

Index Of Sheets

SHEET NO.	DESCRIPTION
1	TITLE SHEET
1A	PROJECT COMMITMENTS AND SPECIAL NOTES
2	GENERAL NOTES AND ESTIMATED BRIDGE QUANTITIES
2A	ROADWAY GENERAL NOTES
2B	ESTIMATED ROADWAY QUANTITIES AND GENERAL NOTES
3, 3A, 3B	TRAFFIC CONTROL PLAN

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

TENN.	YEAR 2014	SHEET NO. 1
FED. AID PROJ. NO.		
STATE PROJ. NO.	93035-4207-04	

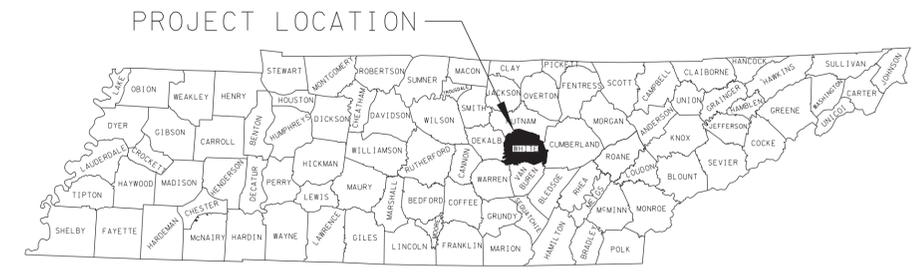
Standard Drawings

DRAWING NO.	CURRENT REVISION DATE	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
SAFETY APPURTENANCES		
S-GR-11	11-26-07	W-BEAM & THREE BEAM BARRIER RAIL AND RUB RAIL ALTERNATES
S-GR-12	05-27-03	W-BEAM BARRIER POST DETAILS AND SPECIFICATIONS
S-GR-13	05-27-03	BARRIER RAIL MOUNTING POST BLOCK-OUTS WITH VERTICAL ADJUSTMENT HOLES
S-GR-13A		BARRIER RAIL MOUNTING POST FOR PLASTIC BLOCK-OUTS WITH HORIZONTAL ADJUSTMENT HOLES
S-GR-23	09-11-02	GUARDRAIL ATTACHMENT TO STRUCTURES AND PROTECTIVE GUARDRAIL AT BRIDGE END DETAILS
S-GR-24	05-15-08	GUARDRAIL END TERMINALS AT BRIDGE ENDS
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	01-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-5	04-23-13	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-6	06-22-12	MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-19	07-29-91	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-12	03-13-09	ONE LANE CLOSURE DETAIL FOR BRIDGES ON DIVIDED HIGHWAYS
T-WZ-16	03-13-09	LANE SHIFT ON DIVIDED HIGHWAYS AND FREEWAYS
EROSION PREVENTION AND SEDIMENT CONTROL		
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
BRIDGE APPURTENANCES		
STD-1-1	07-31-00	BRIDGE RAILING CONCRETE PARAPET
STD-1-2	03-28-08	SLIDER PLATES AND DECK DRAINS
STD-1-3	07-31-00	STD. CONCRETE MEDIAN BARRIER

WHITE COUNTY

STATE ROUTE 111 OVER CALFKILLER RIVER

BRIDGE REPAIR

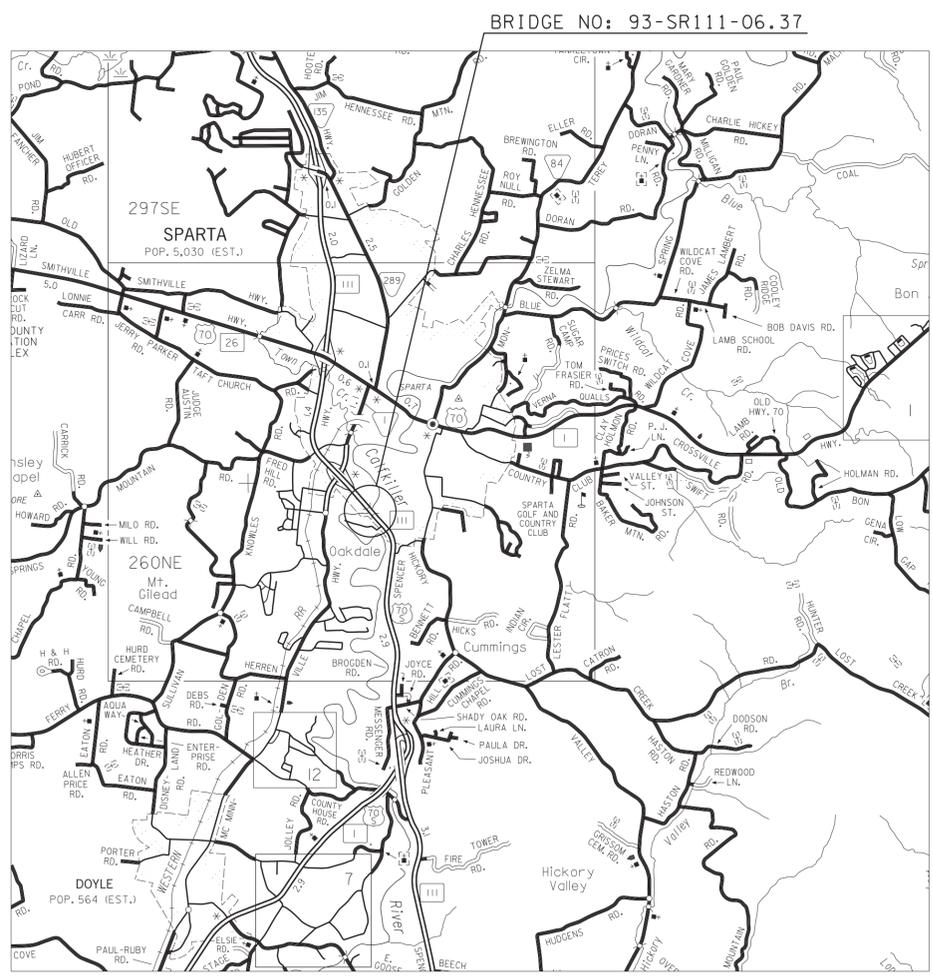


LIST OF BRIDGE DRAWINGS

DRAWING	DRAWING NO.
LAYOUT OF BRIDGE TO BE REPAIRED	BR-115-148
GENERAL NOTES AND ESTIMATED QUANTITIES	BR-115-149
SUPERSTRUCTURE	BR-115-150
SUPERSTRUCTURE REPAIR DETAILS	BR-115-151
SUPERSTRUCTURE REPAIR DETAILS	BR-115-152
SUPERSTRUCTURE REPAIR DETAILS	BR-115-153
SUPERSTRUCTURE REPAIR DETAILS	BR-115-154
SUBSTRUCTURE REPAIRS	BR-115-155

*LIST OF BRIDGE REFERENCE DRAWINGS

(* DENOTES TO BE PRINTED WITH PLANS)
K-93-133 THRU K-93-137, K-93-137A, K-93-138, K-93-138A,
K-93-139 THRU K-93-141, K-93-141A AND M-293-1 THRU M-293-20



SCALE: 1" = 1 MILE

TRAFFIC DATA

ADT (2014) = 12,916
SR 111 - POSTED SPEED LIMIT = 55 M.P.H.

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

TDOT C.E. MANAGER I BRIAN K. EGLI, P.E.

DESIGNED BY PALMER ENGINEERING COMPANY
DESIGNER SCOTT WILSON, P.E.

P.E. NO. 93035-4207-04
PIN NO. 118960.00

UNOFFICIAL SET
NOT FOR BIDDING

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER
DATE: _____
APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____
DIVISION ADMINISTRATOR DATE

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2014	93035-4207-04	1A

PROJECT COMMITMENTS			
COMMITMENT ID	SOURCE DIVISION	DESCRIPTION	STA./LOCATION
EDECO01	ENVIRONMENTAL DIVISION, ECOLOGY	DUE TO CONCERNS FOR THE CUMBERLAND PIGTOE MUSSEL (PLEUROBEMA GIBBERUM), ALL WASH WATER, RINSATE, DEBRIS, AND PAINT WILL BE CONTAINED AND PROPERLY DISPOSED. NO DUST, SPRAY, OR PAINT MAY ENTER THE STREAM. THE CUMBERLAND PIGTOE IS A FEDERALLY LISTED SPECIES. ANY ACTIVITY THAT HARMS LISTED SPECIES OR ALTERS THE HABITAT COULD BE CONSIDERED A VIOLATION OF THE ENDANGERED SPECIES ACT OF 1973 (16 U.S.C. 1531-1544, 87 STAT. 884).	119+00 TO 125+00

J:\STRUCTURES\10705-20_WhiteCo_SRILover_CalKiller_River\Drawings\Final\10705-20-commitments.dgn 1/20/2014

UNOFFICIAL SET
 NOT FOR BIDDING



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
PROJECT COMMITMENTS AND SPECIAL NOTES

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (MARCH 1, 2006 EDITION)

DESIGN SPECIFICATIONS: LRFD 2004 EDITION WITH ADDENDA.

CONCRETE: TO BE CLASS "A" (CAST IN PLACE), F'c = 3,000 P.S.I. EXCEPT AS NOTED OTHERWISE.

SPECIAL NOTE TO CONTRACTOR CONCERNING CONCRETE: CONCRETE FOR INDICATED AREAS OF REPAIR SHALL BE HIGH EARLY STRENGTH CONCRETE WITH A COMPRESSIVE STRENGTH OF F'c = 3,000 P.S.I. AT EIGHTEEN (18) HOURS. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT THE PROPOSED CONCRETE MIX WILL OBTAIN THE REQUIRED PROPERTIES. PROOF SHALL BE PROVIDED BY AN INDEPENDENT TESTING COMPANY AND SUBMITTED TO THE MATERIALS AND TEST DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR APPROVAL. TRAFFIC SHALL NOT BE PERMITTED ON ANY REPAIR AREA UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 P.S.I. AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF EIGHTEEN (18) HOURS.

REINFORCING STEEL: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTION 604 AND 907 OF THE STANDARD SPECIFICATIONS.

GROUTED BARS IN DRILLED HOLES: HORIZONTALLY DRILLED HOLES SHALL BE DRILLED 1/2" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH NON-SHRINK GROUT, AND THE BAR ROTATED (NOT DRIVEN) TO ITS SEAT. VERTICALLY DRILLED HOLES SHALL BE DRILLED 1/4" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH EPOXY GROUT AND THE BAR SHALL BE DRIVEN TO ITS SEAT. ALL GROUTING MATERIAL SHALL BE APPROVED BY T.D.O.T. MATERIALS AND TESTS.

PATCHING MATERIAL: MATERIAL SHALL BE A POLYMER MODIFIED CEMENTITIOUS PATCHING MATERIAL ON VERTICAL AND OVERHEAD SURFACES. SEE THE QUALIFIED PRODUCTS LIST 13, SECTION B.6.

CONCRETE CURING: ALL CONCRETE IN REPAIR AREAS TO BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

CONCRETE AND PATCHING MATERIAL: NO CONCRETE OR PATCHING MATERIAL SHALL BE PLACED BY PNEUMATIC METHODS.

DEMOLITION: THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECIFICALLY. THE CONTRACTOR IS NOT ALLOWED TO USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM) OR OTHER SIMILARLY HEAVY EQUIPMENT FOR CONCRETE REMOVAL. PNEUMATIC HAMMERS MAY BE USED TO REMOVE UNSOUND CONCRETE. FOR FULL DEPTH CONCRETE REMOVAL THE MAXIMUM HAMMER SIZE IS 60 POUND CLASS. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE SO LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCING STEEL IS MAINTAINED. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.

FORMS AND FALSEWORK: ALL CONCRETE FORMS AND FALSEWORK SHALL BE REMOVED AFTER REPAIRS ARE COMPLETED. COST OF REMOVAL SHALL BE INCLUDED IN ITEMS BID ON. THIS WORK SHALL BE COMPLETED BEFORE FINAL PAYMENT IS APPROVED.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS.

SPECIAL NOTE TO CONTRACTOR: CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO ENSURE THAT NO DEBRIS IS DROPPED INTO THE STREAM. THIS SHALL BE ACCOMPLISHED BY THE USE OF BASKETS, NETTING, WRAPPING, WORK PLATFORM, OR OTHER SIMILARLY EFFECTIVE MEANS. ANY DEBRIS WHICH IS ALLOWED TO DROP ON THE BANKS BELOW THE BRIDGE SHALL NOT BE ALLOWED TO ENTER THE STREAM AND SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. COST OF REMOVING AND DISPOSING OF DEBRIS SHALL BE INCLUDED IN ITEMS BID ON.

FRESHLY POURED CONCRETE SHALL NOT BE ALLOWED TO COME IN CONTACT WITH THE STREAM WATER.

