONTRACTOR SHALL CONTACT "LOUISIANA ONE CALL", THE APPROPRIATE UTILITY COMPANY, AND LADOTD TRAFFIC SERVICES (225)935-0100 FOR LOCATION OF THE UNDERGROUND SERVICE A MINIMUM OF 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. THE "LOUISIANA ONE CALL" NUMBER IS 1-800-272-3020.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH, AND SIZE OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND SHALL BE LIABLE FOR ANY DAMAGES CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAKING INDEPENDENT INVESTIGATIONS, INCLUDING ANY SUBSURFACE INVESTIGATIONS AS NECESSARY.

STATE OF LOUISIANA — DANIEL J. LORIO, III — REG. No. 18681 — REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING

10-30-06

SHEET NUMBER	10
PARISH	ST. JOHN
FEDERAL PROJECT	
STATE PROJECT	848-18-0007 & 848-19-0006
DESIGNED	B. MCCARROLL
CHECKED	B. MCCARROLL
DETAILED	B. MCCARROLL
CHECKED	D. LORIO
DATE	10/30/2006
SHEET	1 OF 11

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC SIGNAL AND INSTALLATION DETAILS

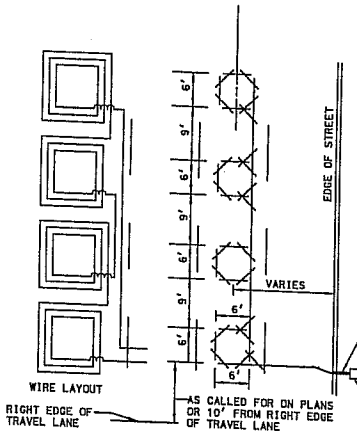
SIGNAL NOTES

TSD-00

TRAFFIC ENGINEERING

TYPICAL SAW CUT LAYOUT

NOTE: LOOPS CENTERED ON LANE WIDTH WILL VARY DEPENDENT ON LANE WIDTH AND WILL NOT BE UNIFORM OVER LENGTH OF LOOP SHALL FIT DETECTION ZONE AS SHOWN ON PLANS.



WIRE LAYOUT

RIGHT EDGE OF TRAVEL LANE — AS CALLED FOR ON PLANS OR 10' FROM RIGHT EDGE OF TRAVEL LANE

NOTES:

1. LOOPS SHALL CONSIST OF A CONTINUOUS LENGTH OF NO. 14 AWG, 19-STRAND WIRE, INSULATED BY A CROSS-LINKED THERMOSETTING BLACK POLYETHYLENE COMPOUND (ASTM D-2655-80).
2. THE CONDUCTOR SHALL BE COPPER AND SHALL, BEFORE INSULATING, CONFORM TO THE REQUIREMENTS OF ASTM B-3.
3. THE STRANDED CONDUCTOR SHALL UTILIZE EITHER CONCENTRIC OR BUNCH STRANDING AND SHALL CONFORM TO THE CIRCULAR MIL AREA AND PHYSICAL REQUIREMENTS SPECIFIED IN ASTM DESIGNATION B-8, OR ASTM DESIGNATION B-174, FOR BUNCH STRANDING.
4. THE INSULATION SHALL BE APPLIED CONCENTRICALLY ABOUT CONDUCTOR. THE THICKNESS OF THE INSULATION SHALL BE NOT LESS THAN 0.030 INCHES AT ANY POINT WITH A MINIMUM AVERAGE THICKNESS OF 0.035 INCHES. THE METHOD OF MEASUREMENT AND THE APPARATUS USED SHALL BE IN ACCORDANCE WITH UNDERWRITERS LABORATORIES, INCORPORATED STANDARD UL62 (ANSI C33.1).
5. THE INSULATION OF THE FINISHED CONDUCTOR SHALL WITHSTAND WITHOUT BREAKDOWN THE APPLICATION OF A 60 OR 3000 HERTZ, 7500 VOLT (RMS) ESSENTIALLY SINUSOIDAL SPARK TEST POTENTIAL IN ACCORDANCE WITH THE METHOD AND USING EQUIPMENT SPECIFIED IN UNDERWRITERS LABORATORIES, INCORPORATED STANDARD UL83 (ANSI C33.8).
6. LOOP WIRE SHALL CONFORM TO IMSA SPECIFICATION 51-7 EXCEPT WHERE MODIFIED BY THESE SPECIFICATIONS.
7. THE INSULATED CONDUCTOR SHALL BE COMPLETELY ENCASED IN A TUBE OF LOW DENSITY POLYETHYLENE CONFORMING TO THE FOLLOWING DIMENSIONS:

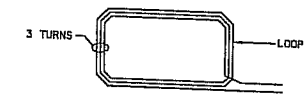
NOMINAL OUTSIDE DIAMETER	.24 INCH
MAXIMUM OUTSIDE DIAMETER	.25 INCH
NOMINAL INSIDE DIAMETER	.173 INCH
MAXIMUM INSIDE DIAMETER	.177 INCH
NOMINAL WALL THICKNESS	.030 INCH
MAXIMUM WALL THICKNESS	.035 INCH

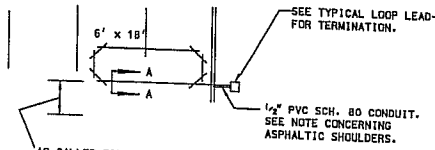
THE NAME OF THE MANUFACTURER, THE YEAR OF MANUFACTURE, AND ANY APPLICABLE PART NUMBER SHALL BE PRINTED ON THE ENCASING TUBE AT INTERVALS OF 27 INCHES OR LESS

8. SLOTS SHALL BE CLEANED OF LOOSE MATERIAL. THE WIRE SHALL BE CAREFULLY INSTALLED TO ENSURE THE INSULATION IS NOT DAMAGED.
9. LOOPS POSITIONED PART IN ASPHALT AND PART IN CONCRETE SHALL BE SEPARATED. SEPARATE LOOPS SHALL TERMINATE AT THE JUNCTION BOX AND SHALL BE WIRED IN SERIES.

½" PVC SCH. 80 CONDUIT. SEE NOTE CONCERNING ASPHALTIC SHOULDERS.

SEE TYPICAL LOOP LEAD-IN INSTALLATION FOR TERMINATION.



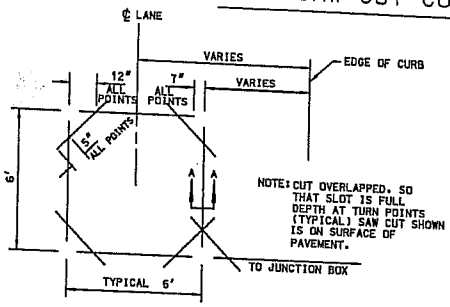


SEE TYPICAL LOOP LEAD-IN INSTALLATION FOR TERMINATION.

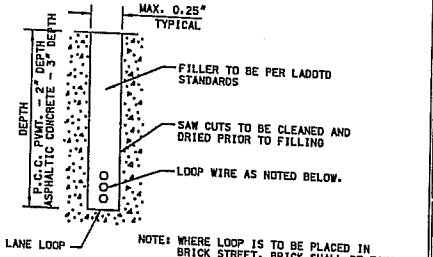
½" PVC SCH. 80 CONDUIT. SEE NOTE CONCERNING ASPHALTIC SHOULDERS.

AS CALLED FOR ON PLANS OR 10' FROM RIGHT EDGE OF TRAVEL LANE

LOOP SAW-CUT CONFIGURATION



NOTE: CUT OVERLAPPED, SO THAT SLOT IS FULL DEPTH AT TURN POINTS (TYPICAL) SAW CUT SHOWN IS ON SURFACE OF PAVEMENT.

