

SECTION 905 -- PROPOSAL (CONTINUED)

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) enclose a certified check, cashier's check or bid bond for **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO. 1 DATED 11/21/2013 ADDENDUM NO. DATED
ADDENDUM NO. DATED ADDENDUM NO. DATED

Number	Description
1	Revise Table of Contents, replace same; Revise NTB Nos. 4087, & 4646, replaces same; Add NTB Nos. 4689, 4690, 4691, & 4692; Add Supplement to SP No. 907-107-14; Add Special Provision No. 907-619-5; Revise Bid Items, replace same; Added or Revised Plan Sheet Nos. 2-3, 7, 9-11, 20-21, 33-37, 49, 53, 2009-2010; Amendment EBS Download Required.

TOTAL ADDENDA: 1
(Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

_____ President	_____ Address
_____ Secretary	_____ Address
_____ Treasurer	_____ Address

The following is my (our) itemized proposal.

Revised 09/21/2005

STP-0006-02(027) / 105420301

Lee County(ies)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TABLE OF CONTENTS

PROJECT: STP-0006-02(027) / 105420301 – Lee County

901--Advertisement

904--Notice to Bidders:

- Governing Specifications - # 1
- Final Cleanup - # 3
- Fiber Reinforced Concrete - # 640
- Errata & Modifications to 2004 Standard Specifications - # 1405
- Federal Bridge Formula - # 1928
- Status of ROW w/ attachments - # 2382
- Non-Quality Control / Quality Assurance Concrete - # 2818
- Reduced Speed Limit Signs - # 2937
- Alternate Asphalt Mixture Bid Items - # 3039
- Storm Water Discharge Associated with Construction Activities (≥ 5 Acres) - # 3581
- Safety Edge - #3585
- Additional Erosion Control Requirements - #3612
- Type III Barricade Rails - #3655
- Use of Precast Drainage Units - # 3704
- Petroleum Products Base Price - # 3893
- Questions Regarding Bidding - # 3980
- Stay-In-Place Metal Forms - # 4084
- Temporary Steel Bracing - # 4085
- Contract Time - # 4086
- Specialty Items - # 4087
- Placement of Fill Material in Federally Regulated Areas - # 4088
- Federal Aviation Administration Requirements, w/Attachments - # 4091
- Disadvantaged Business Enterprise, w/ Supplement - # 4103
- Safety Apparel - # 4214
- Alternate Crushed Stone Base Bid Items - # 4473
- DBE Forms, Participation and Payment - # 4488
- Warm Mix Asphalt (WMA) - # 4524
- Electronic Addendum Process - # 4526
- Manual on Uniform Traffic Control Devices (MUTCD) - # 4565
- DUNS Requirement for Federal Funded Projects - # 4566
- Adjustments for Bituminous Materials - # 4612
- Exposure to Severe Sulfate Areas At or Near Ground Level - # 4623
- Additional Construction Requirements - # 4646
- Portable Construction Lighting - # 4647
- Intermediate Diaphragms - # 4660
- Payroll Requirements - # 4661
- A + B Bidding - # 4674
- Lane Closure Restrictions - # 4675
- Environmental Requirements - # 4689
- Southeast Ramp Earthwork Operations - # 4690
- Quantity Changes - # 4691

- CONTINUED ON NEXT PAGE -

Traffic Signal and ITS Quantity Changes - # 4692

906- : Required Federal Contract Provisions -- FHWA 1273, w/ Supplements

- 907-101-4: Definitions
- 907-102-10: Bidding Requirements and Conditions
- 907-103-8: Award and Execution of Contract
- 907-104-1: Partnering Process
- 907-104-5: Scope of Work
- 907-105-7: Control of Work
- 907-107-13: Legal Relations & Responsibility to Public
- 907-107-14: Contractor's Protection Plan, w/ Supplement
- 907-108-27: Prosecution and Progress
- 907-109-6: Measurement and Payment
- 907-110-2: Wage Rates
- 907-216-1: Solid Sodding
- 907-225-3: Grassing
- 907-226-2: Temporary Grassing
- 907-227-10: Hydroseeding
- 907-237-4: Wattles
- 907-245-2: Triangular Silt Dikes
- 907-246-3: Sandbags & Rockbags
- 907-247-1: Temporary Stream Diversion
- 907-249-1: Riprap for Erosion Control
- 907-304-13: Granular Courses
- 907-401-2: Hot Mix Asphalt (HMA), w/Supplement
- 907-401-6: Warm Mix Asphalt (WMA)
- 907-403-4: Hot Mix Asphalt (HMA), w/Supplement
- 907-403-12: Warm Mix Asphalt (WMA)
- 907-406-1: Cold Milling of Shoulders
- 907-407-1: Tack Coat
- 907-413-5: Sawing & Sealing Transverse Joints in Asphalt Pavement
- 907-601-1: Structural Concrete
- 907-605-3: Underdrains
- 907-606-4: High Tension Cable Barrier
- 907-617-2: Right-Of-Way Markers
- 907-619-5: Changeable Message Signs
- 907-626-5: Inverted Profile Thermoplastic Traffic Stripe
- 907-626-25: Thermoplastic Traffic Markings
- 907-631-1: Flowable Fill
- 907-639-4: Traffic Signal Equipment Poles
- 907-642-4: Solid State Traffic Actuated Controllers
- 907-643-2: Closed Loop on Street Master System
- 907-649-3: Video Vehicle Detection, w/ Supplement
- 907-680-1: Portable Construction Lighting
- 907-699-4: Construction Stakes
- 907-701-4: Hydraulic Cement
- 907-702-3: Polyphosphoric Acid (PPA) Modification of Petroleum Asphalt Cement
- 907-703-11: Aggregates
- 907-708-6: Non-Metal Drainage Structures
- 907-709-1: Metal Pipe
- 907-711-4: Synthetic Structural Fiber Reinforcement
- 907-713-3: Admixtures for Concrete

Page 3 - PROJECT: STP-0006-02(027) / 105420301 – Lee County

907-714-8: Miscellaneous Materials
907-715-4: Roadside Development Materials
907-720-2: Pavement Marking Materials
907-804-13: Concrete Bridges and Structures, w/Supplement

906-7: Training Special Provision

SECTION 905 - PROPOSAL, PROPOSAL BID ITEMS
COMBINATION BID PROPOSAL
CERTIFICATION OF PERFORMANCE - PRIOR FEDERAL-AID CONTRACTS
CERTIFICATION REGARDING NON-COLLUSION, DEBARMENT AND SUSPENSION
SECTION 902- CONTRACT FORM, AND SECTION 903 - CONTRACT BOND FORMS
PILE DRIVING FORM
FORM -- OCR-485

(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET
OF SECTION 905 AS ADDENDA)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4087

DATE: 11/21/2013

SUBJECT: Specialty Items

PROJECT: STP-0006-02(027) / 105420301 - Lee County

Pursuant to the provisions of Section 108, the following work items are hereby designated as "Specialty Items" for this contract. Bidders are reminded that these items must be subcontracted in order to be considered as specialty items.

CATEGORY: CURBING, SIDEWALKS, GUTTERS

Line No	Pay Item	Description
0520	609-D007	Combination Concrete Curb and Gutter Type 2 Modified

CATEGORY: EROSION CONTROL

Line No	Pay Item	Description
0160	213-C001	Superphosphate
0162	217-A001	Ditch Liner
0170	219-A001	Watering
0180	220-A001	Insect Pest Control
0200	223-A001	Mowing
1090	907-216-A001	Solid Sodding
1100	907-225-A001	Grassing
1110	907-225-B001	Agricultural Limestone
1120	907-225-C001	Mulch, Vegetative Mulch
1130	907-226-A001	Temporary Grassing

CATEGORY: FENCE, GATES

Line No	Pay Item	Description
0490	607-A002	60" Type "A" Woven Wire Fence, w/ Barbed Wire as Shown
0510	607-P1016	Line Post, 7' x 4" x 4" Concrete
0512	607-P2004	Brace Post, 8' x 6" x 6" Concrete
0514	607-Z001	Concrete Anchors

CATEGORY: GUARDRAIL, GUIDERAIL

Line No	Pay Item	Description
0460	606-B001	Guard Rail, Class A, Type 1
0470	606-D012	Guard Rail, Bridge End Section, Type I
0480	606-E001	Guard Rail, Terminal End Section
1280	907-606-G001	Cable Barrier
1290	907-606-H001	Cable Barrier Terminal Section
1300	907-606-I001	Cable Barrier Post Repair

CATEGORY: PAVEMENT STRIPING AND MARKING

Line No	Pay Item	Description
0630	627-K001	Red-Clear Reflective High Performance Raised Markers
0640	627-L001	Two-Way Yellow Reflective High Performance Raised Markers
0650	628-P001	High Performance Cold Plastic Legend, White
1320	907-626-A004	6" Thermoplastic Traffic Stripe, Skip White
1330	907-626-C008	6" Thermoplastic Edge Stripe, Continuous White
1340	907-626-D004	6" Thermoplastic Traffic Stripe, Skip Yellow
1350	907-626-E003	6" Thermoplastic Traffic Stripe, Continuous Yellow
1360	907-626-F008	6" Thermoplastic Edge Stripe, Continuous Yellow
1370	907-626-G004	Thermoplastic Detail Stripe, White
1380	907-626-G005	Thermoplastic Detail Stripe, Yellow
1390	907-626-H004	Thermoplastic Legend, White
1400	907-626-H005	Thermoplastic Legend, White
1610	907-626-I003	6" Inverted Profile Thermoplastic Traffic Stripe, Skip White
1620	907-626-J003	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White
1630	907-626-M001	Inverted Profile Thermoplastic Detail Traffic Stripe, White
1640	907-626-M002	Inverted Profile Thermoplastic Detail Traffic Stripe, Yellow
1650	628-I002	6" High Performance Cold Plastic Traffic Stripe, Skip White
1660	628-J002	6" High Performance Cold Plastic Traffic Stripe, Continuous White
1670	628-O001	High Performance Cold Plastic Detail Stripe, White
1680	628-O002	High Performance Cold Plastic Detail Stripe, Yellow

CATEGORY: SURVEY AND STAKING

Line No	Pay Item	Description
1480	907-699-A002	Roadway Construction Stakes

CATEGORY: TRAFFIC CONTROL - PERMANENT

Line No	Pay Item	Description
0660	630-A001	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
0670	630-A002	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
0680	630-B001	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Ground Mounted
0690	630-C003	Steel U-Section Posts, 3.0 lb/ft
0700	630-D006	Structural Steel Beams, W8 x 18
0710	630-D008	Structural Steel Beams, W10 x 22
0720	630-E002	Structural Steel Angles & Bars, 3 1/2" x 3 1/2" x 1/4" Angles
0730	630-E003	Structural Steel Angles & Bars, 4" x 4" x 5/16" Angles
0740	630-E004	Structural Steel Angles & Bars, 7/16" x 2 1/2" Flat Bar
0750	630-F001	Delineators, Guard Rail, White
0760	630-F006	Delineators, Post Mounted, Single White , Flexible
0770	630-F007	Delineators, Post Mounted, Single Yellow , Flexible
0780	630-F008	Delineators, Post Mounted, Double White , Flexible
0790	630-F009	Delineators, Post Mounted, Double Yellow , Flexible
0800	630-G002	Type 3 Object Markers, OM-3R or OM-3L, Post Mounted
0810	630-K002	Welded & Seamless Steel Pipe Posts, 3 1/2"

CATEGORY: TRAFFIC CONTROL - PERMANENT

Line No	Pay Item	Description
0820	630-K003	Welded & Seamless Steel Pipe Posts, 4"
0830	635-A001	Vehicle Loop Assemblies
0850	636-A003	Shielded Cable, 4 Conductor
0860	638-A005	Loop Detector Amplifier, Card Rack Mounted, 4 Channel
0870	640-A016	Traffic Signal Heads, Type 1 LED
0880	640-A018	Traffic Signal Heads, Type 3 LED
0890	640-A019	Traffic Signal Heads, Type 5 LED
0900	640-A022	Traffic Signal Heads, Type 7 LED
0910	644-A001	Optical Detector
0920	644-B001	Optical Detector Cable
0930	644-C002	Phase Selector, 4 Channel
0940	647-A001	Pullbox, Type 1
0950	647-A005	Pullbox, Type 2
0960	648-A001	Radio Interconnect, Installed in New Controller Cabinet
0970	666-B016	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 7 Conductor
0980	666-B032	Electric Cable, Underground in Conduit, THHN, AWG #8, 2 Conductor
0990	666-D005	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 7 Conductor
1000	668-A016	Traffic Signal Conduit, Underground, Type 4, 1"
1010	668-A018	Traffic Signal Conduit, Underground, Type 4, 2"
1020	668-A020	Traffic Signal Conduit, Underground, Type 4, 3"
1030	668-B024	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 2"
1040	668-B025	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 3"
1420	907-639-A006	Traffic Signal Equipment Pole, Type II, 17' Shaft, 30' Arm
1430	907-639-A015	Traffic Signal Equipment Pole, Type IV, 30' Shaft, 50' Arm
1440	907-639-C002	Pole Foundations, 36" Diameter
1450	907-642-A005	Solid State Traffic Actuated Controllers, Type 8M
1460	907-643-A001	Closed Loop On-Street Master System
1470	907-649-A004	Video Detection System, 1 Sensor, Type 2

CATEGORY: TRAFFIC CONTROL - TEMPORARY

Line No	Pay Item	Description
0570	619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet
0580	619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More
0590	619-F1001	Concrete Median Barrier, Precast
0600	619-G4005	Barricades, Type III, Double Faced
0610	619-G5001	Free Standing Plastic Drums
1312	907-619-E3001	Changeable Message Sign

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4646

CODE: (SP)

DATE: 10/02/2013

SUBJECT: Additional Construction Requirements

PROJECT: STP-0006-02(027) / 105420301 – Lee County

The Bidder's attention is brought to General Note No. 4 on Plan Sheet No. 4 which states that the Contractor is responsible for any damages to structures which may occur as the result of the Contractor's operations. In addition to structures, the Contractor is responsible for any damages which occur to the roadway pavement as a result of the Contractor's operations.

The Bidder is also advised that lane closures for the purpose of setting beams will only be allowed Monday through Thursday from 12:00 a.m. to 5:00 a.m. in 30 minute intervals. After the 30-minute closure, traffic must be released for a period of 30 minutes or until all traffic clears.

Daytime and overnight single lane closures for work other than setting beams will be allowed.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4689

CODE: (SP)

DATE: 11/14/2013

SUBJECT: Environmental Requirements

PROJECT: STP-0006-02(027) / 105420301 --Lee County

The Bidder is hereby advised that ground disturbing activities associated with construction of the project especially the southeast ramp, near the taper (approximately Station 509+42 to Station 525+00) will be monitored by professional archaeologists acting on behalf of MDOT. Monitoring activities will be conducted in accordance with the Secretary of the Interior's "Standards and Guidelines for Archaeology and Historic Preservation", Mississippi Department of Archives and History's "Standards and Guidelines for Archaeological Investigations and Reports in Mississippi", and MDOT's "Guidelines for Contractors on Archaeological Investigations and Reports". MDOT shall be notified five (5) days prior to the beginning of ground disturbing activities to ensure qualified archaeologists are present (contact information shown below).

The Bidder is also advised that should there be an inadvertent discovery of cultural resources during construction, work in the immediate area will be stopped and MDOT, FHWA, MDAH, and the Tribes will be notified immediately.

MDOT Contact:

Mr. John Underwood

Chief Archaeologist

Environmental Division

Office: 601-359-1476

Mobile: 769-257-1569

Email: junderwood@mdot.ms.gov

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4690

CODE: (SP)

DATE: 11/14/13

SUBJECT: Southeast Ramp Earthwork Operations

PROJECT: STP-0006-02(027) / 105420301 --Lee County

The Bidder is hereby advised that earthwork operations on the southeast ramp shall be considered a first item of work on the project. The contractor will be allowed to work in other areas of the project simultaneously, as long as the contractor is actively pursuing earthwork operations on the southeast ramp. Completion of this requirement will be considered satisfied after reaching a point to where only fill is required on any area on the southeast ramp and adjacent slopes including ditches, backslopes and foreslopes.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4691

CODE: (SP)

DATE: 11/20/2013

SUBJECT: Quantity Changes

PROJECT: STP-0006-02(027) / 105420301 -- Lee County

Bidders are hereby advised that the signs and quantities for pay item no. 619-D1001, Standard Roadside Construction Signs, Less than 10 Square Feet, and 619-D2001, Standard Roadside Construction Signs, 10 Square Feet or More, shown in Plans and the addendum plans are in error. The correct signs and estimated quantities are shown in the table below. The pay items and quantities on the bid sheets are correct.

Sign	Size	Original Quantity	Revised Quantity	Revised Total Less Than 10 sq. ft.	Revised Total 10 sq. ft. or More
G20-1	60" x 24"	2	4	-	40
G20-2a	48" x 24"	2	2	16	-
R1-1	48"	0	4	-	53
R2-1	24" x 30"	4	6	30	-
R11-2	48" x 30"	0	4	-	40
R16-3	36" x 48"	2	4	-	48
W3-5	48" x 48"	2	4	-	64
W20-1	48" x 48"	6	12	-	192
				46	437

Bidders are also advised that the Plans show the quantity for pay item no. 221-A001, Portland Cement Concrete Paved Ditch, to be 113 cubic yards. This is in error. The correct quantity for Portland Cement Concrete Paved Ditch is **197 cubic yards**. The quantity on the bid sheets has been corrected.

Likewise, a pay item for 607-Z001, Concrete Anchors, was inadvertently omitted from the Summary of Quantities Sheets in the Plans. Bidders are advised that Concrete Anchors are to be used on this project. A quantity of **75 Each** has been included in the bid sheets for Concrete Anchors.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 4692

CODE: (SP)

DATE: 11/20/2013

SUBJECT: Traffic Signal and ITS Quantity Changes

PROJECT: STP-0006-02(027) / 105420301 -- Lee County

Bidders are hereby advised of the following changes regarding traffic signal and ITS pay items.

- The Summary of Quantities sheets in the Plans include pay item no. 635-B001, Probe Point Detection Units, Paired. This pay item will not be needed and has been removed from the bid items. Bidders are to disregard the Probe Point Detection Units and details shown in the Plans and that may be referenced in the addendum plans.
- The Plans show several 35-foot Detector Poles and will not be used.
- The Plans show the quantities for pay item nos. 640-A016, Traffic Signal Heads, Type 1 LED, and 640-A018, Traffic Signal Heads, Type 3 LED, to be 2 each and 8 each, respectively. This is in error. The correct quantities for these pay items are as follows and have been corrected on the bid sheets.

640-A016, Traffic Signal Heads, Type 1 LED	8 Each
640-A018, Traffic Signal Heads, Type 3 LED	2 Each

- The Plans show the quantity for pay item no. 648-A001, Radio Interconnect, Installed in New Controller Cabinet, to be 2 each. This is in error. The correct quantity for this pay item is **1 Each** as shown on the bid sheet.
- Note No. 1 on Working Sheet SQ-4 / Sheet Number 12 of the Plans shall be deleted and replaced as follows.

Mainline left turn (ϕ1) and advanced detection (ϕ6) for the South Ramps shall be detected under one system, either by video/video detection or video/radar detection.

Mainline left turn (ϕ5) and advanced detection (ϕ2) for North Ramps shall be detected under one system, either by video/video detection or video/radar detection.

- Note No. 2 on Working Sheet SQ-4 / Sheet Number 12 of the Plans shall be deleted and replaced as follows.

(2) POLES TO BE POWDER COATED, DARK BRONZE IN COLOR. CONTRACTOR TO VERIFY ANY CONFLICTS WITH UTILITIES FOR SHAFT HEIGHT AND ARM LENGTH BEFORE ORDERING MAST ARM POLES. TRAFFIC SIGNAL POLES SHALL BE DESIGNED IN ACCORDANCE WITH THE 2001 AASHTO SPECIFICATIONS, AS AMENDED. BASIC WIND SPEED FOR THIS PROJECT SHALL BE 90 MPH. DESIGN LIFE SHALL BE 50 YEARS. FATIGUE CATEGORY SHALL BE II. GALLOPING AND TRUCK INDUCED WIND LOADS SHALL NOT BE CONSIDERED. ANY DEVIATION FROM THESE CRITERIA MUST BE APPROVED IN WRITING BY THE TRAFFIC ENGINEERING DIVISION, 601-359-1454.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-107-14

DATE: 10/29/2013

SUBJECT: Contractor's Protection Plan

907-107.22.1--Contractor's Erosion Control Plan. Delete the first sentence of the second paragraph of Subsection 907-107.22.1 on page 1, and substitute the following.

The time between the Notice of Award and Notice to Proceed/Beginning of Contract Time in the proposal, has been allowed for the submittal and concurrence of the Contractor's erosion control plan, MDOT's review of the plan, and any revisions that may be necessary.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-619-5

CODE: (SP)

DATE: 03/09/2009

SUBJECT: Changeable Message Signs

Section 619, Traffic Control for Construction Zones, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-619.02--Material Requirements. After Subsection 619.02.13 on page 424, add the following.

907-619.02.14--Changeable Message Sign. This work shall consist of furnishing, testing, and maintaining a trailer-mounted electronic Portable Changeable Message Sign (PCMS) assembly. The sign display shall be a LED, full matrix sign. If more than one portable changeable message sign is required for this project, they shall all be of the same model and from the same manufacturer. All parts and materials used to construct the portable changeable message signs shall be interchangeable.

The PCMS shall be a trailer-mounted, solar powered, portable changeable message sign.

Each PCMS shall include the following main components:

- a) Sign Housing
- b) LED Modules
- c) LED Drivers
- d) Battery Bank
- e) Sign Controller
- f) Trailer
- g) AC Charger
- h) Solar Panel
- i) Solar Panel Charger

The LED display shall be full matrix sign with a minimum of 28-pixel rows x 50-pixel columns. The pixel spacing shall be such that three (3) lines of text (5 columns x 7 rows, 8 characters) shall each have a nominal height of 18 inches.

The PCMS shall include a remote communications interface as specified herein. The PCMS shall be provided with a local serial and USB connection within the sign control cabinet so that a laptop computer using the remote software can communicate directly with the sign CPU.

This Special Provision incorporates normative references to other standards as outlined in Section 1 of the NEMA TS-4 standard and as listed below.

NEMA TS4-2004, Hardware Standards for Dynamic Message Signs (DMS) with NTCIP Requirements. All NEMA TS-4 requirements that are applicable to portable signs shall be used.

NTCIP Standards.

If a conflict between the standards referenced and this Special Provision, this Special Provision shall govern.

The definitions of the terms used within this Special Provision are as defined in Section 1 of the NEMA TS-4 standard.

If required in the contract, the PCMS shall include a speed radar unit as specified herein.

907-619.02.14.1--Mechanical Construction. Each PCMS shall meet the following minimum requirements.

Weather-Tight Enclosure. The entire sign and trailer assembly, including each component / equipment exposed to weather, shall be fully protected. It shall withstand the effects of sand, dirt, dust, moisture, hose-directed water, ice, snow and UV radiation (UVA and UVB). It shall withstand the effects of high wind loading and blowing rain as specified herein with all outriggers and/or leveling jacks in place. The sign and all components shall be watertight. Space shall be provided for manuals to be stored in a weatherproof environment.

Wind Loading. Wind loading requirements for the portable sign housing and trailer assembly shall be as specified in Section 3.3.2.1.2 of the NEMA TS-4 standard.

Welding. All welding on all major structural components (aluminum or steel) shall be performed by certified welders and in accordance to SAE/AWS D8.8 American Welding Society.

Protective Coatings. Protective coatings or processes, such as anodizing, e-coating, powder coat painting, plating, etc., shall be incorporated to protect all sign, cabinet, and trailer metal surfaces from corrosion. Any non-protected metallic fasteners shall be made of stainless steel or aluminum. All components shall be similar material, or be isolated to reduce galvanic reactions.

Temperature and Humidity. Each PCMS shall be designed to operate continuously in extreme ambient temperature ranges and at high humidity levels.

Operating ambient temperature range of the portable sign and trailer assembly shall be -29°F to +165°F. Storage temperature range shall be from -40°F to +185°F. The portable sign shall be capable of continued operation within the operating temperature ranges specified without the need for active systems (i.e., fans). Operating relative humidity level of the portable sign shall be up to 95% non-condensing.

Sign Face. Sign face material shall be protected by a non-glaring polycarbonate material of at least ¼-inch thickness. It shall be replaceable and manufactured of material rated for outside use and resistant to UV degradation (exposure to the sun).

All electronics and pixels shall be protected from damage due to moisture.

Sign Housing Construction. The portable sign housing, including its front face panels, shall be designed to conform to the requirements of minimum NEMA Type 3R, as described in the latest edition of NEMA 250.

It shall be comply with latest structural AASHTO requirements.

It shall be constructed of aluminum sheeting which shall not be less than 1/8-inch thick with all seams continuously welded by the inert gas process.

The front of the sign housing shall have a flat black matte finish.

Weep holes shall be provided in the housing to allow moisture from condensation to escape.

The sign housing and cabinets shall be designed to keep insects out.

The sign housing shall be constructed in such a manner as to prohibit stray light from reducing legibility.

All sides of the sign housing shall have a maintenance-free finish.