ANY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF THE CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

SEASONAL LIMITATIONS NOTE: NO DISTURBANCE OF CLIFF AND BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG OR ADULTS) IS PERMITTED DURING APRIL 15 THROUGH JULY 31. NEST REMOVAL OR DESTRUCTION AND THE IMPLEMENTATION OF MEASURES PREVENTING FUTURE NEST BUILDING (E.G. OBSTRUCTING A STRUCTURE USING NETTING) ARE PERMITTED DURING AUGUST 1 THROUGH APRIL 14. EXCEPTIONS ARE AS FOLLOWS:

1. TDOT MAY REMOVE OR DESTROY NESTS AND PREVENT NEST BUILDING PROVIDED NO EGGS ARE PRESENT PRIOR TO APRIL 15. ABSENCE OF EGGS MUST BE DOCUMENTED USING APPROPRIATE MEANS FOR DETERMINATION, INCLUDING SITE VISITS AND PHOTOGRAPHS.
2. TDOT MAY REMOVE OR DESTROY NESTS PROVIDED NO BIRDS (YOUNG OR ADULTS) ARE PRESENT IN ANY NESTS PRIOR TO JULY 31. ABSENCE OF BIRDS MUST BE DOCUMENTED USING APPROPRIATE MEANS FOR DETERMINATION, INCLUDING SITE VISITS, PHOTOGRAPHS, AND OBSERVATIONS OF NO BIRDS USING NESTS.

SURFACE PREPARATION AND PAINTING OF STRUCTURAL STEEL NOTES

CLEANING AND PAINTING: ALL STRUCTURAL STEEL SHALL BE BLAST CLEANED AND PAINTED. BLAST CLEANING SHALL BE IN ACCORDANCE WITH SECTION 603.05(b). PAINT SHALL BE SYSTEM "A" - INORGANIC ZINC. COLOR OF THE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD NO. 595A, #24110 BRIGHT GREEN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.

CONTAINMENT AND DISPOSAL: OUR RECORDS SHOW THAT THIS BRIDGE HAS OR HAS HAD LEAD/CHROMATE PAINT APPLIED TO IT DURING ITS HISTORY; THEREFORE, THE CONTRACTOR SHALL ASSUME THAT REMNANTS OF THAT PAINT REMAIN ON THE BRIDGE ALONG WITH THE POSSIBILITY OF THE PRESENCE OF MILLSCALE. CONTRACTOR SHALL BID ACCORDINGLY. SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 603.13 FOR SPECIAL PRECAUTIONS THAT MUST BE TAKEN IN THE REMOVAL; CONTAINMENT AND DISPOSAL OF THE SURFACE PREPARATION WASTE AND PAINT REMOVAL MEDIA; AND, WORKER AND PUBLIC SAFETY.

SPECIAL ENVIRONMENTAL NOTES

ANY IN-STREAM WORK WILL REQUIRE NOTIFICATION TO TDOT ECOLOGY TO PERFORM A CRAYFISH SURVEY. NOTIFICATION SHOULD BE RECEIVED AT LEAST ONE (1) WEEK PRIOR TO IN-STREAM WORK.

PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014	2	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL
①	201-07.01 REMOVAL AND DISPOSAL OF BRUSH & TREES	L.S.	1
②	603-02.01 REPAINTING EXISTING STEEL STRUCTURES (BR. NO. 93-SR111-06.37)	L.S.	1
③	603-05.20 CONTAINMENT AND DISPOSAL OF WASTE (BR. NO. 93-SR111-06.37)	L.S.	1
	604-04.02 APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	S.Y.	3031
*④	604-10.05 CONCRETE	S.F.	4
⑤	604-10.14 REMOVE EXISTING WEARING SURFACE	L.S.	1
⑥	604-10.22 CONCRETE PARAPET REPAIR	L.F.	490
*	604-10.30 BRIDGE DECK REPAIR (FULL DEPTH OF SLAB)	S.Y.	310
	604-10.32 EXPANSION JOINT REPAIRS	L.F.	183
*	604-10.50 BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB)	S.Y.	940
*⑦	604-10.54 CONCRETE REPAIRS	S.F.	4
	617-01 BRIDGE DECK SEALANT	S.Y.	4472
⑥	620-09 REMOVAL & REPLACEMENT OF EXISTING BRIDGERAIL	L.F.	524
⑧	711-02.04 REINFORCED CONCRETE MEDIAN BARRIER (REMOVAL & REPLACEMENT)	L.F.	200

- * ITEM SHALL BE BID AS CONTINGENCY AND SHALL BE INCREASED, DECREASED, OR ELIMINATED AS DETERMINED BY THE ENGINEER.
- ① INCLUDES COST OF ALL LABOR AND MATERIALS NECESSARY FOR THE REMOVAL AND DISPOSAL OF BRUSH AND TREES NEAR THE STRUCTURE, FOR A DISTANCE OF TEN (10) FEET ALONG EACH SIDE OF BRIDGE, AND ANY OTHER REMOVAL NECESSARY TO COMPLETE THE WORK, AS DIRECTED BY THE ENGINEER. WHERE POSSIBLE, STUMPS AND ROOTS ARE TO REMAIN TO PREVENT GROUND DISTURBANCE.
- ② INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR SURFACE PREPARATION AND PAINTING OF ALL EXISTING STRUCTURAL STEEL AND BEARING DEVICES. APPROXIMATE WEIGHT OF STRUCTURAL STEEL IS 1,153,277 LBS. SEE SURFACE PREPARATION AND PAINTING NOTES ON THIS SHEET.
- ③ INCLUDES COST OF ALL LABOR AND MATERIALS NECESSARY FOR CONTAINMENT AND DISPOSAL OF ALL WASTE GENERATED DURING CLEANING AND PAINTING OF STRUCTURAL STEEL.
- ④ INCLUDES ALL LABOR AND MATERIALS NECESSARY TO PLACE HIGH EARLY STRENGTH CONCRETE FOR REPAIR OF INDICATED AREAS.
- ⑤ INCLUDES THE COST OF ALL LABOR AND MATERIALS REQUIRED TO REMOVE & DISPOSE OF EXISTING ASPHALT WEARING SURFACE WITHIN THE LIMITS OF THE BRIDGE & PABE. PER 2012 TDOT INSPECTION REPORT: 3.65" (SOUTHBOUND LANES) & 4.5" (NORTHBOUND LANES).
- ⑥ INCLUDES COST OF REMOVAL OF EXISTING RAILING.
- ⑦ INCLUDES COST OF ALL LABOR AND MATERIALS NECESSARY TO PLACE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL FOR REPAIR OF INDICATED AREAS.
- ⑧ INCLUDES COST OF ALL LABOR AND MATERIALS NECESSARY TO REMOVE AND REPLACE SECTIONS OF CONCRETE MEDIAN BARRIER AS REQUIRED FOR DECK REPAIR.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND
ESTIMATED BRIDGE QUANTITIES
STATE ROUTE 111 OVER
CALFKILLER RIVER
BR. NO. 93-SR111-06.37
WHITE COUNTY
2014



1/20/2014 J:\STRUCTURES\10705-20_WHITE CO_SRI111_OVER_CALFKILLER_RIVER_DRAWINGS\FINAL\10705-20_GENA.DGN

DESIGNED BY G.S. WILSON DATE 09/2013
 DRAWN BY C.D. VICTORY DATE 09/2013
 SUPERVISED BY G.S. WILSON DATE 09/2013
 CHECKED BY G.S. WILSON DATE 09/2013

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2014	93035-4207-04	2A

GENERAL NOTES

GRADING

- ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

GUARDRAIL

- THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.
- IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

UTILITIES

- THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.
- UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
- THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

- PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.
- THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

MISCELLANEOUS

- NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

ROAD CLOSURE

- NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.

PAVEMENT MARKINGS

FINAL PAVEMENT MARKING IF 4" ENHANCED FLATLINE THERMOPLASTIC IS USED

- PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.01, ENHANCED FLATLINE THERMO PVMT MRKNG (4 IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

- THE PAVEMENT MARKING ON THE LANE SHIFTS FOR EDGE LINES WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 712-09.02, REMOVABLE PAVEMENT MARKING (8" BARRIER LINE), L.F.
- BEFORE OPENING THE LANE SHIFTS TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01, TRAFFIC CONTROL, LUMP SUM.

PAVEMENT

PAVING

- THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

RESURFACING

- WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

**UNOFFICIAL
SET**

NOT FOR
BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ROADWAY
GENERAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2014	93035-4207-04	2B

GENERAL NOTES (CONT.)

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

- (1) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES OVER TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ON ALL PROJECTS.

SEDIMENT CONTROL

- (2) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- (3) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.

STREAM/WETLAND

- (4) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.

INSPECTION, MAINTENANCE, REPAIR

- (5) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.

LITTER, DEBRIS, WASTE, PETROLEUM

- (6) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- (7) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL
① 105-01	CONSTRUCTION STAKES, LINES AND GRADES	L.S.	1
② 209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	750
307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2	TON	506
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	2
411-02.10	ACS MIX (PG70-22) GRADING D	TON	357
415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	913
705-01.01	GUARDRAIL AT BRIDGE ENDS	L.F.	54
705-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	56
③ 705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP 350 TL-3	EACH	2
④ 706-01	GUARDRAIL REMOVED	L.F.	54
712-01	TRAFFIC CONTROL	L.S.	1
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	1460
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	40
⑤ 712-06	SIGNS (CONSTRUCTION)	S.F.	580
712-08.03	ARROW BOARD (TYPE C)	EACH	2
712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	8400
716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4 IN LINE)	L.M.	1
717-01	MOBILIZATION	L.S.	1
⑥ 801-01	SEEDING (WITH MULCH)	UNIT	1
⑥ 801-03	WATER (SEEDING AND SODDING)	M.G.	1
⑥ 803-01	SODDING (NEW SOD)	S.Y.	89

- ① INCLUDES COST OF 200 FEET OF HIGH VISIBILITY FENCING TO BE PLACED ALONGSIDE THE EXISTING HISTORIC FLUME WALL.
- ② SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT. INCLUDES COST OF SEDIMENT REMOVAL.
- ③ THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD OR A REACT 350 OR A TRACC.
- ④ THE REMOVED GUARDRAIL SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- ⑤ ANY LOSS OR DAMAGE TO THE SIGNS SHALL BE PAID FOR BY THE CONTRACTOR.
- ⑥ ITEM INCLUDED TO PROVIDE MEANS OF GROUND STABILIZATION AS REQUIRED AND DIRECTED BY THE ENGINEER.

ANY DAMAGE TO VEGETATED AREAS NOT SPECIFICALLY MENTIONED WITHIN THE PROJECT SCOPE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THESE AREAS ARE TO BE RETURNED TO THEIR PRE-CONSTRUCTION STATE AND SHALL BE DETERMINED BY THE ENGINEER. ALL COSTS (LABOR AND MATERIALS) ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN ITEMS BID ON.

UNOFFICIAL SET

NOT FOR BIDDING



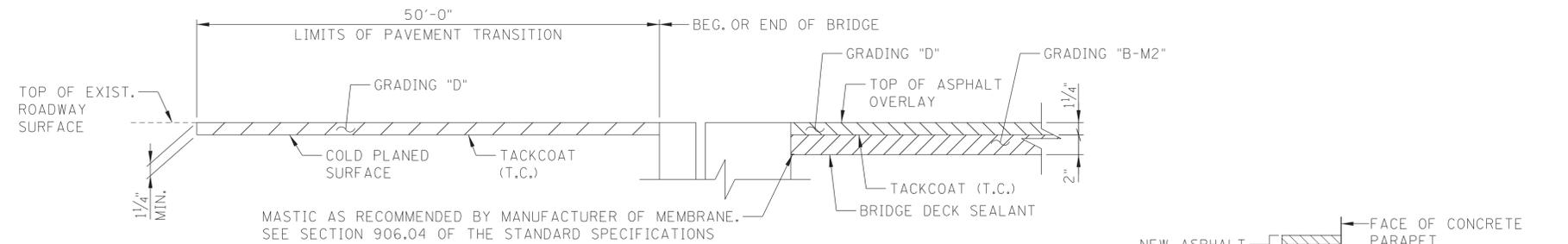
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES AND GENERAL NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2014	93035-4207-04	3

TRAFFIC CONTROL SIGN QUANTITIES				
TYPE	DESCRIPTION	SIZE	EACH	SIGNS (CONST.) 712-06, S.F.
G20-2	END ROAD WORK	48"x24"	4	32
R1-2	YIELD	36"x36"x36"	1	3.9
W1-4L	REVERSE CURVE (LEFT)	48"x48"	2	32
W1-4R	REVERSE CURVE (RIGHT)	48"x48"	2	32
W4-2L	LANE ENDS (MERGE RIGHT)	48"x48"	4	64
W4-2R	LANE ENDS (MERGE LEFT)	48"x48"	4	64
W20-1	ROAD WORK AHEAD	48"x48"	2	32
W20-1	ROAD WORK 1 MILE	48"x48"	4	64
W20-5L	LEFT LANE CLOSED 1/2 MILE	48"x48"	4	64
W20-5L	LEFT LANE CLOSED 1500 FEET	48"x48"	4	64
W20-5R	RIGHT LANE CLOSED 1/2 MILE	48"x48"	4	64
W20-5R	RIGHT LANE CLOSED 1500 FEET	48"x48"	4	64
TOTAL				579.9

