

GENERAL NOTES

SPECIFICATIONS:

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

PLANS:

CONSTRUCTION PLANS FOR THE EXISTING STRUCTURE, MAY BE OBTAINED FROM THE REPRODUCTION BRANCH OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION.

REPRODUCTION BRANCH
OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 NE 21ST STREET
OKLAHOMA CITY, OKLAHOMA 73105

ASK FOR:
U.S. WORKS PROGRAM G.C. PROJ. NO. W.P.G.M. 256-B. RDY.& OVERPASS

VERIFICATION OF EXISTING CONDITIONS:

ALL DIMENSIONS OF THE EXISTING BRIDGE COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO CONSTRUCT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH IT WILL BE PERFORMED. THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO ANY EXISTING BRIDGE STRUCTURE OR ROADWAY WHILE IN SERVICE. ANY DAMAGE TO THE BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

MAINTENANCE OF EXISTING BRIDGE:

THE CONTRACTOR SHALL MAINTAIN EXISTING BRIDGE TO THE SATISFACTION OF THE ENGINEER THROUGHOUT THE DURATION OF THE CONSTRUCTION OF BRIDGE "A", PHASE I. COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO MAINTAIN THE EXISTING BRIDGE, IN A SAFE OPERATING CONDITION, TO THE SATISFACTION OF THE ENGINEER SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

TERMS OF THE DEPARTMENT OF THE ARMY PERMIT "NWP-14":

PLACEMENT OF DREDGED OR FILL MATERIAL IN THE CREEK ASSOCIATED WITH THE PROPOSED PROJECT FALL WITHIN THE SCOPE OF THE NATIONWIDE PERMIT FOR LINEAR TRANSPORTATION CROSSING, PROVIDED THE CONDITIONS THEREIN ARE MET. THIS PERMIT WAS ISSUED PURSUANT TO SECTION 404 OF THE CLEAN WATER ACT AND IS ENCLOSED FOR YOUR REFERENCE. THE FOLLOWING SPECIAL CONDITIONS HAVE BEEN INCORPORATED INTO THIS PERMIT.

- (1) EROSION CONTROL MEASURES IMPLEMENTING BEST AVAILABLE TECHNOLOGY (AS DEFINED AND AGREE TO BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY) SHALL BE IMPLEMENTED AND MAINTAINED CONTINUOUSLY DURING CONSTRUCTION, SUCH SHALL REMAIN IN PLACE AND BE CONTINUOUSLY EFFECTIVE UNTIL SUFFICIENT VEGETATIVE COVERAGE ON EXPOSED AREAS IS REESTABLISHED.
- (2) DREDGING OF FILL WILL BE LIMITED TO PLACEMENT OF RIPRAP AND UNDERLYING GEOTEXTILES DESIGNED AND REPLACED USING BEST ENGINEERING PRACTICES.
- (3) ALL TEMPORARY STRUCTURES(S) WILL ENTIRELY BE REMOVED UPON COMPLETION OF CONSTRUCTION.
- (4) ALL DEMOLITION DEBRIS INCLUDING BUT NOT LIMITED TO ASPHALT, METAL, WOOD AND CONCRETE ARE TO BE CONTROLLED, CONTAINED, COLLECTED, REMOVED AND PROPERLY DISPOSED AND SHALL NEITHER INJURE NOR IMPINGE THE WATERWAY.

GENERAL NOTES - BRIDGE "A"

REMOVAL OF BRIDGE STRUCTURE:

ITEM "REMOVAL OF BRIDGE STRUCTURE" CONSISTS OF THE REMOVAL AND DISPOSAL OF A 70', 4-60', 4-50', 42', 2-40', 34', 3-30' I-BEAM SPANS X 24' CLEAR ROADWAY WITH SIDEWALKS AND BRIDGE UNDER STRUCTURE CENTERLINE SURVEY STATION 1551+95.00. STRUCTURE NUMBER 4206 1442X. THE EXISTING BRIDGE SHALL BE REMOVED FROM THE SITE IN LARGE PORTIONS TO MINIMIZE THE AMOUNT OF RUBBLE AND DEBRIS ENTERING COTTONWOOD CREEK. RUBBLE AND DEBRIS WHICH FALL INTO COTTONWOOD CREEK SHALL BE REMOVED. THE REMOVAL OF BRIDGE ITEMS SHALL BE IN ACCORDANCE WITH SECTION 619.04(B)2 OF THE SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

THE EXISTING BRIDGE PAINT SYSTEM DOES CONTAIN LEAD PAINT. THE BEAMS ARE TO BE SALVAGED AND BECOME THE PROPERTY OF THE COUNTY. BEAMS SHALL BE NEATLY STACKED ON THE WEST END OF THE PROJECT AND WITHIN THE LIMITS OF THE RIGHT OF WAY. THE REMAINING STRUCTURE AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

DECK HAUNCHES:

PLAN QUANTITY FOR CLASS AA INCLUDES 117.80 CUBIC YARDS FOR HAUNCHES OVER THE PRESTRESSED CONCRETE BEAMS PER PHASE.

