

GENERAL CONSTRUCTION NOTES (BRIDGE)

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION ENGLISH VERSION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

THE BRIDGE SITE WILL BE CLOSED TO ALL PUBLIC TRAFFIC DURING CONSTRUCTION, ACCESS WILL BE OPEN TO LOCAL TRAFFIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TRAFFIC CONTROL. ALL SIGNS, BARRICADES, LIGHTS, AND OTHER TRAFFIC CONTROL DEVICES AND MEASURES, ETC. SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION AS REVISED, AS SHOWN ON THE TCS STANDARDS AND ON DETAIL SHEETS. ALL CONSTRUCTION SIGNS WITH (10) SQUARE FEET OR MORE WILL BE DOUBLE POSTED.

ABUTMENT PILING CAPACITY:

THE MAXIMUM FACTORED PILE LOAD FOR EACH HP 12X53 PILE IS 67.6 TONS. ALL PILE SHALL BE AASHTO M270 GRADE 50.

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

$$\text{AXIAL LOAD RESISTANCE} = \phi [(0.875\sqrt{E \text{ LOG}10(10N)}) - 50] \text{ (TONS)}$$

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 VALVE 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IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN ONLY AFTER THE JETS HAVE BEEN WITHDRAWN.

THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE COUNTY, CED #8, AND ODOT DIV 6 FOURTEEN (14) CALENDAR DAYS BEFORE ANY CONSTRUCTION OR DEMOLITION BEGINS ON THIS PROJECT.

PAY ITEM NOTES

(F-50) INCLUDES COST OF 4 TYPE 1 CODE 3 DELINEATORS (AMBER COLOR).

(R-51) INCLUDES 50.00 L.F. OF 48' RADIUS BEND.

(1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, "PLAN QUANTITIES" SECTION 109.01(B).

(2) SHALL INCLUDE ALL TRAFFIC CONTROL DEVICES NECESSARY TO REGULATE TRAFFIC DURING CONSTRUCTION. THIS ITEM SHALL BE PAID FOR AS LUMP SUM DUE TO THE MINOR EXTENT OF CONSTRUCTION FOR THIS PROJECT. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH TCS STANDARDS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

(3) TO BE USED IN PLACE OF GRANULAR BACKFILL ON STD. CB26..32-C-SK30-ABUT-MISC. INCLUDES 10 C.Y. TO EXTEND CLSM TO THE TOP OF SUBGRADE.

ENVIRONMENTAL MITIGATION NOTES

PROPERTIES ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES (NRHP) HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA. THE STATE HISTORIC PRESERVATION OFFICE (SHPO)'S APPROVAL IS BASED ON THE PROJECT AS CURRENTLY PROPOSED. IF THERE ARE ANY CHANGES TO THE PROJECT PLANS, FURTHER COORDINATION WITH THE SHPO WILL BE REQUIRED THROUGH THE ENVIRONMENTAL PROGRAMS DIVISION PRIOR TO THE BID SOLICITATION PROCESS OR FIELD CHANGES DURING CONSTRUCTION.

IN ORDER TO AVOID IMPACTS TO THE EXISTING BRIDGE (NBI NO. 07307) ON EW-52, THE FOLLOWING MUST BE DONE.