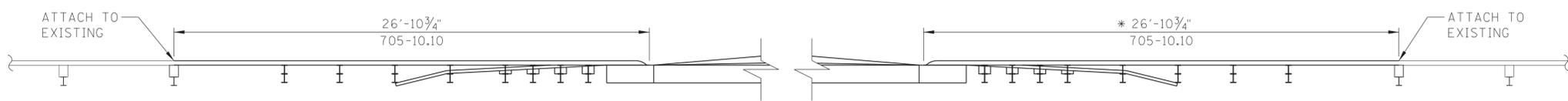
- TRAFFIC CONTROL SPECIAL NOTES**
- THESE TRAFFIC CONTROL PLANS DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
 - CONSTRUCTION SIGNING SHOWN IN THESE PLANS IS TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.
 - THE CONTRACTOR IS REQUIRED TO PROVIDE LANE SHIFTS WHERE NECESSARY TO ROUTE TRAFFIC AROUND CONSTRUCTION.
 - NO TRAFFIC SHALL BE DETOURED OR ROADWAY CLOSED, ABANDONED, OR REMOVED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
 - ADVANCE WARNING SIGNS ARE TO BE PLACED PRIOR TO BEGINNING OF CONSTRUCTION AND REMAIN IN PLACE UNTIL THE COMPLETION OF THIS PROJECT.
 - PERMANENT SIGNS AND PERMANENT MARKINGS SHALL BE IN PLACE BEFORE COMPLETED ROADWAYS ARE OPEN TO TRAFFIC.
 - SEE THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" FOR TRAFFIC DETAILS NOT SHOWN, GENERAL TRAFFIC CONTROL NOTES, AND SIGN DETAILS.
 - CONTRACTOR TO COVER ALL CONFLICTING SIGNS DURING CONSTRUCTION. COVERINGS SHALL BE REMOVED AT COMPLETION OF CONSTRUCTION. COST ASSOCIATED WITH COVERING AND UNCOVERING SIGNS TO BE INCLUDED IN ITEM 712-06, SIGNS (CONSTRUCTION).
 - THE CONTRACTOR IS TO COORDINATE ALL LANE CLOSURES WITH THE TDOT REGIONAL OFFICE AND THE COUNTY ENGINEER.
 - MINIMUM TRAVEL LANE WIDTH TO BE 12 FEET (STRIPED).
 - WHERE RUMBLE STRIPS CONFLICT WITH WHEEL PATHS, PROVIDE METHOD TO PREPARE (SMOOTH) RUMBLE STRIPS PRIOR TO EXPOSURE TO TRAFFIC. RUMBLE STRIPS SHALL BE REPLACED IN-KIND. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN COST OF OTHER ITEMS BID ON.



ASPHALT PAVEMENT TRANSITION DETAIL
(TYP. EACH END OF BRIDGE)

SEE SEC. 617 AND 906.04 OF THE TENNESSEE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

PRIOR TO PLACING MEMBRANE, THE DECK SURFACE SHALL BE DRY AND COMPLETELY CLEANED OF ALL LOOSE DEBRIS AND PETROLEUM PRODUCTS. THE MEMBRANE SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.



GUARDRAIL PLAN - RIGHT SIDE

* EXISTING DRAIN AND HEADWALL ARE TO BE MAINTAINED.

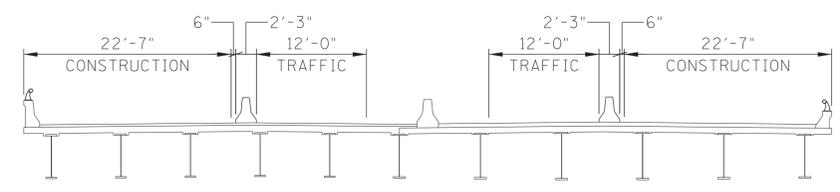
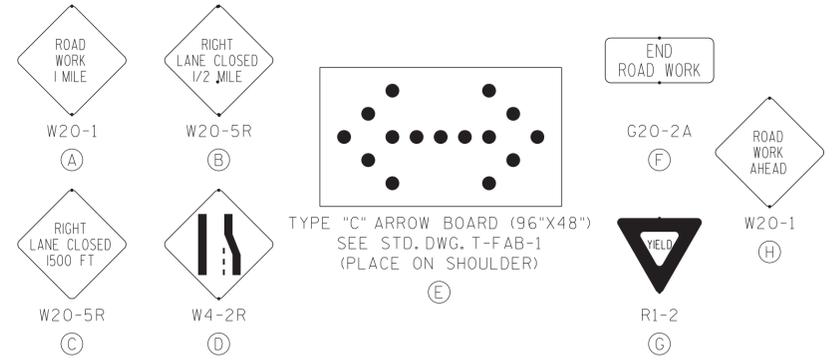
UNOFFICIAL SET
NOT FOR BIDDING



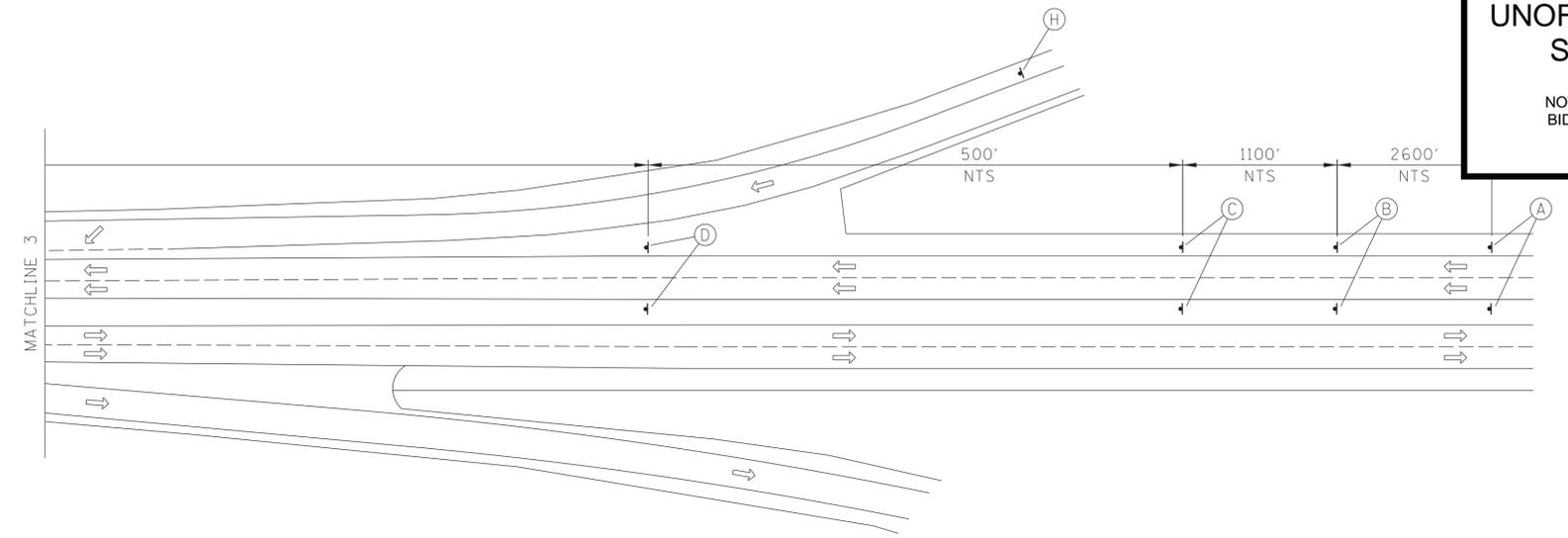
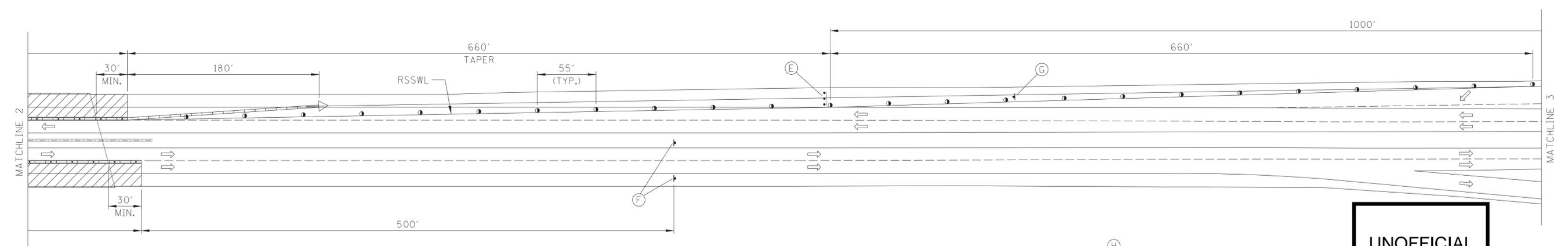
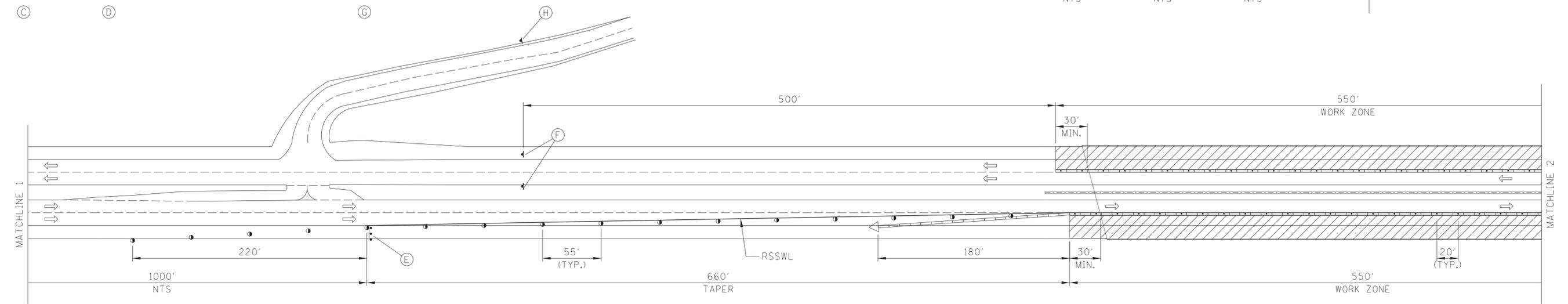
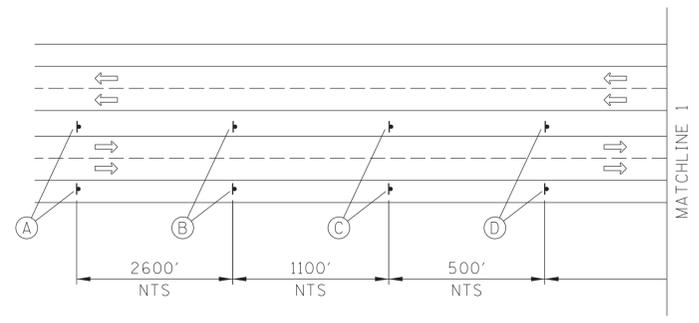
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2014	93035-4207-04	3A



TYPICAL SECTION
(LOOKING AHEAD)



