

BRIDGE PAY ITEM NOTES

BR1 PAYMENT TO THE CONTRACTOR WILL BE BASED ON PLAN QUANTITIES.

B1 THE APPROACH SLABS CONTAIN AN ESTIMATED TOTAL OF 174.4 C.Y. OF CLASS AA CONCRETE AND 33,320 LB. OF EPOXY COATED REINFORCING STEEL. INCLUDE ALL COSTS FOR CONSTRUCTING THE APPROACH SLABS, INCLUDING CONCRETE, REINFORCING STEEL, BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "APPROACH SLAB".

B2 INCLUDE ALL COSTS FOR CONSTRUCTING THE CONCRETE PARAPET, INCLUDING CONCRETE, REINFORCING STEEL, PREFORMED EXPANSION MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "CONCRETE PARAPET".

SUMMARY OF CONCRETE PARAPET QUANTITIES

ITEM	CLASS AA CONCRETE	EPOXY COATED REINFORCING STEEL
UNIT	C.Y.	LB.
1-A	16.6	3,010
2-A	19.1	3,850
3-A	11.8	1,530
1-B	5.7	2,680
2-B	2.2	540
3-B	4.7	1,030
1-C	7.4	2,240
2-C	2.8	590
3-C	6.1	1,350
TOTAL	76.4	16,820

B3 CLEAN AND PAINT EXTERIOR BEAMS USING THE CATEGORY "N" PAINT SYSTEM IN ACCORDANCE WITH SECTION 512 OF THE SPECIFICATIONS. ONLY THE FIRST COAT OR PRIME COAT WILL BE REQUIRED AT SURFACES TO BE IN CONTACT WITH THE NEW DECK SLAB, AND THE COATING MUST MEET OSHA SLIP REQUIREMENTS. THE COLOR OF THE TOPCOAT SHALL MATCH THE COLOR OF THE PAINT ON THE EXISTING BRIDGE. INCLUDE ALL COSTS, INCLUDING ALL CLEANING, PAINTING, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "STRUCTURAL STEEL".

B4 PROVIDE AND INSTALL WEATHERING STEEL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS DETAILED IN THE PLANS. THE FIXED BEARING ASSEMBLIES CONTAIN AN ESTIMATED TOTAL OF 2,270 LB. OF STRUCTURAL STEEL. INCLUDE ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE ELASTOMERIC PADS, ANCHOR PLATES, CONTACT ANGLES, ANCHOR BOLTS, NUTS AND WASHERS, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "WEATHERING STEEL FIXED BEARING ASSEMBLIES".

B5 PROVIDE AND INSTALL WEATHERING STEEL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS DETAILED IN THE PLANS. THE EXPANSION BEARING ASSEMBLIES CONTAIN AN ESTIMATED TOTAL OF 4,510 LB. OF STRUCTURAL STEEL. INCLUDE ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE ELASTOMERIC PADS, ANCHOR PLATES, CONTACT ANGLES, ANCHOR BOLTS, NUTS AND WASHERS, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "WEATHERING STEEL EXPANSION BEARING ASSEMBLIES".

B6 ITEM "(PL) SPECIAL CONCRETE FINISH" CONSISTS OF CLEANING AND FINISHING ALL EXPOSED SUBSTRUCTURE CONCRETE SURFACES TO GIVE A UNIFORM APPEARANCE AFTER ALL REPAIRS. CLEAN SURFACES BY SANDBLASTING FOLLOWED WITH A FILTERED AIR BLAST. FINISH TO COMPLY WITH SECTION 737 OF THE SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER. INCLUDE ALL COSTS ASSOCIATED WITH CLEANING AND FINISHING CONCRETE SURFACES, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "(PL) SPECIAL CONCRETE FINISH".