WORK ROADS:

WORK ROADS SHALL BE CONSTRUCTED TO THE SIZE AND SPECIFICATION AS SHOWN IN THE "TYPICAL SECTION THRU WORK ROAD" ON SHEET NO. B012

STAY-IN-PLACE DECK FORMS:

STAY-IN-PLACE DECK FORMS MAY BE USED. SEE SECTION 502 OF THE STANDARD SPECIFICATIONS.

DRILLED SHAFTS:

DOUBLE-CASING METHOD OF DRILLED SHAFT CONSTRUCTION IS NOT ALLOWED ON ABUTMENT NO. 2 OR THE CORRESPONDING RETAINING WALLS. DOUBLE-CASING METHOD OF DRILLED SHAFT CONSTRUCTION IS ALLOWED ON ALL OF THE PIERS. PERMANENT CASING ON PIERS 15 AND 16 SHALL BE DESIGNED FOR RAILROAD LIVE LOAD SURCHARGE IN ADDITION TO OSHA STANDARD LOADS FOR EXCAVATION. APPLICABLE RAILROAD LIVELOAD: COOPER E80. DESIGN CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO ODOT BRIDGE DIVISION FOR REVIEW AND ACCEPTANCE PRIOR TO BEGINNING OF CONSTRUCTION.

CONCRETE CHAMFERS:

ALL EDGES OF PIER CAPS, PIER COLUMNS, AND ARCHES SHALL HAVE A 1½" CHAMFER EXCEPT PEDESTAL EDGES WHICH HAVE A ¾" CHAMFER. AT ABUTMENT NO. 1, TOP EDGE OF BRIDGE SEAT SHALL HAVE A 1½" CHAMFER. ALL OTHER EXPOSED EDGES SHALL HAVE A ¾" CHAMFER. AT ABUTMENT NO. 2, EDGES OF BRIDGE SEAT, HORIZONTAL AND VERTICAL, SHALL HAVE 1½" CHAMFERS. ALL OTHER EXPOSED EDGES, INCLUDING PEDESTALS, SHALL HAVE ¾" CHAMFERS.

GENERAL NOTES - BRIDGE "A" (CONTINUED)

CONCRETE INTERMEDIATE DIAPHRAGMS:

ONCE THE CONCRETE HAS BEEN PLACED FOR THE CONCRETE INTERMEDIATE DIAPHRAGMS, WAIT A MINIMUM OF 24 HOURS BEFORE REMOVING THE SIDE FORMS. DO NOT REMOVE THE BOTTOM FORM FOR A MINIMUM OF 3 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME CAN BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH. DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

STAINLESS STEEL FIXED BEARING ASSEMBLIES:

PROVIDE AND INSTALL STAINLESS STEEL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. FOR TYPE IV P.C. BEAMS, THERE IS AN ESTIMATED TOTAL OF 195.0 POUNDS OF STAINLESS STEEL FOR EACH STAINLESS STEEL FIXED BEARING ASSEMBLY AND FOR TYPE J BEAMS, THERE IS AN ESTIMATED TOTAL OF 225.0 POUNDS OF STAINLESS STEEL FOR EACH STAINLESS STEEL FIXED BEARING ASSEMBLY.

ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE STAINLESS STEEL FIXED BEARING ASSEMBLIES AS SHOWN INCLUDING ELASTOMERIC PADS, ANCHOR PLATE, BUILT UP PLATES, ANCHOR ANGLE PLATES, ANCHOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL FIXED BEARING ASSEMBLY".

STAINLESS STEEL EXPANSION BEARING ASSEMBLIES:

PROVIDE AND INSTALL STAINLESS STEEL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. FOR TYPE IV P.C. BEAMS, THERE IS AN ESTIMATED TOTAL OF 197.5 POUNDS OF STAINLESS STEEL FOR EACH STAINLESS STEEL EXPANSION BEARING ASSEMBLY AND FOR TYPE J BEAMS, THERE IS AN ESTIMATED TOTAL OF 225.0 POUNDS OF STAINLESS STEEL FOR EACH STAINLESS STEEL EXPANSION BEARING ASSEMBLY.

ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE STAINLESS STEEL EXPANSION BEARING ASSEMBLIES AS SHOWN INCLUDING ELASTOMERIC PADS, ANCHOR PLATE, BUILT UP ANCHOR ANGLE PLATES, ANCHOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL EXPANSION BEARING ASSEMBLY".

PILING CAPACITY:

THE FACTORED REACTION FOR EACH HP 12 X 53 PILE AT BRIDGE "A" - ABUTMENT NO. 1 IS 101.3 TONS. THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

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

- 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 AND 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 BE 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.