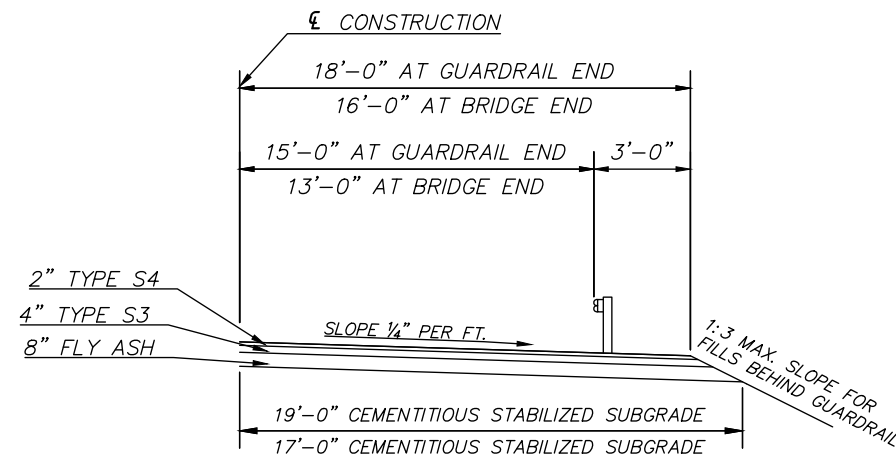
1. THE BRIDGE SHALL NOT BE REMOVED.
2. PRECAUTIONS SHALL BE TAKEN NOT TO DAMAGE THE BRIDGE.
3. THE BRIDGE SHALL NOT BE USED FOR STAGING OR OPERATION OF CONSTRUCTION EQUIPMENT.

GUARDRAIL SCHEDULE

SHEET	STATION TO STATION	ANCHOR UNITS		TOTAL LENGTH OF RAIL
		TYPE A EA.	TYPE D-BF EA.	L.F.
5	100+66.36 TO 101+66.36 RT.	1.00	1.00	100.00
5	100+51.75 TO 101+51.75 LT.	1.00	1.00	100.00
5	103+48.25 TO 104+48.25 RT.	1.00	1.00	100.00
* 5	103+33.64 TO 104+25.69 LT.	1.00	1.00	100.00
SHEET TOTALS		4.00	4.00	400.00

*50' OF GUARDRAIL TO BE CURVED TO A RADIUS OF 48'.

PAY QUANTITIES				
200 BRIDGE PCB 50'-50'-50' SPAN TYPE II, CONVENTIONAL ABUTMENTS, 30' SKEW, 26'-0" CL. RDY, TR3 RAILS				
ITEM		DESCRIPTION	UNIT	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON	(1) C.Y.	190.00
501(G)	6309	CLSM BACKFILL	(1)(3) C.Y.	86.00
503(A)	1311	PRESTRESSED CONCRETE BEAMS (TYPE II)	(1) L.F.	447.00
504(B)	1305	SAW-CUT GROOVING	(1) S.Y.	371.00
504(C)	6250	SEALED EXPANSION JOINT	(1) L.F.	66.12
504(D)	6239	CONCRETE RAIL (TR3)	(1) L.F.	368.20
506(A)	1322	STRUCTURAL STEEL	(1) LB.	960.00
507(A)	6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.	9.00
507(B)	6176	WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.	9.00
509(A)	1326	CLASS AA CONCRETE	(1) C.Y.	120.10
509(B)	1328	CLASS A CONCRETE	(1) C.Y.	103.60
511(A)	1332	REINFORCING STEEL	(1) LB.	51120.00
514(A)	6010	PILES, FURNISHED (HP10X42)	L.F.	138.00
514(A)	6011	PILES, FURNISHED (HP12X53)	L.F.	315.00
514(B)	6292	PILES, DRIVEN (HP10X42)	L.F.	138.00
514(B)	6294	PILES, DRIVEN (HP12X53)	L.F.	315.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	1.00
516(A)	6093	DRILLED SHAFTS 42" DIAMETER	L.F.	136.00
601(B)	1353	TYPE I-A PLAIN RIPRAP	TON	792.00
601(C)	1355	TYPE I-A FILTER BLANKET	TON	136.00
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	60.00
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.	30.00
623(F)	5686	GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA.	4.00
623(F)	6029	GUARDRAIL ANCHOR UNIT (TYPE A)	(F-50)(R-51) EA.	4.00
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL	(2) L. SUM	1.00



SHOULDER WIDENING FOR GUARDRAIL

MAJOR COUNTY SAND CREEK

SUMMARY OF PAY QUANTITIES & GENERAL NOTES (BRIDGE)