Alignment of the sign housing shall be capable of being horizontally adjusted to position the sign a full 360 degrees. It shall be capable of rotating and locking at any selected horizontal angle up to 360 degrees. A sight alignment tube/device shall be mounted to horizontally position the sign display. A positive brake assembly with lockable control arm shall be provided to position the sign display in the desired position.

It shall allow easy access to all components contained within the display housing without the removal of any external parts. Door locks shall be rigidly mounted. Gasketing shall be provided on all door openings and shall be dust-tight, permanently bonded to the door metal, and shall not stick to the mating metal surface. A gasket channel shall be provided to support the gasket on the door.

Trailer. Each PCMS trailer shall meet all requirements for trailers as outlined in Section 3.3.3 of the latest NEMA TS-4 standard as well as the following minimum requirements.

All trailers shall meet the requirements of FMVSS, Part 571 and SAE J684 for transport safety including, but not limited to the use of brakes, safety chains, coupling device, and lights. PCMS manufacturer shall provide instructions stating procedures necessary to insure safe transport.

The structural frame shall be capable of supporting the gross vehicle weight (GVW) load of the trailer corresponding to the axle and tire ratings that shall be in accordance with FMVSS, Part 571.

The tires shall be radial ST "Special Trailer" rated. The wheels shall be 15-inch steel wheels with five lug bolts per wheel. Each trailer wheel shall be equipped with one locking lug nut. A minimum of four keys for the locking lug nuts shall be supplied for each trailer.

The trailer shall be provided with a minimum of four outriggers or leveling jacks. One outrigger or leveling jack shall be mounted near each corner of the trailer. The length of the leveling jacks shall be such that when the trailer is level, all four jacks and the tongue jack can be lowered into the vertical position. The jacks shall be screw type jacks with a minimum 25-inch lift. Each jack shall include a swivel mechanism that allows the jacks to be swing up to a horizontal position for towing. The swivel mechanism shall secure the jack in both vertical and horizontal positions through a lock pin.

The trailer shall also be provided with a trailer stand mounted on the tongue of the trailer. The stand shall be corrosion resistant. It shall include a 6-inch wheel that allows horizontal positioning of the trailer. The stand shall be welded, not bolted, to the tongue of the trailer.

The trailer shall be provided with legal tail/brake lights, signals, and license plate mounting bracket. The trailer shall be supplied with an electrical harness assembly for connection to the tow vehicle and shall be terminated in a connector type to be specified by the Engineer.

The trailer shall be provided with a 2-inch "hammer blow coupler" style hitch in accordance with SAE J684 and interchangeable with a 2½-inch Pintle coupler / ring meeting SAE J847.

The trailer spring leafs shall be rated at a minimum of 3500 pounds.

The trailer shall be equipped with a sign display lift and control console. The lift shall be electric, hydraulic lift, or combination of both with manual backup lift. The lift shall be capable of lifting the display a minimum of seven feet (7') above the roadway surface. A mast safety pin shall be provided to prevent the sign display from falling in the event of an electric or hydraulic system failure.

The trailer shall have a minimum of 6,000-pound capacity hydraulic surge brake system along with a breakaway latch.

Illumination shall be provided as an integral part of the sign or trailer assembly to change the sign controller data in darkness.

The trailer shall contain batteries and photovoltaic (solar) panels as specified herein.

Photovoltaic (Solar) Panel System. Each PCMS shall include solar panels. A solar bank shall be assembled using multiple solar panels. All photovoltaic panels shall be listed in accordance with UL 1703, or equivalent. The solar cell bank shall have a minimum capacity of 240 watts. The

solar cell bank shall be mounted on a frame capable of being tilted at a minimum of one direction up to 61 degrees with zero degrees being horizontal. Solar cells shall be laminated between ethylene vinyl acetate and tempered glass. The solar panel shall incorporate an extruded aluminum frame. The solar battery charge controller shall include the following three state charger modes.

- Bulk
- Absorption
- Float

Battery Requirements. Each PCMS shall include batteries for primary energy storage on trailers. The battery bank capacity shall be a minimum of 900 amp/hours at 12VDC at 20-hour rate of discharge. The batteries shall be heavy duty deep cycle type rated for 80% discharge. A battery power disconnect shall be provided.

Battery enclosures shall be vented to prevent the accumulation of explosive gases. The battery cabinets must be lockable with a standard padlock.

AC Charging System. Each PCMS shall have an AC battery charging sub-system. The system shall be UL listed and operate from a standard 120VAC generator meeting all NEC requirements for portable equipment.

The solar battery charger shall include the following three state charger modes.

- Bulk
- Absorption
- Float

The AC battery charger shall have sufficient capacity to charge the battery bank from 80% discharged to fully charge in 24-hours, and operate the sign simultaneously. The AC battery charger shall be equipped with a male plug-in and a 50-foot long extension cord constructed of a minimum 12-gauge wire for this purpose.

907-619.02.14.2--Controller to Sign Interface. Each PCMS shall meet all applicable controller to sign interface requirements as outline in Section 4 of the NEMA TS-4 standard.

907-619.02.14.3--Display Properties. Each PCMS shall have a cone of vision (viewing angle) from the center (reference axis) shall be a minimum 15 degrees with the half-power viewing angle defined such that at a given distance from the LED, luminous intensity measured at any point at an angle of 7.5 degrees from the LED's center axis is no less than half the luminous intensity measured directly on the LED's center axis.

The minimum word legibility requirements shall be 1232 feet or greater under daytime light conditions and within the cone of visions as specified. Legibility is defined as the ability to discern the content of a display using a "word message". The minimum word legibility

requirement shall be documented either by a MDOT approved independent testing laboratory or by participation in the NTPEP test program.

The minimum visibility requirements shall be 3000 feet or greater under daytime light conditions and within the cone of vision as specified. Visibility is defined as the ability to recognize that a display exists. The minimum visibility requirement shall be documented either by a MDOT approved independent testing laboratory or by participation in the NTPEP test program.

The PCMS shall be capable of displaying standard fonts and font alphabets as specified in Sections 5.6.1 and 5.6.2.3 of the NEMA TS-4 standard and adhere to NTCIP 1203. The PCMS shall also support moving arrows.

Any NTPEP test results shall be for the PCMS model being used and shall be within the last three completed test cycles.

907-619.02.14.4--Optical Components. The pixels for the PCMS shall be manufactured using Light Emitting Diodes (LED). Changes to displays shall be performed by turning the LEDs in a pixel either on or off. The discrete, LED shall be an untinted, non-diffused, solid-state lamp that uses Aluminum Indium Gallium Phosphide (AlInGap) technology manufactured by Avago Technologies (formerly Agilent Technologies), Toshiba Corporation, Nichia Corporation, or functional equivalent. Horizontal and vertical spacing between modules shall be such that the horizontal and vertical pitch between all pixels is equal. A failure of one pixel shall not effect the operation of any other pixel.

All LEDs used to create a display in a single portable sign shall have a nominally rated LED life of 100,000 hours of operation under field conditions. This shall include a operating temperatures between -29°F to +165°F. LED life shall be defined as the time it takes for the LED light output to degrade to half of the LED's initial light output. Current through an LED shall be limited to the manufacturer's recommendation under any conditions. Each LED character module shall be rated for use over the environmental range specified herein, including heat absorption due to sunlight. The LEDs shall be protected from the outside environmental conditions, including moisture, snow, ice, wind, dust, dirt, and UV rays (UVA and UVB). All LEDs shall be mounted so that they present a uniform and legible display.

Pixels shall be replaceable in modular groupings (modules). All modules within a sign shall be the same size and interchangeable. The replacement of any module shall be possible with no more that simple non-vendor-specific hand tools, such as screw drivers or wrenches, without any physical modification to the module.

907-619.02.14.5--PCMS Controller and Storage Cabinets. All PCMS controller and storage cabinets shall be minimum NEMA 3R rated and be completely encased and lockable with a standard padlock as specified herein. A separate lockable storage cabinet shall be provided to house various accessories. The controller cabinet shall be manufactured to withstand all types of adverse weather conditions and shall be designed and installed to keep insects out. All components inside the controller cabinet shall be accessible without disconnecting any

unassociated wires or components. The controller cabinet shall be illumination. The keyboard terminal and control panel shall be housed. Lighted keys and terminal displays are acceptable.

All controls in the controller cabinet shall be labeled. The cabinet shall have a voltmeter gauge to indicate the current battery charge status. It shall have an amp gauge to indicate the current/charging status. It will be acceptable to have a display via digital readout on a control console or panel.

907-619.02.14.6--Electronics and Electrical. Each PCMS shall meet all applicable electronics and electrical requirements as outline in Section 8 of the NEMA TS-4 standard.

Sign Controller. The PCMS shall include a local sign controller with firmware. The local control interface shall have a keyboard capable of allowing full programming and control of the PCMS locally. It shall have a separate serial RS-232 or USB connection to allow a laptop computer using the remote control software to communicate directly with the sign controller.

Local and remote interfaces shall be password protected to safeguard against unauthorized use.

It shall perform and report the following minimum sign diagnostics both through the local interface and Remote Control Subsystem.

- LED brightness controls
- Sign status
- Communications status
- Battery voltage
- Photocell ambient light level.

It shall automatically report a low battery alarm to a remote user through the Remote Control Subsystem. It shall have an alarm for the controller door open and over temperature.

It shall store and display both textual and graphical symbols. It shall store a minimum of 20 pre-programmed messages and graphics. It shall display preprogrammed (by manufacturer) Manual on Uniform Traffic Control Devices (MUTCD) symbolic messages and standard arrows. It shall schedule predetermined sequences of messages based on a programmed time and date. Each sequence shall display up to four (4) programmed messages (text and/or graphics). It shall display conventional one, two, or three-line messages for display with a choice of a minimum of three font sizes. Character width shall be proportional to the letter type. The one line message font size shall be capable of displaying messages in full size to utilize the maximum area of display.

It shall allow for automatic and manual controls to adjust the brightness of the LEDs. Automatic control shall be capable of varying the LED brightness by sensing the ambient light level using photocells. Manual brightness control shall be password protected to safeguard against unauthorized use.

It shall display a preprogrammed default message or no message at all, after a power recovery from a power failure. The sign shall shut down its LED display if internal cabinet temperatures reach a level that is determined unsafe by the manufacturer.

All communications and power cabling shall be either shielded or routed within conduit to minimize potential EMI/RFI effects.

Remote Control Subsystem. The PCMS shall be supplied with all the hardware and software necessary to control the PCMS from a remote central station.

It shall have a cellular phone and/or modem capable of communication using a MDOT provided cellular service provider. The Contractor shall coordinate with MDOT for cellular service provider. The Contractor shall be responsible for establishing cellular service and providing activated phone number(s) as directed and approved by the MDOT. The Contractor shall pay for cellular service for this project until the Final Maintenance Release as documented by the State Construction Engineer at which time it will be turned over to MDOT.

The cellular service type shall be CDMA/1xRTT or GSM/GPRS, as directed by MDOT.

It shall be capable of supporting connection and remote control, programming and diagnostics via the Internet.

The subsystem shall have all necessary hardware such as external antenna, communications cables, and controller interface and NTCIP Sign controller software. The central station software meeting the following minimum requirements:

- Windows XP compatible
- Capable of running on any desktop or laptop.
- Capable of controlling all PCMS functions through windows and GUIs (Graphical User Interface)
- NTCIP compatible as specified herein.

Communications. In addition to any protocols that may be available from the PCMS Manufacturer, each sign controller shall support NTCIP as follows.

- NTCIP Protocol and Command Sets. This specification references several standards through their NTCIP designated names and numbers. Each NTCIP Component covered by these project specifications shall implement the most recent version of the standard that is available as of project advertisement date, including any and all prepared Amendments to these standards as of the same date.

Profile Implementation Conformance Specifications (PICS) for each NTCIP standard required shall be submitted for review and approval to the Department.

- RS-232 Interface. Communication interfaces using RS-232 shall conform, with the following minimum requirements.

1101 – NTCIP Simple Transportation Management Framework (STMF)
1203 - NTCIP Object Definition for Portable Dynamic Message Signs
2301 - NTCIP AP-STMF
2201 - NTCIP TP-Transportation Transport Profile
2103 – NTCIP SPPPP/RS232
2104 - NTCIP SP-PMPP/RS232

- Subnet Level. For each communication interface, the NTCIP Components may support additional Subnet Profiles at the manufacturer's option. At any time, only one Subnet Profile shall be active on a given communication interface. The NTCIP Component shall be configurable to allow the field technician to activate the desired Subnet Profile.
- Transport Level. For each communication interface, the communication interface may support additional Transport Profiles at the manufacturer's option. Response data-grams shall use the same Transport Profile used in the request. Each communication interface shall support the receipt of data-grams conforming to any of the identified Transport Profiles at any time.
- Application Level. For each communication interface, all interfaces shall comply with NTCIP 1101 and shall meet the requirements for Conformance Level 1 (NOTE -See Amendment to standard). Optionally, the NTCIP Component may support SNMP traps. A communication interface may support additional Application Profiles at the manufacturer's option. Responses shall use the same Application Profile used by the request. Each communication interface shall support the receipt of Application data packets at any time allowed by the subject standards.

Information Level. For all communication interfaces, the information level protocol shall provide Full, Standardized Object Range Support of all objects required by these procurement specifications unless otherwise indicated below. The maximum Response Time for any object or group of objects shall be 200 milliseconds. All communication interfaces shall implement all mandatory objects of all mandatory Conformance Groups as defined in NTCIP 1203 and their respective Amendments. Table 1 indicates the modified object requirements for these mandatory objects. Table 2 shows the required minimum support of messages that are to be stored in permanent memory. The sign shall blank if a command to display a message contains an invalid Message CRC value for the desired message. Table 3 specifies the support of the required MULTI tags and their ranges.

It shall also implement all mandatory objects of the following optional conformance groups of NTCIP 1201.

- Time Management Conformal Group
- Report Conformal Group. Table 4 indicates the modified object requirements.
- Implement all objects of the Font Configuration Conformance Group, as defined in NTCIP 1203. Table 5 indicates the modified object requirements for this conformance group.

- Implement all objects of the PCMS Configuration Conformance Group, as defined in NTCIP 1203.
- Implement all objects of the Multi Configuration Conformance Group, as defined in NTCIP 1203. Table 6 indicates the modified object requirements for this conformance group.
- Implement all objects of the Multi Error Configuration, as defined in NTCIP 1203.
- Implement all objects of the Illumination/Brightness.
- Sign Status, as defined in NTCIP 1203.
- Status Error, as defined in NTCIP 1203.
- Pixel Error Status, as defined in NTCIP 1203.
- The sign display shall be capable of displaying preprogrammed Manual on Uniform Traffic Control Devices (MUTCD) symbolic messages and standard arrows. Since the display of graphics is currently not defined within the NTCIP Standards or their amendments, the vendor shall propose, and provide detailed documentation (i.e., interface protocol description level), how the specified graphical shapes can be displayed.
- Implement the optional objects listed in Table 7.

Table 1
Modified Object Ranges for Mandatory Objects

Object	Reference	Project Requirement
ModuleTableEntry	NTCIP 1201 Clause 2.2.3	Shall contain at least one row with moduleType equal to 3 (software). The moduleMake shall specify the name of the manufacturer, the moduleModel shall specify the manufacturer's name of the component and the modelVersion shall indicate the model version number of the component.
MaxGroupAddresses	NTCIP 1201 Clause 2.7.1	Shall be at least 1
CommunityNamesMax	NTCIP 1201 Clause 2.8.2	Shall be at least 3
PCMSNumPermanentMsg	NTCIP 1203 Clause 2.6.1.1.1.1	Shall be at least 20*
PCMSMaxChangeableMsg	NTCIP 1203 Clause 2.6.1.1.1.3	Shall be at least 50. Each message shall support at least 4 pages per message.
PCMSFreeChangeableMemory	NTCIP 1203 Clause 2.6.1.1.1.4	Shall be at least 70 when no messages are stored.
PCMSMessageMultiString	NTCIP 1203 Clause 2.6.1.1.1.8.3	The PCMS shall support any valid MULTI string containing any subset of those MULTI tags listed in Table 4.
PCMSControlMode	NTCIP 1203 Clause 2.7.1.1.1.1	Shall support at least the following modes: <ul style="list-style-type: none"> ▪ local ▪ external ▪ central ▪ centralOverride

Table 2
Content of Permanent Messages

Perm. Msg. Num.	Section 12 Description
1	Permanent Message #1 shall blank the display (i.e., command the sign to use PCMSMessageType 7). It shall have a run-time priority of 50.

Table 3
Required MULTI Tags

Code	Feature
f1	Field 1 - time (12hr)
f2	Field 2 - time (24hr)
f8	Field 8 - day of month
f9	Field 9 - month
f10	Field 10 - 2 digit year
f11	Field 11 - 4 digit year
F1 (and /f1)	flashing text on a line by line basis with flash rates controllable in 0.5 second increments.
Fo	Font
J12	justification - line - left
J13	justification - line - center
J14	justification - line - right
J15	justification - line - full
Jp2	justification - page - top
Jp3	justification - page - middle
Jp4	justification - page - bottom
N1	New line
Np	New page, up to 2 instances in a message (i.e., up to 4 pages/frames in a message counting first page)
Pt	page times controllable in 0.5 second increments.

**Table 4
Modified Object Ranges for the Report Conformance Group**

Object	Reference	Project Requirement
maxEventLogConfigs	NTCIP 1201 Clause 2.5.1	Shall be at least 50
eventConfigurationMode	NTCIP 1201 Clause 2.4.3.1	The NTCIP Component shall support the following Event Configuration Modes: <ul style="list-style-type: none"> ▪ onChange ▪ greaterThanValue ▪ smallerThanValue
maxEventLogSize	NTCIP 1201 Clause 2.5.3	Shall be at least 200
maxEventClasses	NTCIP 1201 Clause 2.5.5	Shall be at least 16

**Table 5
Modified Object Ranges for the Font Configuration Conformance Group**

Object	Reference	Project Requirement
numfont	NTCIP 1203 Clause 2.4.1.1.1.1	Shall be at least 3*
maxFontCharacters	NTCIP 1203 Clause 2.4.1.1.1.3	Shall be at least 127**

* Upon delivery, the first font shall be a standard 18-inch font. The second font shall be a double-stroke 18-inch font. The third font shall be a 28-inch font.

** Upon delivery, the first three font sets shall be configured in accordance with the ASCII character set for the following characters:

"A" thru "Z" - All upper case letters.

"a" thru "z" - All lower case letters.

"0" thru "9" - All decimal digits.

Space (i.e., ASCII code 0x20).

Punctuation marks shown in brackets [. , ! ? - ' ' " " / ()]

Special characters shown in brackets [# & * + < >]

Table 6
Modified Object Ranges for the MULTI Configuration Conformance Group

Object	Reference	Project Requirement
defaultBackgroundColor	NTCIP 1203 Clause 2.5.1.1.1.1	The PCMS shall support the following background colors: <ul style="list-style-type: none"> ▪ black
defaultForegroundColor	NTCIP 1203 Clause 2.5.1.1.1.2	The PCMS shall support the following foreground colors: <ul style="list-style-type: none"> ▪ amber ▪ orange
defaultJustificationLine	NTCIP 1203 Clause 2.5.1.1.1.6	The PCMS shall support the following line justification: <ul style="list-style-type: none"> ▪ Left ▪ Center ▪ Right ▪ Full
defaultJustificationPage	NTCIP 1203 Clause 2.5.1.1.1.7	The PCMS shall support the following forms of page justification: <ul style="list-style-type: none"> ▪ Top ▪ Middle ▪ Bottom
defaultPageOnTime	NTCIP 1203 Clause 2.5.1.1.1.8	The PCMS shall support the full range of these objects with step sizes no larger than 0.5 seconds
defaultPageOffTime	NTCIP 1203 Clause 2.5.1.1.1.9	The PCMS shall support the full range of these objects with step sizes no larger than 0.5 seconds
defaultCharacterSet	NTCIP 1203 Clause 2.5.1.1.1.10	The PCMS shall support the following character sets: <ul style="list-style-type: none"> ▪ eightBit

Table 7
Optional Object Requirements

Object	Reference	Project Requirement
globalSetIDParameter	NTCIP 1201 Clause 2.2.1	
eventConfigLogOID	NTCIP 1201 Clause 2.5.2.7	
eventConfigAction	NTCIP 1201 Clause 2.5.2.8	
eventClassDescription	NTCIP 1201 Clause 2.5.6.4	
defaultFlashOn	NTCIP 1203 Clause 2.5.1.1.1.3	The PCMS shall support the full range of these objects with step sizes no larger than 0.5 seconds
defaultFlashOff	NTCIP 1203 Clause 2.5.1.1.1.4	The PCMS shall support the full range of these objects with step sizes no larger than 0.5 seconds
PCMSSWReset	NTCIP 1203 Clause 2.7.1.1.1.2	
PCMSMessageTimeRemaining	NTCIP 1203 Clause 2.7.1.1.1.4	
PCMSShortPowerRecoveryMessage	NTCIP 1203 Clause 2.7.1.1.1.8	
PCMSLongPowerRecoveryMessage	NTCIP 1203 Clause 2.7.1.1.1.9	
PCMSShortPowerLossTime	NTCIP 1203 Clause 2.7.1.1.1.10	
PCMSResetMessage	NTCIP 1203 Clause 2.7.1.1.1.11	
PCMSCommunicationsLossMessage	NTCIP 1203 Clause 2.7.1.1.1.12	
PCMSTimeCommLoss	NTCIP 1203 Clause 2.7.1.1.1.13	
PCMSEndDurationMessage	NTCIP 1203 Clause 2.7.1.1.1.15	
PCMSMemoryMgmt	NTCIP 1203 Clause 2.7.1.1.1.16	The PCMS shall support the following Memory

		management Modes: <ul style="list-style-type: none"> ▪ normal ▪ clearChangeableMessage ▪ clearVolatileMessages
PCMSMultiOtherErrorDescription	NTCIP 1203 Clause 2.7.1.1.1.20	If the vendor implements any vendor-specific MULTI tags, the PCMS shall be provided with documentation that includes meaningful error messages within this object whenever one of these tags generates an error.
PCMSIllumLightOutputStatus	NTCIP 1203 Clause 2.8.1.1.1.9	
watchdogFailureCount	NTCIP 1203 Clause 2.11.1.1.1.5	
PCMSStatDoorOpen	NTCIP 1203 Clause 2.11.1.1.1.6	
fanFailure	NTCIP 1203 Clause 2.11.2.1.1.8	
fanTestActivation	NTCIP 1203 Clause 2.11.2.1.1.9	
tempMinCtrlCabinet	NTCIP 1203 Clause 2.11.4.1.1.1	
tempMaxCtrlCabinet	NTCIP 1203 Clause 2.11.4.1.1.2	
tempMinSignHousing	NTCIP 1203 Clause 2.11.4.1.1.5	
tempMaxSignHousing	NTCIP 1203 Clause 2.11.4.1.1.6	

NTCIP Compliance Documentation. Software shall be supplied with full documentation, including a CD-ROM containing ASCII versions of the following Management Information Base (MIB) files in Abstract Syntax Notation 1 (ASN.1) format.

The relevant version of each official standard MIB Module referenced by the device functionality shall be included. If the device does not support the full range of any given object within a Standard MIB Module, a manufacturer specific version of the official Standard MIB Module with the supported range indicated in ASN.1 format in the SYNTAX and/or DESCRIPTION fields of the associated OBJECT TYPE macro shall be provided. The filename of this file shall be identical to the standard MIB Module, except that it will have the extension ".man".

A MIB Module in ASN.1 format containing any and all manufacturer-specific objects supported by the device with accurate and meaningful DESCRIPTION fields and supported ranges indicated in the SYNTAX field of the OBJECT-TYPE macros shall be provided. This includes a MIB containing any other objects supported by the device.

Additionally, the manufacturer shall provide a test procedure that demonstrates how the NTCIP compliance of both, the data dictionaries (NTCIP 1201, 1203, and their amendments) and the communications protocols have been tested. The manufacturer shall allow the use of any and all of this documentation by any party authorized by the Procuring Agency for systems integration purposes at any time initially or in the future, regardless of what parties are involved in the systems integration effort.

907-619.02.14.7--Additional Equipment Requirements. When the contract requires the PCMS to include a speed radar unit, the radar shall operate in the "K" band, in an "approach only" mode. In conjunction with the radar, the sign shall be capable of displaying the vehicle speeds. The unit shall be programmable to allow the interruption of user-defined messages by the vehicle speed display and/or alternate messages whenever a settable speed threshold is exceeded. The radar unit shall be encased in an aluminum enclosure with a polycarbonate lens, and the metal portion shall receive the same protective coating, priming, and painting as the rest of the sign

907-619.02.14.8--System Documentation. For each PCMS, the Contractor shall provide two (2) user manuals. The user manual shall include description and samples for all operational functions, software required to operate the sign on site and remotely, all wiring diagrams, a parts lists, the sign specifications, warranty information, maintenance information and schedule, and a trouble shooting table

Each copy shall be bound and shall contain laminated sheets.

907-619.03--Construction Requirements. After Subsection 619.03.9 on page 427, add the following.