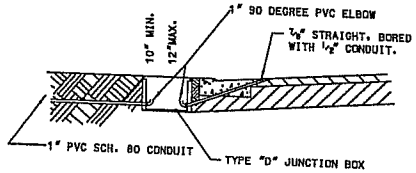


SECTION A-A

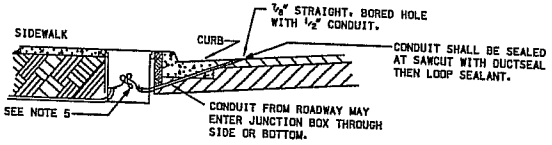
NOTE: WHERE LOOP IS TO BE PLACED IN BRICK STREET, BRICK SHALL BE TAKEN UP AND THE LOOP WIRE PLACED 1" BELOW THE BRICK BEDDING SURFACE TO PREVENT ABRASION BETWEEN BRICK AND WIRE. BRICK SHALL BE REPLACED TO ORIGINAL GRADE UPON COMPLETION OF LOOP WIRE PLACEMENT.

NOTE: SAW CUTS DO NOT MEET AT CORNER OF RECTANGLE. DIMENSIONS SHOWN ARE REQUIRED FOR USING 12"SAW BLADE. LARGE BLADES REQUIRE LONGER DISTANCES THAN SHOWN AT CORNERS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING CORRECT DEPTH REGARDLESS OF BLADE SIZE, UNLESS OTHERWISE NOTED IN PLANS.

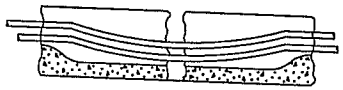
TYPICAL LOOP LEAD-IN INSTALLATION



NOTE: TYPE D 12"X12"X13" FOOTED JUNCTION BOX, H-10 LOAD. INSTALL WHERE SIDEWALKS ARE EXISTING.



PAVEMENT JOINT & CRACK SECTION



NOTE: DROP SAW BLADE DOWN TO ALLOW SLACK IN CABLE. JOINT LESS THAN ½"— ALL OTHER JOINTS SHALL NOT BE CROSSED EXCEPT AS DIRECTED BY ENGINEER.

NOTES:

1. CONTRACTOR SHALL PROVIDE ½" CONDUIT FROM JUNCTION BOX AND TERMINATE BELOW GROUND SO THAT IT DIRECTLY RECEIVES LOOP LEAD-IN WIRE.
2. FOR A LOOP INSTALLATION IN PAVEMENT WITH OVERLAYS LESS THAN 3" OVER CONCRETE, A DEEPER DEPTH SAWCUT SHALL BE REQUIRED. THE DEPTH REQUIRED SHALL PRODUCE A 1" SAW CUT INTO THE CONCRETE AND SHALL BE DETERMINED AT THE JOB SITE. THE SAW CUT SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THE WIRE INSTALLATION.
3. FOR LOOP INSTALLATIONS IN ROADWAY THAT HAS ASPHALT SHOULDERS, THE ½" CONDUIT SHOWN ABOVE SHALL BE EXTENDED THROUGH A TRENCH IN THE SHOULDER TO A JUNCTION BOX INSTALLED OUTSIDE THE SHOULDER.
4. IDENTIFY LOOP WIRES WITH PERMANENT LABEL MARKED WITH CONTROLLER PHASE.
5. LOOP SPLICE SHALL BE MADE WITH A COPPER OPEN ENDED COMPRESSION SPLICE CAP AND CRIMPED. THE LOOP SPLICE SHALL THEN BE SEALED WITH A SCOTCHCAST ELECTRICAL INSULATING RESIN SYSTEM OR A APPROVED EQUAL.

STATE OF LOUISIANA — DANIEL A. LOBO, III — REG. No. 19061 — REGISTERED PROFESSIONAL ENGINEER IN LOUISIANA

10-16-06

SHEET NUMBER	11
PARISH	ST. JOHN
FEDERAL PROJECT	848-18-0007 & 848-19-0006
STATE PROJECT	
DESIGNED	S. MCCARRELL
CHECKED	S. MCCARRELL
DETAILED	K. MCCARRELL
CHECKED	D. LOBO
DATE	10/04/2006
SHEET	8 OF 11

REVISION DESCRIPTION — NO. — DATE — BY

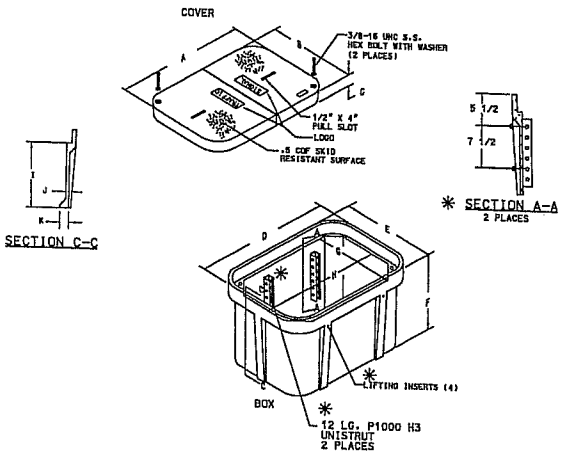
TRAFFIC SIGNAL AND INSTALLATION DETAILS

SAW CUTTING PAVEMENT AND LOOP WIRE

TSD-08

TRAFFIC ENGINEERING

JUNCTION BOX

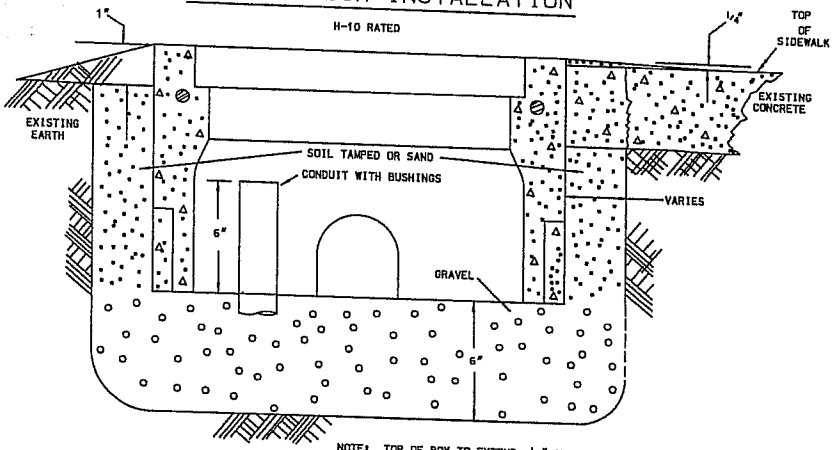


TYPE BOX	DIMENSION (IN.) (APPROX.)										
	A	B	C	D	E	F	G	H	I	J	K
E	23 3/4	13 3/4	2	25	15 1/2	12	11 3/4	21 1/4	10	3/4	1 1/4
F	30 1/2	17 1/2	2	32 1/4	19 1/4	12	15 1/2	28 1/2	10	3/4	1 1/4
G	35 5/8	24	2	37 5/8	26	18	22 1/4	33 7/8	15	1/2	2
H	35 5/8	24	3	37 5/8	26	36	22 1/4	33 7/8	15	1/2	2
I	47 5/8	30 1/8	3	49 5/8	32 1/8	18	28 1/8	45 5/8	15	1/2	2
J	47 5/8	30 1/8	3	49 5/8	32 1/8	36	28 1/8	45 5/8	15	1/2	2

NOTE FOR ALL JUNCTION BOXES:
1. JUNCTION BOXES AND COVERS SHALL BE CONSTRUCTED OF A CONCRETE COMPOSITE MATERIAL.
2. JUNCTION BOX SHALL HAVE A HOLLOW BASE.
3. NO "MOUSE TYPE" OPENING SHALL BE PRESENT.
4. BOX DIMENSIONS SHOWN ARE NOMINAL.
5. A MINIMUM OF 4' OF SPARE SIGNAL. LOOP LEAD-IN, 6PR. AND SERVICE CABLE SHALL BE INSTALLED IN EACH JUNCTION BOX.
6. SEE TCS #22 WRITTEN SPECIFICATION FOR MORE INFORMATION.

