BRIDGE GENERAL NOTES:

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISION.

PILE DRIVING EQUIPMENT
USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE REQUIRED ULTIMATE PILE CAPACITY WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESSES IN ACCORDANCE WITH SECTION 514.03a(2) OF THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ABUTMENT PILING CAPACITY
THE MAXIMUM FACTORED PILE LOAD FOR EACH HP12x53 PILE IS 67.6 TONS.

THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

AXIAL LOAD RESISTANCE = ϕ [(0.875 $\sqrt{E}$ LOG$_{10}$ {10N})−50]

WHERE:

ϕ = RESISTANCE FACTOR OF 0.4
E = ENERGY PRODUCED BY THE HAMMER PER BLOW IN FOOT−POUNDS.
FOR GRAVITY AND SINGLE ACTING DIESEL HAMMERS, THE VALUE IS BASED ON THE ACTUAL RAM STROKE OBSERVED IN THE FIELD AND MEASURED IN FEET MULTIPLIED BY THE RAM WEIGHT IN POUNDS.
N = AVERAGE NUMBER OF HAMMER BLOWS PER INCH OF PILE PENETRATION FOR THE LAST 10 TO 20 BLOWS DELIVERED TO THE PILE HEAD.

THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:
THE PILE DRIVING HAMMER HAS A FREE FALL (GRAVITY & SINGLE ACTING HAMMERS ONLY).
THE HEAD OF THE PILE IS NOT BROOMED, CRUSHED, OR OTHERWISE DAMAGED.
THE PENETRATION IS QUICK AND UNIFORM.
THERE IS NO APPRECIABLE REBOUND OF THE HAMMER, AND A FOLLOWER IS NOT USED.

THE NUMBER OF BLOWS PER INCH OF PILE PENETRATION MAY BE MEASURED EITHER DURING INITIAL DRIVING OR BY RE−DRIVING WITH A WARM HAMMER OPERATED AT FULL ENERGY AFTER A PILE SET PERIOD, AS DETERMINED BY THE ENGINEER.

IF WATER JETS ARE USED IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN AFTER THE JETS HAVE BEEN WITHDRAWN.

CONCRETE:
CONCRETE RAIL ON THIS BRIDGE IS MEASURED FROM END TO END OF ABUTMENT WINGS FOR PAY PURPOSES.

BEFORE ANY BEAM IS ERECTED, THE ENGINEER WILL CHECK ALL BEARING ELEVATIONS. ANY ELEVATION WHICH IS OFF MORE THAN 0.02 FEET SHALL BE CORRECTED IN A MANNER APPROVED BY THE ENGINEER.

BEAMS SHALL NOT BE ERECTED ON ABUTMENTS OR PIERS UNTIL CONCRETE HAS BEEN IN PLACE AT LEAST 7 DAYS AND HAS REACHED AT LEAST 80 PERCENT OF ITS REQUIRED 28 DAY COMPRESSIVE STRENGTH.

VENT HOLES:
PROVIDE 2" DIAMETER VENT HOLES IN THE DECK, ONE HOLE BETWEEN EACH BEAM LINE NEAR THE CENTER OF EACH SPAN.

BRIDGE PAY QUANTITY NOTES:

(BR−1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.

(1) PROVIDE AND INSTALL FIXED AND EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. THERE IS AN ESTIMATED TOTAL OF XXX POUNDS OF STRUCTURAL STEEL FOR EACH BEARING ASSEMBLY. PROVIDE STRUCTURAL STEEL IN ACCORDANCE WITH AASHTO M270(ASTM A709), GRADE 50W(WEATHERING STEEL), CHARPY V−NOTCH TESTING NOT REQUIRED. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE FIXED AND EXPANSION BEARING ASSEMBLIES AS SHOWN IN THE PLANS INCLUDING ELASTOMERIC PADS, ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "WEATHERING STEEL FIXED/EXPANSION BEARING ASSEMBLY".

(2) PIPE UNDER DRAIN QUANTITIES ESTIMATED ONLY. LOCATION, IF AND WHERE REQUIRED, TO BE DETERMINED BY THE ENGINEER.

(3) THE ITEM "REMOVAL OF EXIST. BRIDGE STR." CONSISTS OF REMOVAL AND DISPOSAL OF THE EXISTING 36'−95'−73' I−BEAM SPAN AT ℄ STA. 130+25.52. THE CONTRACTOR SHALL SALVAGE ALL STRUCTURAL STEEL AND PLACE NEATLY ON RIGHT OF WAY TO BECOME THE PROPERTY OF AND REMOVED BY THE COUNTY. THE CONTRACTOR SHALL COORDINATE WITH COUNTY TO PICK UP STRUCTURAL STEEL DURING THE REMOVAL PROCESS. CARE SHALL BE TAKEN BY THE CONTRACTOR TO NOT DAMAGE THE STRUCTURAL STEEL DURING THE REMOVAL PROCESS. REMOVE AND DISPOSE OF ALL REMAINING MATERIALS IN ACCORDANCE WITH SECTION 619.04(b)2 OF THE SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

30107(04)

PAY QUANTITIES

0200 BRIDGE "A" 50' TYPE II PCB SPANS, SK30 RF, 26'-0" CL. RDY, TR3-2

ITEM NO.		DESCRIPTION		UNIT	QUANT.
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON	(BR-1)	C.Y.	190.00
501(F)	6352	GRANULAR BACKFILL	(BR-1)	C.Y.	76.00
503(A)	1313	PRESTRESSED CONCRETE BEAMS (TYPE IV)	(BR-1)	L.F.	149.00
504(B)	1305	SAW-CUT GROOVING	(BR-1)	S.Y.	132.20
504(D)	6239	CONCRETE RAIL TR3	(BR-1)	L.F.	168.10
506(A)	1322	STRUCTURAL STEEL	(BR-1)	LB.	580.00
507(A)	6172	WEATHERING STEEL FIXED BEARING ASSEMBLIES	(1)	EA.	3.00
507(B)	6176	WEATHERING STEEL EXPANSION BEARING ASSEMBLIES	(1)	EA.	3.00
509(A)	1326	CLASS AA CONCRETE	(BR-1)	C.Y.	43.60
509(B)	1328	CLASS A CONCRETE	(BR-1)	C.Y.	68.00
511(A)	1332	REINFORCING STEEL	(BR-1)	LB.	22,350.00
514(A)	6010	PILES, FURNISHED (HP 10X42)		L.F.	232.00
514(A)	6011	PILES, FURNISHED (HP 12X53)		L.F.	556.00
514(B)	6292	PILES, DRIVEN (HP 10X42)		L.F.	232.00
514(B)	6294	PILES, DRIVEN (HP 12X53)		L.F.	556.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA.	1.00
601(B)	1353	TYPE I-A PLAIN RIPRAP		TON	774.00
601(C)	1355	TYPE I-A FILTER BLANKET		TON	200.00
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)	L.F.	60.00
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	(2)	L.F.	80.00
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	(3)	LSUM	1.00

McCLAIN COUNTY TRIB. OF BEAR CREEK

SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE)

J/P NO. 30107(04) SHEET NO. 5