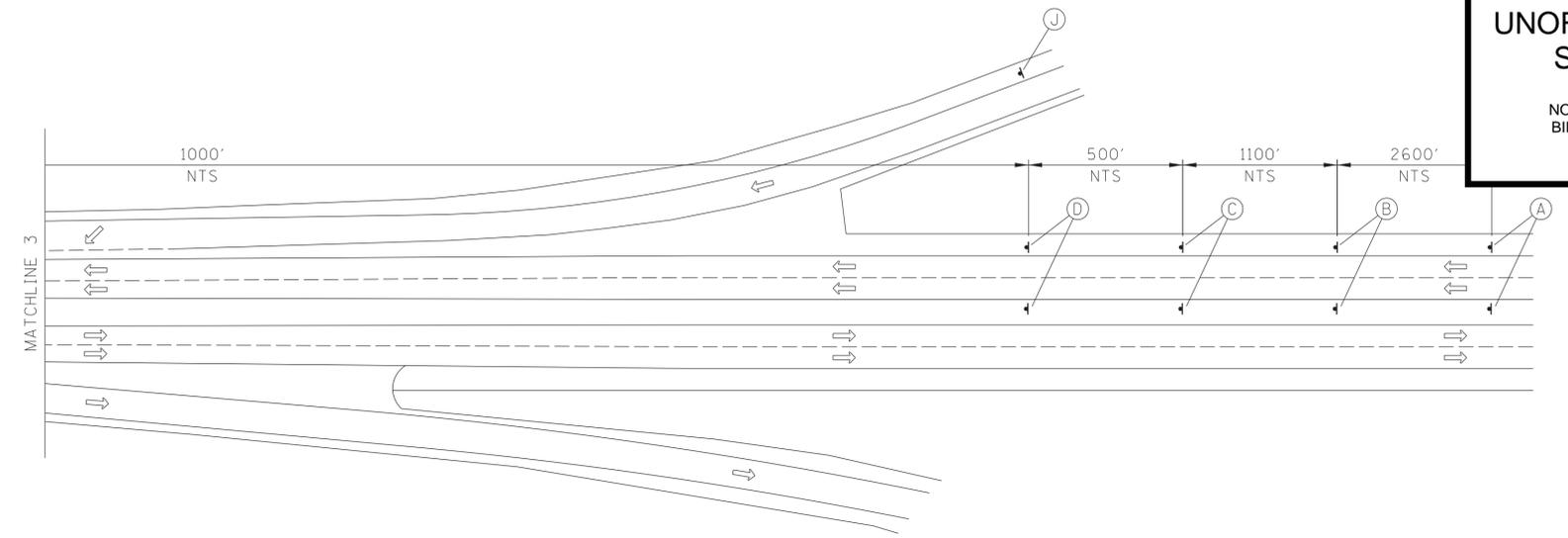
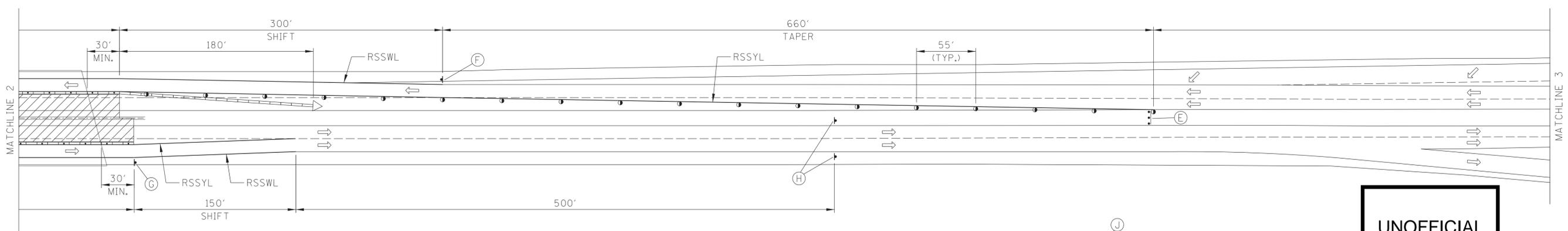
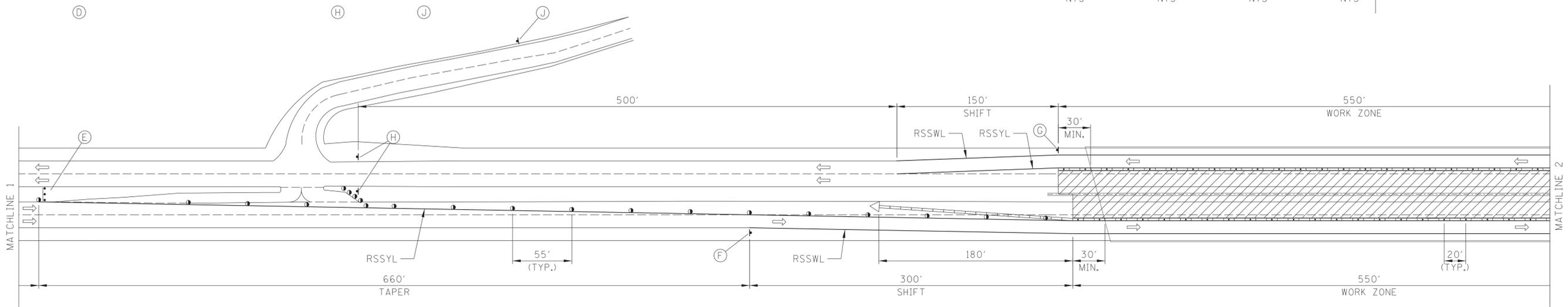
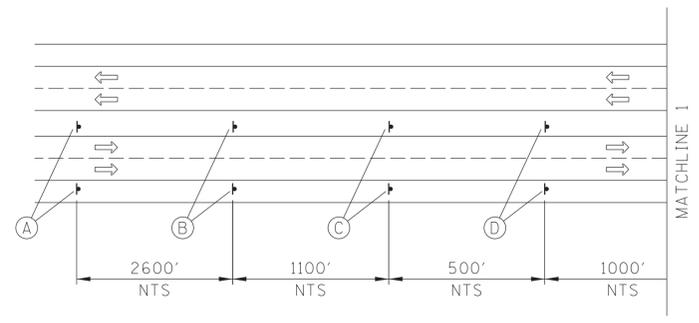
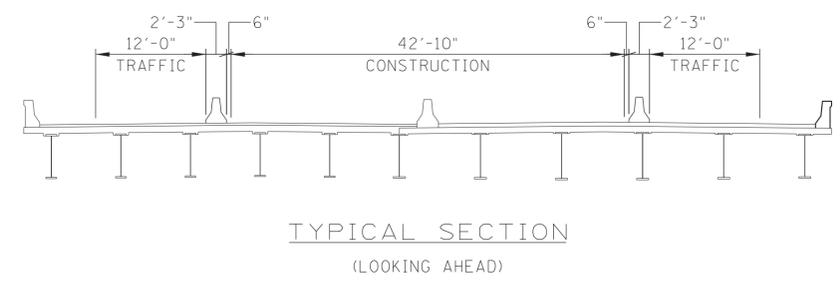
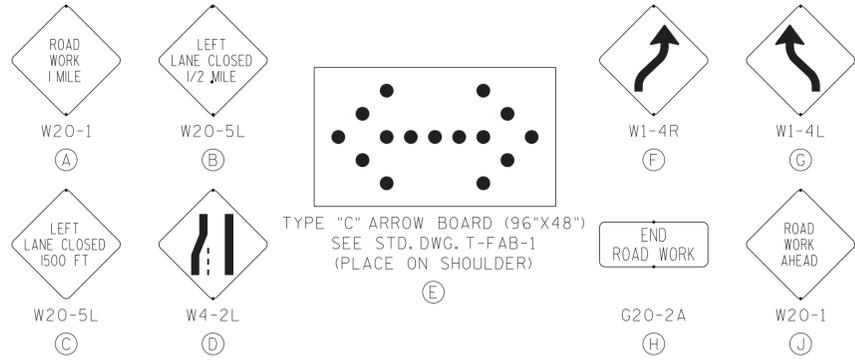
UNOFFICIAL SET
NOT FOR BIDDING



TRAFFIC CONTROL LEGEND			
SYMBOL	ITEM	SYMBOL	ITEM
•	FLEXIBLE DRUMS	•••	FLASHING YELLOW ARROW BOARD
▨	WORK ZONE	▸	SIGN
— — —	PORTABLE BARRIER RAIL (WITH DELINEATORS)	◁	ATTENUATOR
RSSYL	REMOVABLE SINGLE SOLID YELLOW LINE	→	FLOW OF TRAFFIC
RSSWL	REMOVABLE SINGLE SOLID WHITE LINE	NTS	NOT TO SCALE

1/20/2014 J:\Structures\10705-20_WhiteCo_SRIL\over_CalifKiller_River\Drawings\Final\10705-20-Traf.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2014	93035-4207-04	3B



TRAFFIC CONTROL LEGEND			
SYMBOL	ITEM	SYMBOL	ITEM
•	FLEXIBLE DRUMS	•••	FLASHING YELLOW ARROW BOARD
▨	WORK ZONE	▶	SIGN
— — —	PORTABLE BARRIER RAIL (WITH DELINEATORS)	◁	ATTENUATOR
RSSYL	REMOVABLE SINGLE SOLID YELLOW LINE	→	FLOW OF TRAFFIC
RSSWL	REMOVABLE SINGLE SOLID WHITE LINE	NTS	NOT TO SCALE

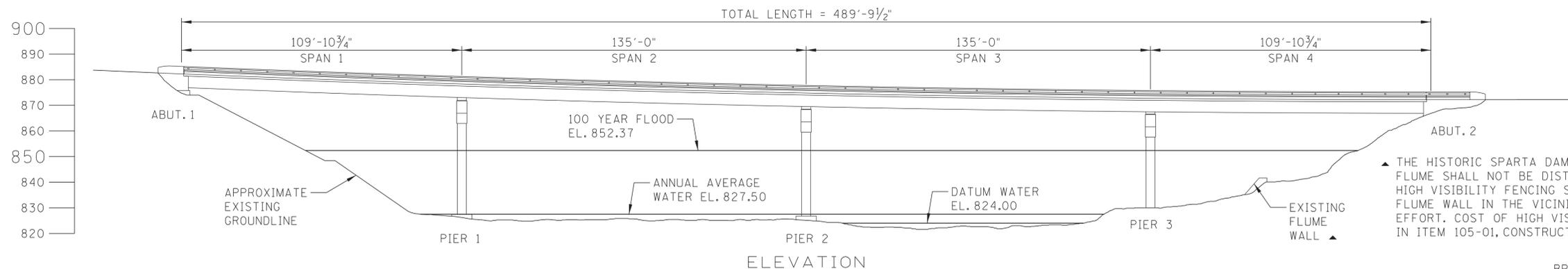
UNOFFICIAL SET
NOT FOR BIDDING



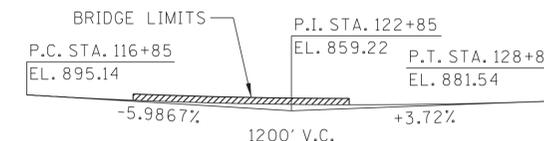
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
NOT TO SCALE
TRAFFIC CONTROL PLAN
PHASE II

1/20/2014 J:\STRUCTURES\10705-20_WhiteCo_SRIL\over_CalifKiller_River\Drawings\Final\10705-20_Traf.dgn

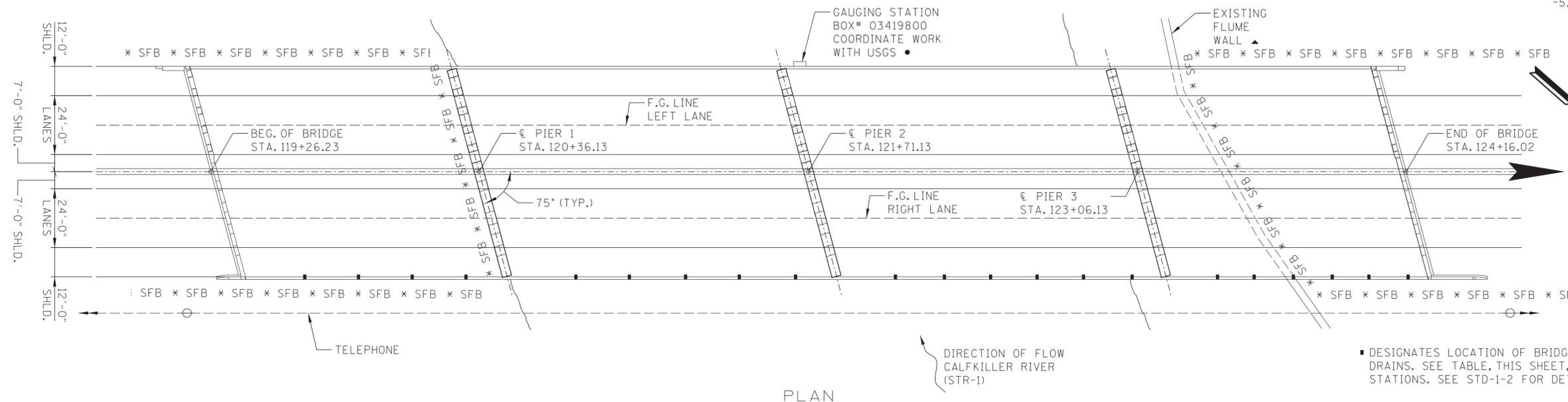
PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



▲ THE HISTORIC SPARTA DAM AND POWERHOUSE AND ASSOCIATED FLUME SHALL NOT BE DISTURBED IN ANY FORM OR FASHION. HIGH VISIBILITY FENCING SHALL BE PLACED ALONGSIDE THE FLUME WALL IN THE VICINITY OF THE BRIDGE TO AID IN THIS EFFORT. COST OF HIGH VISIBILITY FENCING TO BE INCLUDED IN ITEM 105-01, CONSTRUCTION STAKES, LINES, AND GRADES, L.S.