B7 REPAIR AREAS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER. LOCATIONS AND EXTENTS ARE APPROXIMATE AND NOT LIMITED TO THE AREAS SHOWN. THE ACTUAL LOCATIONS AND EXTENTS OF REPAIRS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

UNFOUND CONCRETE IN THE PIER AND ABUTMENTS OF THE EXISTING BRIDGE SHALL BE REPAIRED AS DESCRIBED HERE. PRIOR TO REMOVING ANY AREAS OF UNSOUND CONCRETE, A SAW OR CHIPPING TOOL SHALL BE USED TO CUT THE PERIMETER OF THE AREA TO A DEPTH OF 1/2 INCH. THE CUTS SHALL BE MADE APPROXIMATELY PERPENDICULAR TO THE EXISTING SURFACE AND PARALLEL TO THE LINES OF THE STRUCTURE. ALL UNSOUND CONCRETE SHALL BE REMOVED WITHIN THE CUT PERIMETER. AFTER REMOVAL OF ALL UNSOUND CONCRETE, THE NEWLY EXPOSED CONCRETE SURFACE SHALL BE SAND-BLASTED OR WATER-BLASTED TO REMOVE ALL CONCRETE RESIDUE AND LOOSE PARTICLES, AND ALL EXPOSED REINFORCING STEEL SHALL BE SAND-BLASTED TO REMOVE RUST. THE SURFACE SHALL BE KEPT WET FOR AT LEAST ONE (1) HOUR BUT ALLOWED TO DRY BEFORE PROCEEDING WITH THE REPAIRS. REPORT ANY DETERIORATED REINFORCING WITH A SECTION LOSS GREATER THAN 50% AS DETERMINED BY THE ENGINEER TO THE BRIDGE ENGINEER FOR REMEDIAL ACTION.

BRIDGE PAY ITEM NOTES (CONT.)

ALL CONCRETE REMOVALS SHALL BE ACCOMPLISHED WITH HAND TOOLS OR POWER-DRIVEN HAND TOOLS. NO VEHICLE MOUNTED TOOLS OR EQUIPMENT WILL BE ALLOWED TO MAKE ANY REMOVALS. ALL TOOLS USED TO MAKE THE REMOVALS SHALL SATISFY SECTION 513.03.C OF THE STANDARD SPECIFICATIONS. ALL JACK HAMMER TOOLS SHALL BE OPERATED AT ANGLES NO GREATER THAN 45° FROM THE REPAIR SURFACES. THE USE OF ANY TOOL THAT RESULTS IN EXCESSIVE REMOVAL OF OR DAMAGE TO THE SOUND CONCRETE AS DETERMINED BY THE ENGINEER WILL NOT BE ALLOWED. A LIST OF ALL TOOLS THAT WILL BE USED TO MAKE CONCRETE REMOVALS ON THE PROJECT AND A DESCRIPTION OF HOW THE TOOL WILL BE USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. NO TOOL SHALL BE USED ON THE PROJECT TO MAKE CONCRETE REMOVALS UNTIL IT HAS BEEN APPROVED BY THE ENGINEER. ALL BLASTING EQUIPMENT SHALL BE HAND-HELD AND SATISFY SECTION 513.03.A OF THE STANDARD SPECIFICATIONS.

ALL MATERIALS REMOVED FROM THE EXISTING BRIDGE, INCLUDING EXISTING CONCRETE AND REINFORCING STEEL, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. ALL MATERIALS REMOVED FROM THE EXISTING BRIDGE SHALL BE PREVENTED FROM ENTERING ANY ROAD, STREET, SIDEWALK OR PEDESTRIAN PATHWAY BELOW THE BRIDGE.

THE REMOVED CONCRETE SHALL BE REPLACED WITH ONE OF THE FOLLOWING MATERIALS AS SPECIFIED IN SECTION 701 OF THE STANDARD SPECIFICATIONS:

1. HIGH DENSITY CONCRETE (HDC)
2. LATEX MODIFIED CONCRETE (LMC)
3. VERY EARLY STRENGTH TYPE I CONCRETE (VES I)
4. VERY EARLY STRENGTH TYPE III CONCRETE (VES III)
5. RAPID SETTING LATEX MODIFIED CONCRETE (RSLMC)

THE CONCRETE TEMPERATURE SHALL NOT EXCEED 85°F. COLD WEATHER PRACTICES SHALL BE IMPLEMENTED UNDER ANY OF THE FOLLOWING CONDITIONS:

THE AIR TEMPERATURE WAS LESS THAN 55°F WITHIN 24 HOURS BEFORE PLACEMENT OF CONCRETE, OR THE SUBSTRATE TEMPERATURE WAS LESS THAN 55°F DURING PLACEMENT OF CONCRETE, OR THE AIR TEMPERATURE WILL BE LESS THAN 55°F WITHIN 6 HOURS AFTER PLACEMENT OF CONCRETE.