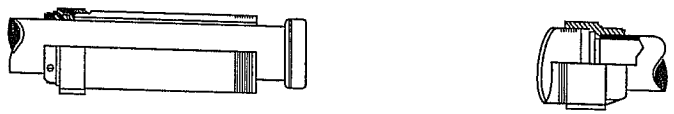
* NOTE FOR TYPE G, H, I AND J JUNCTION BOXES:
1. INSERTS TO BE CENTERED ON ONE WALL OF BOX, 5.625" FROM THE TOP OF EACH BOX.
2. TWO PIECES OF ALUMINUM OR STEEL PIERCED CHANNEL 11" LONG TO BE SUPPLIED WITH EACH BOX.
3. BOLTS TO BE 1/2"-13 X 3/4" LONG STAINLESS STEEL. 1/8" SPACERS TO BE PLACED BETWEEN CHANNELS AND WALL OF JUNCTION BOX.
4. CHANNEL RACKING TO BE FACTORY INSTALLED.
5. PROJECTS WITH FIBER OPTIC COMMUNICATION: INSTALL A MINIMUM OF 50' SPARE FIBER IN TYPE "GG" AND 100' SPARE FIBER IN LARGER JUNCTION BOXES.

JUNCTION BOX INSTALLATION

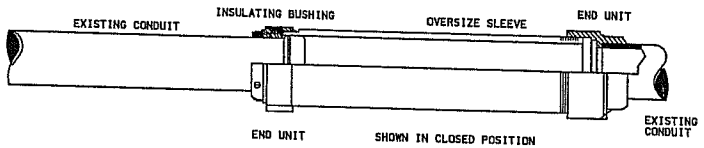


NOTE: TOP OF BOX TO EXTEND 1/4" ABOVE EXISTING SIDEWALK WITH NEW SIDEWALK SLOPED UP TO TOP OF BOX

TYPE PBW WEATHERPROOF PULL BOX FITTING



SHOWING TYPE " PBW " IN OPEN POSITION BEFORE PULLING CABLE



TYPE PBW- WEATHERPROOF

CONDUIT (NOM.)	TYPE PBW	SLEEVE* (NOM.)	MAX. DIA.
SIZE(IN.)		SIZE(D X L)	
1	PBW 100	1 1/2 X 12	2 3/8
2	PBW 200	3 X 20	4
3	PBW 300	4 X 28	5 1/16

* UNLESS OTHERWISE SPECIFIED ON PLANS.

STATE OF LOUISIANA
DANIEL J. LORIO, III
REG. No. 19861
REGISTERED PROFESSIONAL ENGINEER
10-30-06

SHEET NUMBER	12
PARISH	ST. JOHN
FEDERAL PROJECT	
STATE PROJECT	848-18-0007 & 848-19-0006
DESIGNED R. MCCARROLL	
CHECKED R. MCCARROLL	
DETAILED D. LORIO	
CHECKED D. LORIO	
DATE 10/30/2006	
SHEET 10 OF 11	
BY	
NO.	DATE
REVISION DESCRIPTION	

TRAFFIC SIGNAL AND INSTALLATION DETAILS

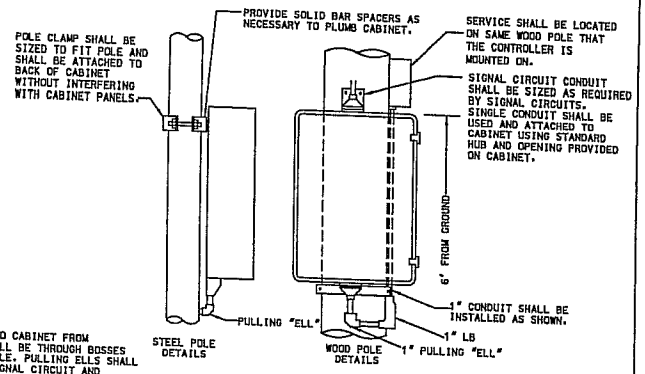
JUNCTION BOX AND PULL BOX

TSD-09

TRAFFIC ENGINEERING

G-22

POLE MOUNTED CONTROLLER TYPE 2 & 3 CABINET

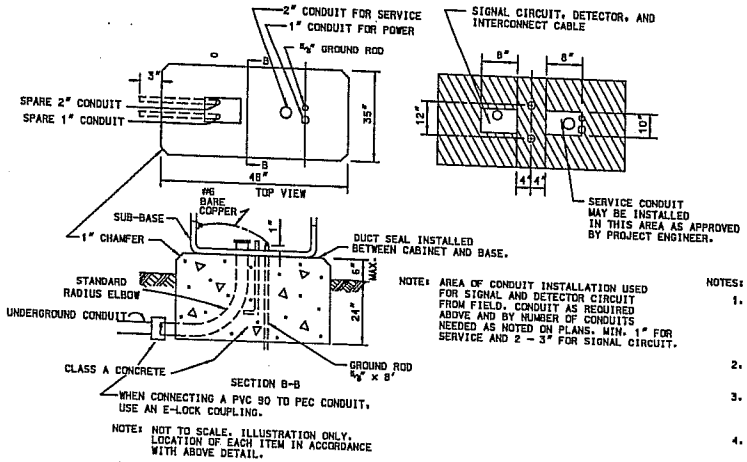


NOTES:

1. WIRE ENTRY INTO CABINET FROM STEEL POLE SHALL BE THROUGH BOSSES PROVIDED ON POLE. PULLING ELLS SHALL BE USED FOR SIGNAL CIRCUIT AND SERVICE CONDUIT. HUB ATTACHMENT ON BOTTOM OF CABINET SHALL BE USED FOR SIGNAL CIRCUIT CONDUIT. STANDARD TYPE CONTROLLER CABINET HUB SHALL BE INSTALLED ON CABINET FOR SERVICE ENTRANCE.
2. ALL SERVICE DISCONNECTS SHALL BE LOCATED ON CLOSEST WOOD POLE AVAILABLE FOR SERVICE.
3. TOP AND BOTTOM OF CABINET SHALL BE ATTACHED TO WOOD POLES USING BRACKETS MOUNTED WITH CONDUIT HUBS. STANDARD BRACKETS AND ATTACHED TO POLE WITH 1/2" X 4" HDG LAG SCREWS.
4. CONDUIT FOR SIGNAL CIRCUIT SHALL BE SIZED AS REQUIRED, MIN. 2", MAX. 3".

CONTROLLER FOUNDATION

NOTE: FOR TYPE 5, 6, AND 7 CABINETS D.O.T.D. - T.C.S. #18



NOTE: AREA OF CONDUIT INSTALLATION USED FOR SIGNAL AND DETECTOR CIRCUIT FROM FIELD. CONDUIT AS REQUIRED ABOVE AND BY NUMBER OF CONDUITS NEEDED AS NOTED ON PLANS. MIN. 1" FOR SERVICE AND 2 - 3" FOR SIGNAL CIRCUIT.

NOTE: NOT TO SCALE. ILLUSTRATION ONLY. LOCATION OF EACH ITEM IN ACCORDANCE WITH ABOVE DETAIL.

