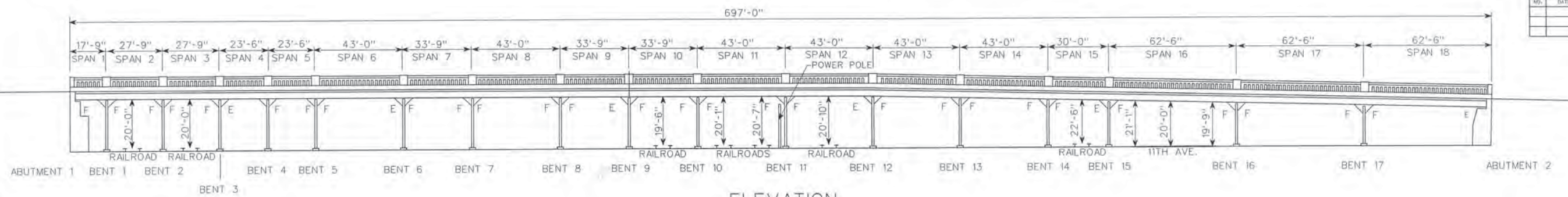
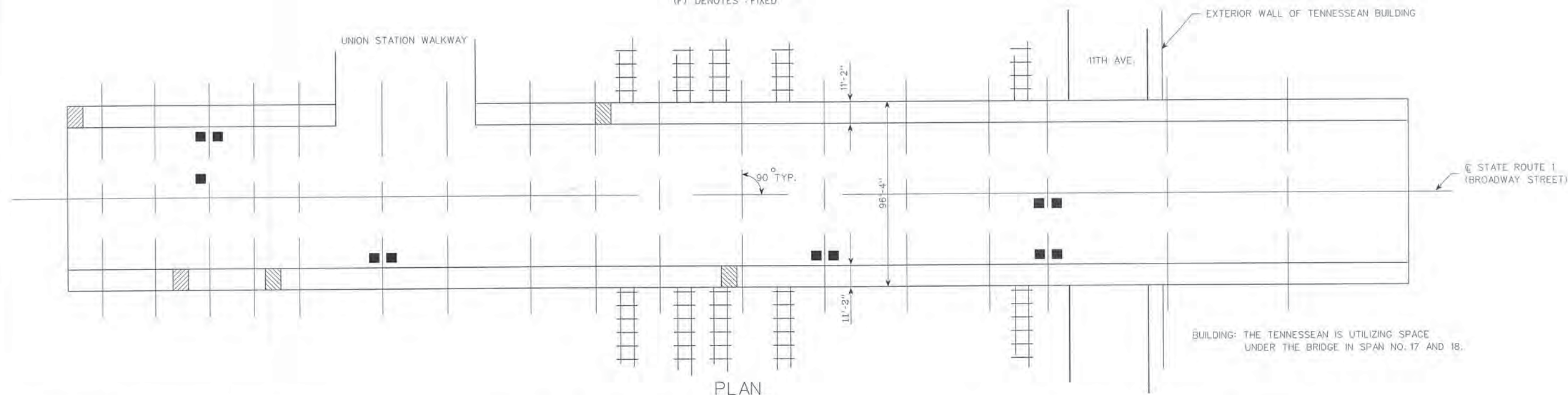


PROJECT NO.	YEAR	SHEET NO.	
19019-4222-04	2006		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION
 (E) DENOTES : EXPANSION
 (F) DENOTES : FIXED



PLAN

GENERAL SCOPE OF WORK

- 1) REMOVE IN- ACTIVE UTILITIES FROM THE BRIDGE.
- 2) BLAST CLEAN AND RE- PAINT ALL STEEL ELEMENTS, INCLUDING STEEL BEAMS, CROSS BRACING, DIAPHRAGMS AND BENTS IN SPANS NO. 1 THRU 16.
- 3) BLAST CLEAN OR HAND TOOL CLEAN AND SPOT-PAINT DESIGNATED AREAS IN SPANS NO. 17 AND 18.
- 4) REPAIR DETERIORATED STEEL SECTIONS.
- 5) REPLACE SECTIONS OF EXISTING BRIDGE DRAINAGE SYSTEMS AT BENTS. REPLACE ABOVE GROUND ELEMENTS ONLY.
- 6) CLEAN OUT BELOW GROUND DRAINAGE PIPE LINES TO ACHIEVE POSITIVE FLOW.
- 7) REPAIR SECTIONS OF DETERIORATED CONCRETE IN SIDEWALKS AND RAILS.

LIST OF DRAWINGS

DRAWING NO.	LAST REV. DATE	DRAWING
BR-79-70	-----	LAYOUT OF BRIDGE TO BE REPAIRED
BR-79-71	-----	ESTIMATED BRIDGE QUANTITIES
BR-79-72	-----	BRIDGE GENERAL NOTES
BR-79-73	-----	BRIDGE GENERAL NOTES
BR-79-74	-----	BRIDGE REPAIR DETAILS
BR-79-75	-----	BRIDGE REPAIR DETAILS

**LIST OF REFERENCE DRAWINGS
 (TO BE PRINTED WITH PLANS)**

DRAWING NO.	DRAWING
B-13-135 THRU B-13-178	EXISTING BRIDGE DRAWINGS

LIST OF STANDARD DRAWINGS

DRAWING NO.	LAST REV. DATE	DRAWING
STD-10-1	5-11-92	MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS

NOTE:
 FOR LOCATION OF ALL DRAINAGE PIPES CONNECTED TO BRIDGE AND BELOW GROUND DRAINAGE PIPES, SEE EXISTING DRAWINGS.

■ DENOTES LOCATION OF STEEL REPAIR NEEDED ON BENT CROSS BRACING.

▨ DENOTES FULL DEPTH REPAIR AREAS IN SIDEWALK.