ALL DIMENSIONS, STATIONING, AND ELEVATIONS BASED ON EXISTING PLANS DATED 1970/71 AND 1994.



● USGS CONTACT:
SHANNON WILLIAMS, ASSOCIATE DIRECTOR
(615)837-4755
640 GRASSMERE PARK, SUITE 100
NASHVILLE, TN 37211
SWILLIAM@USGS.GOV

■ DESIGNATES LOCATION OF BRIDGE DECK DRAINS. SEE TABLE, THIS SHEET, FOR STATIONS. SEE STD-1-2 FOR DETAILS.

TABLE OF DECK DRAIN STATIONS

- 119+64
- 119+86
- 120+08
- 120+30
- 120+75
- 120+97
- 121+20
- 121+42
- 121+65
- 122+06
- 122+26
- 122+45
- 122+64
- 122+83
- 123+03
- 123+38
- 123+53
- 123+69
- 123+85
- 124+00
- 124+16

SCOPE OF WORK

1. PROVIDE REQUIRED TRAFFIC CONTROL AND PHASED CONSTRUCTION MAINTAINING ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES.
2. REMOVE ASPHALT SURFACE FROM BRIDGE DECK.
3. RECONSTRUCT THE CONCRETE BRIDGE DECK IN AREAS OF FULL AND PARTIAL DEPTH DECK REPAIR (UTILIZE 18 HOUR CONCRETE).
4. PLACE NEW 3 1/4" ASPHALT SEAL WITH MEMBRANE APPLIED DIRECTLY ON BRIDGE DECK AND PABE'S. ASPHALT SHALL BE PLACED IN TWO (2) LIFTS CONSISTING OF 2" OF B-MODIFIED AND 1 1/4" OF GRADING "D". ASPHALT TO BE PLACED TO ACCOMMODATE DECK DRAINS.
5. CONSTRUCT ASPHALT PAVEMENT TRANSITIONS AT ENDS OF PAVEMENT AT BRIDGE ENDS.
6. REPLACE STRIP SEAL EXPANSION JOINTS AT ABUTMENTS. DO NOT TURN UP JOINTS AT MEDIAN BARRIER OR PARAPETS. HEADER CONCRETE TO BE PLACED TO HEIGHT OF NEW ASPHALT OVERLAY.
7. REMOVE EXISTING ALUMINUM RAILING FROM PARAPETS. RAILING TO BE PICKED UP AND STOCK PILED BY TDOT MAINTENANCE PERSONNEL.
8. PLACE NEW CONCRETE ON LEFT SIDE PARAPET TO HEIGHT OF EXISTING END POSTS (THIS WILL REPLACE ALUMINUM RAILING).
9. REMOVE AND REPLACE CONCRETE PARAPET AND ENDPSTS ON RIGHT SIDE OF BRIDGE (NORTHBOUND LANES). PROPOSED PARAPET WILL BE SIMILAR TO LEFT SIDE PARAPET AND WILL ACCOMMODATE ASPHALT OVERLAY AS WELL AS ALLOW CONSTRUCTION OF NEW DECK DRAINS. DECK DRAINS WILL BE LOCATED SIMILAR TO THOSE OF LEFT PARAPET (SOUTHBOUND LANES). EXISTING REINFORCEMENT IS TO BE MAINTAINED WHERE VIABLE.
10. PLACE NEW GUARDRAIL AT BRIDGE ENDS (RIGHT SIDE ONLY).
11. REPAIR DETERIORATED AREAS OF CONCRETE ON SUBSTRUCTURE UNITS.
12. FILL VOIDS CAUSED BY MISSING ANCHOR RODS, ON EXPANSION BEARINGS, WITH EPOXY SEALER (3 LOCATIONS AT ABUTMENT 1).
13. BLAST AND PAINT EXISTING STRUCTURAL STEEL, INCLUDING BEARINGS, USING SYSTEM "A".
14. HIGH PRESSURE WATER WASH AND TEXTURE COAT CONCRETE SURFACES OF THE MEDIAN BARRIER, PARAPETS, DECK OVERHANGS, AND EXPOSED AREAS OF THE SUBSTRUCTURE UNITS.
15. ALL DIRT/DEBRIS/TRASH SHALL BE REMOVED FROM SUBSTRUCTURES AND BELOW BRIDGE (COST TO BE INCLUDED IN ITEMS BID ON).
16. REMOVE VEGETATION FOR A DISTANCE OF TEN FEET ALONG EACH SIDE OF THE BRIDGES AS DIRECTED BY THE ENGINEER. WHERE POSSIBLE, STUMPS AND ROOTS ARE TO REMAIN TO PREVENT GROUND DISTURBANCE.

LIST OF DRAWINGS

DRAWING	DRAWING NO.	LAST REV. DATE
LAYOUT OF BRIDGE TO BE REPAIRED	BR-115-148	
GENERAL NOTES AND ESTIMATED QUANTITIES	BR-115-149	
SUPERSTRUCTURE	BR-115-150	
SUPERSTRUCTURE REPAIR DETAILS	BR-115-151	
SUPERSTRUCTURE REPAIR DETAILS	BR-115-152	
SUPERSTRUCTURE REPAIR DETAILS	BR-115-153	
SUPERSTRUCTURE REPAIR DETAILS	BR-115-154	
SUBSTRUCTURE REPAIRS	BR-115-155	

LIST OF REFERENCE DRAWINGS

(TO BE PRINTED WITH PLANS)
K-93-133 THRU K-93-137, K-93-137A, K-93-138, K-93-138A, K-93-139 THRU K-93-141, K-93-141A AND M-293-1 THRU M-293-20

UNOFFICIAL SET
NOT FOR BIDDING

POSTED SPEED LIMIT = 55 M.P.H.
ADT (2014) = 12,916

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

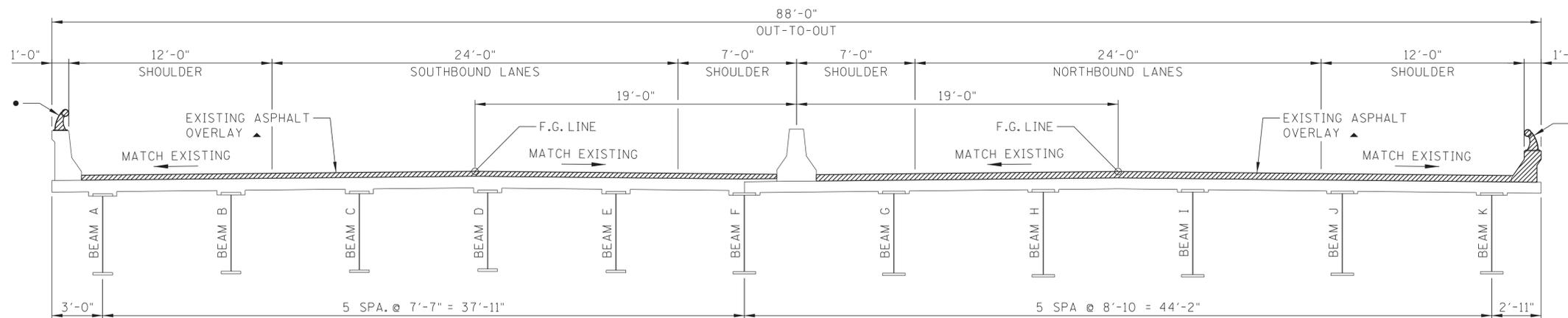


LAYOUT OF BRIDGE TO BE REPAIRED
STATE ROUTE 111 OVER
CALFKILLER RIVER
BR. NO. 93-SR111-06.37
WHITE COUNTY
2014

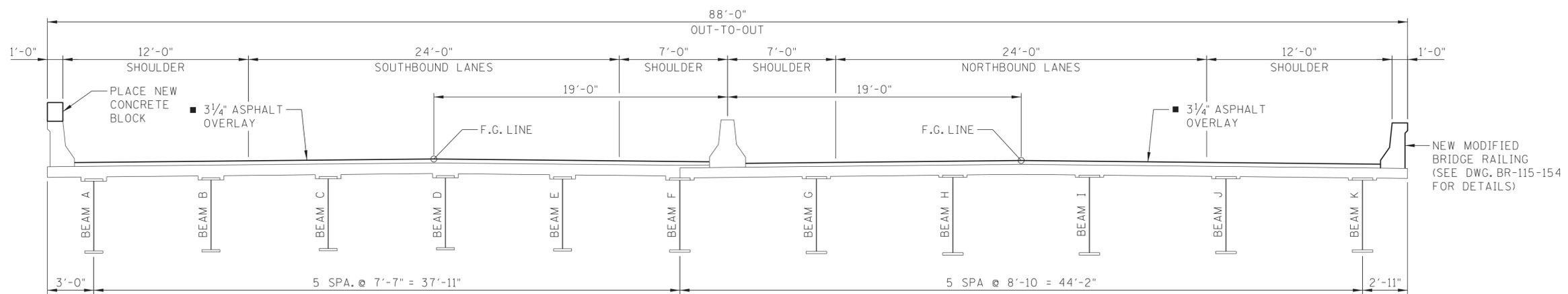
1/20/2014 J:\STRUCTURES\10705-20_WHITE CO_SRR111_OVER_CALFKILLER_RIVER\DRAWINGS\FINAL\10705-20-LAY.DGN

Palmer ENGINEERING
DESIGNED BY G.S. WILSON DATE 09/2013
DRAWN BY C.D. VICTORY DATE 09/2013
SUPERVISED BY G.S. WILSON DATE 09/2013
CHECKED BY G.S. WILSON DATE 09/2013

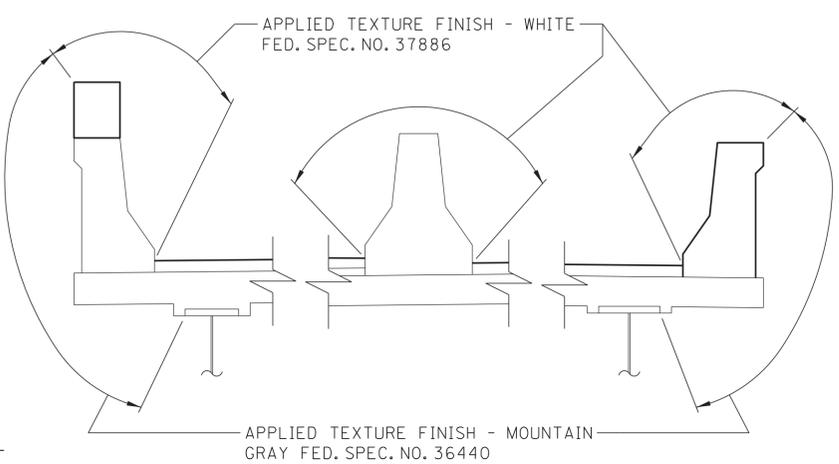
PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



- DENOTES AREA TO BE REMOVED.
- REMOVE EXISTING RAILING. COST OF RAIL REMOVAL TO BE INCLUDED IN ITEM 604-10.22, CONCRETE PARAPET REPAIR, L.F. (LEFT SIDE) AND ITEM 620-09, REMOVAL & REPLACEMENT OF EXISTING BRIDGERAIL, L.F. (RIGHT SIDE).
 - ▲ THICKNESS = 3.5" SOUTHBOUND LANES AND 4.5" NORTHBOUND LANES.



- ASPHALT OVERLAY TO COORDINATE WITH TOP OF CONCRETE AT DECK DRAINS NEAR MEDIAN BARRIER AND CONCRETE HEADERS AT EXPANSION JOINTS.



APPLIED TEXTURE FINISH DETAILS

IN ADDITION TO SURFACES SHOWN, ALL EXPOSED CONCRETE SURFACES ON THE PIERS AND ABUTMENTS ARE TO RECEIVE AN APPLIED TEXTURE FINISH, MOUNTAIN GRAY, (FED. SPEC. NO. 36440).

COST OF TEXTURE COATING SHALL BE INCLUDED IN ITEM NO. 604-04.02.

THE CONTRACTOR SHALL USE CONTAINMENT SCREENS OR OTHER MEASURES AS NECESSARY TO PREVENT ANY TEXTURE COATING FROM ENTERING THE ENVIRONMENT. CONTAINMENT MEASURES SHALL BE APPROVED BY THE ENGINEER AND COST SHALL BE INCLUDED IN ITEMS BID ON.

THE EXISTING SURFACES THAT ARE TO RECEIVE A TEXTURE FINISH SHALL BE FREE OF ALL FLAKING TEXTURE COATING, RUST, DIRT, OIL, AND OTHER FOREIGN SUBSTANCES PRIOR TO THE APPLICATION OF THE TEXTURE FINISH. THE SURFACE SHALL BE CLEANED TO THE COMPLETE SATISFACTION OF THE ENGINEER USING A HIGH PRESSURE WATER WASH. COST TO BE INCLUDED IN ITEM NO. 604-04.02.