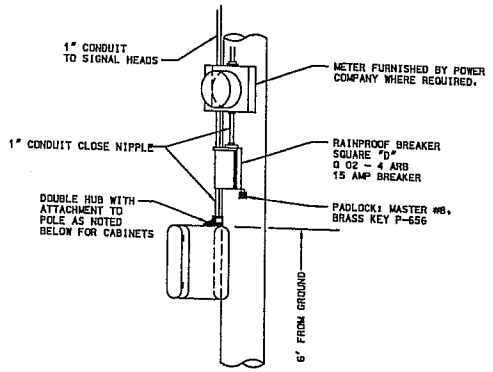
NOTES:

1. ALL GROUND MOUNTED CONTROLLERS TO HAVE SPARE 2" CONDUIT STUBBED OUT 24" BELOW GRADE & 24" OUT FROM BACK OF CABINET IN ADDITION TO OTHER REQUIRED. CONDUITS. SPARE CONDUIT SHALL BE CAPPED.
2. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1" CHAMFER.
3. ALL CONDUIT, GROUND ROD AND ANCHOR BOLTS SHALL BE INSTALLED WITH 1"± 1/2" EXPOSED ABOVE BASE.
4. CONTROLLER FOUNDATION SHALL BE MARKED TO SHOW THE LOCATION AND DIRECTION OF ALL SPARE CONDUIT.
5. FOUNDATION SHALL BE ORIENTATED AS SHOWN ON THE PLANS. TYPICALLY, DOOR SIDE SHALL BE AWAY FROM TRAFFIC.
6. #6 AWG BARE COPPER WIRE ON GROUND ROD, ONE SIDE TO BE CONNECTED TO GROUND LUG ON PANEL.

POLE MOUNTED FLASHER CONTROLLER

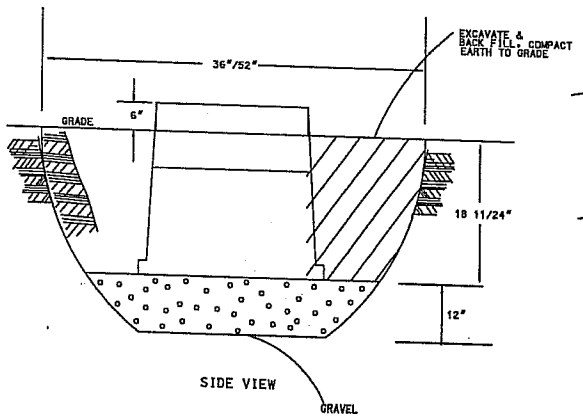
(6 1/2" x 12" x 16")

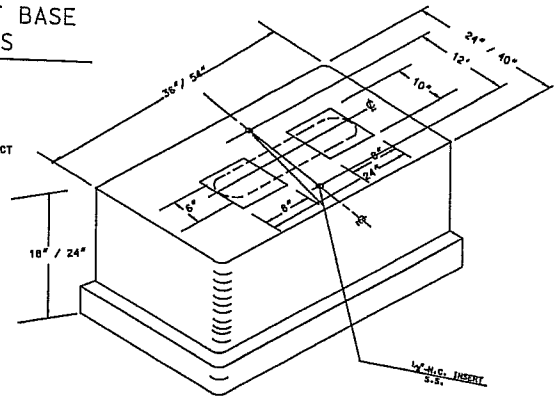
NOTE: USED FOR FLASHING HAZARD BEACONS AND CONTINUOUS FLASHING SIGNS. THIS ITEM SHALL BE INCLUSIVE WITH ELECTRICAL SERVICE.



NOTE: ALL EQUIPMENT SHALL BE ATTACHED TO POLE WITH HDG LAG SCREWS.

ALTERNATE CONTROLLER CABINET BASE FOR TYPE 5 & 6 CABINETS





NOTES:

1. CABLE SLOT- EITHER 2- 6" X 10", OR 1- 6" X 24"
2. DOTD REQUIRES ONLY THE 1/2" INSERTS AS SHOWN FOR BOTH CABINETS. TYPE 5 & 6. ORIENTATION OF BASE AND POSITION OF CABINET SHALL BE AS STATED ABOVE.
3. DUAL DIMENSIONS SHOWN, 18" x 36" x 24" FOR TYPE 5 AND 24" x 54" x 40" FOR TYPE 6.

STATE OF LOUISIANA — DANIEL J. LORIO, III — REG. No. 19061 — REGISTERED PROFESSIONAL ENGINEER — 10-30-08

SHEET NUMBER 13

DESIGNED: B. MCDOWELL
DRAWN: B. MCDOWELL
CHECKED: B. MCDOWELL
APPROVED: L. LORIO
DATE: 10/30/08
SHEET: 11 OF 11

PARISH: ST. JOHN
FEDERAL PROJECT: 848-18-0007 & 848-19-0006
STATE PROJECT:

NO.	DATE	BY	REVISION DESCRIPTION

TRAFFIC SIGNAL AND INSTALLATION DETAILS

CONTROLLER MOUNTING AND FOUNDATION

TSD-10

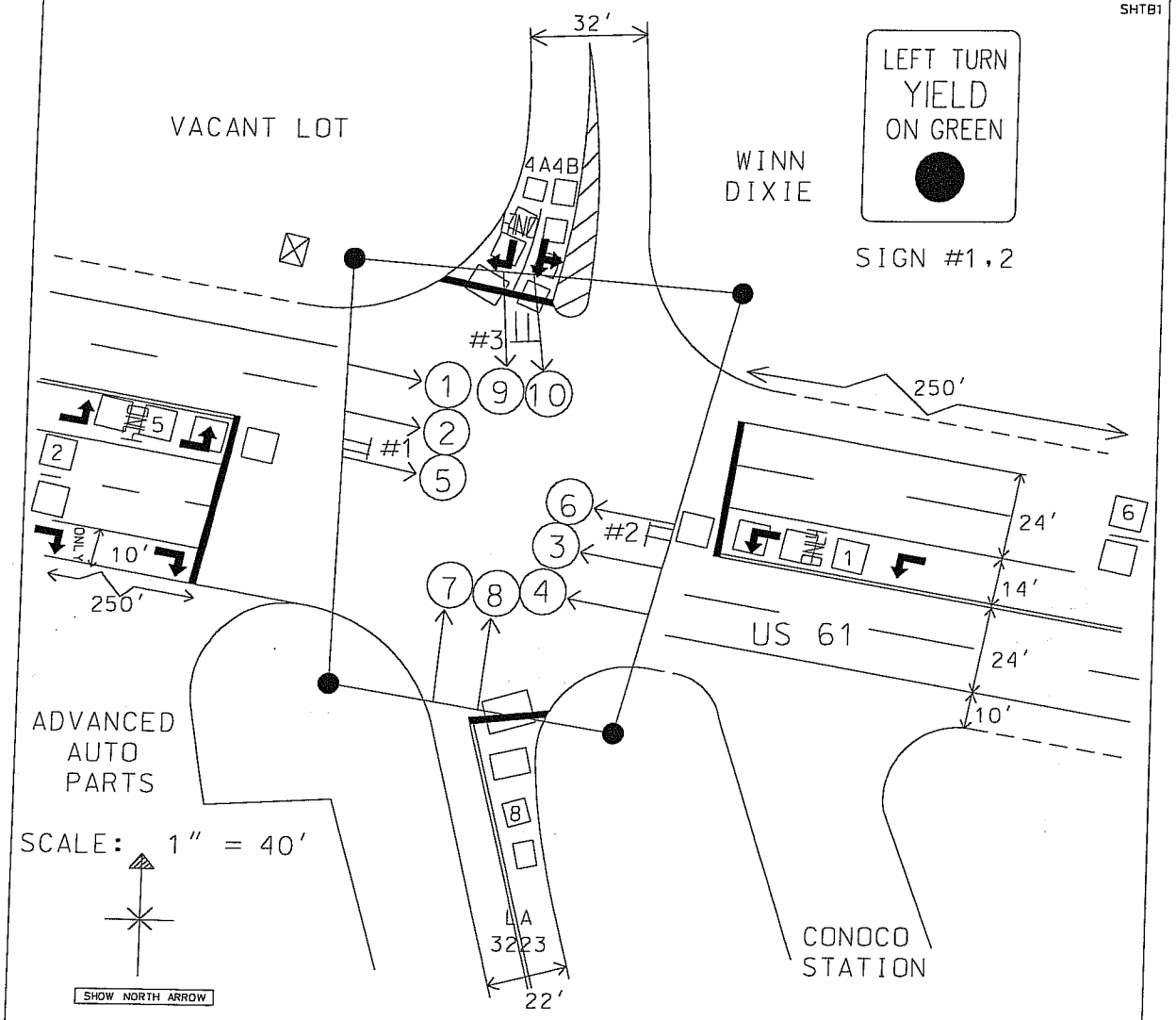
TRAFFIC ENGINEERING

29-SEP-2008 08:58

SHTB1

CONTROL SECTION 007-04	HIGHWAY US 61	PARISH ST. JOHN 48	TSI NO. 00014	SHEET 2 OF 5

SHTB1



- WOOD POLE
- METAL POLE
- SPAN WIRE
- CONTROLLER
- STOP LINE
- PED CROSS WALK
- *2 SPAN WIRE SIGN & NO.
- *3 GROUND MOUNT SIGN & NO.
- *3 OVERHEAD SIGN & NO.
- L4 LOOP DETECTOR & NO.
- PEDESTAL MOUNT SIGNAL & NO.
- SIGNAL FACE & NO.
- PEDESTRIAN SIGNAL & NO.
- PED BUTTON & SIGN
- PARALLEL PARKING