COLD WEATHER PRACTICES SHALL BE AS FOLLOWS:

MAINTAIN A CONCRETE MIX TEMPERATURE OF 75°F DURING PLACEMENT, AND ENSURE THE AIR TEMPERATURE IS RISING DURING PLACEMENT, AND COMPLETE PLACEMENT DURING THE WARMEST PART OF THE DAY.

AIR TEMPERATURES SHALL BE GREATER THAN 45°F WHEN PLACING EARLY STRENGTH CONCRETE.

ALTERNATIVELY, THE REMOVED CONCRETE MAY BE REPLACED WITH ONE OF THE FOLLOWING COMMERCIALY AVAILABLE SHOTCRETE PRODUCTS USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS APPROVED BY THE ENGINEER:

6. QUIKRETE SHOTCRETE MS WITH POLYPROPYLENE FIBERS
7. SIKACEM 103F
8. SIKACEM 133
9. SIKACRETE 211 SCC PLUS
10. BASF MASTEREMACO S 210SP
11. BASF MASTEREMACO S 211SP
12. PROSPEC SHOTCRETE 300V
13. EUCOSHOT F

THE NEW CONCRETE SHALL BE PLACED TO THE ORIGINAL NEAT LINES OF THE STRUCTURAL COMPONENT UNDER REPAIR AND FINISHED TO PROVIDE A SURFACE TEXTURE MATCHING THAT OF THE ADJACENT EXISTING CONCRETE.

SUBMIT A PROPOSED WORK PLAN FOR THE CHOSEN REPAIR METHOD. THE WORK PLAN SHALL INCLUDE SURFACE PREPARATION METHODS, PATCHING MATERIAL, BONDING AGENTS, MATERIAL PLACING METHODS, AND FINISHING METHODS. REPAIR A TEST AREA TO VERIFY THE EFFECTIVENESS OF THE PROPOSED REPAIR METHOD PRIOR TO COMMENCING WORK. FAULTY REPAIRS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. INCLUDE ALL COSTS OF THE REPAIRS, INCLUDING PATCHING MATERIAL, SUPPLEMENTAL REINFORCING, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "PNEUMATICALLY PLACED MORTAR".

B8 PREPARE SURFACE AND INSTALL HIGH MOLECULAR WEIGHT METHACRYLATE SEALER FOR DECK SLAB CONSTRUCTION JOINTS AT LOCATIONS SHOWN IN THE PLANS IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE COSTS FOR LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "(SP) SEALER CRACK PREPARATION".

B9 PROVIDE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER FOR DECK SLAB CONSTRUCTION JOINTS AT LOCATIONS SHOWN IN THE PLANS IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COSTS OF THE SEALER RESIN MATERIAL IN THE CONTRACT UNIT PRICE OF "(SP) SEALER RESIN". SEALER RESIN QUANTITY ESTIMATED AT 0.011 GALLONS PER FOOT OF CONSTRUCTION JOINT.

B10 PREPARE SURFACE AND ENCASE REPAIRED AREAS WITH CARBON FIBER-REINFORCED POLYMER COMPOSITE WRAP AT LOCATIONS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER. INCLUDE ALL COSTS FOR MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "(SP) CARBON FIBER-REINFORCED POLYMER".

BRIDGE PAY ITEM NOTES (CONT.)

B11 APPLY CIM1000, OR APPROVED EQUAL, TO THE ABUTMENTS AS DIRECTED IN THE PLANS. INCLUDE ALL COSTS FOR MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT PRICE BID FOR "(PL)INSTALLATION OF BRIDGE ITEMS (TYPE A)".

B12 APPLY CIM1000, OR APPROVED EQUAL, TO THE PIER AS DIRECTED IN THE PLANS. INCLUDE ALL COSTS FOR MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT PRICE BID FOR "(PL)INSTALLATION OF BRIDGE ITEMS (TYPE B)".

B13 ITEM "REMOVAL OF BRIDGE ITEMS" INCLUDES REMOVAL AND DISPOSAL OF EXISTING SUPERSTRUCTURE, APPROACH SLABS, PIER CAP, AND PORTIONS OF THE ABUTMENT AND RETAINING WALLS, IN ACCORDANCE WITH SUBSECTION 619.04(B)-2 OF THE SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER. THE EXISTING STEEL BRIDGE RAILS AND BEARINGS WILL BE SALVAGED FOR REUSE AND BECOME PROPERTY OF ODOT. THE CONTRACTOR WILL REMOVE EXISTING STEEL BEARINGS AND RAILS TAKING CARE TO NOT DAMAGE THE BEARINGS AND RAILS. REMOVED STEEL BRIDGE RAILS AND BEARINGS WILL BE DELIVERED TO THE ODOT DIVISION 8 MAINTENANCE YARD. THE REMAINING STRUCTURE AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. INCLUDE ALL COSTS FOR LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "REMOVAL OF BRIDGE ITEMS".