LIST OF SPECIAL PROVISIONS

NO.	LAST REV. DATE	REGARDING
105A	**	APPROVAL OF SHOP DRAWINGS
105C	**	FLAGGING AND PROTECTION OF RAILROAD INTEREST AND PROPERTY
604CR	**	REPAIR OF BRIDGE DECK CRACKS
108B	**	PROJECT COMPLETION AND INCENTIVE / DISINCENTIVE

** DENOTES: CURRENT REVISION DATE, AS PER CONTRACT DOCUMENTS.



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 LAYOUT OF BRIDGE TO BE REPAIRED
 STATE ROUTE 1 (BROADWAY) OVER
 C.S.X RAILROAD & 11TH AVE.
 BRIDGE NO. 19-SR1-17.29
 DAVIDSON COUNTY
 2006

SCANNED

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
① 202-04.01	REMOVAL OF STRUCTURES (BRIDGE NO. 19-SRI-17.29)	L.S.	1
② 602-10.05	BRACING REPAIRS	L.S.	1
③ 602-10.06	STRUCTURAL STEEL	LB.	50
④ 603-02.01	REPAINTING EXISTING STEEL STRUCTURE (BR. NO. 19-SRI-17.29)	L.S.	1
⑤ 603-02.20	SPOT PAINTING EXISTING STEEL STRUCTURES	S.F.	3,130
⑥ 603-05.20	CONTAINMENT AND DISPOSAL OF WASTE	L.S.	1
⑥ 604-10.05	CONCRETE	S.F.	600
⑦ 604-10.17	NON-PENETRATING CONCRETE SEAL	S.Y.	3,330
⑥ 604-10.30	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)	S.Y.	60
⑥ 604-10.50	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB)	S.Y.	60
⑥ 604-10.54	CONCRETE REPAIRS	S.F.	100
⑧ 610-11.02	PLASTIC PIPE DRAINS (6")	L.F.	770
⑧ 610-11.03	PLASTIC PIPE DRAINS (8")	L.F.	25
⑨ 617-02	BRIDGE DECK CRACK SEALING	L.F.	1,500
⑩ 617-05	SEALANT (HMWM)	GAL.	20

FOOTNOTES:

- ① THE COST OF REMOVING IN-ACTIVE UTILITIES AND OTHER MISCELLANEOUS ITEMS WITHIN THE BRIDGE LIMITS SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 202-04.01.
- ② INCLUDES ALL NECESSARY TEMPORARY SUPPORT OF THE STRUCTURE DURING THE DURATION OF THIS PROJECT. ALSO INCLUDES FORM WORK OVER TRAFFIC TO STOP DEBRIS FROM FALLING ONTO 11th AVENUE AND CSX RAILROAD TRACKS. BRACING PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- ③ INCLUDES COST OF INSTALLATION OF ELEVEN (11) PLATES TO CROSS BRACING, 55 - 3/4" DIAMETER ASTM BOLTS WITH NUTS & WASHERS, LABOR AND OTHER MATERIALS REQUIRED AS SHOWN ACCORDING TO DETAILS ON DRAWING NO. BR-79-74.
- ④ INCLUDES CLEANING AND PAINTING OF ALL STRUCTURAL STEEL IN SPANS NO. 1 THRU NO. 16. (APPROXIMATE WEIGHT OF STEEL TO BE PAINTED = 1,931,000 lbs.)
- ⑤ INCLUDES HAND TOOL CLEANING, PAINTING AND ALL OTHER MATERIALS TO CLEAN AND PAINT DESIGNATED AREAS IN SPANS NO. 17 AND 18.
- ⑥ THIS ITEM SHALL BE BID ON THE CONTINGENCY THAT IT MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.
- ⑦ FOR LIMITS OF NON-PENETRATING SEAL, SEE NOTES AND DETAILS ON DRAWING NO. BR-79-74. INCLUDES PRESSURE WASHING AND APPLYING NON-PENETRATING SEAL FOR FULL LENGTH OF SIDEWALK (BOTH SIDES).
- ⑧ INCLUDES SCHEDULE 40 PIPE, REDUCING SLEEVES, CLEAN OUT PLUGS, PAINTING PIPES, LABOR AND ALL OTHER INCIDENTALS REQUIRED FOR COMPLETE IN PLACE INSTALLATION OF BRIDGE DECK DRAIN LINES AS SHOWN ON BR-79-75 AND EXISTING DRAWINGS B-13-172 AND B-13-173. ALSO INCLUDES COST OF CLEANING OUT UNDERGROUND DRAINAGE PIPES THAT RUN ALONG EACH SIDE OF STRUCTURE. PIPE SHALL BE CLEANED AS TO ENSURE PROPER DRAINAGE FROM BRIDGE DECK DRAINS.
- ⑨ INCLUDES ALL COST FOR INSTALLING THE BRIDGE DECK CRACK SEALER (HMWM) INCLUDING CRACK PREPARATION, CLEANING, LABOR AND ALL MISCELLANEOUS MATERIALS REQUIRED TO SEAL THE LONGITUDINAL AND TRANSVERSE CONSTRUCTION JOINTS ACCORDING TO SPECIAL PROVISION 604CR AND MANUFACTURER'S SPECIFICATIONS. THIS ITEM DOES NOT INCLUDE THE COST OF FURNISHING THE BRIDGE SEALANT ITSELF.
- ⑩ INCLUDES ALL COST FOR FURNISHING THE SEALANT (HMWM) FOR SEALING CRACKS. THE SEALANT (HMWM) SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 604CR.

PROJECT NO.	YEAR	SHEET NO.	
19019-4222-04	2006	2	
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ESTIMATED BRIDGE QUANTITIES
STATE ROUTE 1 (BROADWAY) OVER
CSX RAILROAD AND 11th AVE.
BRIDGE NO. 19-SRI-17.29
DAVIDSON COUNTY
2006

DESIGNED BY Terry Mackle DATE Dec. 2005
 DRAWN BY Don Kimber DATE Dec. 2005
 SUPERVISED BY T. Mackle & T. Christanson DATE Dec. 2005
 CHECKED BY Terry Mackle & Brian Egli DATE Dec. 2005

BR-79-71

SCANNED

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (MARCH 1, 1995 EDITION)

DESIGN SPECIFICATIONS: AASHTO 2002 EDITION WITH ADDENDA.

LOADING: HS20-44

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

CONCRETE: TO BE CLASS "A" CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

BRIDGE DECK CONCRETE: SHALL BE HIGH EARLY STRENGTH CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AS NOTED ON SHEET BR-79-75.

NO PNEUMATIC CONCRETE ALLOWED.

18 HOUR CONCRETE NOTE: FOR AREAS REQUIRING EIGHTEEN (18) HOUR CONCRETE, THE FOLLOWING SHALL APPLY: HIGH EARLY STRENGTH CONCRETE SHALL BE HIGH EARLY STRENGTH CONCRETE (UNLESS OTHERWISE NOTED) WITH A COMPRESSIVE STRENGTH OF 3,000 PSI AT 18 HOURS. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT THE PROPOSED CONCRETE MIX SHALL OBTAIN 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. NO LOAD SHALL BE PERMITTED ON ANY OF THE REPAIR AREAS UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 PSI MINIMUM AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF 18 HOURS.

CONCRETE CURING: ALL CONCRETE IN REPAIR AREAS SHALL BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS.

QUICK-SET PATCHING MATERIALS: QUICK-SET PATCHING MATERIALS SHALL BE A POLYMER MODIFIED CEMENTITIOUS PATCHING MATERIAL. SEE TDOT PRODUCT LIST 13, SUB-LIST F, FOR ACCEPTABLE PATCHING MATERIALS.