EXISTING SPEED LIMITS
US 61 - 45 MPH
LA 3223 - 30 MPH

SIGNAL FACES		1-4, 8-10				5, 6	7			
TOTALS		7				2	1			
R - RED Y - YELLOW *G - GREEN *G - GREEN ARROW Y - YELLOW ARROW DK - DARK 12" - 12" DIA LENS W - WALK DW - DON'T WALK FDW - FLASHING DON'T WALK		R 12" Y 12" G 12"				R 12" 12" Y 12" 12" G 12"	R 12" 12" Y 12" 12" G 12"			PED

SHEET NO. 14

PARISH	FEDERAL PROJECT	STATE PROJECT
ST. JOHN		848-18-0007

DESIGNED	BET
CHECKED	AAS
DETAILED	BET
CHECKED	AAS
DATE	
SHEET	

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC SIGNAL INVENTORY

DISTRICT 62 DESIGN

29-SEP-2008 08:58 C:\Projects\848-18-0004, 848-18-0007 & 848-19-0006 Surplus 08-09\dgn\14 TSI US61@ LA3223.dgn

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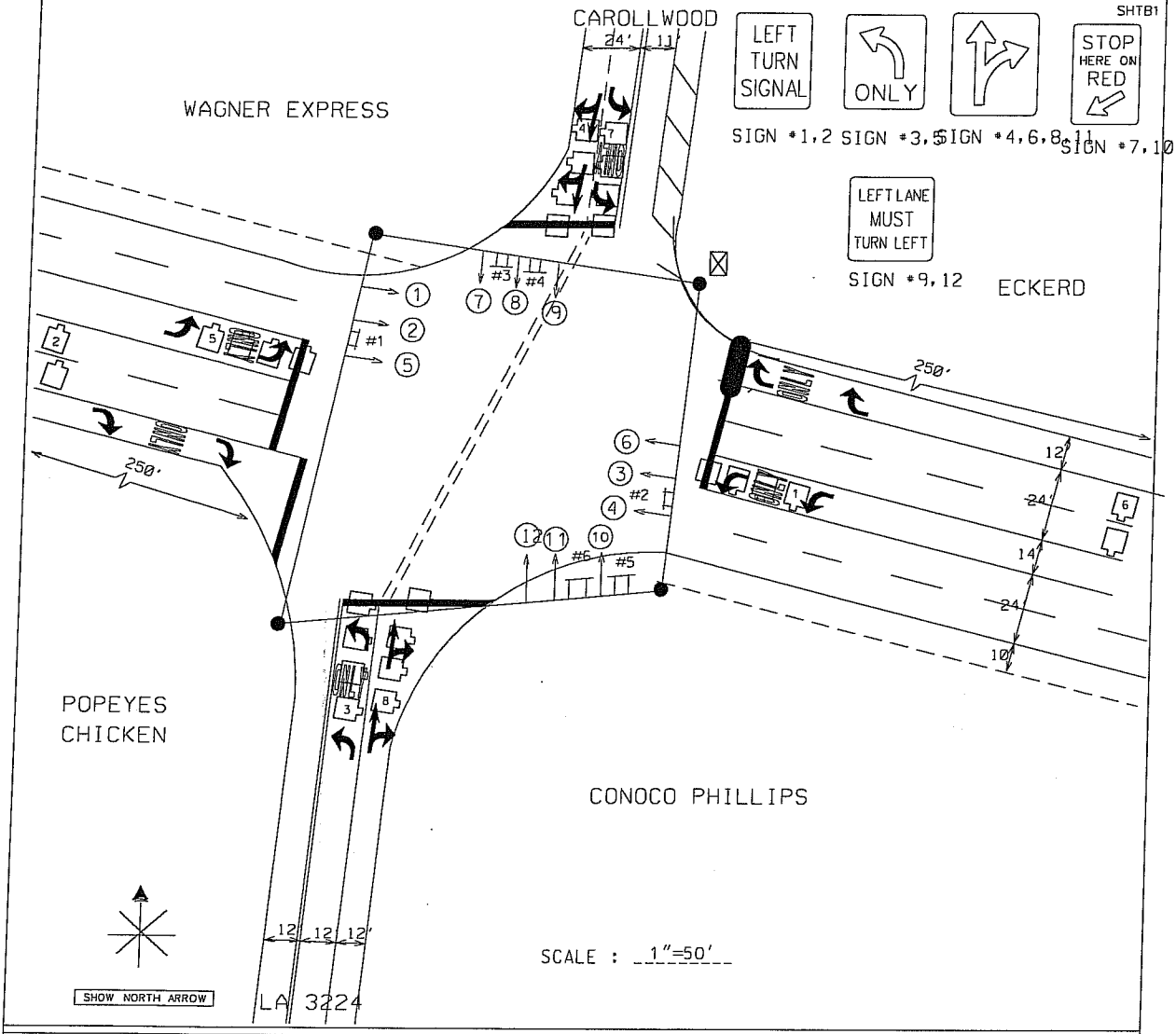
SHTB1

CONTROL SECTION 007-04	HIGHWAY US 61	PARISH ST JOHN	TSI NO. 006	SHEET 2 OF 5



○ WOOD POLE	*2 SPAN WIRE SIGN & NO.	(2)←□ PEDESTAL MOUNT SIGNAL & NO.	EXISTING SPEED LIMITS
● METAL POLE	*3□ GROUND MOUNT SIGN & NO.	(2)← SIGNAL FACE & NO.	US 61 - 45 MPH
○—○ SPAN WIRE	*3 OVERHEAD SIGN & NO.	[2]← PEDESTRIAN SIGNAL & NO.	
☒ CONTROLLER	□L4 LOOP DETECTOR & NO.	◎ PED BUTTON & SIGN	
▭ STOP LINE		└┘ PARALLEL PARKING	
═ PED CROSS WALK			

SIGNAL FACES	1,2,3, 4,8,9	5,6 7,10								
TOTALS	6	4								
R - RED Y - YELLOW G - GREEN G - GREEN ARROW Y - YELLOW ARROW DK - DARK 12" - 12" DIA. LENS W - WALK DW - DON'T WALK FDW - FLASHING DON'T WALK	12" R 12" Y 12" G	12" R 12" Y 12" G	○ ○ ○	○ ○ ○○	○ ○ ○○	○ ○○ ○○	○ ○○ ○○	○	○	PED ▭ ▭