J.P. NO. 28868(04) 0200 BRIDGE A			
4TH STREET OVER I-444 NBI NO. 18055 74' - 74' CONT. R GIRDER SPANS, 49' CLR. RDWY, 0' SKEW, WITH CONCRETE PARAPETS, C STA. 15+20.88			
ITEM NO.	ITEM	UNIT	TOTAL
501(G) 6309	CLSM BACKFILL	C.Y.	170
504(A) 1304	APPROACH SLAB	BR1,B1 S.Y.	482.9
504(B) 1305	SAW-CUT GROOVING	BR1 S.Y.	1,178
504(C) 6250	SEALED EXPANSION JOINT	BR1 L.F.	125.2
504(E) 1381	CONCRETE PARAPET	BR1,B2 L.F.	662.0
506(A) 1322	STRUCTURAL STEEL	BR1,B3 LB.	208,740
507(A) 6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	BR1,B4 EA.	8
507(B) 6176	WEATHERING STEEL EXPANSION BEARING ASSEMBLY	BR1,B5 EA.	16
509 6152	SPECIAL CONCRETE FINISH	BR1,B6 S.Y.	362
509(A) 1326	CLASS AA CONCRETE	BR1 C.Y.	318.8
509(B) 1328	CLASS A CONCRETE	C.Y.	40.7
511 6306	MECHANICAL SPLICES	BR1 EA.	12
511(B) 6010	EPOXY COATED REINFORCING STEEL	BR1 LB.	83,990
515(A) 6013	WATER REPELLENT (VISUALLY INSPECTED)	BR1 S.Y.	1,202
521(A) 6210	PNEUMATICALLY PLACED MORTAR	B7 S.Y.	99.5
523(A) 6550	SEALER CRACK PREPARATION	BR1,B8 L.F.	151
523(B) 6560	SEALER RESIN	BR1,B9 GAL.	2
524(A) 6610	(SP) CARBON FIBER-REINFORCED POLYMER	B10 S.F.	146.6
535 6130	(SP) CORROSION INHIBITOR (SURFACE APPLIED)	S.Y.	16.3
542 4610	(PL) INSTALLATION OF BRIDGE ITEMS (TYPE A)	B11 LSUM.	1
542 4620	(PL) INSTALLATION OF BRIDGE ITEMS (TYPE B)	B12 LSUM.	1
619(B) 2500	REMOVAL OF BRIDGE ITEMS	B13 LSUM.	1

STAKING AND MOBILIZATION FOR THIS PROJECT WILL BE INCLUDED IN THE BID PRICE ON THE MANDATORY TIED PROJECT, STATE JOB NO. 28865(04).

MANDATORILY TIED PROJECTS

THE FOLLOWING FOUR (4) PROJECTS ARE MANDATORILY TIED. THE PROJECTS INCLUDE THIS PROJECT AND ARE IDENTIFIED BY STATE JOB NO. AS FOLLOWS:

1. STATE JOB NO. 28865(04), BRIDGE REHABILITATION - 2ND STREET OVER I-444 AND 2ND STREET W-N RAMP, TULSA COUNTY.
2. STATE JOB NO. 28868(04), BRIDGE REHABILITATION - 4TH STREET OVER I-444, TULSA COUNTY
3. STATE JOB NO. 28879(04), BRIDGE REHABILITATION - US 75 RAMP NORTH TO WEST OVER I-444 SOUTHBOUND, TULSA COUNTY.
4. STATE JOB NO. 28880(04), BRIDGE REHABILITATION - US 75 RAMP NORTH TO EAST OVER 2ND STREET, TULSA COUNTY.

DESIGN	B.J.K.	4TH OVER I-444 TULSA COUNTY
DRAWN	J.F.R.	
CHECKED	J.W.H.	
APPROV.	T.A.C.	
SQUAD	CEC	
		BRIDGE PAY ITEMS AND NOTES
		JOB PIECE NO. 28868(04) SHEET NO. 4