907-619.03.10--Changeable Message Sign. Each changeable message sign shall be installed and continuously operated at the location selected by the Engineer on State right-of-way. The Contractor is advised that selected locations may be outside the planned indicated limits of the project. The Contractor shall perform all work necessary for preparation of the site selected and approved by the Engineer, to insure maximum safety for and sign visibility of the traveling public; and may be required to remove any temporary work at a later date as directed by the Engineer. The Contractor will also place a minimum of two plastic drums in advance of the sign and one beside the sign as long as it is in use. The Contractor shall be required to move the sign to a new location if directed by the Engineer.

The Contractor may be permitted to bring electric power from outside the normal right-of-way for operation of the equipment if the Department determines that the installation operation will not be hazardous to the traveling public. The Contractor will be required to secure a permit from the Department prior to any work by the power company on the right-of-way. The entire cost of

providing electrical service, power to operate the equipment, and removal of the power source from the right-of-way shall be borne by the Contractor.

The changeable message sign(s) will remain the property of the Contractor after the Engineer determines that there is no further need for the sign(s) on the project.

907-619.04--Method of Measurement. After the last paragraph of Subsection 619.04 on page 428, add the following.

Changeable message signs, as described above, will be measured by the unit. When directed, separate measurements will be made for items included in the contract and required for temporary site preparation for the sign as referenced in Subsection 907-619.03.10. Materials for which no pay items are included in the contract will not be measured for separate payment. Separate measurements will not be made for moving the changeable message sign to a new location, but materials used for which pay items are included in the contract and are necessary for repositioning the sign as directed by the Engineer will be measured for separate payment. Removal of materials used for site preparation for changeable message signs will not be measured for separate payment.

907-619.05--Basis of Payment. After the second paragraph of Subsection 619.05 on page 428, add the following.

Payment for items required by the Engineer for temporary location of the changeable message sign, and for which pay items are included in the contract, will be made by the individual pay item. No additional payment will be made for having to work outside the planned indicated project limits.

Payment for removal of materials used for site preparation at changeable message sign locations shall be included in the contract bid price for Maintenance of Traffic.

Between pay item nos. 619-E2 and 619-F1 on page 429, insert the following:

907-619-E3: Changeable Message Sign * - per each

* Indicate when options are required

Construction of Interchange on US 78 at Coley Road / Barnes Crossing Road, known as Federal Aid Project No. STP-0006-02(027) / 105420301 in Lee County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
Roadway Items					
0010	201-A001		1	Lump Sum	Clearing and Grubbing
0020	202-B025		56	Square Yard	Removal of Concrete Paved Ditch
0030	202-B041		3,726	Linear Feet	Removal of Fence, All Types
0040	202-B042		13	Each	Removal of Flared End Section, All Sizes
0050	202-B064		304	Linear Feet	Removal of Pipe, 8" And Above
0060	202-B069		1	Each	Removal of Sign
0070	202-B088		2	Each	Removal of Box Culvert Headwall, All Sizes
0080	202-B289		300	Linear Feet	Removal of Cable Rail
0090	203-EX017	(E)	492,696	Cubic Yard	Borrow Excavation, AH, FME, Class B9
0100	203-EX035	(E)	2,966	Cubic Yard	Borrow Excavation, AH, FME, Class B9-6
0110	203-G004	(E)	4,449	Cubic Yard	Excess Excavation, LVM, AH
0120	206-A001	(S)	4,824	Cubic Yard	Structure Excavation
0130	206-B001	(E)	120	Cubic Yard	Select Material for Undercuts, Contractor Furnished, FM
0140	209-A004		38,895	Square Yard	Geotextile Stabilization, Type V, Non-Woven
0150	211-B001	(E)	150	Cubic Yard	Topsoil for Slope Treatment, Contractor Furnished
0160	213-C001		12	Ton	Superphosphate
0162	217-A001		667	Square Yard	Ditch Liner
Added 11/18/2013					
0170	219-A001		14	Thousand Gallon	Watering [\$20.00]
0180	220-A001		24	Acre	Insect Pest Control [\$30.00]
0190	221-A001	(S)	197	Cubic Yard	Portland Cement Concrete Paved Ditch
Changed 11/18/2013					
0200	223-A001		24	Acre	Mowing [\$50.00]
0210	224-A001		666	Square Yard	Soil Reinforcing Mat
Changed 11/18/2013					
0220	234-A001		8,596	Linear Feet	Temporary Silt Fence
0230	235-A001		20	Bale	Temporary Erosion Checks
0240	239-A001		250	Linear Feet	Temporary Slope Drains
0250	501-E001		166	Linear Feet	Expansion Joints, Without Dowels
0260	502-A001	(C)	364	Square Yard	Reinforced Cement Concrete Bridge End Pavement
0270	602-A001	(S)	112,637	Pounds	Reinforcing Steel
0280	603-A043	(S)	528	Linear Feet	36" Steel Pipe, Jacked or Bored, Wall Thickness 0.875"

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0290	603-CA003	(S)	156	Linear Feet	24" Reinforced Concrete Pipe, Class III
0300	603-CA005	(S)	712	Linear Feet	36" Reinforced Concrete Pipe, Class III
0310	603-CA006	(S)	16	Linear Feet	42" Reinforced Concrete Pipe, Class III
0320	603-CA020	(S)	192	Linear Feet	54" Reinforced Concrete Pipe, Class IV
0330	603-CA032	(S)	272	Linear Feet	54" Reinforced Concrete Pipe, Class V
0340	603-CB002	(S)	2	Each	24" Reinforced Concrete End Section
0350	603-CB004	(S)	11	Each	36" Reinforced Concrete End Section
0360	603-CB005	(S)	1	Each	42" Reinforced Concrete End Section
0370	603-CB007	(S)	4	Each	54" Reinforced Concrete End Section
0380	603-CE002	(S)	232	Linear Feet	29" x 18" Concrete Arch Pipe, Class A III
0390	603-CF002	(S)	2	Each	29" x 18" Concrete Arch Pipe End Section
0400	603-SB005	(S)	1	Each	36" Branch Connections, Stub into Box Culvert
0410	605-AA003	(S)	152	Square Yard	Geotextile for Subsurface Drainage, Type III
0420	605-W001	(GY)	13	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains, Type A, FM
0430	605-W002	(GY)	14	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains, Type B, FM
0440	605-Z002		1	Each	Underdrain Appurtenances, Small Animal Guard
0450	605-Z004		1	Each	Underdrain Appurtenances, Sign
0460	606-B001		525	Linear Feet	Guard Rail, Class A, Type 1
0470	606-D012		2	Each	Guard Rail, Bridge End Section, Type I
0480	606-E001		4	Each	Guard Rail, Terminal End Section
0490	607-A002		5,420	Linear Feet	60" Type "A" Woven Wire Fence, w/ Barbed Wire as Shown
0500	607-P1004				Deleted 11/18/2013
0510	607-P1016		452	Each	Line Post, 7' x 4" x 4" Concrete
0512	607-P2004		75	Each	Brace Post, 8' x 6" x 6" Concrete
					Added 11/18/2013
0514	607-Z001		75	Each	Concrete Anchors
					Added 11/18/2013
0520	609-D007	(S)	812	Linear Feet	Combination Concrete Curb and Gutter Type 2 Modified
0530	615-A018	(S)	40	Linear Feet	Concrete Bridge End Barrier, 33.5"
0540	616-A001	(S)	663	Square Yard	Concrete Median and/or Island Pavement, 4-inch
0550	616-A003	(S)	80	Square Yard	Concrete Median and/or Island Pavement, 10-inch
0560	618-A001		1	Lump Sum	Maintenance of Traffic
0570	619-D1001		46	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
					Changed 11/18/2013

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0580	619-D2001		437	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
	Changed 11/18/2013				
0590	619-F1001		1,200	Linear Feet	Concrete Median Barrier, Precast
0600	619-G4005		64	Linear Feet	Barricades, Type III, Double Faced
0610	619-G5001		416	Each	Free Standing Plastic Drums
0620	620-A001		1	Lump Sum	Mobilization
0630	627-K001		380	Each	Red-Clear Reflective High Performance Raised Markers
0640	627-L001		302	Each	Two-Way Yellow Reflective High Performance Raised Markers
0650	628-P001		77	Square Feet	High Performance Cold Plastic Legend, White
0660	630-A001		80	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
0670	630-A002		304	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
0680	630-B001		959	Square Feet	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Ground Mounted
0690	630-C003		238	Linear Feet	Steel U-Section Posts, 3.0 lb/ft
0700	630-D006		176	Linear Feet	Structural Steel Beams, W8 x 18
0710	630-D008		358	Linear Feet	Structural Steel Beams, W10 x 22
0720	630-E002		305	Pounds	Structural Steel Angles & Bars, 3 1/2" x 3 1/2" x 1/4" Angles
0730	630-E003		574	Pounds	Structural Steel Angles & Bars, 4" x 4" x 5/16" Angles
0740	630-E004		173	Pounds	Structural Steel Angles & Bars, 7/16" x 2 1/2" Flat Bar
0750	630-F001		21	Each	Delineators, Guard Rail, White
0760	630-F006		57	Each	Delineators, Post Mounted, Single White , Flexible
0770	630-F007		14	Each	Delineators, Post Mounted, Single Yellow , Flexible
0780	630-F008		62	Each	Delineators, Post Mounted, Double White , Flexible
0790	630-F009		18	Each	Delineators, Post Mounted, Double Yellow , Flexible
0800	630-G002		4	Each	Type 3 Object Markers, OM-3R or OM-3L, Post Mounted
0810	630-K002		80	Linear Feet	Welded & Seamless Steel Pipe Posts, 3 1/2"
0820	630-K003		115	Linear Feet	Welded & Seamless Steel Pipe Posts, 4"
0830	635-A001		744	Linear Feet	Vehicle Loop Assemblies
0840	635-B001				Deleted 11/18/2013
0850	636-A003		1,771	Linear Feet	Shielded Cable, 4 Conductor
0860	638-A005		4	Each	Loop Detector Amplifier, Card Rack Mounted, 4 Channel
0870	640-A016		8	Each	Traffic Signal Heads, Type 1 LED
	Changed 11/18/2013				
0880	640-A018		2	Each	Traffic Signal Heads, Type 3 LED
	Changed 11/18/2013				

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0890	640-A019		2	Each	Traffic Signal Heads, Type 5 LED
0900	640-A022		2	Each	Traffic Signal Heads, Type 7 LED
0910	644-A001		6	Each	Optical Detector
0920	644-B001		855	Linear Feet	Optical Detector Cable
0930	644-C002		2	Each	Phase Selector, 4 Channel
0940	647-A001		2	Each	Pullbox, Type 1
0950	647-A005		10	Each	Pullbox, Type 2
0960	648-A001		1	Each	Radio Interconnect, Installed in New Controller Cabinet
Changed 11/18/2013					
0970	666-B016		841	Linear Feet	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 7 Conductor
0980	666-B032		200	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #8, 2 Conductor
0990	666-D005		220	Linear Feet	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 7 Conductor
1000	668-A016		1,448	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 1"
1010	668-A018		100	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 2"
1020	668-A020		41	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 3"
1030	668-B024		461	Linear Feet	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 2"
1040	668-B025		41	Linear Feet	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 3"
1050	809-A004	(S)	2,473	Square Feet	Mechanically Stabilized Earth Wall System
1060	815-A006	(S)	30	Ton	Loose Riprap, Size 100
1070	815-A009	(S)	150	Ton	Loose Riprap, Size 300
1080	815-E001	(S)	200	Square Yard	Geotextile under Riprap
1090	907-216-A001		690	Square Yard	Solid Sodding
1100	907-225-A001		24	Acre	Grassing
1110	907-225-B001		72	Ton	Agricultural Limestone
1120	907-225-C001		48	Ton	Mulch, Vegetative Mulch
1130	907-226-A001		24	Acre	Temporary Grassing
1140	907-237-A002		80	Linear Feet	Wattles, 12"
1150	907-237-A003		80	Linear Feet	Wattles, 20"
1160	907-245-A001		80	Linear Feet	Triangular Silt Dike
1170	907-246-A001		80	Linear Feet	Sandbags
1180	907-247-A001		3	Each	Temporary Stream Diversion
1190	907-249-A001		30	Ton	Riprap for Erosion Control
1200	907-249-B001		20	Cubic Yard	Remove and Reset Riprap
1210	907-304-C007	(GY)	11,756	Cubic Yard	Granular Material, AEA, Class 3, Group C
1220	907-406-C001		4,489	Square Yard	Cold Milling of Shoulders, All Types, All Depths

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1230	907-407-A001	(A2)	4,360	Gallon	Asphalt for Tack Coat
1240	907-413-E001		166	Linear Feet	Sawing and Sealing Transverse Joints in Asphalt Pavement
1250	907-601-A001	(S)	485	Cubic Yard	Class "B" Structural Concrete
1260	907-601-B003	(S)	78	Cubic Yard	Class "B" Structural Concrete, Minor Structures
1270	907-605-O001	(S)	200	Linear Feet	6" Perforated Sewer Pipe for Underdrains, SDR 23.5
1280	907-606-G001		600	Linear Feet	Cable Barrier
1290	907-606-H001		2	Each	Cable Barrier Terminal Section
1300	907-606-I001		30	Each	Cable Barrier Post Repair
1310	907-617-A001		30	Each	Right-of-Way Marker
1312	907-619-E3001		3	Each	Changeable Message Sign
	Added 11/18/2013				
1320	907-626-A004		4,887	Linear Feet	6" Thermoplastic Traffic Stripe, Skip White
1330	907-626-C008		10,661	Linear Feet	6" Thermoplastic Edge Stripe, Continuous White
1340	907-626-D004		1,028	Linear Feet	6" Thermoplastic Traffic Stripe, Skip Yellow
1350	907-626-E003		1,028	Linear Feet	6" Thermoplastic Traffic Stripe, Continuous Yellow
1360	907-626-F008		3,371	Linear Feet	6" Thermoplastic Edge Stripe, Continuous Yellow
1370	907-626-G004		7,179	Linear Feet	Thermoplastic Detail Stripe, White
1380	907-626-G005		5,109	Linear Feet	Thermoplastic Detail Stripe, Yellow
1390	907-626-H004		560	Linear Feet	Thermoplastic Legend, White
1400	907-626-H005		178	Square Feet	Thermoplastic Legend, White
1410	907-631-B001		70	Cubic Yard	Flowable Fill, Non-Excavatable
1420	907-639-A006		4	Each	Traffic Signal Equipment Pole, Type II, 17' Shaft, 30' Arm
1430	907-639-A015		2	Each	Traffic Signal Equipment Pole, Type IV, 30' Shaft, 50' Arm
1440	907-639-C002		24	Cubic Yard	Pole Foundations, 36" Diameter
1450	907-642-A005		2	Each	Solid State Traffic Actuated Controllers, Type 8M
1460	907-643-A001		1	Each	Closed Loop On-Street Master System
1470	907-649-A004		2	Each	Video Detection System, 1 Sensor, Type 2
1480	907-699-A002		1	Lump Sum	Roadway Construction Stakes
1490	907-906001		1,040	Hours	Trainees [\$5.00]
	ALTERNATE GROUP AA NUMBER 1				
1500	907-304-H002	(GY)	12,221	Cubic Yard	3/4" and Down Crushed Stone Base, LVM
	ALTERNATE GROUP AA NUMBER 2				
1510	907-304-H003	(GY)	12,221	Cubic Yard	Size 610 Crushed Stone Base, LVM
	ALTERNATE GROUP AA NUMBER 3				
1520	907-304-H004	(GY)	12,221	Cubic Yard	Size 825B Crushed Stone Base, LVM
	ALTERNATE GROUP BB NUMBER 1				

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1530	907-403-A006	(BA1)	1,915	Ton	Hot Mix Asphalt, MT, 12.5-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP BB NUMBER 2					
1540	907-403-M002	(BA1)	1,915	Ton	Warm Mix Asphalt, MT, 12.5-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP CC NUMBER 1					
1550	907-403-A007	(BA1)	8,324	Ton	Hot Mix Asphalt, MT, 19-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP CC NUMBER 2					
1560	907-403-M007	(BA1)	8,324	Ton	Warm Mix Asphalt, MT, 19-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP DD NUMBER 1					
1570	907-403-A010	(BA1)	3,054	Ton	Hot Mix Asphalt, MT, 9.5-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP DD NUMBER 2					
1580	907-403-M006	(BA1)	3,054	Ton	Warm Mix Asphalt, MT, 9.5-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP EE NUMBER 1					
1590	907-403-A012	(BA1)	2,393	Ton	Hot Mix Asphalt, ST, 19-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP EE NUMBER 2					
1600	907-403-M004	(BA1)	2,393	Ton	Warm Mix Asphalt, ST, 19-mm mixture
Changed 11/18/2013					
ALTERNATE GROUP FF NUMBER 1					
1610	907-626-I003		710	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Skip White
1620	907-626-J003		710	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White
1630	907-626-M001		128	Linear Feet	Inverted Profile Thermoplastic Detail Traffic Stripe, White
1640	907-626-M002		1,472	Linear Feet	Inverted Profile Thermoplastic Detail Traffic Stripe, Yellow
ALTERNATE GROUP FF NUMBER 2					
1650	628-I002		710	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Skip White
1660	628-J002		710	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous White
1670	628-O001		128	Linear Feet	High Performance Cold Plastic Detail Stripe, White
1680	628-O002		1,472	Linear Feet	High Performance Cold Plastic Detail Stripe, Yellow
Bridge Items					
1690	501-K001		2,972	Square Yard	Transverse Grooving

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1700	801-A001	(S)	983	Cubic Yard	Foundation Excavation for Bridges
1710	803-D003	(S)	3,380	Linear Feet	HP 14 x 73 Steel Piling
1720	803-D006	(S)	5,760	Linear Feet	HP 14 x 117 Steel Piling
1730	803-F005	(S)	125	Linear Feet	18" Pre-Formed Pile Hole
1740	803-H001	(S)	2	Each	PDA Test Pile, Conventional Load Test
1750	803-I001	(S)	2	Each	PDA Test Pile
1760	805-A001	(S)	372,105	Pounds	Reinforcement
1770	813-A001	(S)	704	Linear Feet	Concrete Railing
1780	815-D001	(S)	196	Cubic Yard	Concrete Slope Paving
1790	907-804-A001	(S)	1,745	Cubic Yard	Bridge Concrete, Class AA
1800	907-804-C148	(S)	1,489	Linear Feet	75' Prestressed Concrete Beam, Type IV
1810	907-804-C240	(S)	2,003	Linear Feet	101' Prestressed Concrete Beam, Type IV

ADDENDUM

STATE	PROJECT NO.
MISS.	STP-0006-02(027)

DESCRIPTION OF SHEET

WKG. NO. SH. NO.

TITLE SHEET
 DETAILED INDEX AND GENERAL NOTES SHEETS (3)
 DETAILED INDEX
 DETAILED INDEX
 GENERAL NOTES
 TYPICAL SECTION SHEETS (4)
 TYPICAL SECTIONS - COLEY ROAD
 TYPICAL SECTIONS - NORTHEAST AND NORTHWEST RAMPS
 TYPICAL SECTIONS - SOUTHEAST AND SOUTHWEST RAMPS
 TYPICAL SECTIONS - CABLE BARRIER
 QUANTITY SHEETS (14)
 SUMMARY OF QUANTITIES
 SUMMARY OF QUANTITIES
 SUMMARY OF QUANTITIES
 SUMMARY OF QUANTITIES
 SUMMARY OF QUANTITIES
 ESTIMATED QUANTITIES
 ESTIMATED QUANTITIES
 ESTIMATED QUANTITIES
 ESTIMATED QUANTITIES
 ESTIMATED QUANTITIES
 ESTIMATED QUANTITIES FOR STANDARD ROADSIDE SIGNS
 ESTIMATED QUANTITIES FOR STANDARD ROADSIDE SIGNS
 ESTIMATED QUANTITIES FOR TRAFFIC CONTROL SIGNS
 SUMMARY OF TRAFFIC CONTROL ITEMS
 ESTIMATED QUANTITIES FOR DIRECTIONAL SIGNS

PLAN AND PROFILE SHEETS (5)

COLEY ROAD STA. 215+00 - STA. 235+50
 NORTHWEST STA. 300+00 - STA. 325+97.30
 NORTHEAST STA. 400+00 - STA. 416+71.55
 SOUTHEAST STA. 500+00 - STA. 527+38.37
 SOUTHWEST STA. 600+00 - STA. 617+57.61

SPECIAL DESIGN SHEETS (85)

REMOVAL ITEMS COLEY ROAD
 REMOVAL ITEMS NORTHWEST RAMP
 REMOVAL ITEMS NORTHEAST RAMP
 REMOVAL ITEMS SOUTHEAST RAMP
 REMOVAL ITEMS SOUTHWEST RAMP
 EROSION CONTROL COLEY ROAD
 EROSION CONTROL NORTHWEST RAMP
 EROSION CONTROL NORTHEAST RAMP
 EROSION CONTROL SOUTHEAST RAMP
 EROSION CONTROL SOUTHWEST RAMP
 RIGHT OF WAY
 RIGHT OF WAY MARKERS
 VEGETATION SCHEDULE
 DETAIL OF CONSTRUCTION SIGNING
 MISCELLANEOUS CONSTRUCTION DETAILS
 MISCELLANEOUS CONSTRUCTION DETAILS
 MISCELLANEOUS CONSTRUCTION DETAILS
 TRAFFIC CONTROL BARREL PLACEMENT STA. 1308+40 TO STA. 1322+80
 TRAFFIC CONTROL BARREL PLACEMENT STA. 1322+80 TO STA. 1339+60
 TRAFFIC CONTROL BARREL PLACEMENT STA. 1339+60 TO STA. 1356+20
 TRAFFIC CONTROL BARREL PLACEMENT STA. 1356+40 TO STA. 1365+40
 TRAFFIC CONTROL MEDIAN BARRIER PLACEMENT
 PERMANENT PAVEMENT MARKING COLEY ROAD EXTENDED
 PERMANENT PAVEMENT MARKING NORTHWEST RAMP
 PERMANENT PAVEMENT MARKING NORTHEAST RAMP
 PERMANENT PAVEMENT MARKING SOUTHEAST RAMP
 PERMANENT PAVEMENT MARKING SOUTHWEST RAMP
 INTERCHANGE LAYOUT
 INTERSECTION DETAIL NORTHWEST RAMP AND NORTHEAST RAMP
 INTERSECTION DETAIL SOUTHEAST RAMP AND SOUTHWEST RAMP
 FORM GRADES NORTHWEST RAMP AND NORTHEAST RAMP
 FORM GRADES SOUTHEAST RAMP AND SOUTHWEST RAMP

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59

DESCRIPTION OF SHEET

WKG. NO. SH. NO.