PARISH ST. JOHN	FEDERAL PROJECT	STATE PROJECT 848-19-0006
DESIGNED BET CHECKED AAS	DETAILED BET CHECKED AAS	DATE SHEET

NO.	DATE	REVISION DESCRIPTION	BY

SHEET NO. 15

TRAFFIC SIGNAL INVENTORY

DISTRICT 62 DESIGN

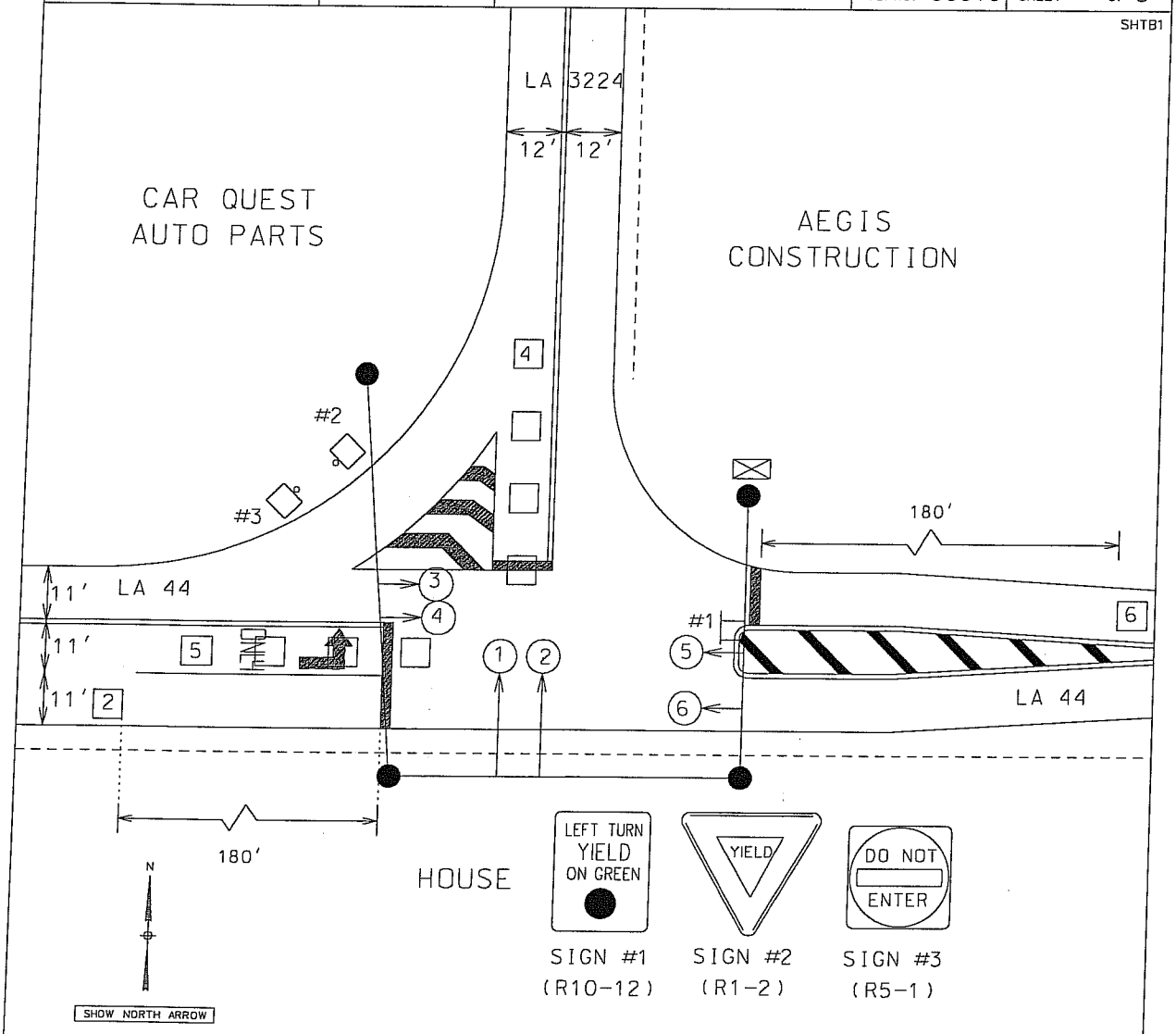
29-SEP-2008 08:58 C:\Projects\848-17-0004, 848-18-0007 & 848-19-0006 Surplus 08-09\dgn\15 TSI US61 @ LA3224.dgn

29-SEP-2008 08:58

SHTB1

CONTROL SECTION 256-01	HIGHWAY LA 44	PARISH ST JOHN THE BAPTIST	TSI NO. 00010	SHEET 2 OF 5

SHTB1



- WOOD POLE
- METAL POLE
- SPAN WIRE
- CONTROLLER
- STOP LINE
- PED CROSS WALK
- *2 SPAN WIRE SIGN & NO.
- *3 GROUND MOUNT SIGN & NO.
- *3 OVERHEAD SIGN & NO.
- L4 LOOP DETECTOR & NO.
- (2) PEDESTAL MOUNT SIGNAL & NO.
- (2) SIGNAL FACE & NO.
- [2] PEDESTRIAN SIGNAL & NO.
- PED BUTTON & SIGN
- PARALLEL PARKING

EXISTING SPEED LIMITS
LA 44 - 35 MPH
LA 3224 - 30 MPH

SIGNAL FACES	1-4,6					5				
TOTALS	5					1				
R - RED Y - YELLOW G - GREEN G - GREEN ARROW Y - YELLOW ARROW DK - DARK 12" - 12" DIA LENS W - WALK DW - DON'T WALK FDW - FLASHING DON'T WALK	LED R Y G					LED R Y Y G G				PED

SHEET NO. 16

PARISH ST. JOHN | FEDERAL PROJECT | STATE PROJECT 848-19-0006

DESIGNED BET | DETAILED BET | DATE | SHEET
CHECKED AAS | CHECKED AAS

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC SIGNAL INVENTORY

DISTRICT 62 DESIGN

...\Survey Projects\848-17-0004, 848-18-0007 & 848-19-0006 Surplus 08-09\dgn\16 TSI LA44 @ LA3224.dgn

STATE PROJECT NO.: 848-17-0004
DESCR.: JCT LA 628 - JCT US 51
PARISH: ST. JOHN
ROUTE NO.: LA 3217
TOTAL LENGTH: 0.0 - 1.31

DESIGN INFORMATION (EXISTING ROADWAY)

STATE PROJECT	PARISH	SHEET NO.
848-17-0004	St. John	1

CSLM	DIST./SIDE		PAVEMENT		BASE (1)		BASE (2)		BASE (3)		SHOULDER (1)			SHOULDER (2)		SHOULDER (3)		SHOULDER (4)	
	CL	TYPE	DEPTH	WIDTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH	WIDTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH
0.03	6'RTCL	HMAC	0.0" -	24'	S-1	8.0" -													
			8.0"			24.0"													
0.28	6LTCL	HMAC	0.0" -	24'	STAB	10.0" -													
			10.0"			? "													
0.70	6'RTCL	HMAC	0.0" -	24'	S-2	8.0" -													
			8.0"			24.0"													
1.12	6'LTCL	HMAC	0.0" -	24'	S-1	10.0" -													
			10.0"			24.0"													

S-1 BR GRAV SDY LM
S-2 BR STY CL LM

STATE PROJECT NO.: 848-18-0007
DESCR.: JCT LA 44 - JCT US 61
PARISH: ST. JOHN
ROUTE NO.: LA 3223
TOTAL LENGTH: 0.0 - 0.37

DESIGN INFORMATION (EXISTING ROADWAY)

STATE PROJECT	PARISH	SHEET NO.
848-18-0007	St. John	1

CSLM	DIST./SIDE		PAVEMENT		BASE (1)		BASE (2)		BASE (3)		SHOULDER (1)			SHOULDER (2)		SHOULDER (3)		SHOULDER (4)	
	CL	TYPE	DEPTH	WIDTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH	WIDTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH
0.03	5'RTCL	HMAC	0.0" -	22'	STAB	2.5" -													
			2.5"			14.0"													
0.28	5LTCL	HMAC	0.0" -	22'	STAB	2.0" -													
			2.0"			14.0"													

STATE PROJECT NO.: 848-19-0006
DESCR.: JCT LA 44 - JCT US 61
PARISH: ST. JOHN
ROUTE NO.: LA 3224
TOTAL LENGTH: 0.0 - 0.23