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 SLAB REMOVAL EXCEPT OVER BEAMS, THE MAXIMUM HAMMER SIZE IS 90 POUND CLASS. FOR PARTIAL DEPTH OF CONCRETE SLAB REMOVAL AND ANY WORK OVER BEAMS, 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.

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

SHOP DRAWINGS: SHALL BE SUBMITTED ACCORDING TO SPECIAL PROVISION NO. 105A. SHOP DRAWINGS SHALL BE SUBMITTED TO THE BRIDGE REPAIR OFFICE OF THE DIVISION OF STRUCTURES.

CRACK SEALING WITH METHACRYLATE: APPLY HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) CRACK SEAL IN TRANSVERSE AND LONGITUDINAL CONSTRUCTION JOINTS. SEALER SHALL BE APPLIED AFTER ALL CONCRETE HAS BEEN IN PLACE A MINIMUM OF TEN (10) DAYS.

FALSE WORK OVER TRAFFIC: SEE SECTION 604.06 OF THE STANDARD SPECIFICATIONS.

NOTE TO CONTRACTOR: THE CONTRACTOR SHALL PROVIDE 100% CONVENTIONAL FALL PROTECTION FOR WORKERS INSTALLING DECKING ABOVE 15 FEET.

CONCRETE SEALER: CONCRETE SEALER SHALL BE APPLIED TO SUBSTRUCTURES COINCIDING WITH EXPANSION JOINT LOCATIONS BEFORE PLACEMENT OF BEARING DEVICES AND APPLYING TEXTURE COATING. CONCRETE SEALER SHALL BE APPLIED TO THE FRONT VERTICAL FACE OF THE ABUTMENT BACKWALL, AND THE FRONT AND TOP OF THE ABUTMENT BEAM. CONCRETE SEALER SHALL BE APPLIED TO THE TOP AND VERTICAL SURFACES OF THE BENT OR PIER CAP. CONCRETE SHALL BE CLEAN AND DRY BEFORE APPLYING THE CONCRETE SEAL, AND THE THICKNESS OF THE SEAL SHALL BE AS RECOMMENDED BY THE SEALANT MANUFACTURER. ACCEPTABLE CONCRETE SEALERS ARE INCLUDED IN THE QUALIFIED PRODUCTS LIST FOR NON-PENETRATING CONCRETE SEALS MAINTAINED BY THE DIVISION OF MATERIALS AND TESTS. THE SEALER SHALL BE CLEAR OR SIMILAR TO THE COLOR OF EXISTING CONCRETE SURFACES TO BE SEALED. THE COST OF THE SEALER, COMPLETE AND IN PLACE, SHALL BE INCLUDED IN THE UNIT PRICE OF THE EXPANSION DEVICE AT EACH SUBSTRUCTURE.

STEEL STRUCTURES: SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 602 AND NOTES ON THIS SHEET.

NOTE TO CONTRACTOR: THE CONTRACTOR SHALL SAW CUT 1 INCH DEEP INTO THE SLAB BEFORE REMOVING CONCRETE. ALL TRANSVERSE REINFORCING STEEL SHALL REMAIN IN PLACE AND BE SPLICED WITH THE NEW REINFORCING. THE CONTRACTOR SHALL NOT USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM) OR OTHER SIMILAR HEAVY EQUIPMENT FOR CONCRETE REMOVAL. THE MAXIMUM ALLOWABLE HAMMER SIZE IS THE 60 POUND CLASS.

DESIGNED BY Terry Mackie DATE DECEMBER, 2005
 DRAWN BY Cory Hawkins DATE DECEMBER, 2005
 SUPERVISED BY Brian Egli & Tommy Christianson DATE DECEMBER, 2005
 CHECKED BY Terry Mackie & Brian Egli DATE JANUARY, 2006

PAINING RESTRICTIONS AND REQUIREMENTS

CONTRACTOR SHALL SUBMIT A PLAN OF OPERATION THAT WILL BE APPROVED BY T.D.O.T. AND THE TENNESSEAN.

TENNESSEAN CONTACTS:
 TOM GREGORY / 615-642-2194
 BONNIE HARTLE / 615-566-2710
 AL FREEMAN / 615-642-2192

THE PAINT INSPECTION WILL BE DONE BY A THIRD PARTY APPROVED BY T.D.O.T.

PAINING OVER THE TENNESSEAN'S ACTIVE TRAVELWAY IN SPAN NO. 17, WILL BE RESTRICTED TO SUNDAY, BETWEEN THE HOURS OF 6:00AM TO 4:00PM.

SIX DAYS PRIOR NOTICE SHALL BE GIVEN TO THE TENNESSEAN AND T.D.O.T. SO DRIP PANS AND OTHER MATERIALS CAN BE REMOVED BEFORE PAINTING OPERATIONS CAN BEGIN.

WORKER AND PUBLIC SAFETY: THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS IN T.D.O.T. SPECIFICATIONS. BLOOD LEVELS FOR TENNESSEAN WORKER'S SHALL BE MONITORED PRE AND POST PAINTING OPERATIONS TO ENSURE SAFE LEVELS HAVE BEEN MAINTAINED AND ADEQUATE CONTAINMENT AND CLEAN UP HAS BEEN ACHIEVED.

THE REQUIRED RECOAT TIME IS 24 HOURS OR BASED ON MANUFACTURER'S SUGGESTED RECOMMENDATION, WHICHEVER IS LONGER.

THE CONTRACTOR SHALL USE CONTAINMENT SCREENS OR OTHER MEASURES AS NECESSARY TO PREVENT ANY TEXTURE COATING OR PAINT OVERSPRAY FROM ENTERING THE ENVIRONMENT. ANY DAMAGE FROM PAINTING/TEXTURE COATING OVERSPRAY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. CONTAINMENT MEASURES SHALL BE APPROVED BY THE ENGINEER AND COST SHALL BE INCLUDED IN ITEM NO. 603-05.20, L.S.

THE CONTRACTOR SHALL MAINTAIN TRAFFIC FLOW IN SPAN NO. 13 INTO TENNESSEAN PARKING AREA AT ALL TIMES.

CLEANING AND PAINTING OF EXISTING STRUCTURAL STEEL

SPAN NO. 1 THRU 16: ALL STRUCTURAL STEEL SHALL BE BLAST CLEANED AND PAINTED. BLAST CLEANING SHALL BE IN ACCORDANCE WITH TENNESSEE STANDARD SPECIFICATION 603.05 (2B). PAINT SHALL BE SYSTEM 'A', INORGANIC ZINC PAINT SYSTEM AS STATED IN STANDARD SPECIFICATION 603.06 (A). COLOR OF THE URETHANE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD NO. 595A. ALL STEEL ELEMENTS TO BE PAINTED LIGHT TAN (20460). SEE SECTIONS 603 AND 910 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. ALL NEW STEEL SHALL RECEIVE A SHOP ZINC PRIMER.