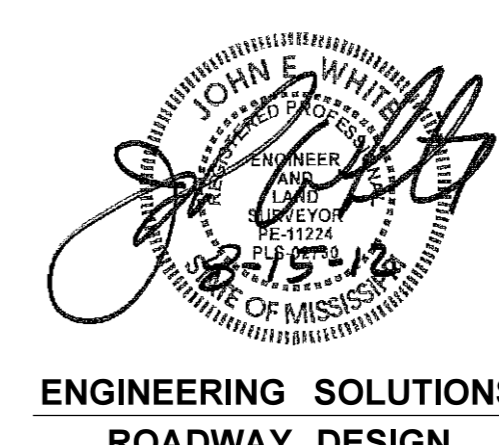
SPECIAL DESIGN SHEETS CONTINUED (86)

FORM GRADES NORTHWEST RAMP STA. 300+00 TO STA. 313+29.29
 FORM GRADES NORTHEAST RAMP STA. 410+50 TO STA. 417+28.10
 FORM GRADES SOUTHEAST RAMP STA. 510+63 TO STA. 527+22.13
 FORM GRADES SOUTHWEST RAMP STA. 600+00 TO STA. 606+50
 BRIDGE END PAVEMENT WITH RAIL AND OVERLAY
 33.5" BRIDGE END PAVEMENT RAIL
 TYPICAL TEMPORARY EROSION / SEDIMENT CONTROL APPLICATIONS
 DETAIL OF SEDIMENT BARRIER APPLICATIONS
 DETAILS OF SILT FENCE INSTALLATION
 DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS
 TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES,
 SILT FENCE AND HAY BALE DITCH CHECKS
 DETAILS OF EROSION CONTROL WATTLE DITCH CHECK
 DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK
 ROCK DITCH CHECK
 ROCK DITCH CHECK WITH SUMP EXCAVATION
 INLET PROTECTION TYPICAL APPLICATIONS AND DETAILS
 INLET PROTECTION DETAILS FOR COARSE AGGREGATE ON GRADES & SAGS
 INLET PROTECTION DETAILS OF WATTLES
 INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE
 INLET PROTECTION DETAILS OF SAND BAG
 STABILIZED CONSTRUCTION ENTRANCE
 TEMPORARY CULVERT STREAM CROSSING
 TEMPORARY STREAM DIVERSION
 TEMPORARY STREAM DIVERSION (BOX EXTENSIONS)
 FLOATING TURBIDITY CURTAIN
 DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK
 GUARDRAIL: BRIDGE END SECTION TYPE "I" (WOOD POSTS)
 GUARDRAIL: BRIDGE END SECTION TYPE "I" (STEEL POSTS)
 RIGHT-OF-WAY MARKER
 PAVEMENT MARKING DETAILS FOR INTERCHANGE ENTRANCE RAMPS (PARALLEL AND TAPER)
 PAVEMENT MARKING DETAILS FOR INTERCHANGE EXIT RAMPS (PARALLEL AND TAPER)
 TYPICAL TEMPORARY EROSION CONTROL MEASURES
 (SLOPE DRAIN AND TYPE A SILT BASIN)
 BASIC CULVERT DRAWING SINGLE CELL HEIGHT 5 FT. SPANS 5-12 FT.
 BOX CULVERT DRAWING BARREL JOINT LOCATIONS NORMAL AND SKEWED CULVERTS
 BOX CULVERT DRAWING IBS CULVERTS MODIFIED FOR
 HIGH COVER WINGS WITH 3:1 SLOPE
 BOX CULVERT DRAWING 45 SKEW DETAILS WINGS WITH 3:1 SLOPE
 SINGLE & DOUBLE CELL CULVERTS
 COLLOR DETAILS FOR BOX STRUCTURES (SINGLE, DOUBLE & QUADRUPLE)
 SKEWED COLLAR DETAILS FOR BOX STRUCTURES
 (SINGLE, DOUBLE, TRIPLE & QUADRUPLE)
 WINGS WITH 3:1 SLOPE FOR BASIC CULVERT DRAWING SINGLE CELL
 WINGS WITH 3:1 SLOPE FOR BASIC CULVERT DRAWING SINGLE CELL
 LOCATION OF R16-3 SIGNS
 SUPERELEVATION CASE I ROTATION ABOUT CENTERLINE (2% NORMAL SUBGRADE)
 SUPERELEVATION TRANSITION CASE I ROTATION ABOUT CENTERLINE
 (URBAN FACILITY, V=50 mph)
 BREAKAWAY SIGN SUPPORTS
 SUPERELEVATION RUNOFF CASE I ROTATION ABOUT CENTERLINE
 TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS
 TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH
 (4-LANE: MEDIAN OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)
 TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT OF 65 OR 70 MPH
 (INTERSTATES AND OTHER 4-LANE DIVIDED HIGHWAYS)
 (MEDIAN LANE OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)
 HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS
 PAVEMENT MARKING DETAILS FOR 4-LANE AND 5-LANE UNDIVIDED HIGHWAYS

FG-3 60
 FG-4 61
 FG-5 62
 FG-6 63
 BE-1C 64
 BE-PR-1B 65
 ECD-1 66
 ECD-2 67
 ECD-3 68
 ECD-4 69
 ECD-5 70
 ECD-6 71
 ECD-7 72
 ECD-8 73
 ECD-9 74
 ECD-10 75
 ECD-11 76
 ECD-12 77
 ECD-13 78
 ECD-14 79
 ECD-15 80
 ECD-16 81
 ECD-17 82
 ECD-18 83
 ECD-19 84
 ECD-20 85
 GR-2F 86
 GR-2G 87
 ROW-1 88
 SDPM-3 89
 SDPM-4 90
 TEC-2 91
 SD-IBS-5-2W 92
 SD-IBJL-1 93
 SD-IBSM-3W 94
 SD-ISK-45-3W 95
 SD-ICJ 96
 SD-ICJS 97
 SD-IWS-3 98
 SD-IWS-3A 99
 SDS-1 100
 SDSE-2A 101
 SDSE-2E 102
 SDSN-6B 103
 SDR0-1 104
 SDSN-8 105
 SDTCP-3 106
 SDTCP-4 107
 SDTCP-10 108
 SDPM-2 109

11/18/2013 9:12 AM 02 DI-1 REV 7_23_13.DGN

ENGINEERING SOLUTIONS		
PS & E PLANS-DATE...08-15-12		
FMS CON. # 105420/301000		
REVISIONS		
DATE	SHEET NO.	BY
	1-4,9-12,15,23-27	
2/26/13	38,39,50-54,80,88-108	LH
	2001-2009,6231	
7/23/13	1,2,3,4,8-11,13-16,20,21	LH
	23-28,31-37,40,44,50,54	
	108-112,2008,6107,6144	
	6145,6287,6291,8001	
10/7/13	2,3,9,113	DSP
10/25/13	3,7,9,11,20,21,33,34,35,36	DSP
	37,49,53,2009,2010	
11/18/13	9,10	DSP



DSP	DSP	DSP	DSP	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION DETAILED INDEX PROJECT NO. STP-0006-02(027) COUNTY : LEE FILENAME: 02 DI-1 REV 7_23_13.DGN DESIGN TEAM lhopkins CHECKED jwhite DATE Aug 2012
10/7/13	ADDED SPEC. DESIGN SHEET				
7/23/13	ADDED SPEC. DESIGN SHEET				
7/23/13	REVISED TOTAL SHEETS				
7/23/13	REVISED WORKING NUMBERS				WORKING NUMBER DI-1 SHEET NUMBER 2

ADDENDUM

STATE	PROJECT NO.
MISS.	STP-0006-02(027)

DESCRIPTION OF SHEET

WKG. NO. SH. NO.

DESCRIPTION OF SHEET

WKG. NO. SH. NO.

▲▲ SPECIAL DESIGN SHEETS CONTINUED (86)

- ▲ DETAILS OF TYPICAL DITCH TREATMENTS
- ▲ DITCH TREATMENT - SOIL REINFORCING MAT
- ▲ DRIVEWAYS, CURB & GUTTER, & SIDEWALK
- ▲ SHORT DURATION CLOSING OF DIVIDED HIGHWAYS

DT-1 110
DT-1A 111
SDSD-1 112
SDTCP-9 113

▲ PERMANENT SIGNING SHEET (4)

- PERMANENT SIGNING
- PERMANENT SIGNING
- PERMANENT SIGNING
- DIRECTIONAL SIGN DETAILS

PSP-1 1001
PSP-2 1002
PSP-3 1003
S-1 1004

▲ TRAFFIC SIGNAL SHEETS (10)

- ▲ TRAFFIC SIGNAL LAYOUT- SOUTH RAMPS COLEY RD. EXTENDED
- ▲ TRAFFIC SIGNAL LAYOUT- NORTH RAMPS COLEY RD. EXTENDED
- ▲ DETAIL OF TRAFFIC SIGNAL HEADS, TRAFFIC SIGNAL SIGNS, AND GENERAL NOTES
- ▲ LOOP DETECTOR DETAILS FOR TRAFFIC SIGNAL INSTALLATION
- ▲ PULL BOX AND CONDUIT TRENCHING DETAILS FOR TRAFFIC SIGNAL INSTALLATION
- ▲ TYPICAL DETAILS OF CONTROLLER CABINET MOUNTINGS, TYPE 1 POLE ATTACHMENTS AND MISCELLANEOUS DETAILS
- ▲ MAST ARM AND PEDESTAL POLE DETAILS FOR TRAFFIC SIGNAL INSTALLATION
- ▲ TRAFFIC CONTROL PLAN (TRAFFIC SIGNAL INSTALLATION)
- ▲ PROBE DETECTOR DETAILS FOR TRAFFIC SIGNAL INSTALLATION
- ▲ PROBE DETECTOR DETAILS FOR TRAFFIC SIGNAL INSTALLATION

TSI-1 2001
TSI-2 2002
TSD-1 2003
TSD-2 2004
TSD-3 2005
TSD-4 2006

TSD-5 2007
TSD-6 2008
TSD-7 2009
TSD-8 2010

▲ STANDARD DRAWINGS - ROADWAY SHEETS (43)

- ▲ PAVEMENT MARKING DETAILS FOR 2-LANE AND 4-LANE DIVIDED HIGHWAYS

PM-1 6120

- ▲▲ PAVEMENT MARKING LEGEND DETAILS
- EROSION CONTROL
- TYPICAL TEMPORARY EROSION CONTROL MEASURES (TYPE B SILT BASIN)

PM-6 6125
EC-1 6140
TEC-3 6144

- ▲ FENCE: WOVEN WIRE CONCRETE POSTS
- FENCE: TYPICAL INSTALLATION AT BRIDGES
- FENCE: TYPICAL INSTALLATION AT DITCH CROSSINGS AND FENCE ENDINGS
- GUARDRAIL: "W" BEAM (WOOD POST)
- GUARDRAIL: THRIE BEAM (WOOD POSTS)
- GUARDRAIL: "W" BEAM (STEEL POST)
- GUARDRAIL: MODIFIED THRIE BEAM (STEEL POST)
- GUARDRAIL: TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR 2-LANE, 2-WAY HIGHWAY
- GUARDRAIL: MISCELLANEOUS HARDWARE
- STANDARD DIRECTIONAL (GUIDE) SIGNS
- ROUTE SHIELD AND "EXIT ONLY" PANELS
- STANDARD ROADSIDE SIGNS
- STANDARD ROADSIDE SIGNS
- STANDARD ROADSIDE SIGNS
- STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION
- STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION
- STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION
- TYPICAL INSTALLATION OF GROUND MOUNTED DIRECTIONAL SIGNS
- BREAKAWAY SIGN SUPPORTS
- BREAKAWAY SIGN SUPPORTS

WW-2 6161
FI-2 6164
FI-3 6166
GR-1 6180
GR-1A 6181
GR-1B 6182
GR-1C 6183

GR-4A 6195
GR-HW 6202
SN-1 6220
SN-2 6221
SN-3 6222
SN-3A 6223
SN-3B 6224
SN-4 6225
SN-4A 6226
SN-4B 6227
SN-5 6228
SN-6 6229
SN-6A 6230

- ▲ SIGN FACE CONST. AND ATTACHMENT OF GROUND MOUNTED DIRECTIONAL SIGNS TO STEEL BEAMS (EXTRUDED ALUMINUM PANELS)

SN-7 6232
SN-8A 6234
SN-8C 6236

- TYPICAL INSTALLATION OF DELINEATORS
- TYPICAL GUARDRAIL DELINEATION
- TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT OF 65 OR 70 MPH (INTERSTATES AND OTHER 4-LANE DIVIDED HIGHWAYS)
- (MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)
- TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO-LANE ROADS
- TRAFFIC CONTROL PLANS UNEVEN PAVEMENT DETAILS
- TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS
- ▲ RURAL DRIVEWAYS
- TYPICAL GRADING TRANSITION BETWEEN CUTS AND FILLS

TCP-5 6254
TCP-11 6260
TCP-14 6263
TCP-15 6264
RD-1 6271
GT-1 6272

STANDARD DRAWINGS - ROADWAY SHEETS CONT. (43)

- INTERCHANGE DESIGN FOR HIGH SPEED TAPERED EXIT RAMP
- INTERCHANGE DESIGN FOR HIGH SPEED PARALLEL ENTRANCE RAMP
- MISCELLANEOUS DETAIL SHEET 1. STACKED PIPE JOINTS 2. EXCAVATION AT GRADE POINTS
- DETAILS OF PAVED FLUMES
- PIPE CULVERT INSTALLATION
- CONCRETE PIPE COLLAR
- ▲ JUNCTION BOX FOR PIPE CULVERT
- ▲ BRANCH CONNECTIONS
- FLARED END SECTION FOR CONCRETE PIPE
- FLARED END SECTION FOR CONCRETE ARCH PIPE

IR-1 6283
IR-2A 6286
MDS-1 6290
PF-1 6291
PI-1 6300
PC-1 6301
JB-1 6302
BC-1 6305
FE-1 6328
FE-1A 6329

▲ SPECIAL DESIGN SHEETS - BRIDGE DRAWINGS (22)

- ▲ GENERAL NOTES AND ESTIMATED QUANTITIES
- FOUNDATION PLAN AND PROFILE
- END BENT 1
- END BENT 5
- END BENT DETAILS
- ▲ INTERMEDIATE BENTS 2, 3 AND 4
- INTERMEDIATE BENT DETAILS
- TYPICAL SPAN DETAILS
- TYPICAL SPAN DETAILS
- PART. PLAN OF SPANS 1 AND 2
- PART. PLAN OF SPANS 1 AND 2
- PART. PLAN OF SPANS 2 AND 3
- PART. PLAN OF SPANS 2 AND 3
- PART. PLAN OF SPANS 3 AND 4
- PART. PLAN OF SPANS 3 AND 4
- MISCELLANEOUS SPAN DETAILS
- RAILING DETAILS
- BEARING ASSEMBLY DETAILS
- 75 FT. BEAM DETAILS, TYPE IV
- 101 FT. BEAM DETAILS, TYPE IV
- MISCELLANEOUS BEAM DETAILS
- SOIL PROFILE

1 8001
2 8002
3 8003
4 8004
5 8005
6 8006
7 8007
8 8008
9 8009
10 8010
11 8011
12 8012
13 8013
14 8014
15 8015
16 8016
17 8017
18 8018
19 8019
20 8020
21 8021
22 8022

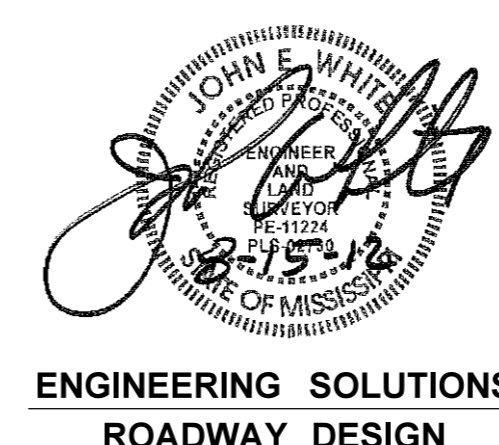
▲ CROSS-SECTIONS (131)

- ▲ COLEY RD. EXTENDED
- ▲ NORTHWEST RAMP
- ▲ NORTHEAST RAMP
- ▲ SOUTHEAST RAMP
- ▲ SOUTHWEST RAMP

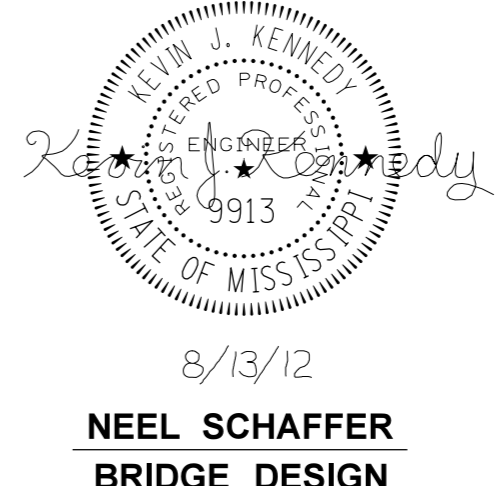
9001-9025
9026-9054
9055-9077
9078-9112
9113-9131

▲▲ TOTAL SHEETS (323)

1.0/29/2013 2:05 PM 03 DI-2 REV 2.26-13.DGN

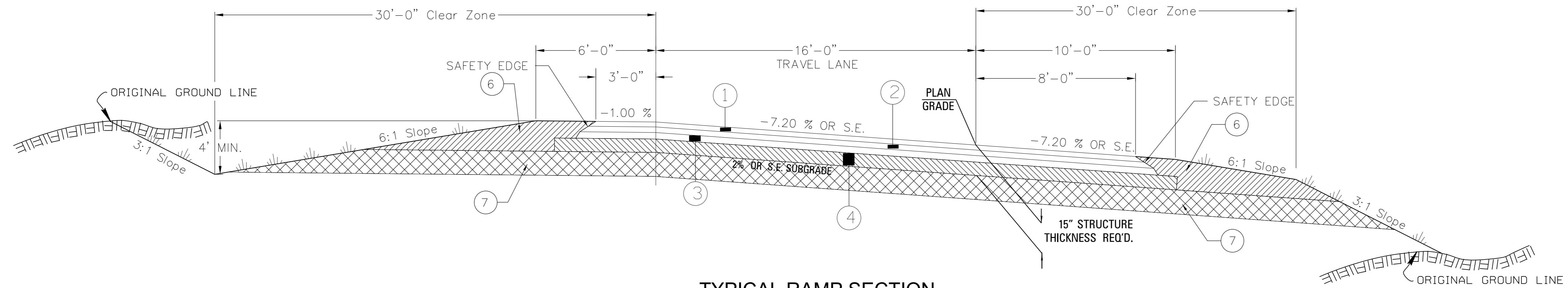


ENGINEERING SOLUTIONS
ROADWAY DESIGN



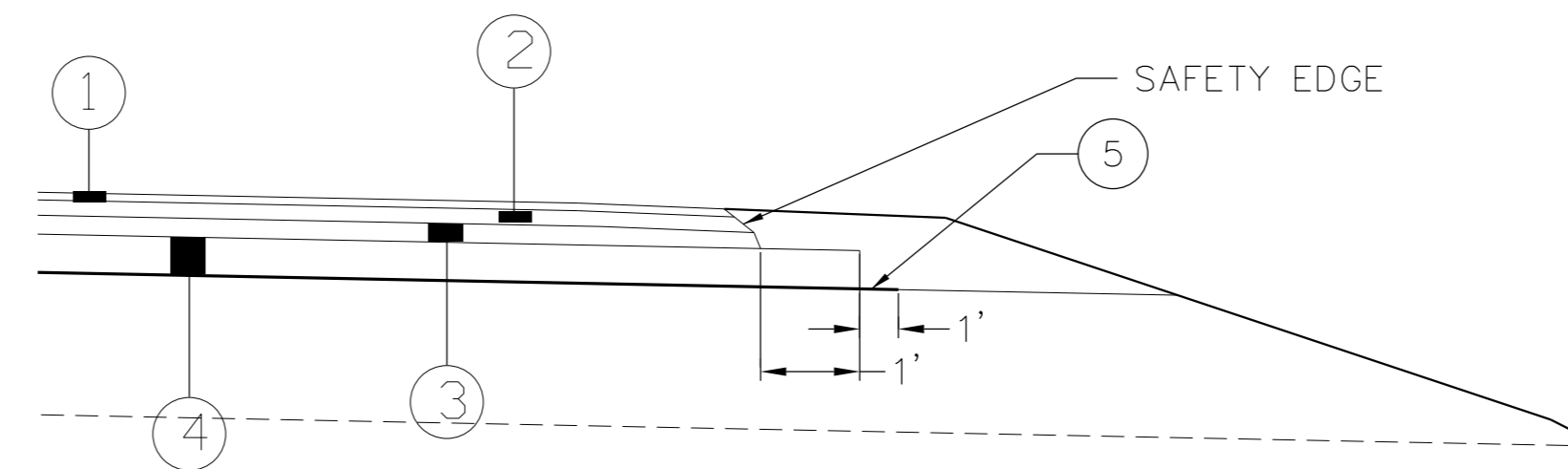
NEEL SCHAFFER
BRIDGE DESIGN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
DETAILED INDEX			
CONTINUED			
PROJECT NO. STP-0006-02(027)			
COUNTY : LEE			
FILENAME: 03 DI-2 REV 2.26-13.DGN		WORKING NUMBER	
DESIGN TEAM : lhopkins CHECKED : jwhite DATE : Aug 2012		DI-2	
		SHEET NUMBER	
		3	

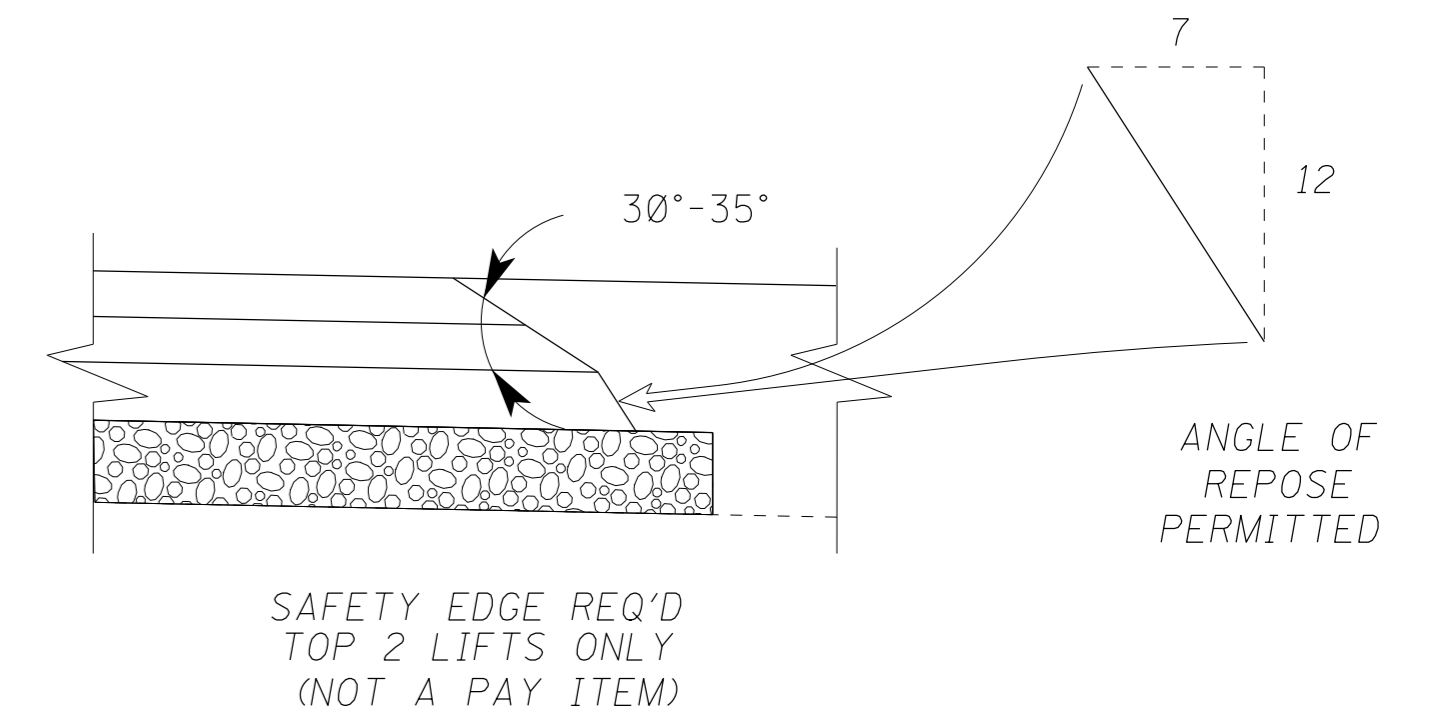


TYPICAL RAMP SECTION
 STATION 505+00 - STATION 512+13 SE RAMP
 STATION 604+00 - STATION 609+55.218 SW RAMP

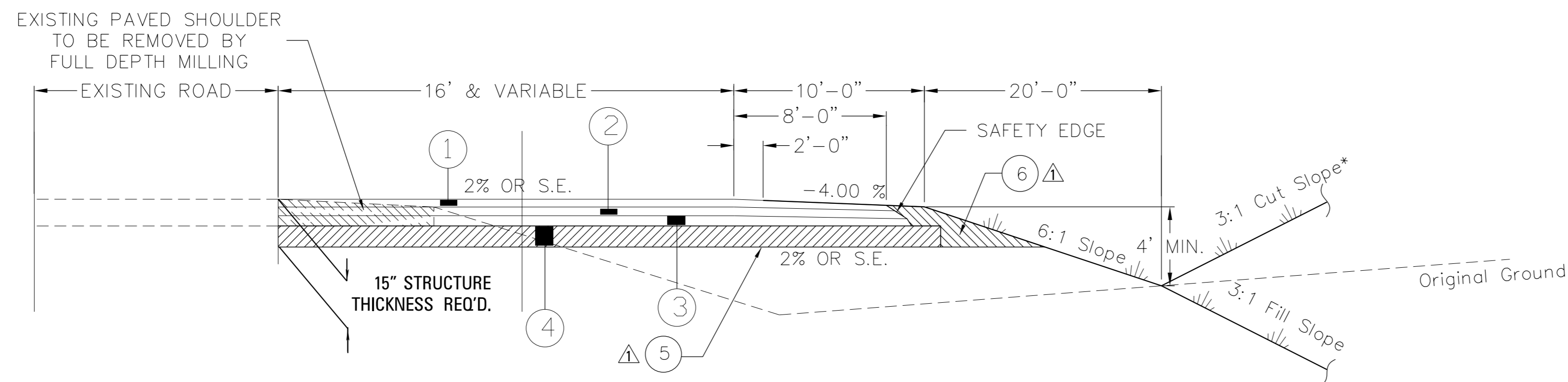
- ① 1-1/2" HOT MIX ASPHALT, OR WARM MIX ASPHALT, MT. 9.5-MM MIXTURE (1 @ 1.5)
- ② 2 1/2" HOT MIX ASPHALT, OR WARM MIX ASPHALT, MT 19-MM MIXTURE (1 @ 2.5)
- ③ 3" HOT MIX ASPHALT, OR WARM MIX ASPHALT, MT 19-MM MIXTURE (1 @ 3)
- ④ 8" CRUSHED STONE
- ⑤ GEOTEXTILE FABRIC TYPE V (NON WOVEN)
- ⑥ 15" AND VARIABLE SHOULDER GRANULAR MATERIAL (3/C)
- ⑦ 3' UNDERCUT STA. 510+00 - 512+00 TO BE BACKFILLED WITH BORROW EXCAVATION, B9-6.