THE WASH WATER IS TO BE FILTERED AND PAINT CHIPS AND DEBRIS COLLECTED PRIOR TO RELEASE OF WATER.

UNOFFICIAL SET

NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

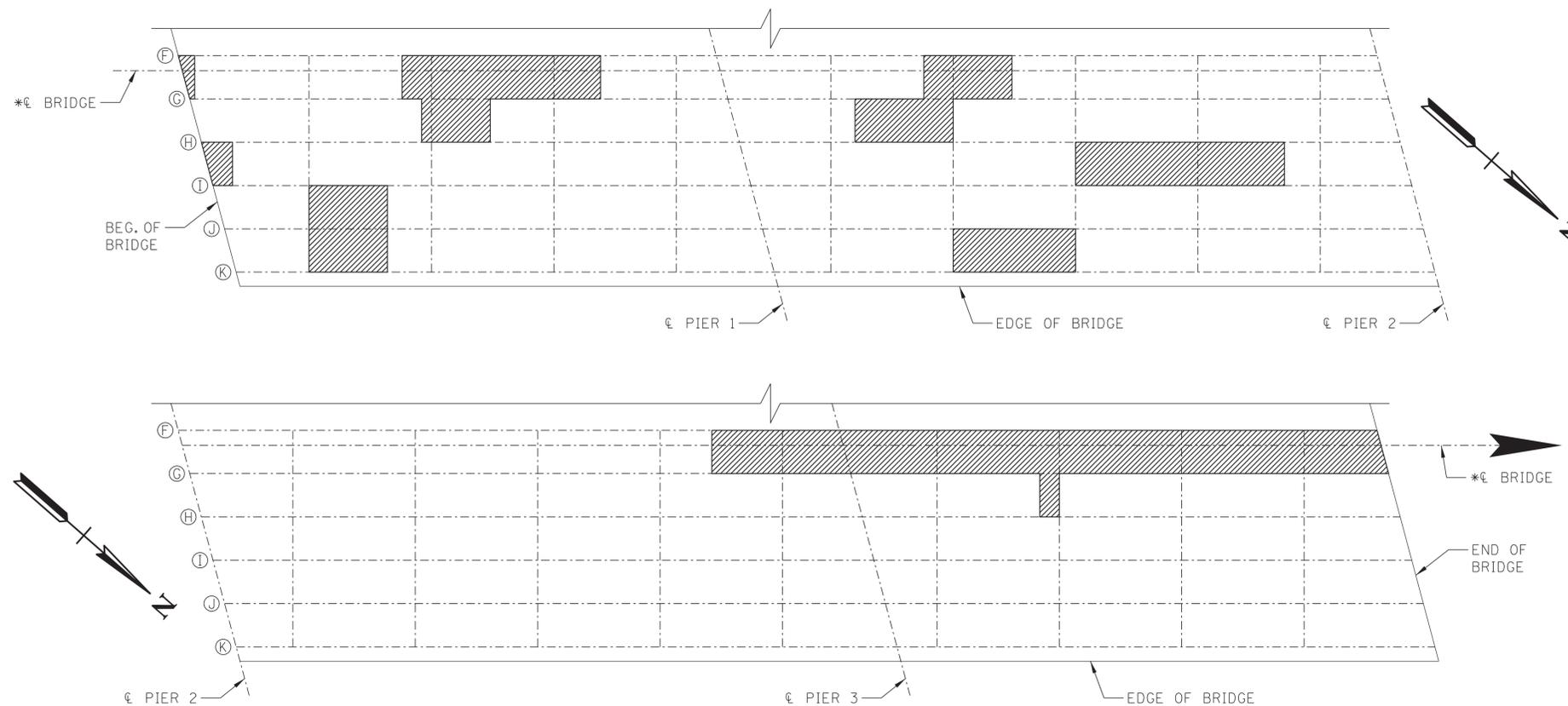
SUPERSTRUCTURE
STATE ROUTE 111 OVER
CALFKILLER RIVER
BR. NO. 93-SR111-06.37
WHITE COUNTY
2014

1/20/2014
J:\STRUCTURES\10705-20_WHITE CO. SR111_OVER_CALFKILLER_RIVER\DRAWINGS\FINAL\10705-20_SUP.DGN

Palmer ENGINEERING

DESIGNED BY G.S. WILSON DATE 09/2013
DRAWN BY C.D. VICTORY DATE 09/2013
SUPERVISED BY G.S. WILSON DATE 09/2013
CHECKED BY G.S. WILSON DATE 09/2013

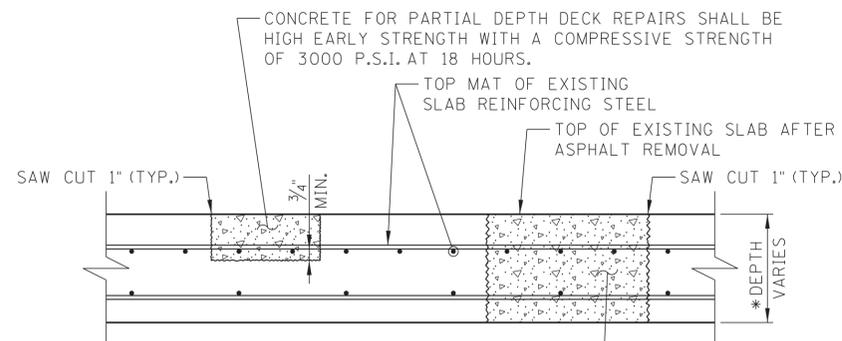
PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



DECK PLAN

DENOTES APPROXIMATE AREA OF FULL DEPTH DECK REPAIR.

* IN LOCATIONS OF FULL DEPTH DECK REPAIR AT/NEAR A DECK DRAIN, THE CONTRACTOR SHALL ENSURE PROPER PLACEMENT OF THE DRAIN (MAINTAIN AS IS) IN CONJUNCTION WITH REQUIRED DECK REPAIRS. COST OF ALL LABOR & MATERIALS NECESSARY TO REMOVE & REPLACE SECTIONS OF CONCRETE MEDIAN BARRIER AS REQUIRED FOR DECK REPAIR TO BE INCLUDED IN ITEM 711-02.04, REINFORCED CONCRETE MEDIAN BARRIER REMOVAL & REPLACEMENT), L.F.



CONCRETE FOR FULL DEPTH DECK REPAIRS SHALL BE HIGH EARLY STRENGTH CONCRETE WITH A COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 18 HOURS.

DETAIL SHOWING FULL AND PARTIAL DEPTH DECK REPAIR

REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM HEADQUARTERS, BRIDGE INSPECTION AND REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE. DECK REPAIR WILL BE PAID FOR UNDER ITEM NO. 604-10.50, BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB), AND ITEM NO. 604-10.30, BRIDGE DECK REPAIR (FULL DEPTH OF SLAB). DURING PARTIAL DEPTH REPAIRS, SHOULD DETERIORATED CONCRETE BE ENCOUNTERED WHICH APPEARS TO RUN FULL DEPTH IN THE SLAB, THE ENGINEER MAY DESIGNATE THESE AREAS TO BE REPAIRED UNDER ITEM NO. 604-10.30. POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING FULL AND PARTIAL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

1. PARTIAL DEPTH REPAIRS - PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60-POUND CLASS SHALL NOT BE USED.
2. FULL DEPTH REPAIRS - PNEUMATIC HAMMERS HEAVIER THAN A 60-POUND CLASS SHALL NOT BE USED. ALSO ALL DECK REPAIR OVER BEAMS WILL BE RESTRICTED TO 35-POUND PNEUMATIC HAMMERS.
3. CHIPPING HAMMERS OF THE 15-POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.

ITEM NO. 604-10.30 AND 604-10.50 SHALL BE BID WITH THE CONTINGENCY THAT THESE ITEMS MAY BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION



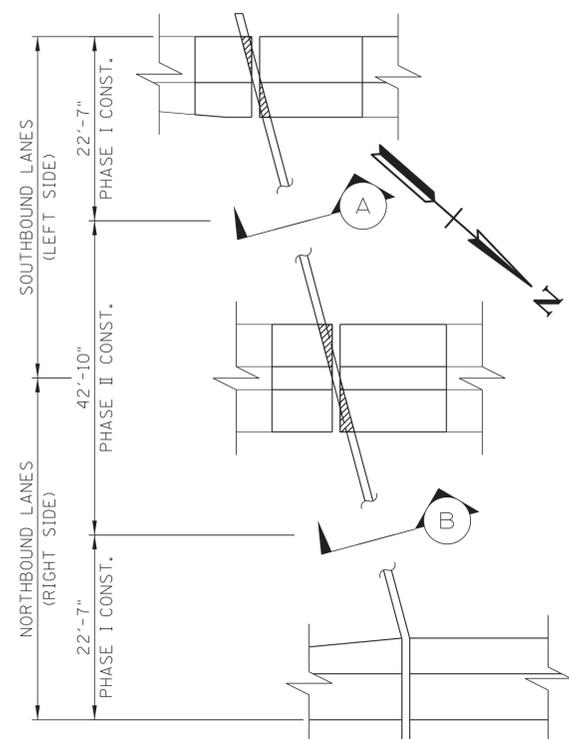
SUPERSTRUCTURE REPAIR DETAILS
STATE ROUTE 111 OVER
CALFKILLER RIVER
BR. NO. 93-SR111-06.37
WHITE COUNTY
2014

1/20/2014
J:\STRUCTURES\10705-20_WHITE CO. SR111-OVER CALFKILLER RIVER DRAWINGS\FINAL\10705-20_DECK.DGN

Palmer
ENGINEERING

DESIGNED BY G.S. WILSON DATE 09/2013
 DRAWN BY C.D. VICTORY DATE 09/2013
 SUPERVISED BY G.S. WILSON DATE 09/2013
 CHECKED BY G.S. WILSON DATE 09/2013

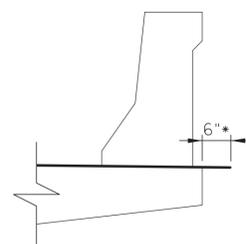
PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



PLAN

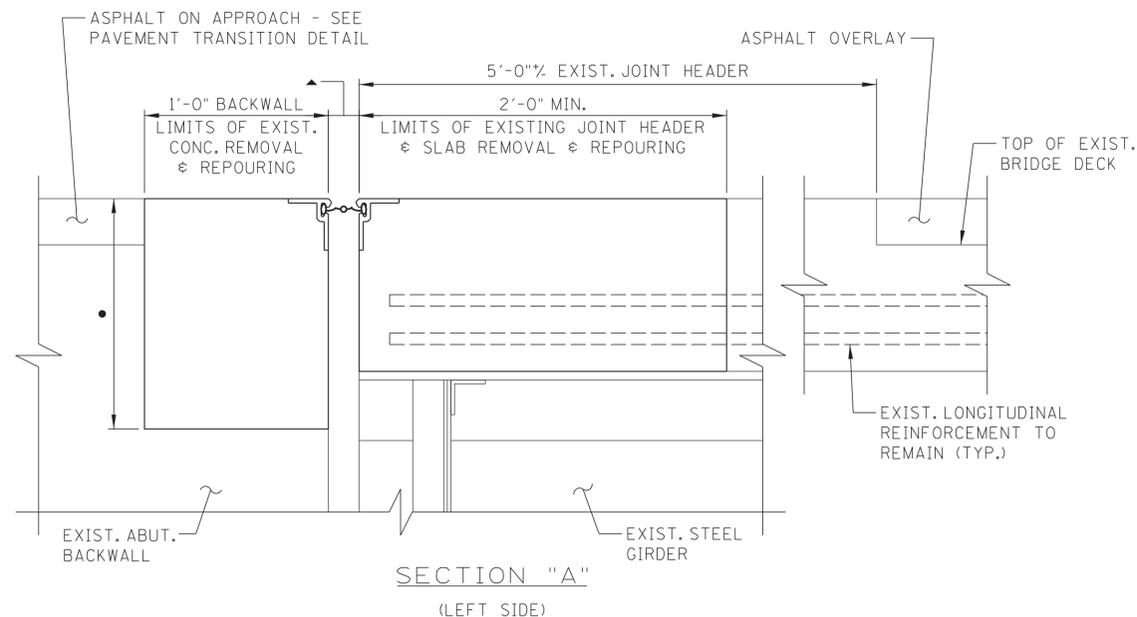
JOINT AT ABUTMENT 1 SHOWN, JOINT AT ABUTMENT 2 SIMILAR.

BREAK BOND AS PER STD-1-1.