SPAN NO. 17 AND 18 (SURFACE PREPARATION):

1) A HAND OR POWER CLEANING TOOL, IN ACCORDANCE WITH SUB SECTION 603.05 (A), SHALL BE APPLIED TO ALL AREAS THAT HAVE VISIBLE RUST OR EXPOSED STEEL. THE ENGINEER SHALL DESIGNATE ALL AREAS THAT ARE TO RECEIVE THE HAND OR POWER CLEANING TOOL. CLEANING SHALL BE DONE TO THE COMPLETE SATISFACTION OF THE ENGINEER

2) ALL CHALK, LOOSE COATINGS AND OTHER CONTAMINANTS SHALL BE REMOVED WITH A HIGH PRESSURE WATER WASH IN ACCORDANCE WITH SUB SECTION 603.05 (C) OR APPROVED EQUAL. NO DAMAGE TO TENNESSEAN STORED MATERIAL SHALL BE ALLOWED. ANY DAMAGE WILL BE AT THE CONTRACTOR'S EXPENSE.

ALL AREAS OF EXPOSED STEEL SHALL BE SPOT PRIMED IMMEDIATELY AFTER CLEANING.

SPAN NO. 17 AND 18 (PAINTING SYSTEM):

PAINT SHALL BE SYSTEM C IN ACCORDANCE WITH SUB SECTION 603.06. COLOR OF THE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD NO. 595A, 24110 (BRIGHT GREEN). SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.

THE UNIVERSAL PRIMER SHALL BE: AMERON AMERLOCK 400; CARBOLINE RUST BOND 8HB; OR DEVOE BAR-OX P-50; OR APPROVED EQUAL.

ALL PRODUCTS USED IN THE COATING SYSTEM, INCLUDING THINNERS, MUST BE SUPPLIED BY THE SAME MANUFACTURER.

CONTAINMENT AND DISPOSAL OF EXISTING PAINT SYSTEM: ACCORDING TO OUR RECORDS THE EXISTING PAINT SYSTEM CONTAINS LEAD SILICO CHROMATE PAINT, WHICH HAS BEEN DESIGNATED AS A HAZARDOUS MATERIAL. THE CONTRACTOR SHALL CONTAIN AND DISPOSE OF ALL PAINT REMOVAL WASTE IN ACCORDANCE WITH THE TENNESSEE STANDARD SPECIFICATION 603.13.

WORKER PROTECTION: OUR MAINTENANCE RECORDS INDICATE THAT THE EXISTING STEEL ON THIS BRIDGE WERE ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND OR CHROMATES AND THE CONTRACTOR SHALL BE REQUIRED TO PROCEED ACCORDINGLY TO MAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY THE STATE AND FEDERAL LAW FOR WORKER PROTECTION AND HAZARDOUS MATERIAL DISPOSAL.

PROJECT NO.	YEAR	SHEET NO.	
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NO.	DATE	BY	BRIEF DESCRIPTION

GENERAL NOTES-RAILROAD

THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE CSX RAILROAD'S TRACKS AND PROPERTIES FROM ANY DAMAGE. THE WORK SHALL BE DONE IN ACCORDANCE WITH REGULATIONS AND/OR RULES STIPULATED BY THE CSX RAILROAD SO AS TO MAINTAIN CLEARANCES AND NOT INTERRUPT TRAIN TRAFFIC IN ANY MANNER.

AT LEAST 30 DAYS BEFORE BEGINNING HIS WORK THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DETAILED AND COMPREHENSIVE PLAN AND PROCEDURE FOR REVIEW AND APPROVAL BY THE CSX RAILROAD'S CONSULTANT ENGINEER AT THE FOLLOWING ADDRESS AND FOR THE FOLLOWING TASKS IN THE RAILROAD'S RIGHTS-OF-WAY:

RAILROAD'S CONSULTANT ENGINEER:

URS CORPORATION
 ATTN: LARRY SHAW
 47 SOUTH MERIDIAN
 SUITE 312
 INDIANAPOLIS, IN, 46204

TASKS IN HWY SPANS OVER R/R R.O.W.:

(A) PARTIAL AND FULL DEPTH DEMOLITION AND REPAIR OF EXISTING HIGHWAY BRIDGE CONCRETE SIDEWALK SECTIONS.

(B) APPLY NON-PENETRATING SEAL TO SIDEWALK AND RAILS.

FOR FULL AND PARTIAL DEPTH DEMOLITION OF EXISTING CONCRETE BRIDGE SIDEWALK SECTIONS, THE CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO PREVENT DEBRIS FROM FALLING ON TO THE RAILROAD'S RIGHT-OF-WAY. THIS SHALL BE ACCOMPLISHED BY THE USE OF BASKETS, NETTING, WRAPPING, SHIELD, OR SIMILARLY EFFECTIVE MEANS THAT WILL NOT INFRINGE ON THE VERTICAL CONSTRUCTION CLEARANCES STATED IN THE RAILROAD'S RULES & SPECIFICATIONS FOR HIGHWAY CONSTRUCTION ACTIVITIES ON OR OVER ITS RIGHT-OF-WAY, WHICH RULES & SPECIFICATIONS ARE INCLUDED IN THE STATE CONTRACT PROPOSAL BOOKLET UNDER ITEM 720 RAILROAD.

THE CONTRACTOR IS ADVISED THAT THE CSX RAILROAD WILL NOT ALLOW ITS TRACK OR TRACKS TO BE OBSTRUCTED WITH AT-GRADE CRANE MAT PROTECTION. COMPLETE AND FULL ENCLOSURE OF BRIDGE STRUCTURE SIDEWALK DEMOLITION WITHIN ALLOWABLE CLEARANCES WILL BE REQUIRED. COST OF REMOVING AND DISPOSING OF DEBRIS SHALL BE INCLUDED IN ITEMS BID ON.

NO SCAFFOLDING OR TEMPORARY FRAMEWORK WILL BE ALLOWED THAT INFRINGE ON THE RAILROAD'S CONSTRUCTION CLEARANCES WITHOUT THE PRESENCE AND PERMISSION OF AN AUTHORIZED RAILROAD FLAGGER. IT IS ANTICIPATED THAT FULL-TIME RAILROAD FLAGGING SERVICE WILL BE REQUIRED FOR ALL ASPECTS OF FULL AND PARTIAL DEPTH CONCRETE BRIDGE SIDEWALK DEMOLITION AND REPAIRS ON S.R. 1 HIGHWAY SPANS DIRECTLY OVER THE RAILROAD'S TRACK AND ADJACENT BENT NO.'S 9, 10, 11, 12, 14 & 15.