GEOTEXTILE FABRIC DETAILS



SAFETY EDGE DETAILS



US 78 WIDENING
 STATION 512+13 - STATION 527+22.13 SE RAMP
 STATION 600+00 - STATION 604+00 SW RAMP

* STA. 510+50 - 513+00 SOUTHEAST RAMP
 2:1 BACKSLOPE REQ'D

LEGEND

INDICATES AREA TO BE TREATED IN ACCORDANCE WITH THE VEGETATION SCHEDULE, SEE WK. SH. NO. VS-1.

DSP		BY		MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
REVISED LABELS		REVISION		TYPICAL SECTION	
DATE		FILENAME: 07_TS-3.DGN		WORKING NUMBER	
DESIGN TEAM		_lhopkins_		TS-3	
CHECKED		_jwhite_		SHEET NUMBER	
DATE		Aug 2012		7	



ADDENDUM

STATE PROJECT NO.
MISS. STP-0006-02(027)

SUMMARY OF QUANTITIES (SHEET 1)

PAY ITEM NO.	PAY ITEM	UNIT	PRELIMINARY	FINAL
*****EARTHWORK ITEMS*****				
201-A001	CLEARING AND GRUBBING	LS	1	
202-B025	REMOVAL OF CONCRETE PAVED DITCH	SY	56	
202-B041	REMOVAL OF FENCE, ALL TYPES	LF	3,726	
202-B042	REMOVAL OF FLARED END SECTION, ALL SIZES	EA	13	
202-B064	REMOVAL OF PIPE, 8" AND ABOVE	LF	304	
202-B069	REMOVAL OF SIGN	EA	1	
202-B088	REMOVAL OF BOX CULVERT HEADWALL, ALL SIZES	EA	2	
202-B289	REMOVAL OF CABLE RAIL	LF	300	
203-EX017	BORROW EXCAVATION, AH, FME, CLASS B9	CY	492,696	
203-EX035	BORROW EXCAVATION, AH, FME, CLASS B9-6	CY	2,966	
203-G004	EXCESS EXCAVATION, LVM, AH	CY	4,449	
206-A001	STRUCTURE EXCAVATION	CY	4,824	
206-B001	SELECT MATERIAL FOR UNDERCUTS, CONTRACTOR FURNISHED, FM	CY	120	
209-A004	GEOTEXTILE STABILIZATION, TYPE V, NON-WOVEN	SY	38,895	
*****ROADSIDE DEVELOPMENT ITEMS*****				
211-B001	TOPSOIL FOR SLOPE TREATMENT, CONTRACTOR FURNISHED	CY	150	
213-C001	SUPERPHOSPHATE	TON	12	
907-216-A001	SOLID SODDING	SY	690	
217-A001	DITCH LINER	SY	667	
219-A001	WATERING	KGAL	14	
220-A001	INSECT PEST CONTROL	ACRE	24	
221-A001	PORTLAND CEMENT CONCRETE PAVED DITCH	CY	113	
223-A001	MOWING	ACRE	24	
224-A001	SOIL REINFORCING MAT	SY	666	
907-225-A001	GRASSING	ACRE	24	
907-225-B001	AGRICULTURAL LIMESTONE	TON	72	
907-225-C001	MULCH, VEGETATIVE MULCH	TON	48	
907-226-A001	TEMPORARY GRASSING	ACRE	24	
234-A001	TEMPORARY SILT FENCE	LF	8,596	
235-A001	TEMPORARY EROSION CHECKS	BALE	20	
907-237-A002	WATTLES, 12"	LF	80	
907-237-A003	WATTLES, 20"	LF	80	
239-A001	TEMPORARY SLOPE DRAINS	LF	250	
907-245-A001	TRIANGULAR SILT DIKE	LF	80	
907-246-A001	SANDBAGS	LF	80	
907-247-A001	TEMPORARY STREAM DIVERSION	EA	3	
907-249-A001	RIPRAP FOR EROSION CONTROL	TON	30	
907-249-B001	REMOVE AND RESET RIPRAP	CY	20	
*****SUBBASE & BASE ITEMS*****				
907-304-C007	GRANULAR MATERIAL, AEA, CLASS 3, GROUP C	CY	11,756	
*****ALTERNATE PAY ITEMS (BASE)*****				
907-304-H002	3/4" AND DOWN CRUSHED STONE BASE, LVM	CY	12,221	
	OR			
907-304-H003	SIZE 610 CRUSHED STONE BASE, LVM	CY	12,221	
	OR			
907-304-H004	SIZE 825B CRUSHED STONE BASE, LVM	CY	12,221	
*****ALTERNATE PAY ITEMS (ASPHALT PAVEMENT)*****				
907-403-A006	HOT MIX ASPHALT, MT, 12.5-MM MIXTURE	TON	1,915	
	OR			
907-403-M002	WARM MIX ASPHALT, MT, 12.5-MM MIXTURE	TON	1,915	
907-403-A007	HOT MIX ASPHALT, MT, 19-MM MIXTURE	TON	8,324	
	OR			
907-403-M007	WARM MIX ASPHALT, MT, 19-MM MIXTURE	TON	8,324	

- ① INCLUDES WINGS AND APRONS.
- ② INCLUDES 59 CU.YDS FOR PAVED FLUMES.
- ③ INCLUDES CABLE, POSTS, VEGETATIVE PADS, AND OTHER APPURTENANCES.

11/18/2013 9:19 AM	09-012 SQS.SH REV 7.23.13.DGN	CHANGED QUANTITIES	DSP	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES PROJ. NO.: STP-0006-02(027) COUNTY: LEE FILENAME: 09-012 SQS.SH REV 7.23.13.DGN DESIGN TEAM: lhopkins CHECKED: jwhite DATE: Aug 2012
10/25/13	ADDED PAY ITEM CHANGED QUANTITY	DSP			
10/17/13	ADDED PAY ITEM	DSP			
1/23/13	ADDED PAY ITEMS NOTES	DSP			
2/26/13	ADDED 202-H001 & 203-H001	LH			
2/26/13	REMOVED PAY ITEM 203-A003 & NOTE 2	LH			
DATE	REVISION	BY			



WORKING NUMBER
SQ-1
SHEET NUMBER
9

11/18/2013 9:19 AM 09-012 SQS.SH REV 7.23.13.DGN

ADDENDUM

STATE PROJECT NO.
MISS. STP-0006-02(027)


SUMMARY OF QUANTITIES (SHEET 2)

PAY ITEM NO.	PAY ITEM	UNIT	PRELIMINARY	FINAL
*****ALTERNATE PAY ITEMS CONT. (ASPHALT PAVEMENT)*****				
907-403-A010	HOT MIX ASPHALT, MT, 9.5-MM MIXTURE [△]	TON	3,054 [△]	
	OR			
907-403-M006	WARM MIX ASPHALT, MT, 9.5-MM MIXTURE [△]	TON	3,054 [△]	
907-403-A012	HOT MIX ASPHALT, ST, 19-MM MIXTURE [△]	TON	2,393 [△]	
	OR			
907-403-M004	WARM MIX ASPHALT, ST, 19-MM MIXTURE [△]	TON	2,393 [△]	
*****ASPHALT PAVING ITEMS*****				
907-406-C001	COLD MILLING OF SHOULDERS, ALL TYPES, ALL DEPTHS	SY	4,489	
907-407-A001	ASPHALT FOR TACK COAT	GAL	4,360	
907-413-E001	SAWING AND SEALING TRANSVERSE JOINTS IN ASPHALT PAVEMENT	LF	166	
*****CONCRETE PAVING ITEMS*****				
501-E001	EXPANSION JOINTS, WITHOUT DOWELS	LF	166	
502-A001	REINFORCED CEMENT CONCRETE BRIDGE END PAVEMENT	SY	364	
*****DRAINAGE ITEMS*****				
907-601-A001	CLASS "B" STRUCTURAL CONCRETE	CY	485	
^① [△] 907-601-B003	CLASS "B" STRUCTURAL CONCRETE, MINOR STRUCTURES	CY	78	
^② 602-A001	REINFORCING STEEL	LBS	112,637	
603-A043	36" STEEL PIPE, JACKED OR BORED, WALL THICKNESS 0.875"	LF	528	
603-CA003	24" REINFORCED CONCRETE PIPE, CLASS III	LF	156	
603-CA005	36" REINFORCED CONCRETE PIPE, CLASS III	LF	712	
603-CA006	42" REINFORCED CONCRETE PIPE, CLASS III	LF	16	
603-CA020	54" REINFORCED CONCRETE PIPE, CLASS IV	LF	192	
603-CA032	54" REINFORCED CONCRETE PIPE, CLASS V	LF	272	
603-CB002	24" REINFORCED CONCRETE END SECTION	EA	2	
603-CB004	36" REINFORCED CONCRETE END SECTION	EA	11	
603-CB005	42" REINFORCED CONCRETE END SECTION	EA	1	
603-CB007	54" REINFORCED CONCRETE END SECTION	EA	4	
603-CE002	29" X 18" CONCRETE ARCH PIPE, CLASS A III	LF	232	
603-CF002	29" X 18" CONCRETE ARCH PIPE END SECTION	EA	2	
603-SB005	36" BRANCH CONNECTIONS, STUB INTO BOX CULVERT	EA	1	
907-605-O001	6" PERFORATED SEWER PIPE FOR UNDERDRAINS, SDR 23.5	LF	200	
605-W001	FILTER MATERIAL FOR COMBINATION STORM DRAIN AND/OR UNDERDRAINS, TYPE A, FM	CY	13	
605-W002	FILTER MATERIAL FOR COMBINATION STORM DRAIN AND/OR UNDERDRAINS, TYPE B, FM	CY	14	
605-Z002	UNDERDRAIN APPURTENANCES, SMALL ANIMAL GUARD	EA	1	
605-Z004	UNDERDRAIN APPURTENANCES, SIGN	EA	1	
605-AA003	GEOTEXTILE FOR SUBSURFACE DRAINAGE, TYPE III	SY	152	
*****GUARDRAIL ITEMS*****				
606-B001	GUARD RAIL, CLASS A, TYPE 1	LF	525 [△]	
606-D012	GUARD RAIL, BRIDGE END SECTION, TYPE I	EA	2	
^③ 606-E001	GUARD RAIL, TERMINAL END SECTION	EA	4	
907-606-G001	CABLE BARRIER	LF	600	
907-606-H001	CABLE BARRIER TERMINAL SECTION	EA	2	
907-606-I001	CABLE BARRIER POST REPAIR	EA	30	
*****INCIDENTAL CONSTRUCTION ITEMS*****				
607-A002	60" TYPE "A" WOVEN WIRE FENCE, W/ BARBED WIRE AS SHOWN	LF	5,420	
607-P1016	LINE POST, 7' X 4" X 4" CONCRETE	EA	452	
[△] 607-P2004	BRACE POST, 8' X 6" X 6" CONCRETE	EA	75	
609-D007	COMBINATION CONCRETE CURB AND GUTTER TYPE 2 MODIFIED	LF	812	
615-A018	CONCRETE BRIDGE END BARRIER, 33.5"	LF	40	
616-A001	CONCRETE MEDIAN AND/OR ISLAND PAVEMENT, 4-INCH	SY	663	
616-A003	CONCRETE MEDIAN AND/OR ISLAND PAVEMENT, 10-INCH	SY	80	
907-617-A001	RIGHT-OF-WAY MARKER	EA	30	
618-A001	MAINTENANCE OF TRAFFIC	LS	1	

- ^① INCLUDES 17 CU.YDS. FOR SIGN FOOTINGS, 4.0 CU.YDS. FOR TOE WALLS AND PIPE COLLARS.
- ^② INCLUDES 3,100 LBS. FOR SIGN FOOTINGS, 109,537 LBS. FOR BOX CULVERT.
- ^③ FLEAT-350, REGENT, SRT-350, ROSS-350 OR APPROVED FLARED EQUAL TO BE INSTALLED FOLLOWING MANUFACTURER'S RECOMMENDATION. THE CONTRACTOR IS TO PROVIDE TWO COPIES OF MANUFACTURER'S INSTALLATION DETAILS TO THE PROJECT ENGINEER. THE ENGINEER SHALL KEEP ONE COPY IN PROJECT FILE AND PROVIDE ONE COPY TO DISTRICT MAINTENANCE ENGINEER. REFLECTIVE ADHESIVE SHEETING WITH ALTERNATING BLACK AND YELLOW STRIPES (SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS) IS REQUIRED ON THE END OF THE TERMINAL SECTION. THE TYPE OF TERMINAL ERECTED SHALL BE NOTED ON THE BACK OF THE TERMINAL WITH A SANFORD MEANSTREAK WATERPROOF FORMULA PERMANENT MARKING STICK OR BY SOME OTHER MEANS OF PERMANENT IDENTIFICATION.

11/18/2013 9:12 AM 09-012 SQS.SH REV 7.23.13.DGN

11/08/13	REVISED QUANTITIES AND PAY ITEM	DSP	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES PROJECT NO.: STP-0006-02(027) COUNTY: LEE FILENAME: 09-012 SQS.SH REV 7.23.13.DGN DESIGN TEAM: lhopkins CHECKED: jwhite DATE: Aug 2012
7/29/13	MOVED ITEMS FROM SQ-1 TO SQ-2	DSP	LH	
7/29/13	REVISED QUANTITY	LH	LH	
7/26/13	MOVED NOTE 1 AND REWORKED	LH	LH	
	REVISION			



WORKING NUMBER
SQ-2
SHEET NUMBER
10

ADDENDUM

STATE	PROJECT NO.
MISS.	STP-0006-02(027)

SUMMARY OF QUANTITIES (SHEET 3)

PAY ITEM NO.	PAY ITEM	UNIT	PRELIMINARY	FINAL
*****TRAFFIC CONTROL ITEMS*****				
619-D1001	STANDARD ROADSIDE CONSTRUCTION SIGNS, LESS THAN 10 SQUARE FEET	SF	36	
619-D2001	STANDARD ROADSIDE CONSTRUCTION SIGNS, 10 SQUARE FEET OR MORE	SF	225	
① 907-619-E3001	CHANGEABLE MESSAGE SIGN	EA	3	
619-F1001	CONCRETE MEDIAN BARRIER, PRECAST	LF	1,200	
619-G4005	BARRICADES, TYPE III, DOUBLE FACED	LF	64	
619-G5001	FREE STANDING PLASTIC DRUMS	EA	416	
620-A001	MOBILIZATION	LS	1	
*****PAVEMENT MARKING ITEMS*****				
907-626-A004	6" THERMOPLASTIC TRAFFIC STRIPE, SKIP WHITE	LF	4,887	
907-626-C008	6" THERMOPLASTIC EDGE STRIPE, CONTINUOUS WHITE	LF	10,661	
907-626-D004	6" THERMOPLASTIC TRAFFIC STRIPE, SKIP YELLOW	LF	1,028	
907-626-E003	6" THERMOPLASTIC TRAFFIC STRIPE, CONTINUOUS YELLOW	LF	1,028	
907-626-F008	6" THERMOPLASTIC EDGE STRIPE, CONTINUOUS YELLOW	LF	3,371	
907-626-G004	THERMOPLASTIC DETAIL STRIPE, WHITE	LF	7,179	
907-626-G005	THERMOPLASTIC DETAIL STRIPE, YELLOW	LF	5,109	
907-626-H004	THERMOPLASTIC LEGEND, WHITE	LF	560	
907-626-H005	THERMOPLASTIC LEGEND, WHITE	SF	178	
627-K001	RED-CLEAR REFLECTIVE HIGH PERFORMANCE RAISED MARKERS	EA	380	
627-L001	TWO-WAY YELLOW REFLECTIVE HIGH PERFORMANCE RAISED MARKERS	EA	302	
628-P001	HIGH PERFORMANCE COLD PLASTIC LEGEND, WHITE	SF	77	
*****ALTERNATE PAVEMENT MARKING ITEMS*****				
907-626-I003	6" INVERTED PROFILE THERMOPLASTIC TRAFFIC STRIPE, SKIP WHITE	LF	710	
907-626-J003	6" INVERTED PROFILE THERMOPLASTIC TRAFFIC STRIPE, CONTINUOUS WHITE	LF	710	
907-626-M001	INVERTED PROFILE THERMOPLASTIC DETAIL TRAFFIC STRIPE, WHITE	LF	128	
907-626-M002	INVERTED PROFILE THERMOPLASTIC DETAIL TRAFFIC STRIPE, YELLOW	LF	1,472	
OR				
628-I002	6" HIGH PERFORMANCE COLD PLASTIC TRAFFIC STRIPE, SKIP WHITE	LF	710	
628-J002	6" HIGH PERFORMANCE COLD PLASTIC TRAFFIC STRIPE, CONTINUOUS WHITE	LF	710	
628-O001	HIGH PERFORMANCE COLD PLASTIC DETAIL STRIPE, WHITE	LF	128	
628-O002	HIGH PERFORMANCE COLD PLASTIC DETAIL STRIPE, YELLOW	LF	1,472	
*****TRAFFIC SIGN AND DELINEATOR ITEMS*****				
630-A001	STANDARD ROADSIDE SIGNS, SHEET ALUMINUM, 0.080" THICKNESS	SF	80	
630-A002	STANDARD ROADSIDE SIGNS, SHEET ALUMINUM, 0.125" THICKNESS	SF	304	
630-B001	INTERSTATE DIRECTIONAL SIGNS, BOLTED EXTRUDED ALUMINUM PANELS, GROUND MOUNTED	SF	959	
630-C003	STEEL U-SECTION POSTS, 3.0 LB/FT	LF	238	
630-D006	STRUCTURAL STEEL BEAMS, W8 X 18	LF	176	
630-D008	STRUCTURAL STEEL BEAMS, W10 X 22	LF	358	
630-E002	STRUCTURAL STEEL ANGLES & BARS, 3 1/2" X 3 1/2" X 1/4" ANGLES	LBS	305	
630-E003	STRUCTURAL STEEL ANGLES & BARS, 4" X 4" X 5/16" ANGLES	LBS	574	
630-E004	STRUCTURAL STEEL ANGLES & BARS, 7/16" X 2 1/2" FLAT BAR	LBS	173	
630-F001	DELINEATORS, GUARD RAIL, WHITE	EA	21	
630-F006	DELINEATORS, POST MOUNTED, SINGLE WHITE	EA	57	
630-F007	DELINEATORS, POST MOUNTED, SINGLE YELLOW	EA	14	
630-F008	DELINEATORS, POST MOUNTED, DOUBLE WHITE	EA	62	
630-F009	DELINEATORS, POST MOUNTED, DOUBLE YELLOW	EA	18	
630-G002	TYPE 3 OBJECT MARKERS, OM-3R OR OM-3L, POST MOUNTED	EA	4	

① TO BE USED AS DIRECTED BY THE ENGINEER.

10/25/2013 11:13 AM 09-012 SQS.SH REV 7.23.13.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION

ADDED	10/25/13	OSD	
REMOVED	10/25/13	LH	
CHANGED	10/25/13	LH	
QUANTITY	10/25/13	LH	
RECAP	2/26/13	LH	
ALTERNATE STRIPE	2/26/13	LH	
UPDATED	2/26/13	LH	
LEGEND	2/26/13	LH	
WHITE	2/26/13	LH	
TOTAL	2/26/13	LH	
DATE		BY	
REVISION			

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PROJECT NO.: STP-0006-02(027)
 COUNTY: LEE

FILENAME: 09-012 SQS.SH REV 7.23.13.DGN
 DESIGN TEAM: lhopkins CHECKED: jwhite DATE: Aug 2012

WORKING NUMBER
 SQ-3
 SHEET NUMBER
 11

ADDENDUM

SIGNS REQUIRED

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
G20 - 1	60" X 24"	10.00	2	20	ROAD WORK NEXT X X MILES
G20 - 2a	48" X 24"	8.00	2	16	END ROAD WORK
G20 - 4	36" X 18"	4.50			PILOT CAR FOLLOW ME
1	M1 - 1	24" X 24"	4.00		1 OR 2 DIGIT
1	M1 - 1	30" X 24"	5.00		3 DIGIT
2	M1 - 4	24" X 24"	4.00		1 OR 2 DIGIT
2	M1 - 4	30" X 24"	5.00		3 DIGIT
3	M1 - 5	24" X 24"	4.00		1 OR 2 DIGIT
3	M1 - 5	30" X 24"	5.00		3 DIGIT
4	M3 - 1	24" X 12"	2.00		NORTH- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 1	30" X 15"	3.13		NORTH- 3 DIGIT RTE. MARKER
4	M3 - 2	24" X 12"	2.00		EAST- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 2	30" X 15"	3.13		EAST- 3 DIGIT RTE. MARKER
4	M3 - 3	24" X 12"	2.00		SOUTH- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 3	30" X 15"	3.13		SOUTH- 3 DIGIT RTE. MARKER
4	M3 - 4	24" X 12"	2.00		WEST- 1 OR 2 DIGIT RTE. MARKER
4	M3 - 4	30" X 15"	3.13		WEST- 3 DIGIT RTE. MARKER
	M4 - 8	24" X 12"	2.00		DETOUR- 1 OR 2 DIGIT RTE. MARKER
	M4 - 8	30" X 15"	3.13		DETOUR- 3 DIGIT RTE. MARKER
	M4 - 9	48" X 36"	12.00		DETOUR
	M4 - 9L	48" X 36"	12.00		DETOUR
	M4 - 9BL	48" X 36"	12.00		DETOUR
	M4 - 9SL	48" X 36"	12.00		DETOUR
	M4 - 9BSL	48" X 36"	12.00		DETOUR
	M4 - 9R	48" X 36"	12.00		DETOUR
	M4 - 9BR	48" X 36"	12.00		DETOUR
	M4 - 9SR	48" X 36"	12.00		DETOUR
	M4 - 9BSR	48" X 36"	12.00		DETOUR
	M4 - 10L	48" X 18"	6.00		DETOUR
	M4 - 10R	48" X 18"	6.00		DETOUR
4	M4 - 5	24" X 12"	2.00		TO
4	M5 - 1L	21" X 15"	2.19		
4	M5 - 1R	21" X 15"	2.19		
4	M5 - 2L	21" X 15"	2.19		
4	M5 - 2R	21" X 15"	2.19		
4	M6 - 1L	21" X 15"	2.19		
4	M6 - 1R	21" X 15"	2.19		
4	M6 - 2L	21" X 15"	2.19		
4	M6 - 2R	21" X 15"	2.19		
4	M6 - 3	21" X 15"	2.19		
	R1 - 1	36" OCTAGON	7.46		STOP
	R1 - 1	48" OCTAGON	13.25	4	53
	R1 - 2	48" X 48" X 48"	6.93		YIELD
	R1 - 2	60" X 60" X 60"	10.83		YIELD

SIGNS REQUIRED (CONT'D)

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
R1 - 3	18" X 9"	1.13			3-WAY, 4 WAY ETC.
R1 - 3	24" X 12"	2.00			
R2 - 1	24" X 30"	5.00	4	20	
R2 - 1	36" X 48"	12.00			SPEED LIMIT
R2 - 1	48" X 60"	20.00			
R3 - 1	36" X 36"	9.00			
R3 - 1	48" X 48"	16.00			
R3 - 2	36" X 36"	9.00			
R3 - 2	48" X 48"	16.00			
R3 - 4	36" X 36"	9.00			
R3 - 4	48" X 48"	16.00			
R3 - 5L	30" X 36"	7.50			
R3 - 5R	30" X 36"	7.50			
R3 - 6L	30" X 36"	7.50			
R3 - 6R	30" X 36"	7.50			
R3 - 7L	30" X 30"	6.25			LEFT LANE MUST TURN LEFT
R3 - 7R	30" X 30"	6.25			RIGHT LANE MUST TURN RIGHT
R4 - 1	24" X 30"	5.00			DO NOT PASS
R4 - 1	48" X 60"	20.00			
R4 - 2	24" X 30"	5.00			PASS WITH CARE
R4 - 2	48" X 60"	20.00			
R4 - 7	48" X 60"	20.00			
R4 - 8	48" X 60"	20.00			
R5 - 1	48" X 48"	16.00			DO NOT ENTER
R5 - 1a	42" X 30"	8.75			WRONG WAY
R6 - 1L	36" X 12"	3.00			ONE WAY
R6 - 1R	36" X 12"	3.00			ONE WAY
R6 - 2L	24" X 30"	5.00			ONE WAY
R6 - 2R	24" X 30"	5.00			ONE WAY
R11 - 2	48" X 30"	10.00			ROAD CLOSED
R11 - 3a	60" X 30"	12.50			ROAD CLOSED XX MILES AHEAD
R11 - 3b	60" X 30"	12.50			BRIDGE OUT XX MILES AHEAD
R11 - 4	60" X 30"	12.50			ROAD CLOSED TO THRU TRAFFIC
R12 - 1	36" X 48"	12.00			WEIGHT LIMIT XX TONS
R16 - 3	36" X 48"	12.00	2	24	WHEN WORKERS ARE PRESENT SPEEDING FINES DOUBLED
R16 - 3	48" X 60"	20.00			
W1 - 1L	48" X 48"	16.00			
W1 - 1R	48" X 48"	16.00			
W1 - 2L	48" X 48"	16.00			
W1 - 2R	48" X 48"	16.00			
W1 - 3L	48" X 48"	16.00			
W1 - 3R	48" X 48"	16.00			
W1 - 4aL	48" X 48"	16.00			
W1 - 4aR	48" X 48"	16.00			
W1 - 5L	48" X 48"	16.00			
W1 - 5R	48" X 48"	16.00			
W1 - 6L	48" X 24"	8.00			
W1 - 6L	60" X 30"	12.50			
W1 - 6R	48" X 24"	8.00			
W1 - 6R	60" X 30"	12.50			
W1 - 7	48" X 24"	8.00			