DESIGN INFORMATION (EXISTING ROADWAY)

STATE PROJECT	PARISH	SHEET NO.
848-19-0006	St. John	1

CSLM	DIST./SIDE		PAVEMENT		BASE (1)		BASE (2)		BASE (3)		SHOULDER (1)			SHOULDER (2)		SHOULDER (3)		SHOULDER (4)	
	CL	TYPE	DEPTH	WIDTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH	WIDTH	TYPE	DEPTH	TYPE	DEPTH	TYPE	DEPTH
0.03	5'RTCL	HMAC	0.0" -	22'	S-1	7.0" -	S-2	15.0" -											
			7.0"			15.0"		24.0"											
0.16	5LTCL	HMAC	0.0" -	22'	S-1	8.5" -	S-2	12.0" -											
			8.5"			12.0"		24.0"											

S-1 BR GRAV SDY LM
S-2 GRAY STY CL

DISTRICT DESIGN

DOTD TRANSPORTATION AND DEVELOPMENT

BORINGS

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	BET	PARISH	
CHECKED	AAS		
DETAILED	BET	FEDERAL PROJECT	
CHECKED	AAS		
DATE SHEET		STATE PROJECT	848-17-0004, 848-18-0007 & 848-19-0006

SHEET NO. 17

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL INFORMATION FOR

STATE PROJECT NOS. 848-17-0004, 848-18-0007 AND 848-19-0006
JCT. LA 628 – JCT. US 61 and
JCT. LA 44 – JCT. US 61
ROUTES LA 3217, LA 3223 and LA 3224
ST. JOHN THE BAPTIST PARISH

BID BOND

A Bid Bond is required when the bidder's total bid amount as calculated by the Department in accordance with Subsection 103.01 is greater than $50,000. *(See Section 102 of the Project Specifications.)*

_____, as Principal (Bidder)
and _____, as Surety,
are bound unto the State of Louisiana, Department of Transportation and Development, (hereinafter called the Department) in the sum of five percent (5%) of the bidder's total bid amount as calculated by the Department for payment, of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, as solidary obligors.

Signed and sealed this _____ day of _____, 20_____.

The condition of this obligation is such that, whereas the Principal has submitted a bid to the Department on a contract for the construction of **STATE PROJECT NOS. 848-17-0004, 848-18-0007 and 848-19-0006, JCT. LA 628 – JCT. US 61 and JCT. LA 44 – JCT. US 61, located in ST. JOHN THE BAPTIST PARISH, ROUTES LA 3217, LA 3223 and LA 3224,** 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

07/07
Form CS-2A

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SCHEDULE OF ITEMS

LEAD PROJECT: 848-17-0004
OTHER PROJECTS: 848-18-0007, 848-19-0006

DATE: 11/06/08 13:15 PAGE: 1

GENERAL ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
203-07	34	CUBIC YARD	BORROW (VEHICULAR MEASUREMENT) _____ DOLLARS _____ CENTS
401-02	200	CUBIC YARD	AGGREGATE SURFACE COURSE (ADJUSTED VEHICULAR MEASUREMENT) _____ DOLLARS _____ CENTS
502-01-A	521.6	TON	SUPERPAVE ASPHALTIC CONCRETE, DRIVES, TURNOUTS AND MISCELLANEOUS _____ DOLLARS _____ CENTS
510-01-B	573	SQUARE YARD	PAVEMENT PATCHING (12" MINIMUM THICKNESS) _____ DOLLARS _____ CENTS
702-04-A	6	EACH	ADJUSTING MANHOLES _____ DOLLARS _____ CENTS
713-01	LUMP	LUMP SUM	TEMPORARY SIGNS & BARRICADES _____ DOLLARS _____ CENTS

GENERAL ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
713-02-C	576	LINEAR FOOT	TEMPORARY PAVEMENT MARKINGS (8" WIDTH) _____ DOLLARS _____ CENTS
713-02-E	832	LINEAR FOOT	TEMPORARY PAVEMENT MARKINGS (24" WIDTH) _____ DOLLARS _____ CENTS
713-03-A	3.820	MILE	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE)(4" WIDTH)(4' LENGTH) _____ DOLLARS _____ CENTS
713-03-B	1.424	MILE	TEMPORARY PAVEMENT MARKINGS (BROKEN LINE)(4" WIDTH)(10' LENGTH) _____ DOLLARS _____ CENTS
713-04-A	14.577	MILE	TEMPORARY PAVEMENT MARKINGS (SOLID LINE)(4" WIDTH) _____ DOLLARS _____ CENTS
713-05-A	8	EACH	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (ARROW) _____ DOLLARS _____ CENTS

GENERAL ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
713-05-C	2	EACH	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (ONLY) _____ DOLLARS _____ CENTS
713-05-D	16	EACH	TEMPORARY PAVEMENT LEGENDS AND SYMBOLS (RR CROSSING) _____ DOLLARS _____ CENTS
716-01-A	0.2	TON	MULCH (VEGETATIVE) _____ DOLLARS _____ CENTS
717-01	2	POUND	SEEDING _____ DOLLARS _____ CENTS
718-01	73	POUND	FERTILIZER _____ DOLLARS _____ CENTS
727-01	LUMP	LUMP SUM	MOBILIZATION _____ DOLLARS _____ CENTS

GENERAL ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
731-02	256	EACH	REFLECTORIZED RAISED PAVEMENT MARKERS _____ DOLLARS _____ CENTS
732-01-C	288	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (8" WIDTH) _____ DOLLARS _____ CENTS
732-01-E	416	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (24" WIDTH) _____ DOLLARS _____ CENTS
732-02-A	7.285	MILE	PLASTIC PAVEMENT STRIPING (SOLID LINE) (4" WIDTH) _____ DOLLARS _____ CENTS
732-03-A	0.710	MILE	PLASTIC PAVEMENT STRIPING (BROKEN LINE)(4" WIDTH) _____ DOLLARS _____ CENTS
732-04-A	4	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ARROW) _____ DOLLARS _____ CENTS

GENERAL ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
732-04-B	1	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (DOUBLE ARROW) _____ DOLLARS _____ CENTS
732-04-C	8	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (ONLY) _____ DOLLARS _____ CENTS
732-04-D	8	EACH	PLASTIC PAVEMENT LEGENDS & SYMBOLS (RR CROSSING) _____ DOLLARS _____ CENTS
735-01	49	EACH	MAILBOXES _____ DOLLARS _____ CENTS
735-02	26	EACH	MAILBOX SUPPORTS (SINGLE) _____ DOLLARS _____ CENTS
735-04	4	EACH	MAILBOX SUPPORTS (MULTIPLE) _____ DOLLARS _____ CENTS

GENERAL ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
736-09	2,400	LINEAR FOOT	LOOP DETECTOR _____ DOLLARS _____ CENTS
736-10	3	EACH	UNDERGROUND JUNCTION BOX _____ DOLLARS _____ CENTS
740-01	LUMP	LUMP SUM	CONSTRUCTION LAYOUT _____ DOLLARS _____ CENTS
741-11	2	EACH	ADJUSTING WATER VALVE AND METER BOX _____ DOLLARS _____ CENTS
S-003	4.0	LINEAR FOOT	DETECTABLE WARNING TILES _____ DOLLARS _____ CENTS

ALTERNATE A1 ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
502-01	3,135.8	TON	SUPERPAVE ASPHALTIC CONCRETE _____ DOLLARS _____ CENTS
509-01	23,565	SQUARE YARD	COLD PLANING ASPHALTIC PAVEMENT _____ DOLLARS _____ CENTS
509-02	-982	CUBIC YARD	CONTRACTOR RETAINED RECLAIMED ASPHALTIC PAVEMENT _____ DOLLARS _____ CENTS
S-001	LUMP	LUMP SUM	SURFACE PREPARATION _____ DOLLARS _____ CENTS