IT IS ANTICIPATED THAT FULL-TIME RAILROAD FLAGGING SERVICE WILL BE REQUIRED FOR ALL ASPECTS OF HIGHWAY BRIDGE STRUCTURE DEMOLITION AND DECK REPLACEMENT OPERATIONS OVER THE RAILROAD AND CONCRETE SPALL REPAIRS ON BENTS ADJACENT TO THE RAILROAD AND FOR ANY EXPANSION JOINT REPAIRS AND/OR REPLACEMENT IN HIGHWAY SPANS DIRECTLY OVER THE RAILROAD'S TRACK(S). THE CONTRACTOR SHALL DIRECTLY REQUEST AND/OR COORDINATE FLAGGING SERVICE WITH THE RAILROAD. IN ADDITION THE CONTRACTOR SHALL DIRECTLY REIMBURSE THE RAILROAD FOR ALL FLAGGING SERVICE DETERMINED NECESSARY BY THE CONTRACTOR. COST OF FLAGGING SERVICE TO BE INCLUDED IN THE COST OF BID ITEMS IN ACCORDANCE WITH FLAGGING SERVICE COSTS LISTED IN THE SPECIAL PROVISION 105C WHICH IS A PART OF THE STATE CONTRACT PROPOSAL BOOKLET.

CONTRACTOR SHALL FURNISH DEMOLITION PLANS TO THE C.S.X. RAILROAD FOR ALL DEMOLITION AFFECTING THE RAILROAD RIGHT-OF-WAY.

FULL CONTAINMENT OF PAINTING OPERATION SHALL BE MAINTAINED TO PROTECT RAILROAD BALLAST FROM SAND RESIDUE AND ANY LEAD CONTAMINATION FROM THE OLD PAINT.



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BRIDGE GENERAL NOTES
 STATE ROUTE 1 (BROADWAY) OVER
 C.S.X RAILROAD & 11TH AVE.
 BRIDGE NO. 19-SR1-17.29
 DAVIDSON COUNTY

2006

BR-79-72

SCANNED

UTILITY NOTES

THE LOCATION OF UTILITIES SHOWN WITHIN THE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC. AT 1-800-351-1111.

UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OF ITS REPRESENTATIVE. THE CONTRACTOR AND THE UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT.

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 THE UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING ALL AFFECTED UTILITIES PRIOR TO SUBMITTING HIS BID IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF THE WORK FOR THE PROJECT. SOME UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS, WHILE SOME WORK MAY BE REQUIRED "AROUND" UTILITY FACILITIES THAT REMAIN IN PLACE, IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR WILL RECEIVE NO ADDITIONAL COMPENSATION FOR ANY DELAYS OR INCONVENIENCES CAUSED BY THE UTILITY ADJUSTMENTS.

THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITY. PRIOR TO COMMENCING THE WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.

SPECIAL NOTES

SPECIAL NOTE FOR UTILITIES: IT IS INTENDED THAT THE COST OF MATERIALS AND LABOR NECESSARY FOR THE COMPLETE INSTALLATION OF UTILITIES SHOULD BE BORNE BY OTHERS AND SHALL NOT BE PAID FOR AS PART OF THIS CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH OTHERS IN THE INSTALLATION OF UTILITIES WITH NO ADDITIONAL COMPENSATION ALLOWED THE CONTRACTOR.

DAMAGE TO EXISTING STRUCTURES TO BE LEFT IN PLACE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

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

CONCRETE STRENGTH AND CURE TIME NOTES

THE NEW BRIDGE DECK SHALL OBTAIN A COMPRESSIVE STRENGTH OF 3500 PSI AND A TIME OF TEN (10) DAYS MUST EXPIRE AFTER CONCRETE PLACEMENT BEFORE AND LOADING TAKES PLACE ON THE NEW CONCRETE DECKS. LOADING IS DEFINED AS ANY CONSTRUCTION VEHICLE AS WELL AS ANY GENERAL TRAFFIC.

THE NEW CONCRETE FOR THE PARAPET, MEDIAN BARRIER AND PAVEMENT AT BRIDGE ENDS SHALL OBTAIN A COMPRESSIVE STRENGTH OF 3000 PSI AND A TIME OF THREE (3) DAYS MUST EXPIRE AFTER CONCRETE PLACEMENT BEFORE TRAFFIC IS ALLOWED ADJACENT TO OR ON THESE STRUCTURAL ELEMENTS.

THE NEW CONCRETE FOR THE ABUTMENT SHALL OBTAIN A COMPRESSIVE STRENGTH OF 3000 PSI AND BE IN-PLACE THREE DAYS BEFORE ANY LOADING.

THE NEW CONCRETE FOR THE EXPANSION JOINT HEADERS SHALL OBTAIN A COMPRESSIVE STRENGTH OF 3000 PSI IN 18 HOURS. NO LOADS SHALL BE PERMITTED PRIOR TO CONCRETE REACHING THIS STRENGTH.

FOR AREAS REQUIRING EIGHTEEN (18) HOUR CONCRETE, THE FOLLOWING SHALL APPLY: HIGH EARLY STRENGTH CONCRETE: SHALL BE HIGH EARLY STRENGTH CONCRETE (UNLESS OTHERWISE NOTED) WITH A COMPRESSIVE STRENGTH OF 3,000 PSI AT 18 HOURS. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT THE PROPOSED CONCRETE MIX SHALL OBTAIN 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. NO LOAD SHALL BE PERMITTED ON ANY OF THE REPAIR AREAS UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 PSI MINIMUM AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF 18 HOURS.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION

- 1) SEE ROADWAY TRAFFIC CONTROL SHEETS FOR OTHER RESTRICTIONS
- 2) SEE SPECIAL PROVISION 108B FOR TRAFFIC CONTROL RESTRICTIONS AND PROJECT COMPLETION REQUIREMENTS.

STATE ROUTE 1 (BROADWAY)

- 1) THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SHIELDING MATERIALS TO PROTECT MOTORIST FROM DEBRIS AND/OR OTHER MATERIALS THAT MAY BE A HAZARD OR PRODUCE HAZARDOUS CONDITIONS TO THE PUBLIC. COST TO BE INCLUDED UNDER ITEM NO. 604-10.05.
- 2) THE CONTRACTOR SHALL NOT BE ALLOWED TO INTERRUPT TRAFFIC FLOW AND SHALL MAINTAIN ALL LANES OF TRAFFIC IN EACH DIRECTION ON THE FOLLOWING DAYS:
 - A) OFFICAL STATE HOLIDAYS
 - B) FRIDAY AFTERNOON UNTIL TUESDAY MORNING, IF A STATE HOLIDAY OCCURS OR IS OBSERVED ON MONDAY.
 - C) THURSDAY AFTERNOON UNTIL MONDAY MORNING, IF A STATE HOLIDAY OCCURS OR IS OBSERVED ON FRIDAY.
 - D) DAY OF TITAN HOME FOOTBALL GAMES.
- 3) LANE CLOSURES ON STATE ROUTE 1 SHALL BE ALLOWED ON WEEKNIGHTS AND WEEKENDS ACCORDING TO TRAFFIC CONTROL DETAILS ON SHEET NO. 4. TWO (2) LANES MUST BE MAINTAINED. WEEKNIGHT HOURS SHALL BE FROM 7:00 PM TO 5:00 AM AND WEEKENDS SHALL BE DEFINED AS FRIDAY 7:00 PM TO MONDAY 5:00 AM. TDOT WILL APPROVE ALL LANE CLOSURES. TDOT RESERVES THE RIGHT TO CHANGE ANY LANE CLOSURE AT ANY TIME.
- 4) NO TRAFFIC SHALL BE ALLOWED UNDER CONSTRUCTION ACTIVITIES.
- 5) ALL LANE CLOSURES MUST BE APPROVED BY T.D.O.T.