SIGNS REQUIRED (CONT'D)

SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
W1 - 7	60" X 30"	12.50			
W1 - 8L	18" X 24"	3.00			
W1 - 8L	36" X 48"	12.00			
W1 - 8R	18" X 24"	3.00			
W1 - 8R	36" X 48"	12.00			
W1 - 9L	48" X 48"	16.00			
W1 - 9R	48" X 48"	16.00			
W3 - 1a	48" X 48"	16.00			
W3 - 2a	48" X 48"	16.00			
W3 - 3	48" X 48"	16.00			
W3 - 5	48" X 48"	16.00	2	32	SPEED REDUCTION
W4 - 1L	48" X 48"	16.00			
W4 - 1R	48" X 48"	16.00			
W4 - 2L	48" X 48"	16.00			
W4 - 2R	48" X 48"	16.00			
W5 - 1a	48" X 48"	16.00			PAVEMENT NARROWS
W6 - 1	48" X 48"	16.00			
W6 - 2	48" X 48"	16.00			
W6 - 3	48" X 48"	16.00			
W8 - 1	48" X 48"	16.00			BUMP
W8 - 4	48" X 48"	16.00			SOFT SHOULDER
W8 - 6	48" X 48"	16.00			TRUCK CROSSING
W8 - 7	48" X 48"	16.00			LOOSE GRAVEL
W8 - 9	48" X 48"	16.00			LOW SHOULDER
W8 - 11	36" X 36"	9.00			UNEVEN LANES
W8 - 12	48" X 48"	16.00			NO CENTER STRIPE
W10 - 1	36" DIA.	7.07			
W10 - 1	48" DIA.	12.56			
W13 - 1	24" X 24"	4.00			XX MPH
W14 - 3	36"X48"X48"	5.56			NO PASSING ZONE
W14 - 3	48"X64"X64"	9.89			
W16-2	24" X 18"	3.00			XXX FEET
W19 - 2	48" X 48"	16.00			BRIDGE MAY ICE IN COLD WEATHER
W20 - 1	48" X 48"	16.00	6	96	ADVANCE ROAD WORK
W20 - 1	36" X 36"	9.00			
W20 - 2	48" X 48"	16.00			ADVANCE DETOUR
W20 - 3	48" X 48"	16.00			ADVANCE ROAD CLOSED
W20 - 4	48" X 48"	16.00			ADVANCE ONE-LN. RD.
W20 - 4B	48" X 48"	16.00			ADVANCE ONE-LN. BR.
W20 - 5L	48" X 48"	16.00			ADVANCE LT. LN. CLOSED
W20 - 5R	48" X 48"	16.00			ADVANCE RT. LN. CLOSED
W20 - 7a	48" X 48"	16.00			
W21 - 1	36" X 36"	9.00			WORKERS
W21 - 1a	36" X 36"	9.00			

SIGNS REQUIRED (CONT'D)


SIGN NO.	SIZE	UNIT AREA SQ.FT.	QUAN. REQ'D.	TOTAL SIGN AREA SQ.FT.	REMARKS
W21 - 2	36" X 36"	9.00			FRESH OIL (TAR)
W21 - 3	48" X 48"	16.00			ADVANCE ROAD MACHINERY
W21 - 5	48" X 48"	16.00			SHOULDER WORK
W21 - 6	36" X 36"	9.00			SURVEY CREW
VP - IL	12" X 36"	3.00			
VP - IR	12" X 36"	3.00			
OM - 3L	12" X 36"	3.00			
OM - 3R	12" X 36"	3.00			
TOTAL SIGN AREA LESS THAN 10 SQ. FT.					36 SQ. FT.
TOTAL SIGN AREA 10 SQ. FT. OR MORE					225 SQ. FT.

- ① STANDARD
- ② SPECIAL (USE WHERE WARRANTED)

NOTES

- ① INTERSTATE ROUTE MARKER
- ② UNITED STATES ROUTE MARKER
- ③ STATE ROUTE MARKER
- ④ COLORS OF CARDINAL DIRECTION MARKERS AND DIRECTIONAL ARROWS SHALL BE APPROPRIATE TO MATCH ACCOMPANYING ROUTE MARKERS.
- ⑤ BLACK STRIPES ON YELLOW BACKGROUND
- ⑥ INTERSTATE USE ONLY
- ⑦ TOP OF SIGN - BLACK LETTERING ON ORANGE BACKGROUND, BOTTOM OF SIGN - BLACK LETTERING ON WHITE BACKGROUND

THE BACKGROUND OF ALL WARNING SIGNS ("W" SERIES) EXCEPT W10-1 SHALL BE ORANGE. THE W10-1 BACKGROUND SHALL BE YELLOW IN ALL CASES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ESTIMATED QUANTITIES FOR TRAFFIC CONTROL SIGNS		 WORKING NUMBER ATCPQ-1 SHEET NUMBER 20
PROJECT NO. STP-0006-02(027) COUNTY: LEE	FILENAME: TCPQ.DGN DESIGN TEAM: lhoppkins CHECKED: jwhite DATE: Aug 2012	

ADDENDUM

M & M SCRUGGS PROPERTIES LLC

M & M SCRUGGS PROPERTIES LLC

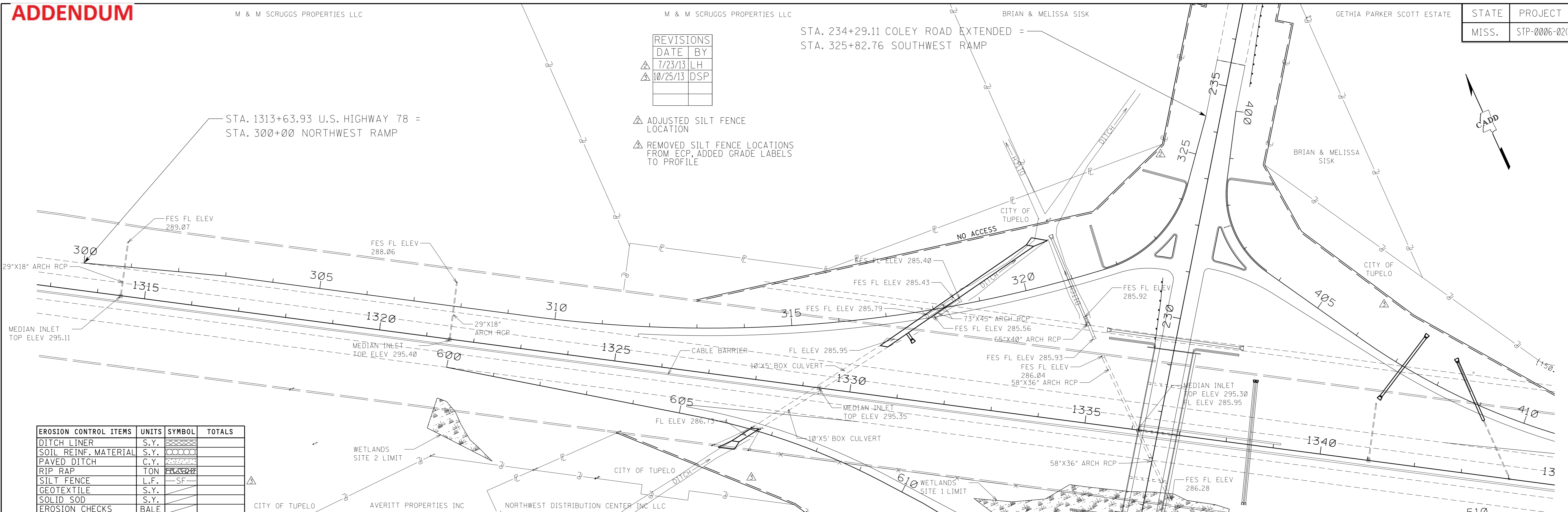
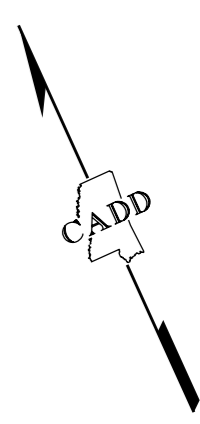
BRIAN & MELISSA SISK

GETHIA PARKER SCOTT ESTATE

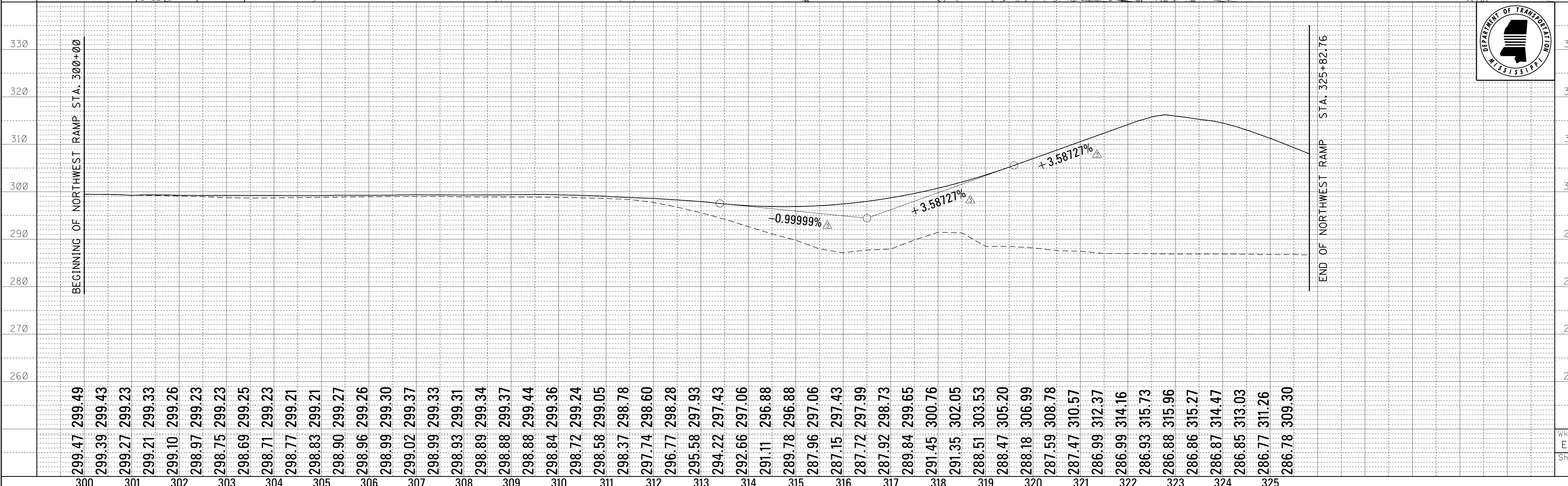
STATE	PROJECT NO.
MISS.	STP-0006-02(027)

REVISIONS		
DATE	BY	
7/23/13	LH	
10/25/13	DSP	

- △ ADJUSTED SILT FENCE LOCATION
- △ REMOVED SILT FENCE LOCATIONS FROM ECP, ADDED GRADE LABELS TO PROFILE



EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.	[Symbol]	
SOIL REINF. MATERIAL	S.Y.	[Symbol]	
PAVED DITCH	C.Y.	[Symbol]	
RIP RAP	TON	[Symbol]	
SILT FENCE	L.F.	[Symbol]	
GEOTEXTILE	S.Y.	[Symbol]	
SOLID SOD	S.Y.	[Symbol]	
EROSION CHECKS	BALE	[Symbol]	



10/25/2013 11:14 AM 034 EC-3A-NWON-1 REV 7.23.13.DGN

ADDENDUM

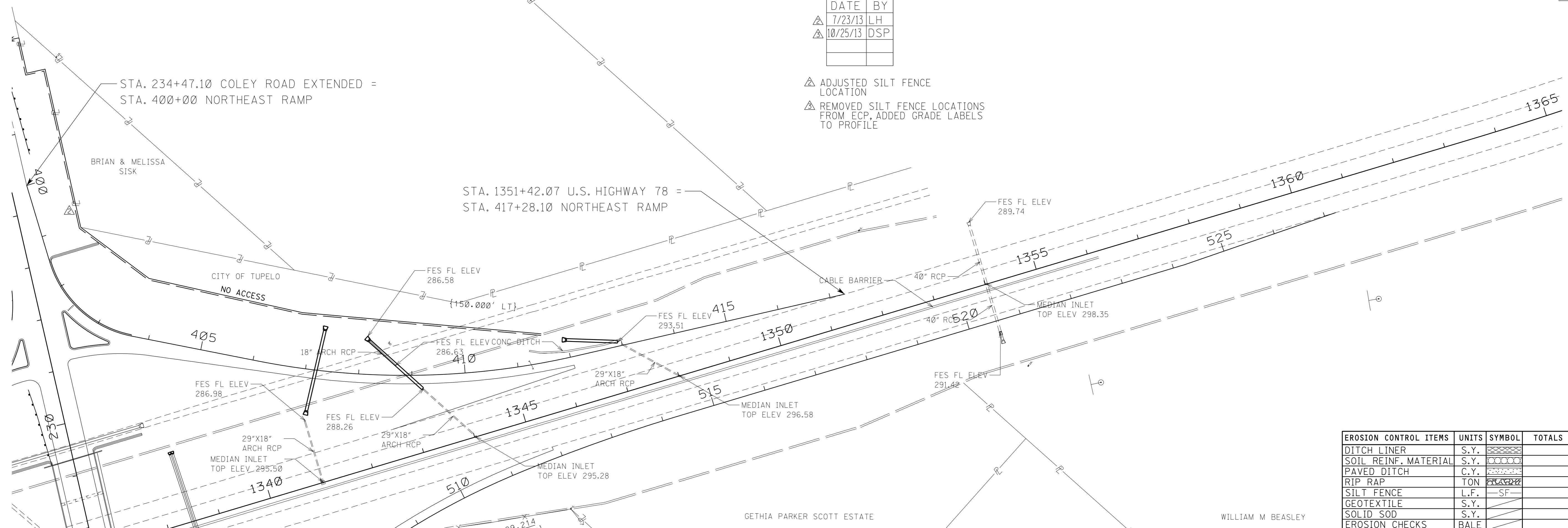
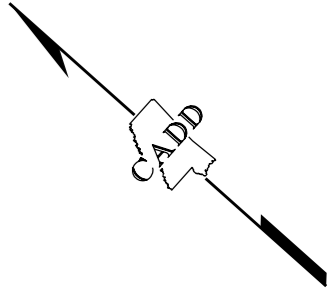
GETHIA PARKER SCOTT ESTATE

M & E SCRUGGS FAMILY PROPERTIES LLC

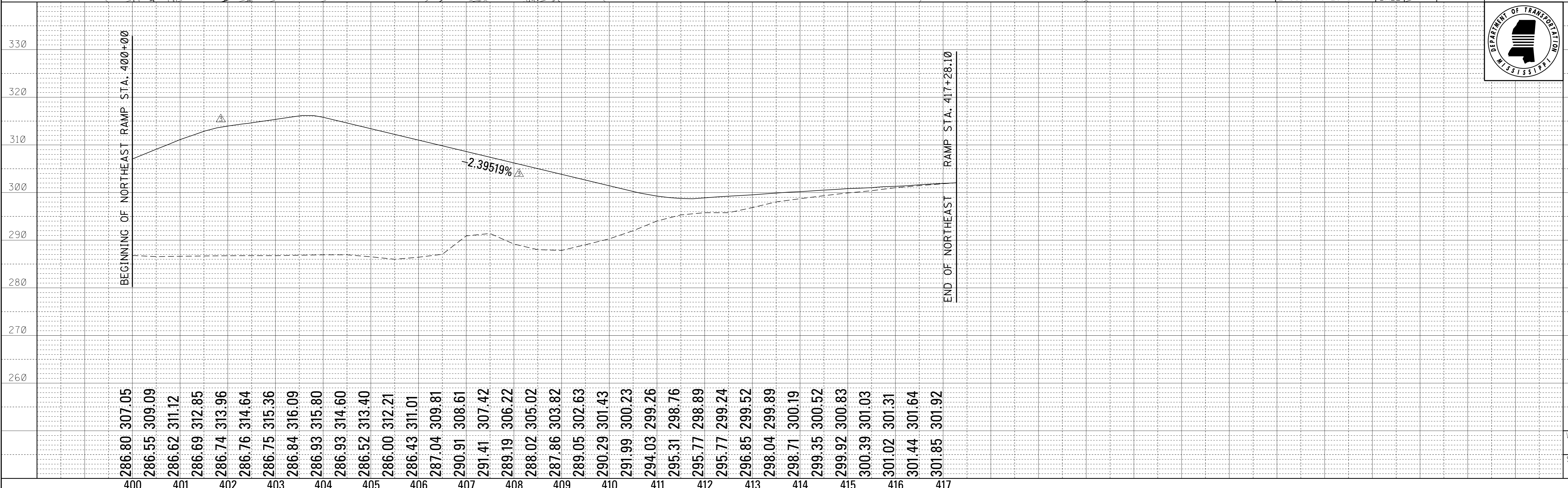
STATE	PROJECT NO.
MISS.	STP-0006-02(027)

REVISIONS	
DATE	BY
7/23/13	LH
10/25/13	DSP

- ▲ ADJUSTED SILT FENCE LOCATION
- ▲ REMOVED SILT FENCE LOCATIONS FROM ECP, ADDED GRADE LABELS TO PROFILE

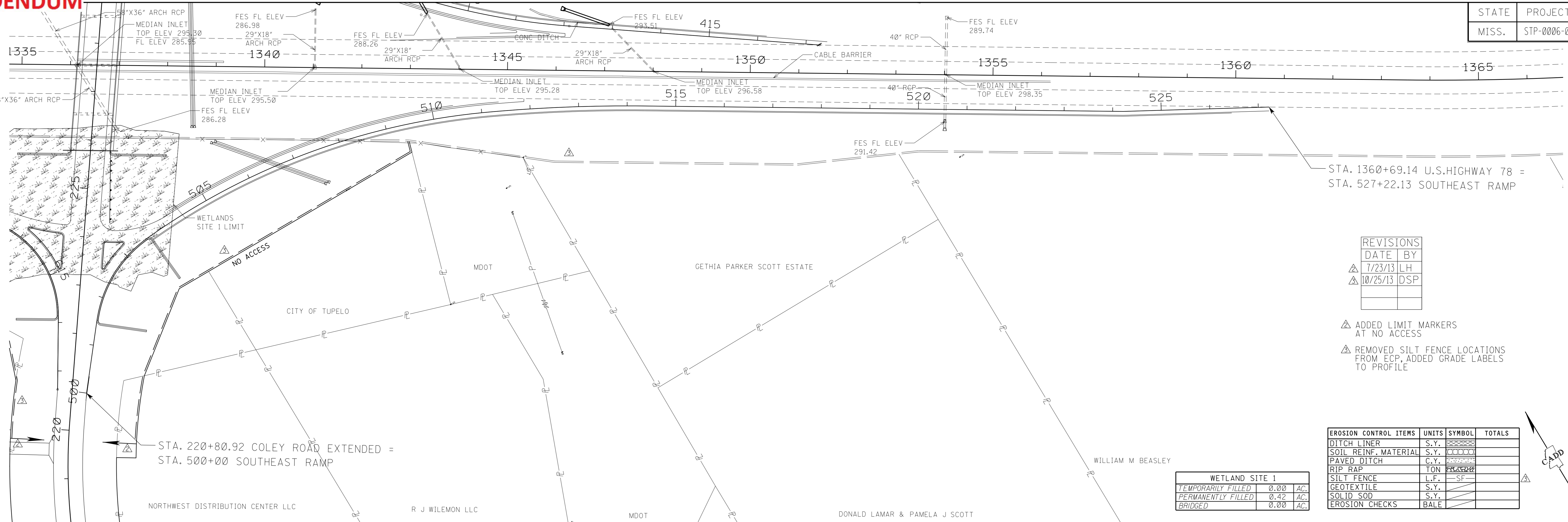


EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		
RIP RAP	TON		
SILT FENCE	L.F.		
GEOTEXTILE	S.Y.		
SOLID SOD	S.Y.		
EROSION CHECKS	BALE		



10/25/2013 11:14 AM 035 EC-3B-NEOFF-1 REV 7_23-13.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION

wk. Sh.
EC3B
Sh. No.
35

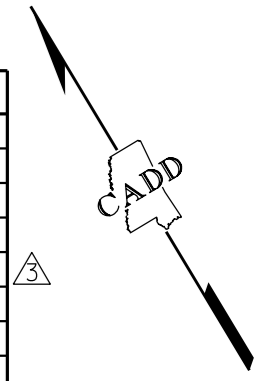


REVISIONS	
DATE	BY
7/23/13	LH
10/25/13	DSP

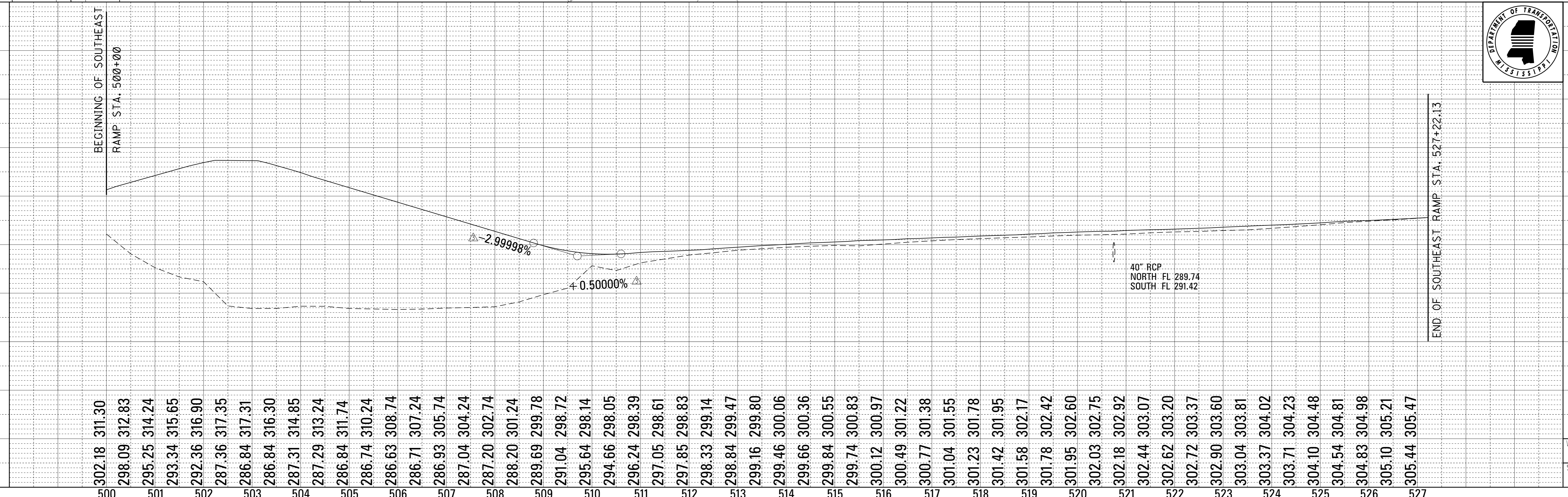
- △ ADDED LIMIT MARKERS AT NO ACCESS
- △ REMOVED SILT FENCE LOCATIONS FROM ECP, ADDED GRADE LABELS TO PROFILE

EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.	[Symbol]	
SOIL REINF. MATERIAL	S.Y.	[Symbol]	
PAVED DITCH	C.Y.	[Symbol]	
RIP RAP	TON	[Symbol]	
SILT FENCE	L.F.	[Symbol]	
GEOTEXTILE	S.Y.	[Symbol]	
SOLID SOD	S.Y.	[Symbol]	
EROSION CHECKS	BALE	[Symbol]	

WETLAND SITE 1		
TEMPORARILY FILLED	0.00	AC.
PERMANENTLY FILLED	0.42	AC.
BRIDGED	0.00	AC.