ALTERNATE A2 ITEMS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-002	28,278	SQUARE YARD	ULTRA-THIN HMAC WEARING COURSE SYSTEM (0.75 INCH THICK) _____ DOLLARS _____ CENTS

CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM

THIS FORM, THE SCHEDULE OF ITEMS, AND THE PROPOSAL GUARANTY MUST BE COMPLETED AS INDICATED AND SUBMITTED TO THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT (DOTD) TO CONSTITUTE A VALID BID

STATE PROJECT NOS. **848-17-0004, 848-18-0007 and 848-19-0006**

FEDERAL AID PROJECT NO. **N/A**

NAME OF PROJECT **JCT. LA 628 – JCT. US 61 and JCT. LA 44 – JCT. US 61**

I (WE) HEREBY CERTIFY THAT I (WE) HAVE CAREFULLY EXAMINED THE PROPOSAL, PLANS AND SPECIFICATIONS, INCLUDING ANY AND ALL ADDENDA, AND THE SITE OF THE ABOVE PROJECT AND AM (ARE) FULLY COGNIZANT OF ALL PROPOSAL DOCUMENTS, THE MASTER COPY OF WHICH IS ON FILE AT DOTD HEADQUARTERS IN BATON ROUGE, LA., AND ALL WORK, MATERIALS AND LABOR REQUIRED THEREIN, AND AGREE TO PERFORM ALL WORK, AND SUPPLY ALL NECESSARY MATERIALS AND LABOR REQUIRED FOR SUCCESSFUL AND TIMELY COMPLETION OF THE ABOVE PROJECT AND TO ACCEPT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS ATTACHED HERETO AND MADE A PART HEREOF MULTIPLIED BY THE ACTUAL QUANTITY OF UNIT OF MEASURE PERFORMED FOR EACH ITEM, AS AUDITED BY DOTD, AS FULL AND FINAL PAYMENT FOR ALL WORK, LABOR AND MATERIALS NECESSARY TO COMPLETE THE ABOVE PROJECT, SUBJECT TO INCREASE ONLY FOR PLAN CHANGES (CHANGE ORDERS) APPROVED BY THE DOTD CHIEF ENGINEER OR HIS DESIGNEE. THIS BID IS SUBMITTED IN ACCORDANCE WITH THE GENERAL BIDDING REQUIREMENTS IN THE CONSTRUCTION PROPOSAL AND ALL SPECIAL PROVISIONS, PLANS, SUPPLEMENTAL SPECIFICATIONS, AND THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2006 EDITION). I (WE) UNDERSTAND THAT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS MULTIPLIED BY THE ESTIMATED QUANTITY OF UNIT OF MEASURE FOR EACH ITEM, ALONG WITH ANY OTHER FACTORS SPECIFIED TO BE APPLICABLE SUCH AS CONSTRUCTION TIME AND/OR LANE RENTAL, SHALL BE THE BASIS FOR THE COMPARISON OF BIDS. I (WE) UNDERSTAND THAT THE SCHEDULE OF ITEMS MUST CONTAIN UNIT PRICES WRITTEN OUT IN WORDS AND THAT THE SCHEDULE OF ITEMS SUBMITTED AS PART OF THIS BID IS ON THE FORM SUPPLIED BY DOTD IN THE BID PROPOSAL. MY (OUR) PROPOSAL GUARANTY IN THE AMOUNT SPECIFIED FOR THE PROJECT IS ATTACHED HERETO AS EVIDENCE OF MY (OUR) GOOD FAITH TO BE FORFEITED IF THIS BID IS ACCEPTED BY DOTD AND I (WE) FAIL TO COMPLY WITH ANY REQUIREMENT NECESSARY FOR AWARD AND EXECUTION OF THE CONTRACT, AS WELL AS, SIGN AND DELIVER THE CONTRACT AND PAYMENT/PERFORMANCE/RETAINAGE BOND AS REQUIRED IN THE SPECIFICATIONS.

NONCOLLUSION DECLARATION (APPLICABLE TO FEDERAL-AID PROJECTS)

I (WE) DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND THE STATE OF LOUISIANA THAT I (WE) HAVE NOT DIRECTLY OR INDIRECTLY, ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THE CONTRACT FOR THIS PROJECT NOR VIOLATED LA. R.S. 48:254.

BIDDER'S DBE GOAL STATEMENT (APPLICABLE TO DBE GOAL PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL PROJECT IN ACCORDANCE WITH THE DBE PROVISIONS OF THIS CONTRACT, THE BIDDER ASSURES DOTD THAT HE/SHE WILL MEET OR EXCEED THE DBE CONTRACT GOAL, OR IF THE BIDDER CANNOT MEET THE REQUIRED DBE GOAL, THE BIDDER ASSURES DOTD THAT HE/SHE HAS MADE AND CAN DOCUMENT GOOD FAITH EFFORTS MADE TOWARDS MEETING THE GOAL REQUIREMENT IN ACCORDANCE WITH THE CONTRACT AND DBE PROGRAM MANUAL INCORPORATED HEREIN BY REFERENCE.

THE APPARENT LOW BIDDER SHALL COMPLETE AND SUBMIT TO THE DOTD COMPLIANCE PROGRAMS OFFICE, FORM CS-6AAA AND ATTACHMENT(S) AND, IF NECESSARY, DOCUMENTATION OF GOOD FAITH EFFORTS MADE BY THE BIDDER TOWARD MEETING THE GOAL, WITHIN TEN BUSINESS DAYS AFTER THE OPENING OF BIDS FOR THIS PROJECT. RESPONSIVENESS OF INFORMATION SUPPLIED IN THIS SECTION OF THIS CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM IS GOVERNED BY THE DBE REQUIREMENTS INCLUDED WITHIN THE SPECIFICATIONS AND DBE PROGRAM MANUAL.

CERTIFICATION OF EMPLOYMENT OF LOUISIANA RESIDENTS TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECTS (APPLICABLE TO TIME PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECT AS DEFINED IN ACT NO. 16 OF THE 1989 FIRST EXTRAORDINARY SESSION OF THE LEGISLATURE WHICH ENACTED PART V OF CHAPTER 7 OF SUBTITLE II OF TITLE 47 OF THE LOUISIANA REVISED STATUTES OF 1950, COMPRISED OF R.S. 47:820.1 THROUGH 820.6.

THE BIDDER CERTIFIES THAT AT LEAST 80 PERCENT OF THE EMPLOYEES EMPLOYED ON THIS TIME PROJECT WILL BE LOUISIANA RESIDENTS IN ACCORDANCE WITH LOUISIANA R.S. 47:820.3.

NON PARTICIPATION IN PAYMENT ADJUSTMENT (ASPHALT CEMENT AND FUELS) STATEMENT

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS BEING SUBJECT TO PAYMENT ADJUSTMENT FOR ASPHALT CEMENT AND/OR FUELS, THE BIDDER HAS THE OPTION OF REQUESTING EXCLUSION FROM SAID PAYMENT ADJUSTMENT PROVISIONS THAT ARE ESTABLISHED BY SPECIAL PROVISION ELSEWHERE HEREIN.

IF THE BIDDER DESIRES TO BE EXCLUDED FROM THESE PAYMENT ADJUSTMENT PROVISIONS,

THE BIDDER IS REQUIRED TO MARK HERE ☐

FAILURE TO MARK THIS BOX PRIOR TO BID OPENING WILL CONSTITUTE FORFEITURE OF THE BIDDER'S OPTION TO REQUEST EXCLUSION.

STATE PROJECT NOS. **848-17-0004, 848-18-0007 and 848-19-0006**

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 $ _____

CONTRACTOR'S TOTAL ALTERNATE A1 $ _____

Or

CONTRACTOR'S TOTAL ALTERNATE A2 $ _____

CONTRACTOR'S TOTAL BASE BID + SELECTED ALTERNATE $ _____

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

CS-14AA
08/06