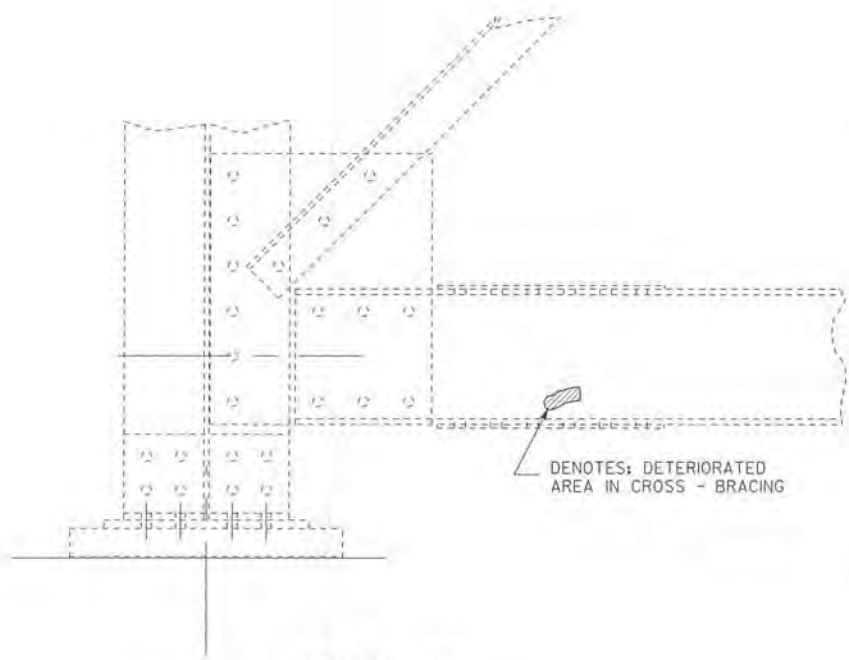
PROJECT NO.	YEAR	SHEET NO.	
19019-4222-04	2006	28	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE GENERAL NOTES
STATE ROUTE 1 (BROADWAY) OVER
C.S.X RAILROAD & 11TH AVE.
BRIDGE NO. 19-SR1-17.29
DAVIDSON COUNTY
2006

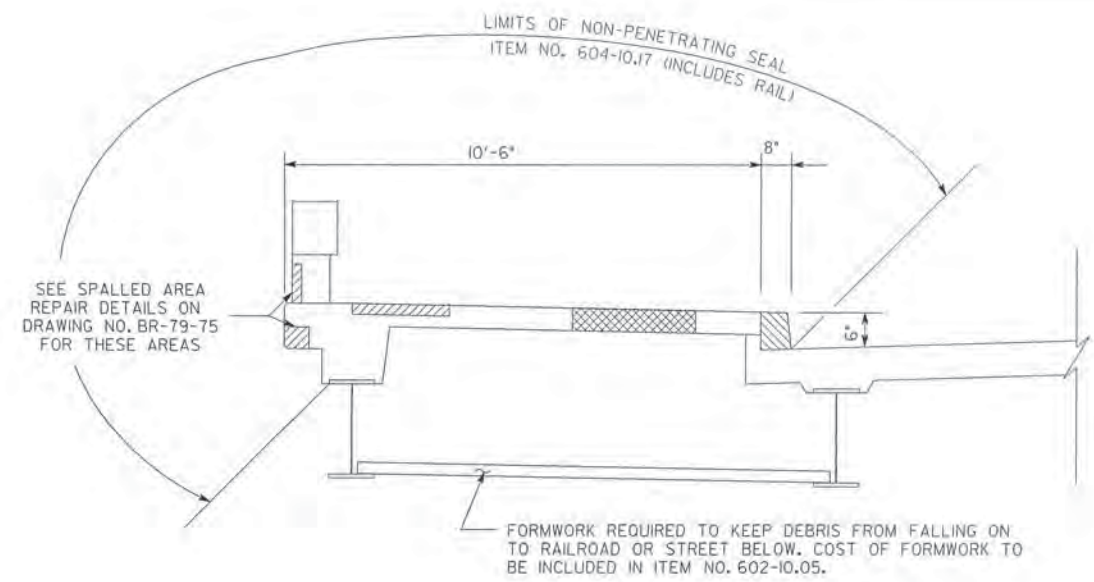
DESIGNED BY Terry Mackie DATE DECEMBER, 2005
DRAWN BY Cory Hawkins DATE DECEMBER, 2005
SUPERVISED BY Brian Egl & Tammy Christenson DATE DECEMBER, 2005
CHECKED BY Terry Mackie & Brian Egl DATE JANUARY, 2006

PROJECT NO.	YEAR	SHEET NO.	
1909-4222-04	2006		
REVISIONS			
NO.	DATE	BY	REVISION DESCRIPTION



DETAIL 'A'
(SHOWING EXISTING TO BE REPAIRED)