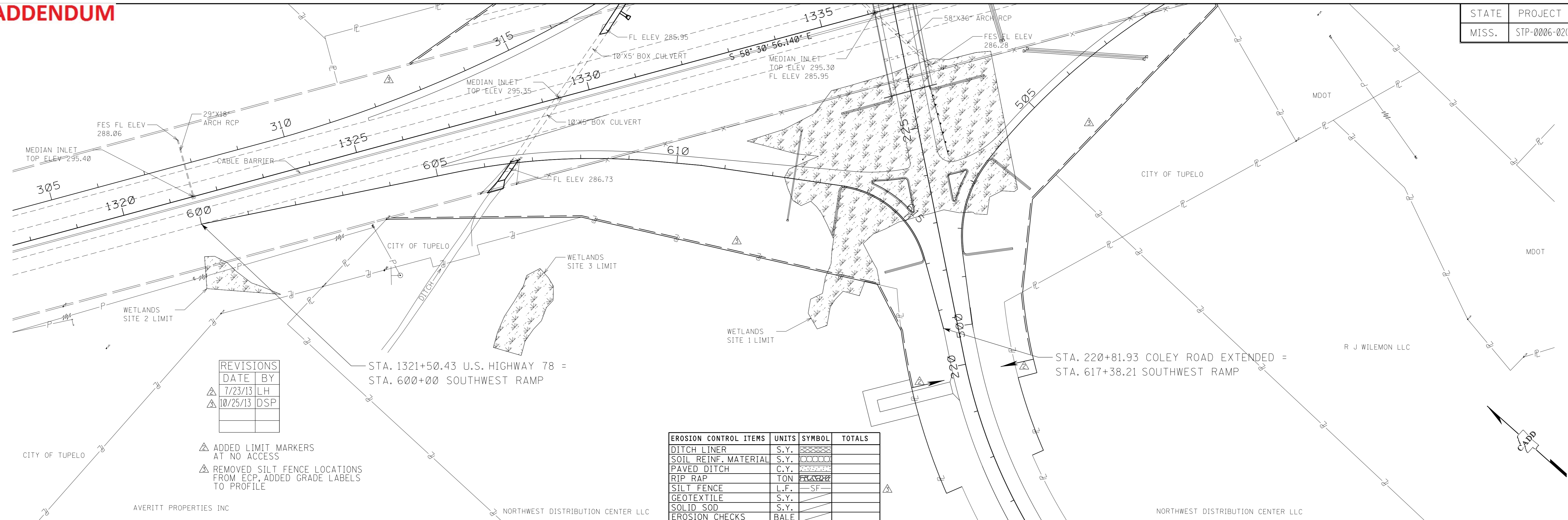
L. W. BROWN, ROADWAY DESIGN DIVISION, MISSISSIPPI DEPARTMENT OF TRANSPORTATION



10/25/2013 11:14 AM 036 EC-3C-SEON-1 REV 7.23.13.DGN

ADDENDUM

STATE	PROJECT NO.
MISS.	STP-0006-02(027)



REVISIONS		
DATE	BY	
7/23/13	LH	
10/25/13	DSP	

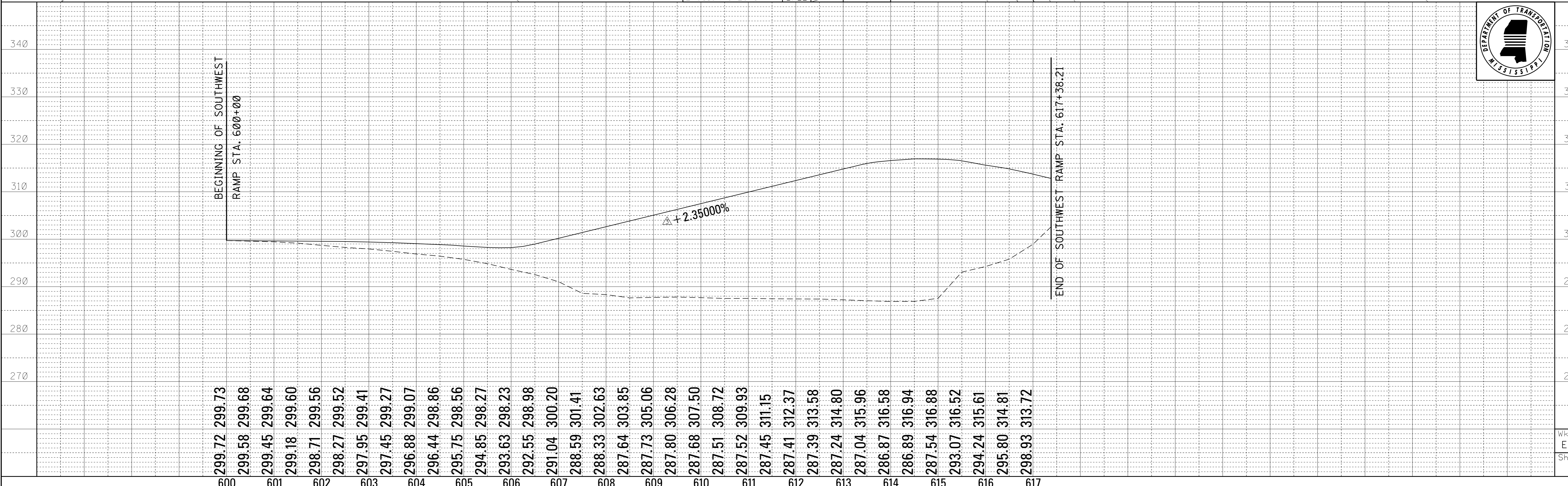
- ▲ ADDED LIMIT MARKERS AT NO ACCESS
- ▲ REMOVED SILT FENCE LOCATIONS FROM ECP, ADDED GRADE LABELS TO PROFILE

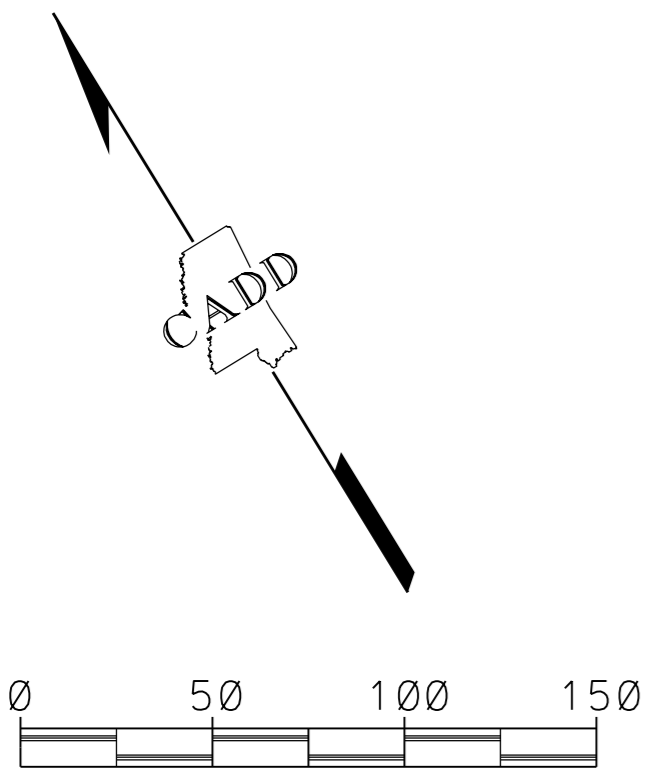
EROSION CONTROL ITEMS	UNITS	SYMBOL	TOTALS
DITCH LINER	S.Y.		
SOIL REINF. MATERIAL	S.Y.		
PAVED DITCH	C.Y.		
RIP RAP	TON		
SILT FENCE	L.F.		
GEOTEXTILE	S.Y.		
SOLID SOD	S.Y.		
EROSION CHECKS	BALE		

STA. 1321+50.43 U.S. HIGHWAY 78 =
STA. 600+00 SOUTHWEST RAMP

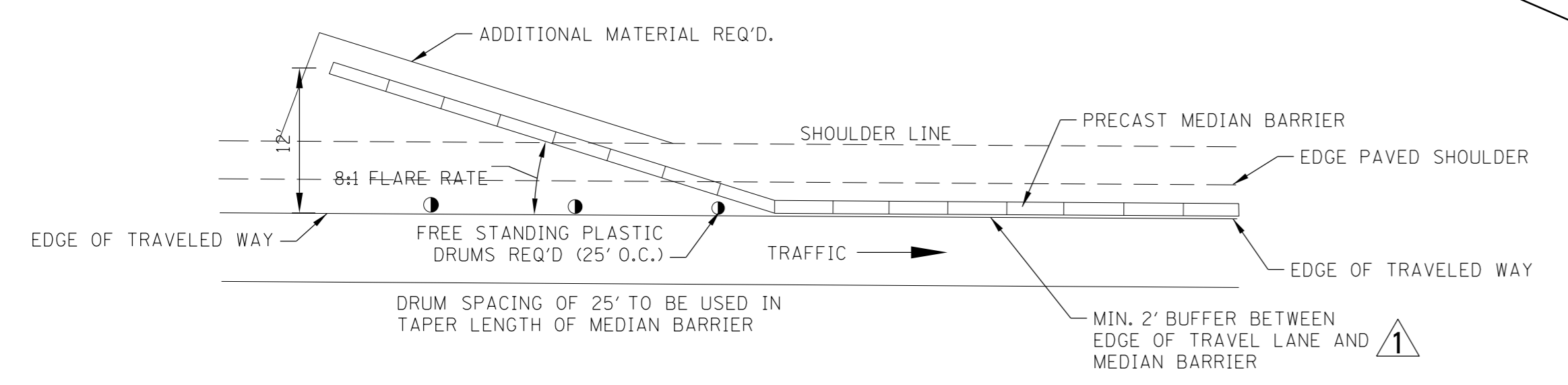
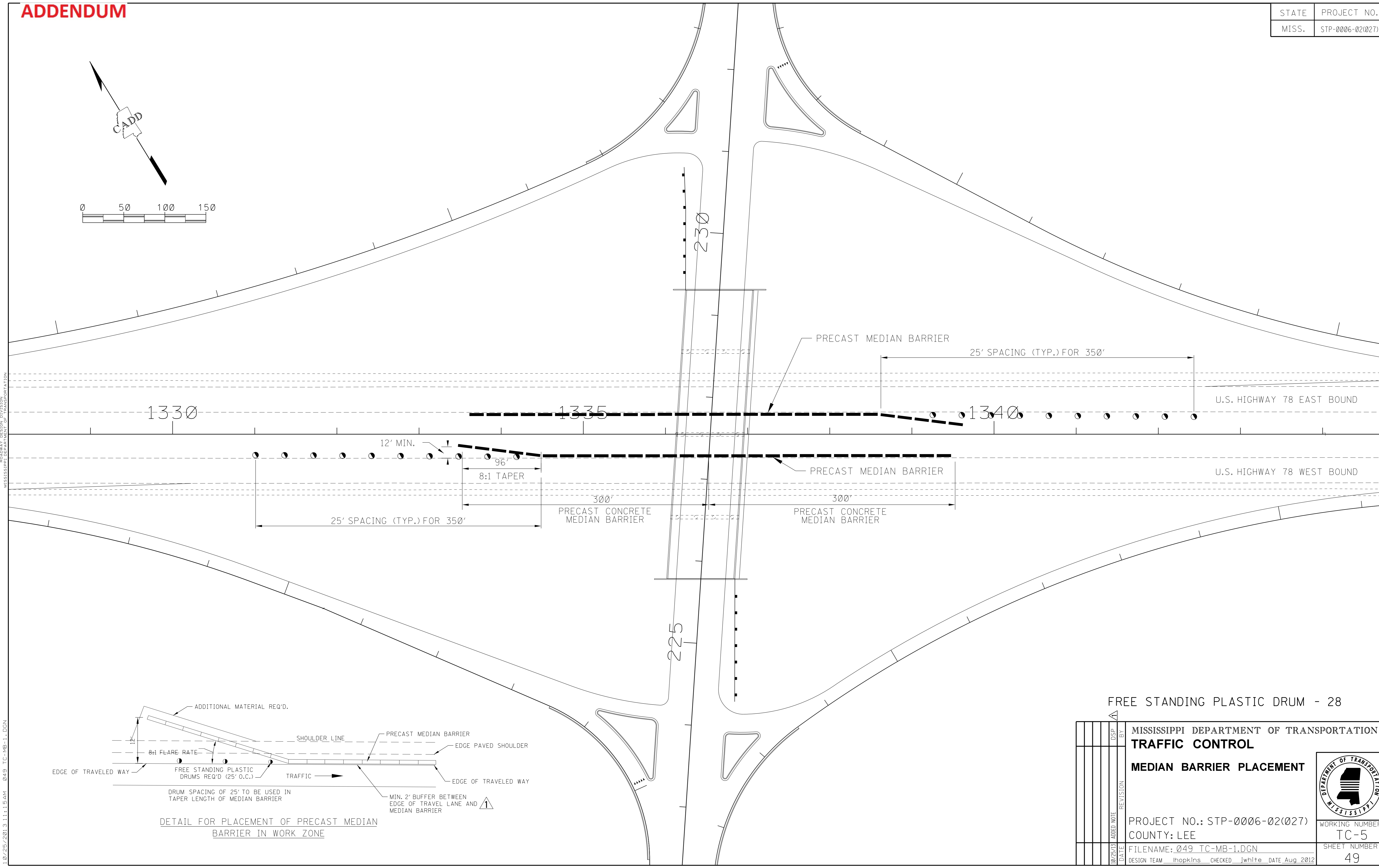
STA. 220+81.93 COLEY ROAD EXTENDED =
STA. 617+38.21 SOUTHWEST RAMP

10/25/2013 11:15 AM 037_EC-3D-SWOFF-1_REV 7_23_13.DGN MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION





PLAN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION



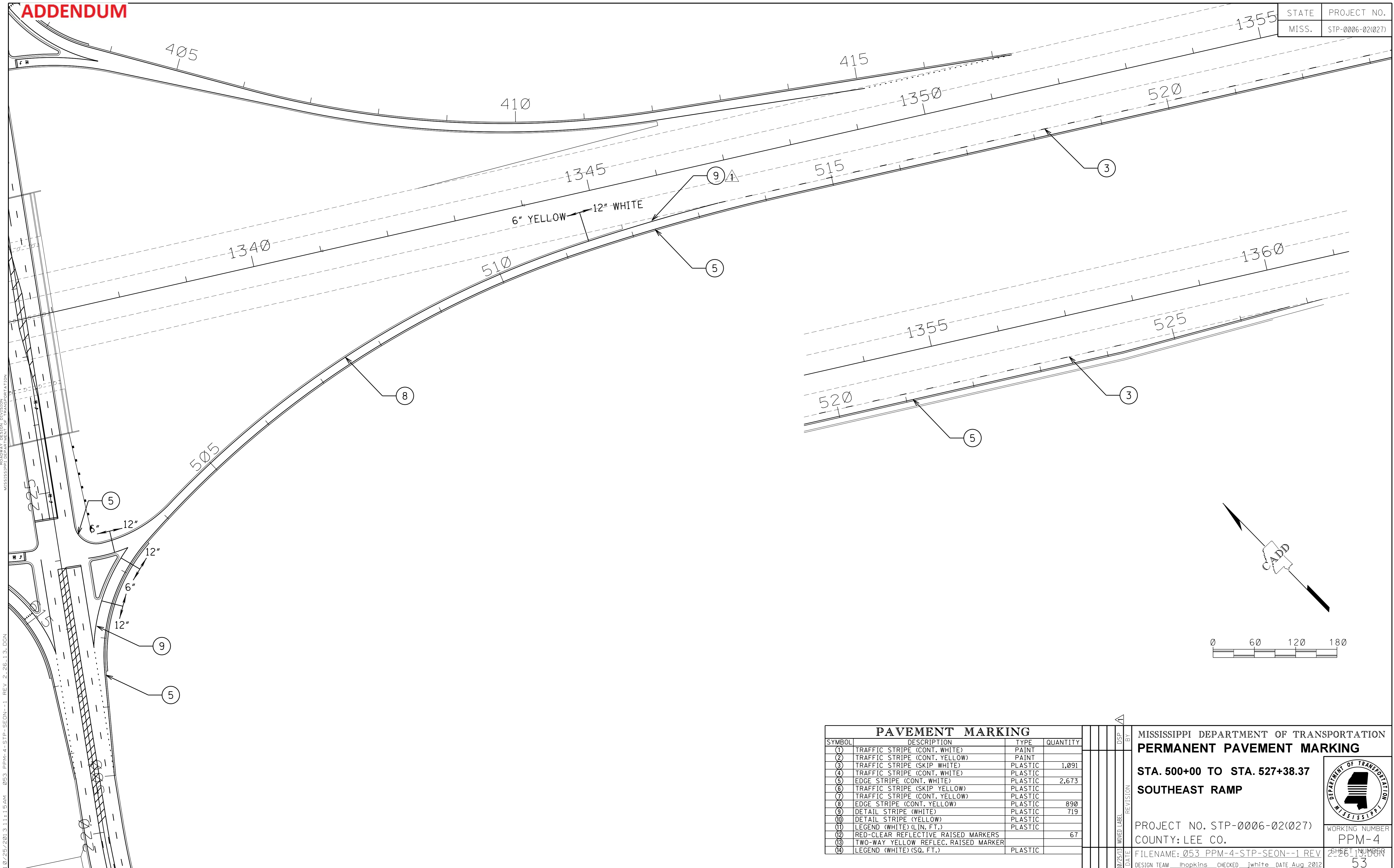
DETAIL FOR PLACEMENT OF PRECAST MEDIAN BARRIER IN WORK ZONE

FREE STANDING PLASTIC DRUM - 28

MISSISSIPPI DEPARTMENT OF TRANSPORTATION		
TRAFFIC CONTROL		
MEDIAN BARRIER PLACEMENT		WORKING NUMBER
PROJECT NO.: STP-0006-02(027)		TC-5
COUNTY: LEE		SHEET NUMBER
FILENAME: 049_TC-MB-1.DGN		49
DESIGN TEAM	hopkins	CHECKED
DATE	white	DATE
Aug 2012		

10/25/2013 11:15 AM 049 TC-MB-1.DGN

ADDENDUM

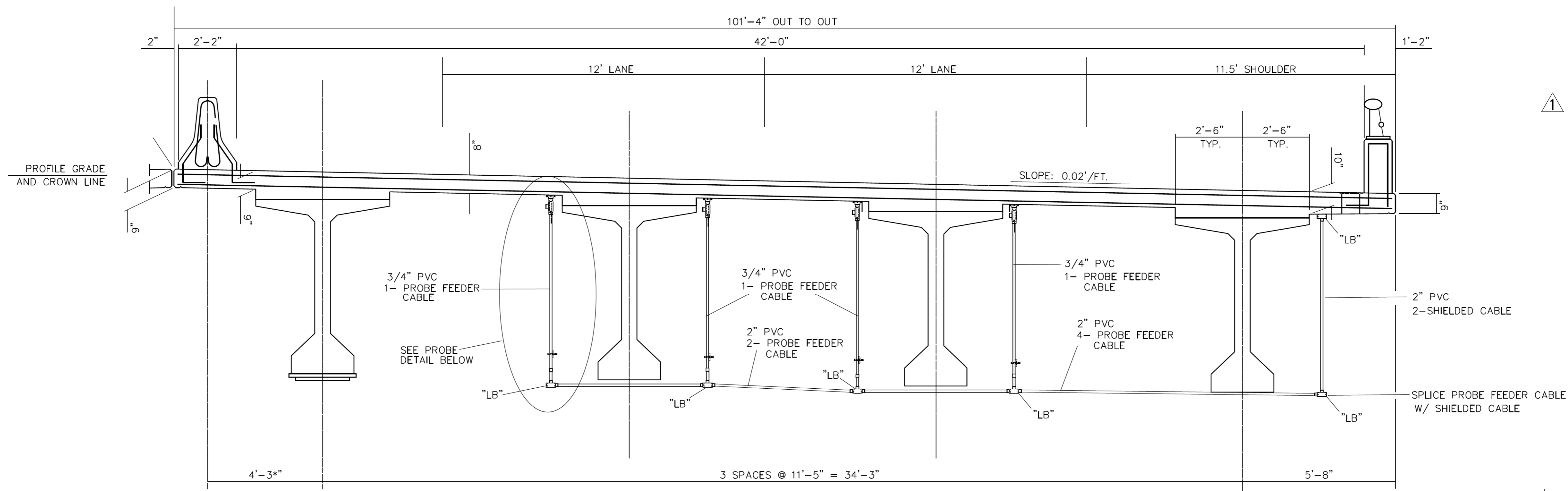


10/25/2013 11:15 AM 053 PPM-4-STP-SEON--1 REV 2.26.13.DGN

PAVEMENT MARKING

SYMBOL	DESCRIPTION	TYPE	QUANTITY
(1)	TRAFFIC STRIPE (CONT. WHITE)	PAINT	
(2)	TRAFFIC STRIPE (CONT. YELLOW)	PAINT	
(3)	TRAFFIC STRIPE (SKIP WHITE)	PLASTIC	1,091
(4)	TRAFFIC STRIPE (CONT. WHITE)	PLASTIC	
(5)	EDGE STRIPE (CONT. WHITE)	PLASTIC	2,673
(6)	TRAFFIC STRIPE (SKIP YELLOW)	PLASTIC	
(7)	TRAFFIC STRIPE (CONT. YELLOW)	PLASTIC	
(8)	EDGE STRIPE (CONT. YELLOW)	PLASTIC	890
(9)	DETAIL STRIPE (WHITE)	PLASTIC	719
(10)	DETAIL STRIPE (YELLOW)	PLASTIC	
(11)	LEGEND (WHITE) (LIN. FT.)	PLASTIC	
(12)	RED-CLEAR REFLECTIVE RAISED MARKERS		67
(13)	TWO-WAY YELLOW REFLEC. RAISED MARKER		
(14)	LEGEND (WHITE) (SQ. FT.)	PLASTIC	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION PERMANENT PAVEMENT MARKING STA. 500+00 TO STA. 527+38.37 SOUTHEAST RAMP	
FILENAME: 053 PPM-4-STP-SEON--1 REV 2.26.13.DGN DESIGN TEAM: ihopkins CHECKED: jwhite DATE: Aug 2012	WORKING NUMBER PPM-4 SHEET NUMBER 53



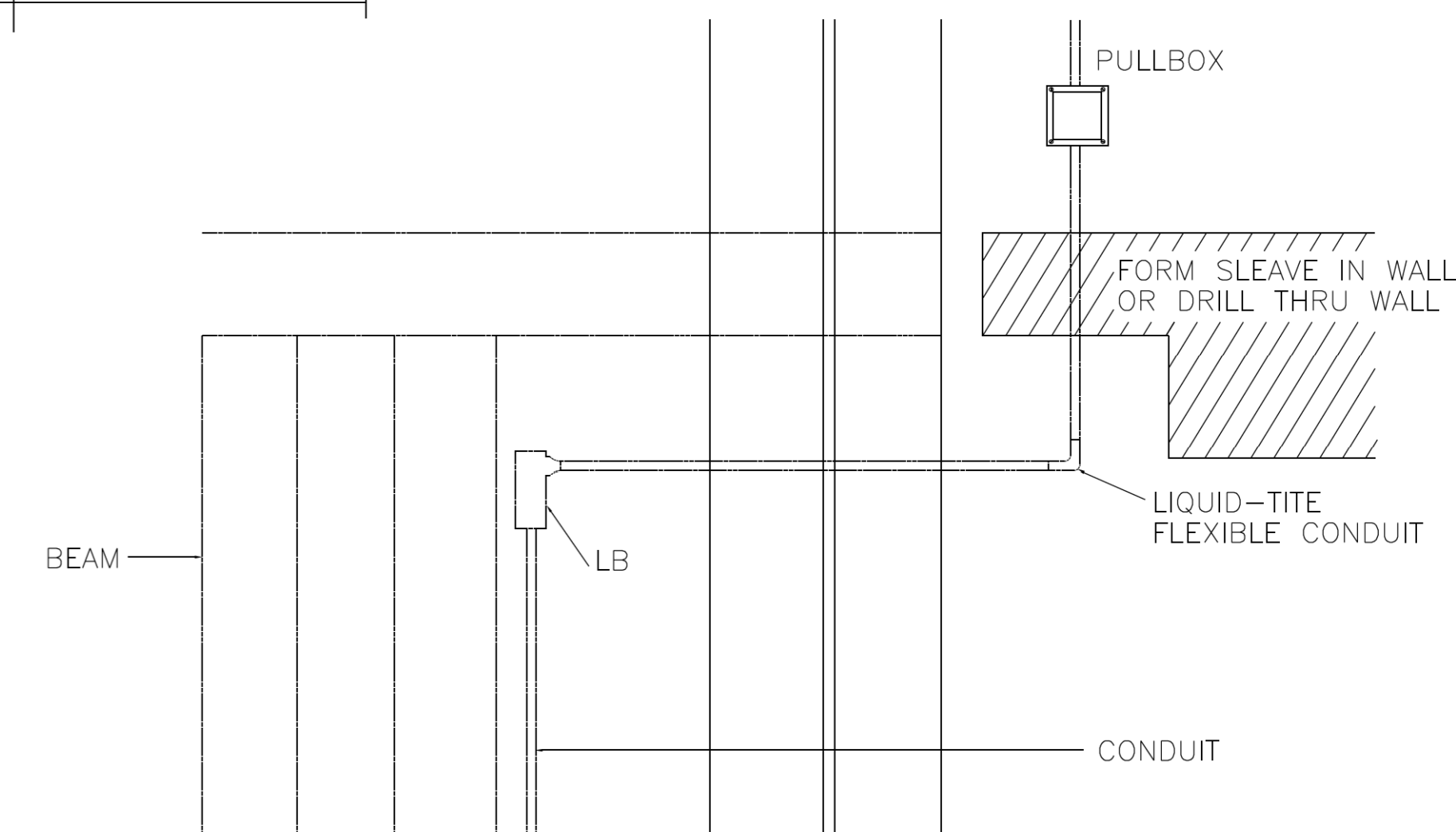
ADDED SHEET

PROBE LAYOUT UNDER BRIDGE DECK (TYPICAL)

NOT TO SCALE

Glue to underside of bridge deck using structural epoxy (See surface prep. note below)

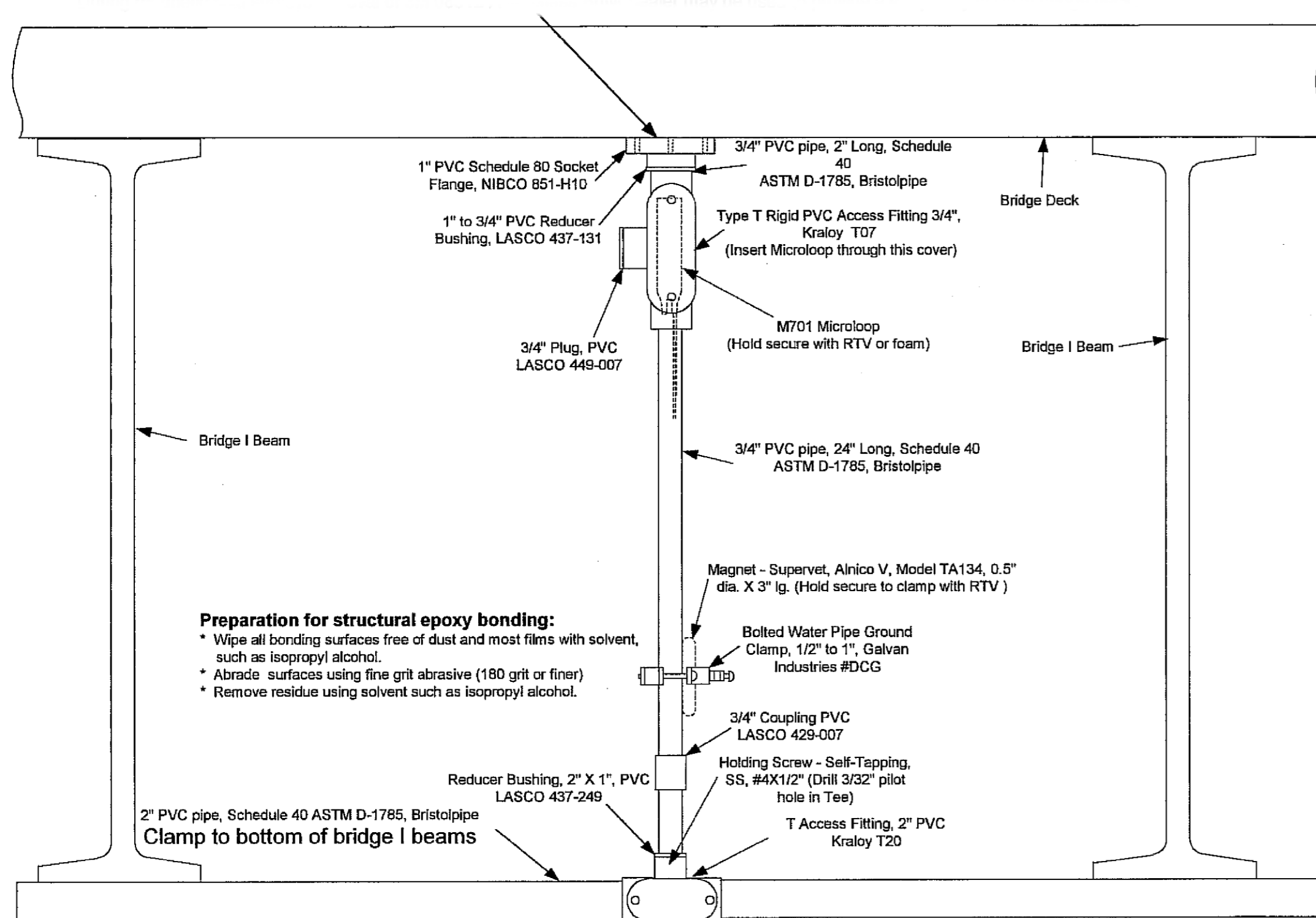
During magnetic field surveys an oval of Auto Glass Butyl Sealer may be used to provide a temporary bond to bridge deck.