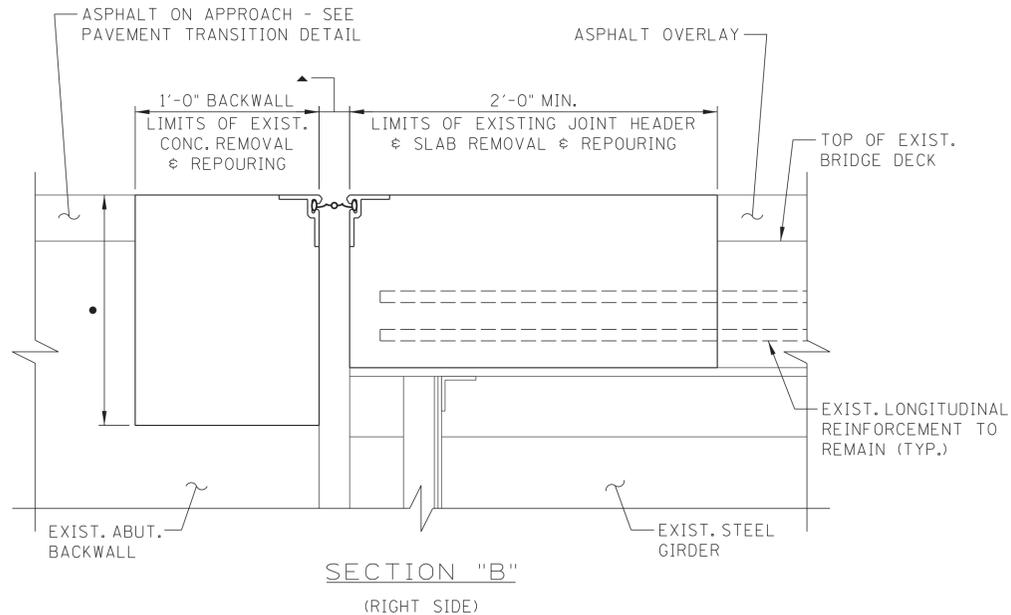


SECTION AT PARAPETS

*MEMBRANE RETAINER TO EXTEND BEYOND DECK SLAB.



SECTION "A"
(LEFT SIDE)



SECTION "B"
(RIGHT SIDE)

STRIP SEAL EXPANSION JOINT DETAIL

(LOCATED AT ABUTMENTS NO. 1 AND NO. 2)
ITEM NO. 604-10.32, EXPANSION JOINT REPAIRS (TYPE A), L.F.

- ▲ DENOTES: SET EXPANSION JOINT OPENING 3" AT 60° F. (ACTUAL SETTING AS PER TEMPERATURE CHART ON EXPANSION JOINT SHOP DRAWINGS.)
- 1'-3" MIN. - LIMITS OF EXISTING CONCRETE REMOVAL AND REPOURING

STRIP SEAL EXPANSION JOINT NOTES

NEW CONCRETE HEADER SHALL BE HIGH EARLY STRENGTH CONCRETE WITH A COMPRESSIVE STRENGTH OF 3000 PSI AT 18 HOURS.

SEE STD. DWG.'S SBR-2-115, SBR-2-116, AND SBR-2-117 FOR NOTES AND DETAILS NOT SHOWN.

EXPANSION JOINT REPLACEMENT SHALL BE CONSTRUCTED IN PHASES. THE STEEL PORTIONS OF THE EXPANSION DEVICE SHALL BE FABRICATED IN SECTIONS TO COORDINATE WITH PHASED CONSTRUCTION. THE SECTIONS ARE TO BE CONNECTED WITH A FULL PENETRATION BUTT WELD. THE ELASTOMERIC SEAL SHALL BE ONE PIECE FOR FULL LENGTH OF EXPANSION JOINT.

PROVISIONS SHALL BE MADE DURING DECK, PARAPET, AND MEDIAN BARRIER REMOVAL TO PROTECT THE EXISTING LONGITUDINAL AND VERTICAL REINFORCING STEEL FROM DAMAGE. THE EXISTING REINFORCING STEEL SHALL BE COMPLETELY CLEANED, MAINTAINED, AND INCORPORATED INTO THE NEW CONSTRUCTION. PROVIDE 2" MINIMUM COVER FOR REINFORCING STEEL.

UNOFFICIAL SET

 NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION



SUPERSTRUCTURE REPAIR DETAILS
 STATE ROUTE 111 OVER
 CALFKILLER RIVER
 BR. NO. 93-SR111-06.37
 WHITE COUNTY
 2014

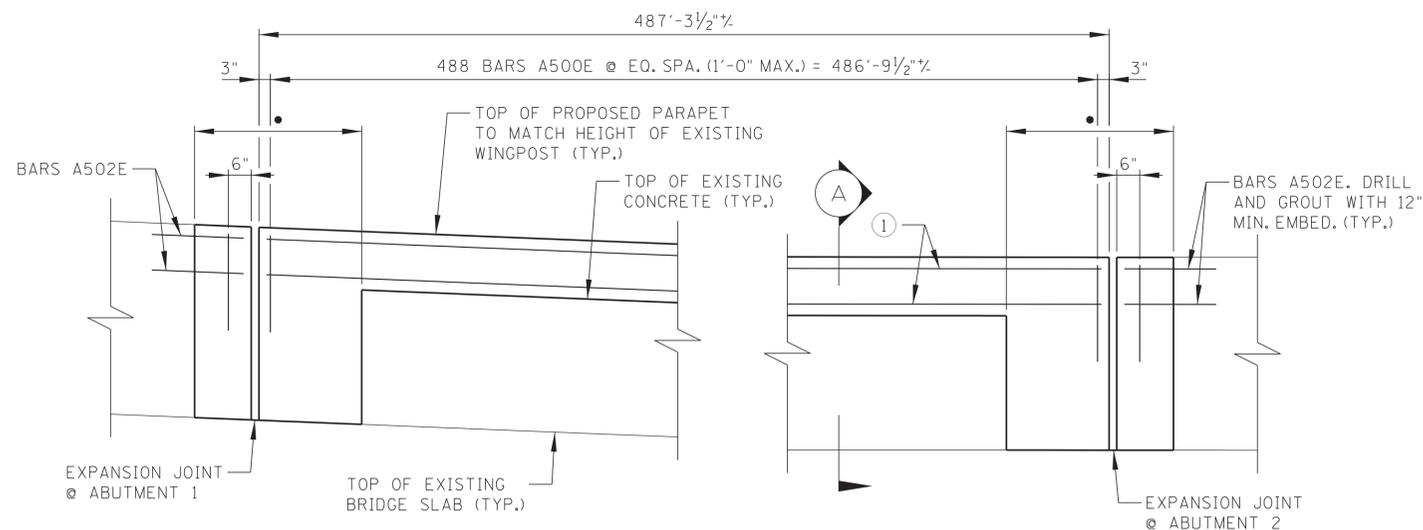
1/20/2014

J:\STRUCTURES\10705-20_WHITE CO_SRI11_OVER_CALKILLER_RIVER_DRAWINGS\FINAL\10705-20_JOINT.DGN



DESIGNED BY G.S. WILSON DATE 09/2013
 DRAWN BY C.D. VICTORY DATE 09/2013
 SUPERVISED BY G.S. WILSON DATE 09/2013
 CHECKED BY G.S. WILSON DATE 09/2013

PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



NOTE: MIN. SPLICE LENGTH FOR #5 BARS IS 2'-5\".

BRIDGE RAIL MODIFICATION ELEVATION

- ① TYP. LINE OF BARS CONSISTS OF 9 BARS A501E (56'-4")
- VERTICAL REINFORCEMENT WITHIN NEW CONCRETE AT JOINTS MAY BE CAST WITH PARAPET VERSUS DRILLED AND GROUTED.
- 1" SAW CUT AROUND PERIMETER OF NEW CONCRETE AT ANY EXISTING OPEN JOINT LOCATIONS IN BRIDGERAIL IF PRESENT AT PIERS.

PARAPET MODIFICATION NOTES:

ALL COST ASSOCIATED WITH MODIFICATION OF EXISTING BRIDGERAIL INCLUDING REMOVING THE EXISTING RAILING AND POSTS, STEEL REINFORCEMENT, HIGH EARLY STRENGTH CONCRETE, FORMING, LABOR, AND ALL MISCELLANEOUS MATERIAL NECESSARY TO COMPLETE THE REPAIRS AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 604-10.22, CONCRETE PARAPET REPAIR, L.F.

CONTRACTOR SHALL FIELD MEASURE DIMENSIONS OF BRIDGERAIL PRIOR TO BEGINNING WORK AND ORDERING REINFORCING STEEL.

CONTRACTOR SHALL COORDINATE WITH USGS IN VICINITY OF EXISTING USGS GAUGING STATION.

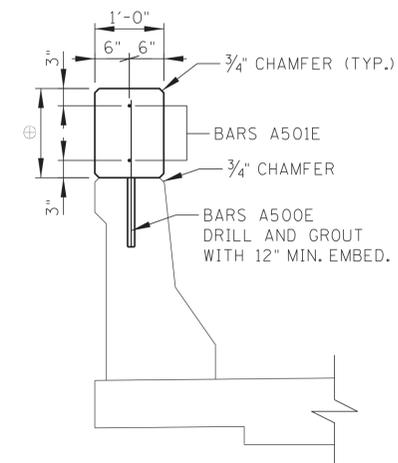
BILL OF STEEL

BAR	SIZE	NO. REQ'D	LENGTH
A500E	5	489	2'-1"
A501E	5	18	56'-4"
A502E	5	4	2'-0"



NOTE: DIMENSIONS SHOWN ON THIS SHEET ARE OUTSIDE TO OUTSIDE OF BAR. STANDARD C.R.S.I. HOOK DETAILS SHALL APPLY, EXCEPT AS NOTED.

NOTE: THE SUFFIX "E", FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT.



SECTION "A"

⊕ HEIGHT OF NEW CONCRETE TO MATCH HEIGHT OF EXISTING WING POSTS. (APPROX. 1'-3 1/4")

UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION



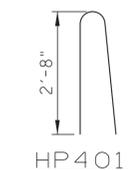
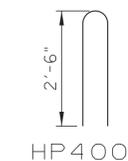
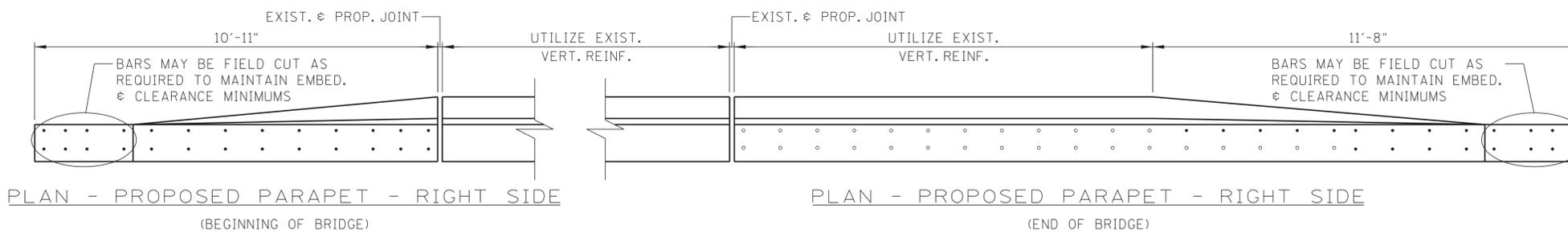
SUPERSTRUCTURE REPAIR DETAILS
STATE ROUTE 111 OVER
CALFKILLER RIVER
BR. NO. 93-SR111-06.37
WHITE COUNTY
2014

1/20/2014 J:\STRUCTURES\10705-20_WHITE CO_SR111_OVER_CALFKILLER_RIVER\DRAWINGS\FINAL\10705-20_SUP2.DGN

Palmer
ENGINEERING

DESIGNED BY G.S. WILSON DATE 09/2013
 DRAWN BY C.D. VICTORY DATE 09/2013
 SUPERVISED BY G.S. WILSON DATE 09/2013
 CHECKED BY G.S. WILSON DATE 09/2013

PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



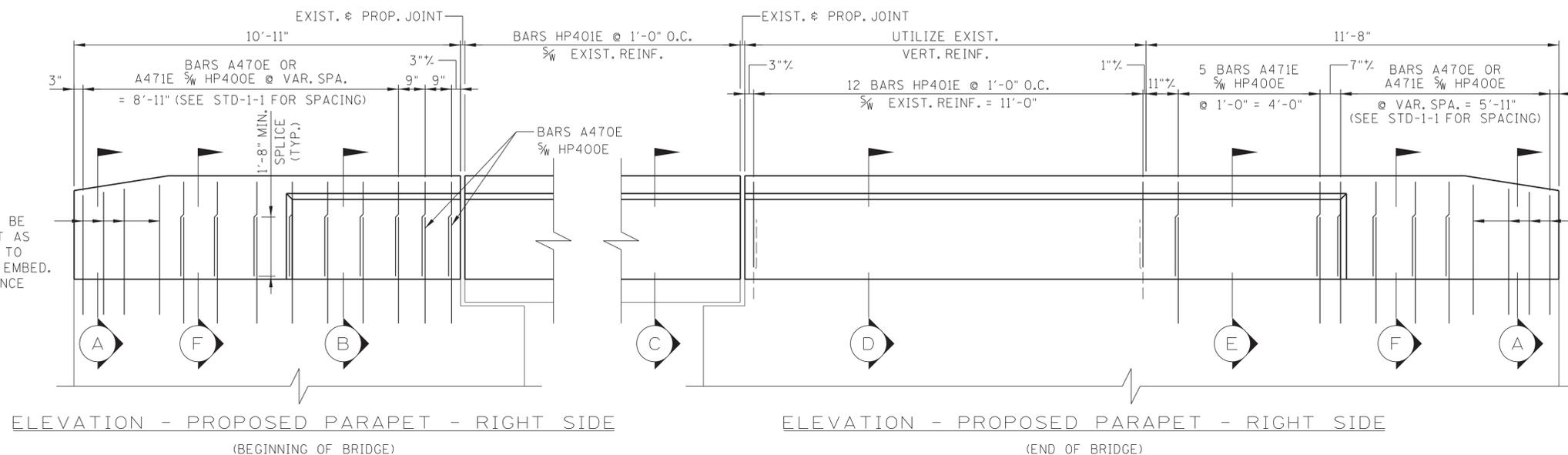
BILL OF STEEL

BAR	SIZE	NO. REQ'D.	LENGTH
A470E	4	16	3'-9"
A471E	4	31	3'-0"
HP400E	4	18	5'-3"
HP401E	4	499	5'-7"

REINFORCING STEEL CODE

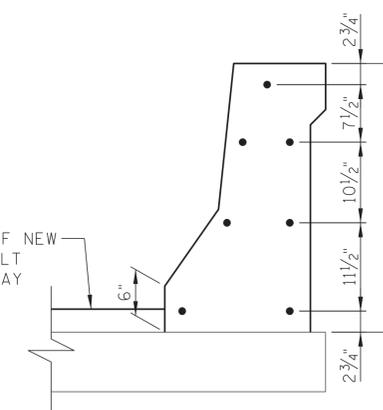
TYPE	SIZE	SERIES
A	4	01

THE SUFFIX E, FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT.



BARS MAY BE FIELD CUT AS REQUIRED TO MAINTAIN EMBED. & CLEARANCE MINIMUMS

BARS MAY BE FIELD CUT AS REQUIRED TO MAINTAIN EMBED. & CLEARANCE MINIMUMS



PROPOSED PARAPET DETAILS

NOTES

- DENOTES PROPOSED REINFORCEMENT.
- DENOTES EXISTING REINFORCEMENT.
- ① EXISTING REINFORCEMENT SHALL BE CUT 1/4" MIN. BELOW THE EXIST. CONCRETE SURFACE AND THE VOID FILLED WITH AN EPOXY SEALER.

ALL WORK MUST MEET WITH THE APPROVAL OF THE ENGINEER. COST SHALL BE INCLUDED IN COST OF ITEM NO. 620-09 REMOVAL AND REPLACEMENT OF EXISTING BRIDGERAIL, L.F.

SEE STANDARD DRAWING STD-1-1 FOR DETAILS AND NOTES NOT SHOWN.

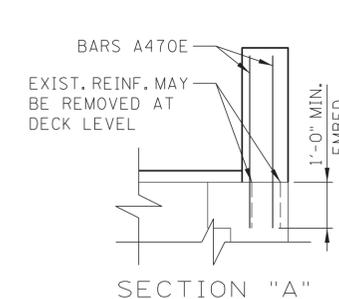
WHERE EXISTING REINFORCEMENT IS TO BE MAINTAINED, BARS SHALL BE CLEANED AND ALIGNED TO THE SATISFACTION OF THE ENGINEER.

UNOFFICIAL SET
NOT FOR BIDDING

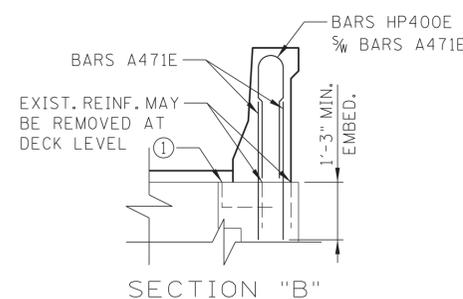


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

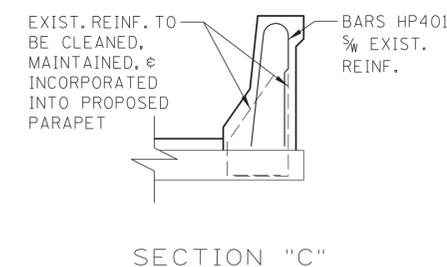
SUPERSTRUCTURE REPAIR DETAILS
STATE ROUTE 111 OVER
CALFKILLER RIVER
BR. NO. 93-SR111-06.37
WHITE COUNTY
2014



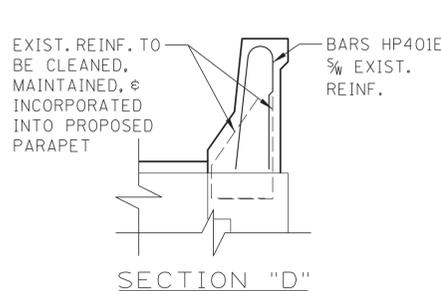
SECTION "A"



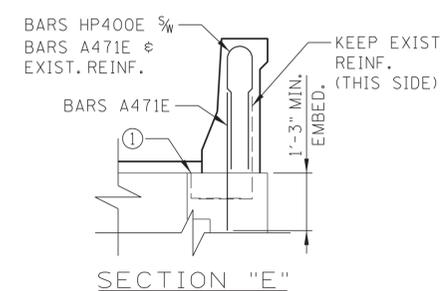
SECTION "B"



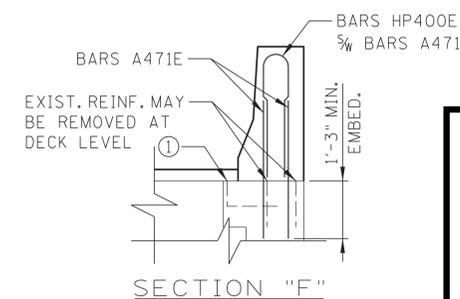
SECTION "C"



SECTION "D"



SECTION "E"



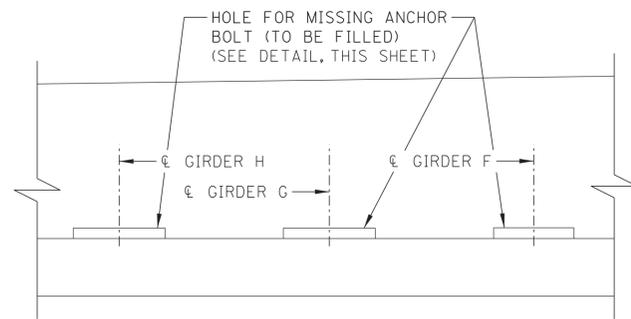
SECTION "F"

1/20/2014

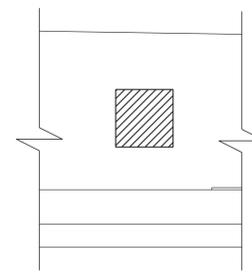
J:\STRUCTURES\10705-20_WHITE CO. SR111-OVER-CALFKILLER RIVER DRAWINGS\FINAL\10705-20_PARAPET.DWG

Palmer ENGINEERING
DESIGNED BY G.S. WILSON DATE 09/2013
DRAWN BY C.D. VICTORY DATE 09/2013
SUPERVISED BY G.S. WILSON DATE 09/2013
CHECKED BY G.S. WILSON DATE 09/2013

PROJECT NO.	YEAR	SHEET NO.	
93035-4207-04	2014		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

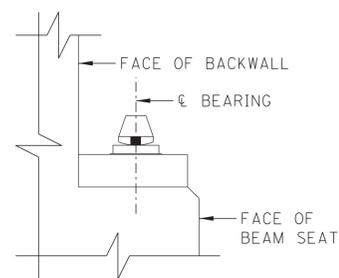


ABUTMENT 1
(LOOKING BACK)



ABUTMENT 2
(LOOKING AHEAD)
(BETWEEN GIRDER F & GIRDER G)

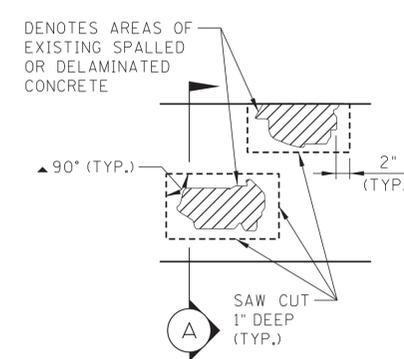
■ DENOTES AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. FOR DETAILS SHOWING AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED, SEE DETAIL THIS SHEET.



RISER BLOCK DETAIL

(GIRDER F SHOWN, GIRDER G & GIRDER H OPPOSITE HAND)

■ DENOTES AREA OF EPOXY SEALANT IN ANCHOR BOLT HOLE. COST OF EPOXY SEALANT TO BE INCLUDED IN UNIT COST BID FOR OTHER ITEMS.



REMOVE ALL DETERIORATED LOOSE CONCRETE TO A MINIMUM DEPTH OF 2" FOR REPAIR AREAS PAID FOR UNDER ITEM NO. 604-10.54

REMOVE TO A DEPTH OF 4" MIN. OR 3/4" MIN. BEHIND EXIST. REIN. STEEL FOR REPAIR AREAS PAID FOR UNDER ITEM NO. 604-10.05.

SECTION "A"

DETAILS SHOWING AREAS OF EXIST. SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED

- DENOTES: LIMITS AND LOCATION OF REPAIRS TO BE DESIGNATED BY THE ENGINEER.
- ▲ DENOTES: SAW CUT EXISTING CONCRETE SURFACES SO AS TO OBTAIN SQUARED CORNERS.

NOTE: EXTREME CARE SHALL BE TAKEN WHEN REMOVING THE EXISTING SPALLED OR DELAMINATED CONCRETE SO AS NOT TO DAMAGE THE EXISTING REINFORCING STEEL. ALL EXPOSED EXISTING REINFORCING STEEL SHALL RECEIVE A COMPLETE CLEANING TO REMOVE ALL RUST. ALL EXISTING REINFORCEMENT SHALL REMAIN IN PLACE. ALL WORK MUST MEET WITH THE FULL APPROVAL OF THE ENGINEER.

THE ENGINEER SHALL HAVE THE OPTION OF DESIGNATING A SPALLED OR DELAMINATED AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 OR 604-10.54. PATCHING MATERIAL FOR ITEM NO. 604-10.05 SHALL BE HIGH EARLY STRENGTH CONCRETE. PATCHING MATERIAL FOR ITEM NO. 604-10.54 SHALL BE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL. SEE QUALIFIED PRODUCTS LIST 13 (F).

COST OF SAW CUTTING, REMOVING SPALLED OR DELAMINATED CONCRETE, CLEANING, PATCHING MATERIAL, LABOR, AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN TO BE INCLUDED IN ITEM NO. 604-10.54, CONCRETE REPAIRS, S.F. OR ITEM NO. 604-10.05, CONCRETE, S.F.

THE ENGINEER SHALL DESIGNATE ALL SPALLED OR DELAMINATED CONCRETE REPAIR AREAS IN THE FIELD. QUANTITIES GIVEN ARE APPROXIMATE. ITEM NO. 604-10.05 AND 604-10.54 SHALL BE BID WITH THE CONTINGENCY THAT QUANTITIES MAY BE INCREASED, DECREASED, OR ELIMINATED BY THE ENGINEER.

POWER DRIVEN HAND TOOLS USED FOR REMOVAL OF UNSOUND CONCRETE ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

1. PNEUMATIC HAMMERS HEAVIER THAN THE 35 LB. CLASS SHALL NOT BE USED.
2. CHIPPING HAMMERS OF THE 15 LB. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BEHIND REINFORCING STEEL.

NOTE: PNEUMATICALLY PLACED CONCRETE IS NOT ALLOWED.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION



SUBSTRUCTURE REPAIRS
STATE ROUTE 111 OVER
CALFKILLER RIVER
BR. NO. 93-SR111-06.37
WHITE COUNTY
2014

1/20/2014
J:\STRUCTURES\10705-20_WHITE CO_SRI111_OVER_CALFKILLER_RIVER\Drawings\FINAL\10705-20_SUB.DGN

Palmer ENGINEERING
DESIGNED BY G.S. WILSON DATE 09/2013
DRAWN BY C.D. VICTORY DATE 09/2013
SUPERVISED BY G.S. WILSON DATE 09/2013
CHECKED BY G.S. WILSON DATE 09/2013