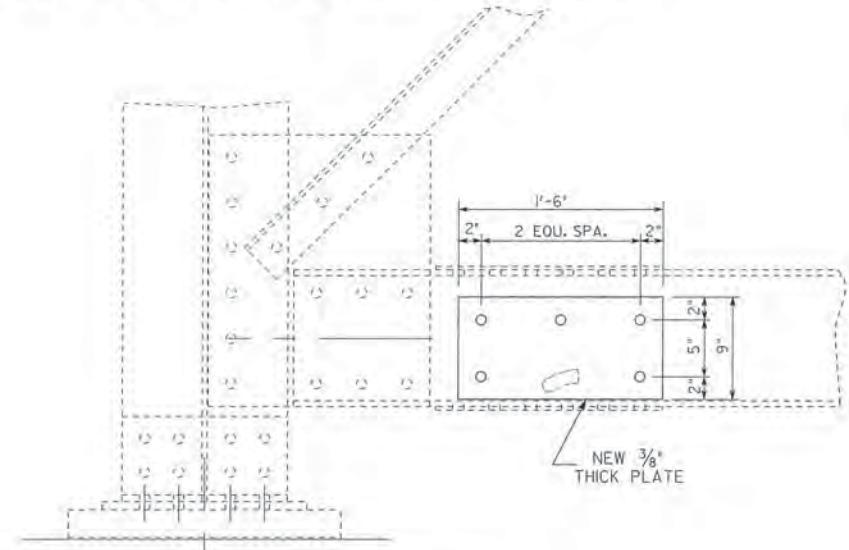
NOTE: FOR STEEL REPAIR LOCATIONS, SEE LAYOUT DRAWING NO. BR-79-70.
 NOTE: ALL AREAS SHALL BE DRILLED, BLASTED AND PAINTED BEFORE PLATES CAN BE BOLTED TO CHANNEL WEB.
 NOTE: COST OF INSTALLATION OF (11) PLATES TO CROSS BRACING, 55 - 3/4" DIAMETER ASTM BOLTS WITH WASHERS, LABOR AND OTHER MATERIALS REQUIRED AS SHOWN SHALL BE INCLUDED IN ITEM NO. 602-10.06, STRUCTURAL STEEL, LB.



PARTIAL SECTION

DENOTES: PARTIAL DEPTH DECK REPAIR ITEM NO. 604-10.50. EXPOSED SURFACE SHALL HAVE THE EXPOSED PEA-GRAVEL AGGREGATE APPEARANCE.
 DENOTES: FULL DEPTH DECK REPAIR ITEM NO. 604-10.30. EXPOSED SURFACE SHALL HAVE THE EXPOSED PEA-GRAVEL AGGREGATE APPEARANCE.

DENOTES: CURB REPAIR NEEDED AND SHALL BE INCLUDED IN ITEM NO. 604-10.05, CONCRETE, S.F. QUANTITY SHALL BE CALCULATED BY MULTIPLYING THE VERTICAL DIMENSION BY THE LENGTH ALONG THE CURB. THE FULL WIDTH OF THE CURB MAY NEED TO BE REPLACED WITH NO ADDITIONAL COMPENSATION. ALL REPAIRS SHALL HAVE THE EXPOSED PEA-GRAVEL AGGREGATE APPEARANCE. ALL EXISTING CURB REPAIR AREAS THAT DOESN'T HAVE THE EXPOSED PEA-GRAVEL AGGREGATE APPEARANCE SHALL BE REMOVED AND REPLACED.
 NOTE: FOR NOTES AND DETAILS OF FULL AND PARTIAL REPAIRS SEE DRAWING NO. BR-79-75.
 NOTE: FOR NOTES AND DETAIL OF SPALLED AREAS, SEE DRAWING NO. BR-79-75.



DETAIL 'A'
(SHOWING PROPOSED REPAIR)

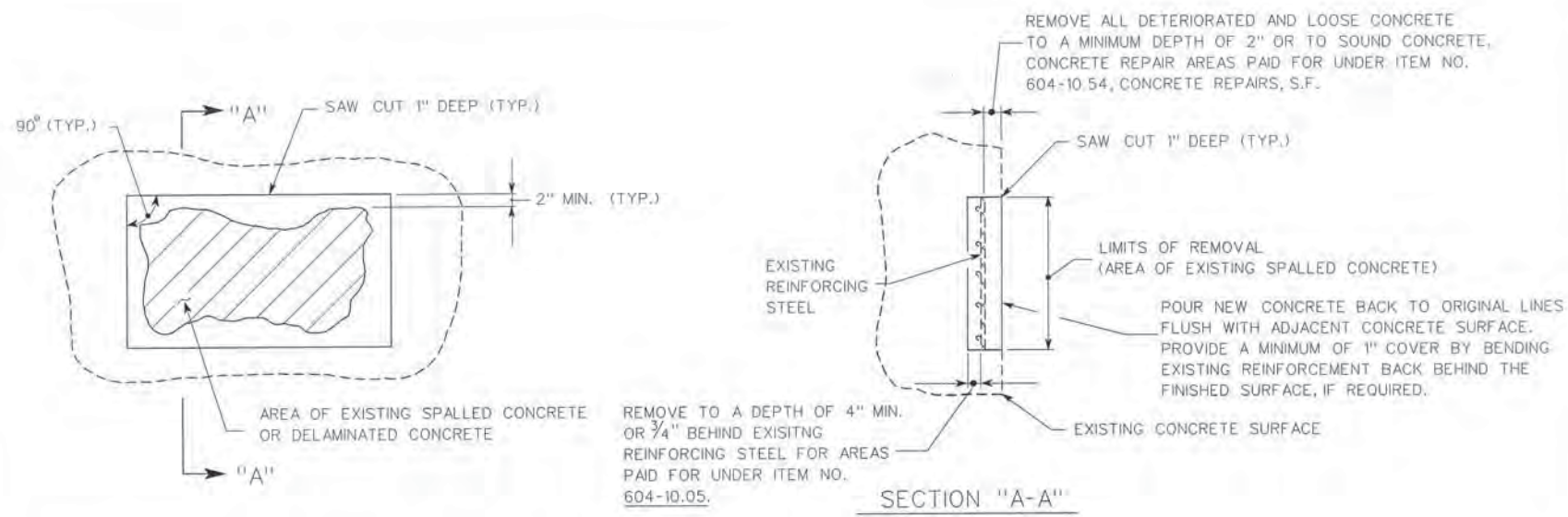
DESIGNED BY Terry Mockle DATE Jan. 2006
 DRAWN BY Don Kimber DATE Jan. 2006
 SUPERVISED BY I. Mockle & I. Christensen DATE Jan. 2006
 CHECKED BY Terry Mockle & Brian Egli DATE Jan. 2006



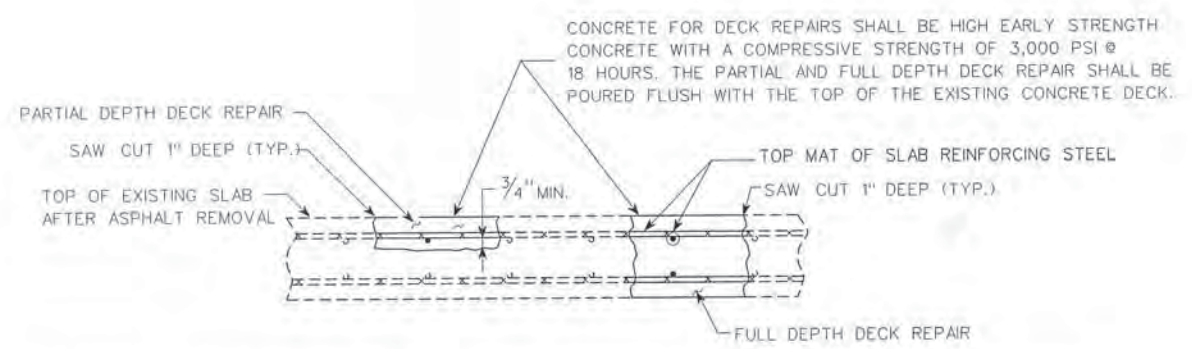
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BRIDGE REPAIR DETAILS
 STATE ROUTE 1 (BROADWAY) OVER
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 BRIDGE NO. 19-SRI-17.29
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DETAILS OF SPALLED CONCRETE SURFACE REMOVAL AND REPAIR