PLANVIEW - CONDUIT UNDER BRIDGE THROUGH WALL

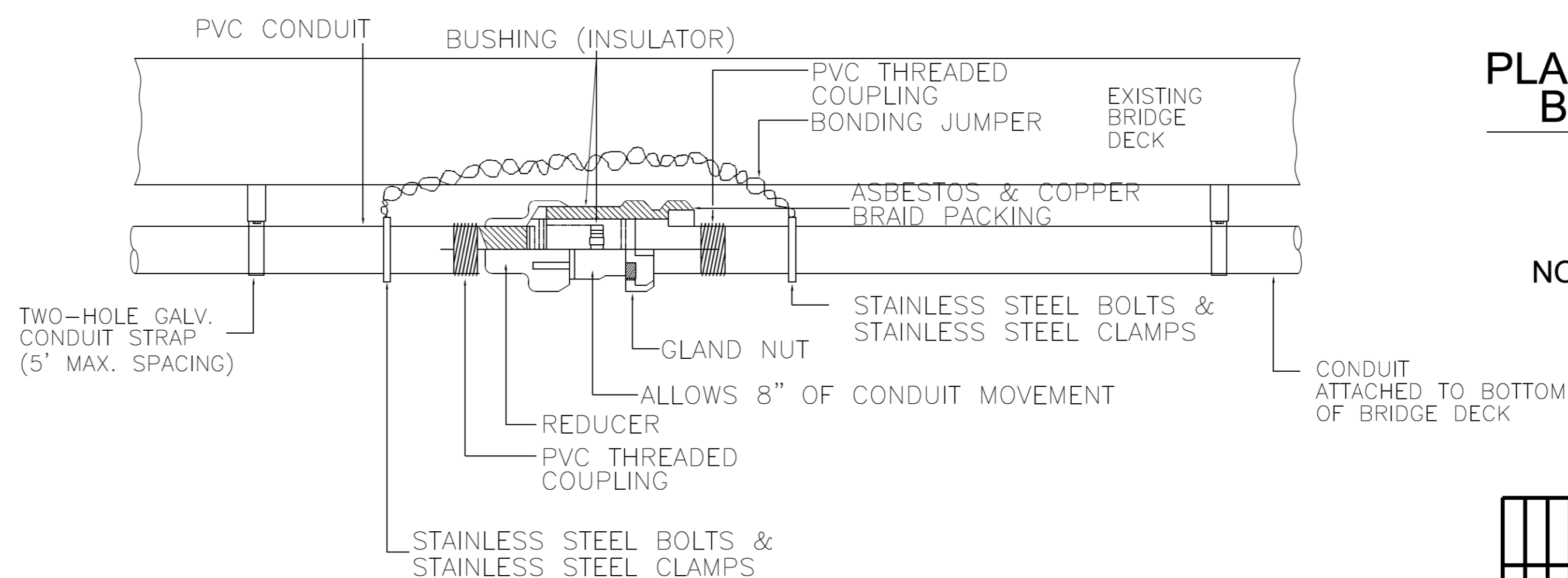
NOT TO SCALE

NOTE: Each lane can use one, two or three probes, refer to plans for number of probes required for this project.



PROBE DETAIL

NOT TO SCALE



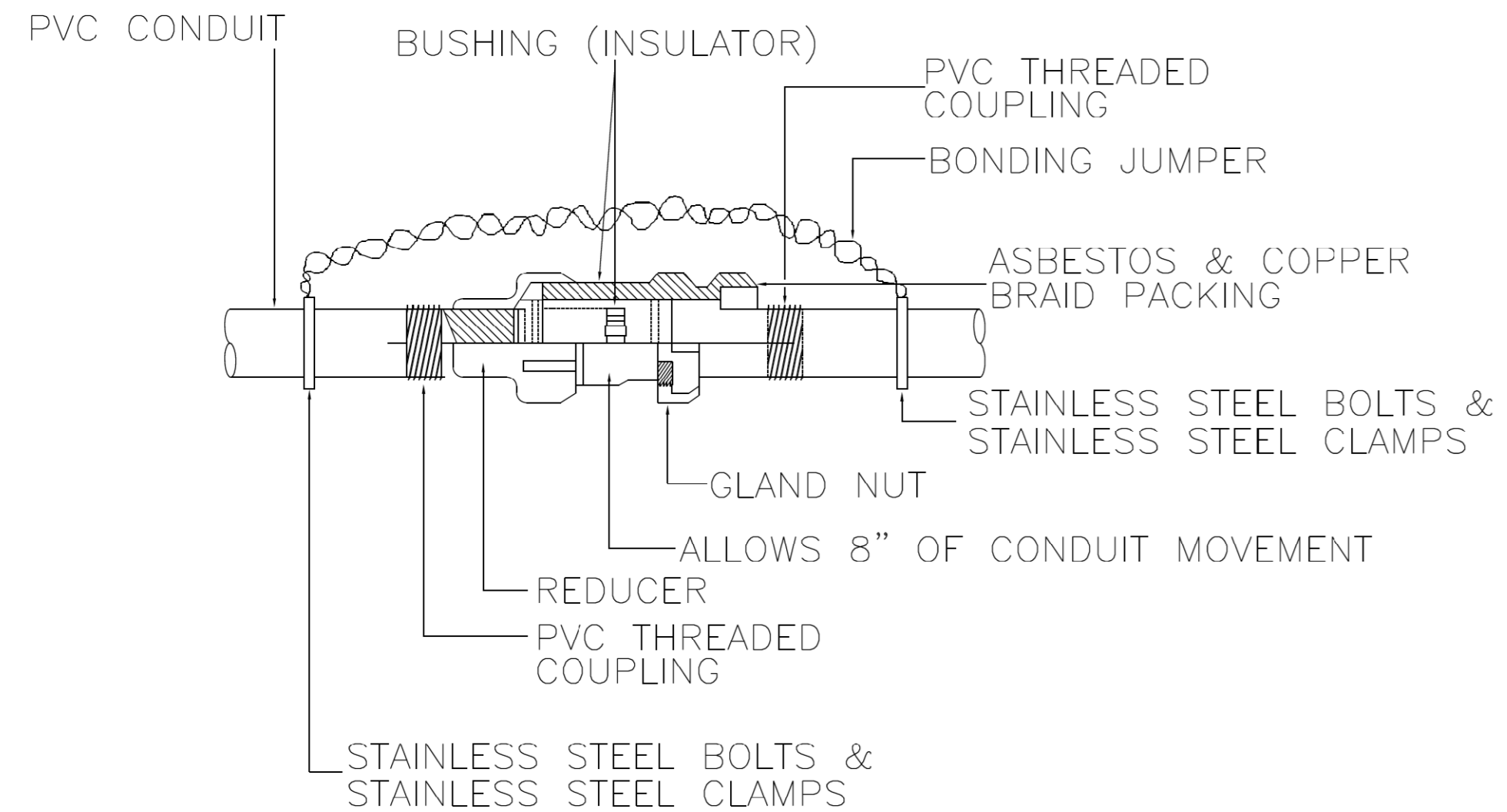
SIDE VIEW - CONDUIT ATTACHMENT TO BRIDGE DECK W/EXPANSION FITTING DETAIL (1 REQ'D. EACH END)

NOT TO SCALE

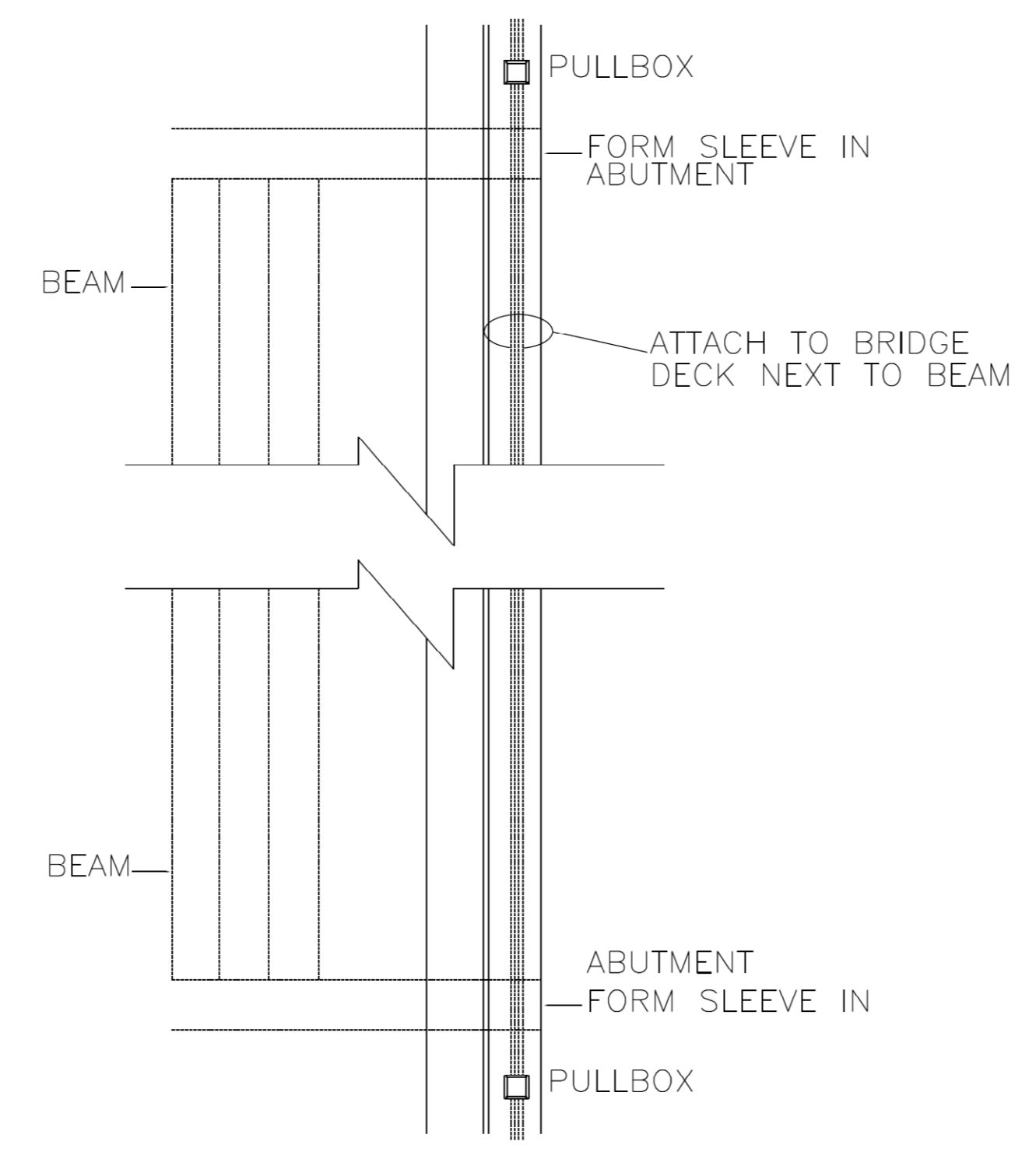
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
Probe Detector Details For Traffic Signal Installation	
Project No.: STP-0006-02(027) County: Lee	
FILENAME: TSD-8.DGN	
DESIGN TEAM	CHECKED
DATE	DATE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
WORKING NUMBER TSD-7	
SHEET NUMBER 2009	

7/3/2012 1:41:08 PM TSD-B.DGN

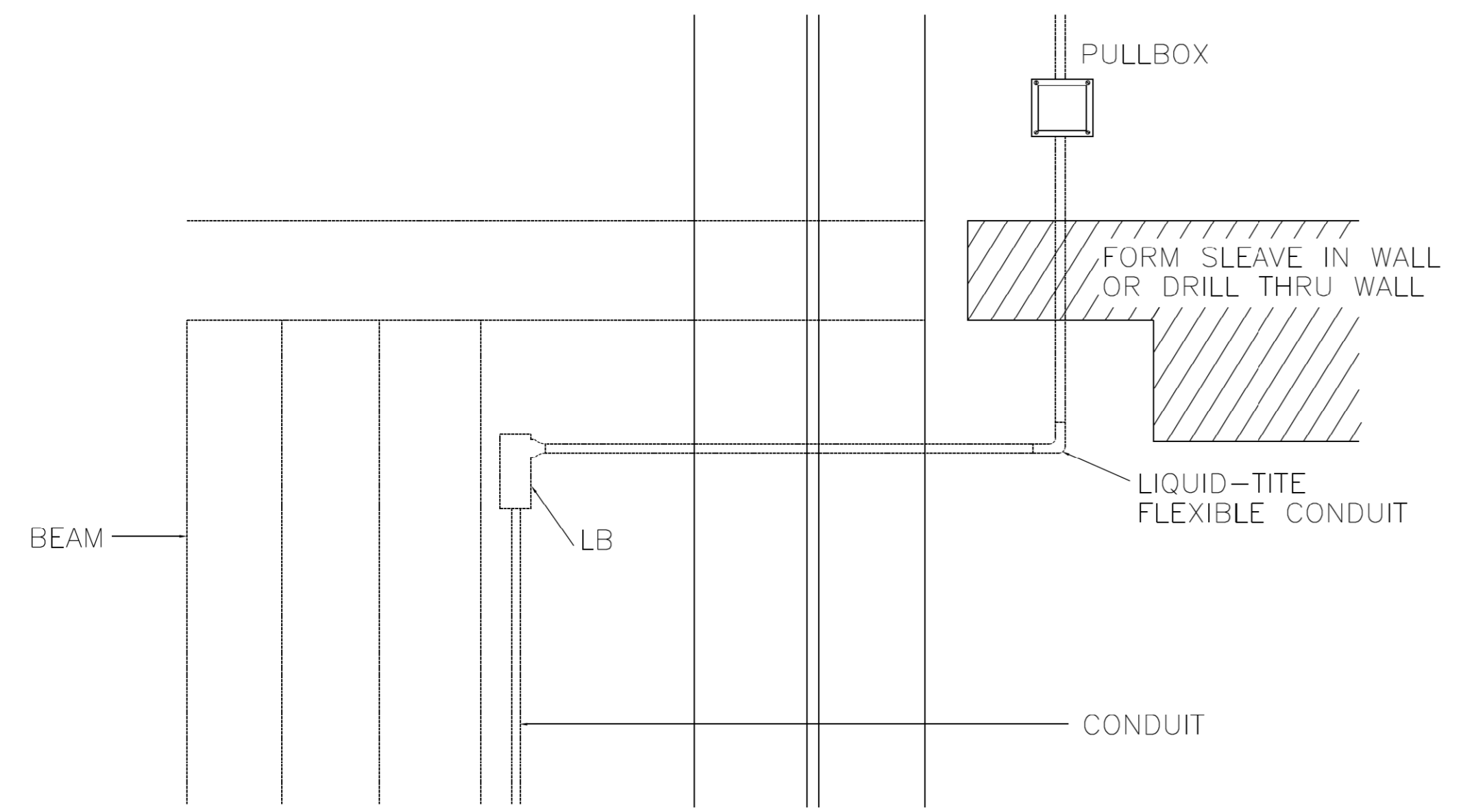
ADDED SHEET



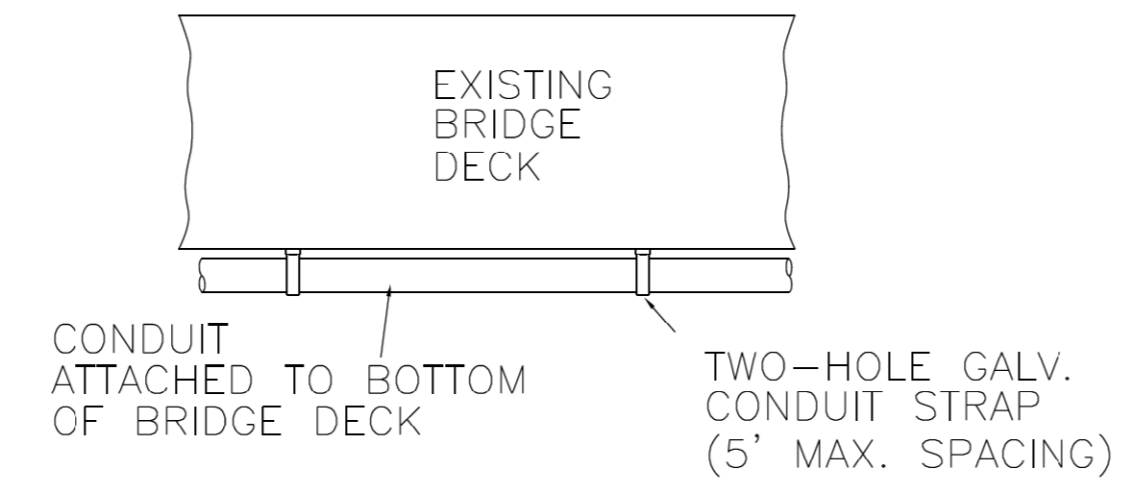
EXPANSION FITTING DETAIL
N.T.S.
(1 REQ'D. EACH END)



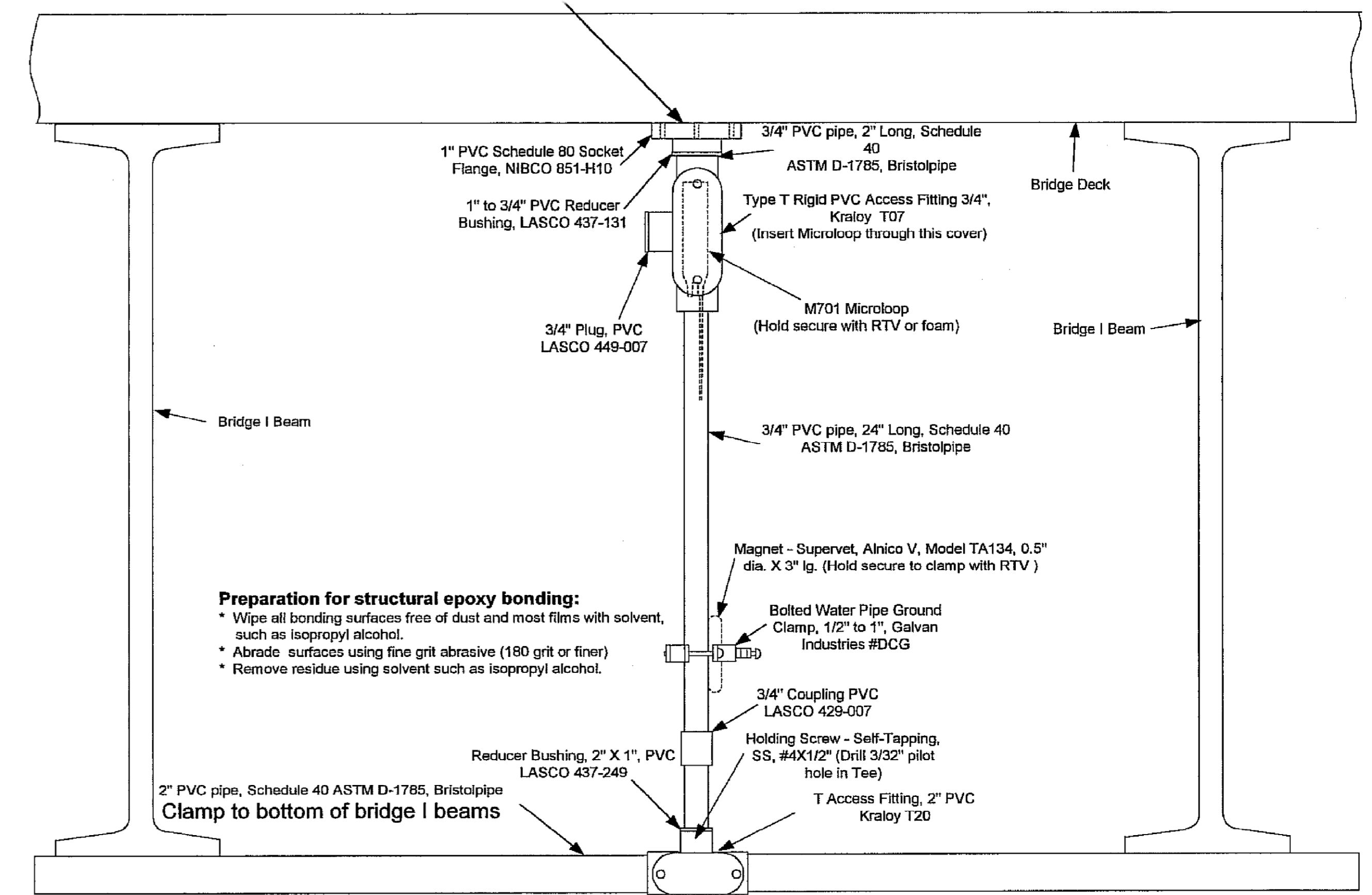
AERIALY SUPPORTED CONDUIT DETAILS



PLANVIEW - CONDUIT UNDER
BRIDGE THROUGH WALL
N.T.S.



SIDE VIEW - CONDUIT ATTACHMENT
TO BRIDGE DECK
N.T.S.



Preparation for structural epoxy bonding:

- Wipe all bonding surfaces free of dust and most films with solvent, such as isopropyl alcohol.
- Abrade surfaces using fine grit abrasive (180 grit or finer)
- Remove residue using solvent such as isopropyl alcohol.

NOTE: Each lane can use one, two or three probes, refer to plans for number of probes required for this project.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION Probe Detector Details For Traffic Signal Installation				
Project No.: STP-0006-02(027) County: Lee				
DATE 10/25/13	REVISION 1	BY DSP	FILENAME: TSD-9.DGN DESIGN TEAM _____ CHECKED _____ DATE _____	SHEET NUMBER 2010