DETAIL SHOWING FULL AND PARTIAL DEPTH DECK REPAIR

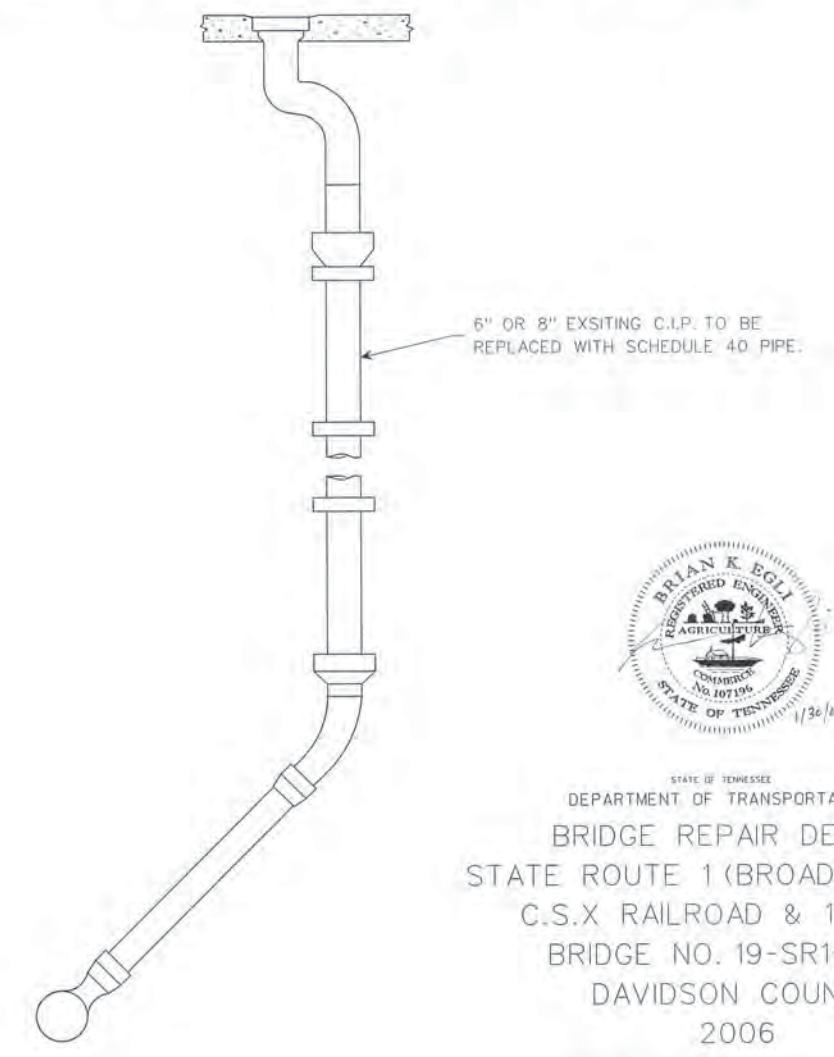
NOTES:

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 THE HEADQUARTERS, BRIDGE INSPECTION AND REPAIR OFFICE. 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 PARTIAL AND FULL 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 NOMINAL 90 POUND CLASS SHALL NOT BE USED. ALSO ALL DECK REPAIR OVER BEAMS WILL BE RESTRICTED TO 60 POUND PNEUMATIC HAMMERS. 3) CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL. 4) TRAFFIC CONTROL SHALL BE PROVIDED OVER ANY ROADWAY WHEN PARTIAL DEPTH OR FULL DEPTH REPAIR IS BEING DONE.

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.

NOTES:

- 1) REMOVE EXISTING CAST PIPE AND CAST REDUCING SLEEVES ABOVE GROUND AND REPLACE WITH SCHEDULE 40 PIPE, REDUCING SLEEVES, AND CLEAN OUT PLUGS RESPECTIVELY, IDENTICAL IN SIZE AND CONFORMING TO EXISTING CONFIGURATION.
- 2) CONTRACTOR MAY USE EXISTING ANCHORS FOR CLAMPS AND PIPE SUPPORTS. IF CONTRACTOR CHOOSES NOT TO USE THESE ANCHORS, THEN THE ANCHORS MUST BE REMOVED.
- 3) DETAILS ON THIS SHEET ARE RE-DRAWN FROM THE EXISTING PLANS.
- 4) BRIDGE DRAINAGE ELEMENTS ABOVE REDUCING SLEEVE OR SCHEDULE 40 PIPE TO BE BLAST-CLEANED AND PAINTED.
- 5) COST OF REMOVAL OF DRAINAGE PIPE SECTIONS SHALL BE INCLUDED IN ITEM NUMBER 202-04.01.
- 6) COST OF REMOVING DEBRIS PROHIBITING DRAINAGE THROUGH EXISTING GRATES AND REDUCING SLEEVES, AND REMOVING DEBRIS FROM BELOW GROUND 18" C.I.P. TO ALLOW DRAINAGE SHALL BE INCLUDED IN ITEM NUMBER 610-11.02 & 610-11.03.
- 7) COST OF SCHEDULE 40 PIPE, REDUCING SLEEVES, CLEAN OUT PLUGS, PAINTING PIPES, LABOR AND ADDITIONAL MATERIALS REQUIRED TO REPLACE DRAIN PIPES SHALL BE INCLUDED IN ITEM NUMBER 610-11.02 & 610-11.03.
- 8) FOR EXISTING DRAINAGE PLAN AND DETAILS, SEE DRAWING NO. B-13-172 & 173.
- 9) NEW PIPES SHALL BE PAINTED TO MATCH THE NEW PAINT OF THE STRUCTURAL STEEL.
- 10) CLEAN OUT PLUGS SHALL BE PLACED AT GROUND LEVEL FOR EACH BRIDGE DECK DRAIN LINE.



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DESIGNED BY	Terry Mackie	DATE	DECEMBER, 2005
DRAWN BY	Cory Hawkins	DATE	DECEMBER, 2005
SUPERVISED BY	Brian Egli & Torrey Christianson	DATE	DECEMBER, 2005
CHECKED BY	Terry Mackie & Brian Egli	DATE	JANUARY, 2006

SCANNED