PILE DRIVING EQUIPMENT:

- A) 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 FACTORED PILE CAPACITY WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESSES IN ACCORDANCE WITH SECTION 514.03(A)2.
- B) MATERIAL: ALL DRIVEN PILES SHALL BE AASHTO M270 GRADE 50

MECHANICAL SPLICES AND COUPLERS:

MECHANICAL SPLICES SHALL BE USED TO CONNECT PHASE I TRANSVERSE REINFORCING STEEL TO PHASE II REINFORCING STEEL IN THE PIERS, ABUTMENTS AND MAY BE USED IN THE BRIDGE DECK AS SPECIFIED AND SHOWN IN THE PLANS. MECHANICAL SPLICES UTILIZED IN CONNECTING TRANSVERSE REINFORCING IN THE PIERS AND ABUTMENTS SHALL BE SHEAR SCREW TYPE COUPLING SLEEVES. MECHANICAL COUPLERS SHALL ALSO BE USED TO PLACE REINFORCING FOR 42" CONCRETE PARAPET ON THE BRIDGE DECK FOLLOWING PHASE II CONSTRUCTION AND MAY BE USED TO CONNECT BRIDGE DECK TRANSVERSE REINFORCING. MECHANICAL COUPLERS UTILIZED IN THE BRIDGE DECK SHALL BE THREADED BAR AND COUPLER ASSEMBLIES AS SHOWN IN THE PLANS AND SHALL DEVELOP A MINIMUM OF 125% OF THE YIELD STRENGTH OF THE REINFORCING STEEL. THREADS IN EMBEDDED COUPLERS SHALL BE PROTECTED FROM DAMAGE THROUGHOUT DURATION OF CONSTRUCTION IN ACCORDANCE TO THE MANUFACTURER'S SPECIFICATIONS. ALL MECHANICAL SPLICES AND COUPLERS, EXCEPT MATING SURFACES, SHALL BE EPOXY COATED IN ACCORDANCE WITH AASHTO M 284. SHALL SATISFY THE REQUIREMENTS OF SUBSECTION 511.04 OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND SHALL BE INSTALLED IN ACCORDANCE TO THE MANUFACTURER'S SPECIFICATIONS. MECHANICAL SPLICES USED ON THE PROJECT SHALL BE BARSPLICE PRODUCTS INC. (WWW.BARSPLICE.COM), PENTAIR FASTENING SOLUTIONS (WWW.ERICO.COM/LENTON) OR APPROVED EQUIVALENT.

LENGTHS OF REINFORCING STEEL BARS ARE ESTIMATED, THE CONTRACTOR SHALL DETERMINE FINAL LENGTHS REQUIRED BASED UPON THE MANUFACTURER'S REQUIREMENTS OF THE MECHANICAL SPLICE OR COUPLER SELECTED. ADJUSTED LENGTHS OF ANY REINFORCING TO MEET THE REQUIREMENTS OF THE MECHANICAL SPLICE SELECTED SHALL NOT BE MEASURED FOR PAYMENT.

ALL COST OF INSTALLING THE MECHANICAL SPLICES AND COUPLERS INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "EPOXY COATED REINFORCING STEEL".

GENERAL NOTES - BRIDGE "A" (CONTINUED)

REVISIONS		
REV. NO.	DESCRIPTION	DATE

FIELD OFFICE NOTE:

TO INCLUDE A WORKING WIFI HOTSPOT IN LIEU OF THE PHONE AND FAX LINE.

APPROACH SLAB:

CLASS AA CONCRETE AND EPOXY-COATED REINFORCING STEEL SHALL BE USED IN THE APPROACH SLABS. THE QUANTITY GIVEN IS BASED ON THE ACTUAL SQUARE YARDS OF THE APPROACH SLABS. THE APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED WITH RAPID CURE JOINT SEALANT. ALL COSTS OF CONCRETE, REINFORCING STEEL, RAPID CURE JOINT SEALANT, EXCAVATION, LABOR, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "APPROACH SLAB".

CONCRETE PARAPET:

CONSTRUCT THE 42" CONCRETE PARAPET TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, AS WELL AS THE FOLLOWING REQUIREMENTS.

CLASS "AA" CONCRETE:

CLASS "AA" CONCRETE SHALL BE USED IN THE CONCRETE PARAPET. ALL COSTS OF CLASS "AA" CONCRETE TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF 42" CONCRETE PARAPET.

REINFORCING STEEL:

ALL REINFORCING STEEL USED IN THE CONCRETE PARAPET SHALL BE EPOXY COATED, GRADE 60, REINFORCING. PLACE AND TIE ALL VS1, VS5, AND VS6 BARS BEFORE CONCRETE IS PLACED IN THE DECK SLAB OR APPROACH SLAB, AS APPLICABLE. THE WEIGHT OF THE VS1, VS5, AND VS6 BARS WILL BE MEASURED AND PAID FOR AS "EPOXY COATED REINFORCING STEEL." ALL OTHER REINFORCING STEEL IN THE PARAPET SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF 42" CONCRETE PARAPET.

CONCRETE PARAPET (HANDRAIL TYPE)

CONSTRUCT THE CONCRETE PARAPET (HANDRAIL TYPE) TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AS WELL AS THE FOLLOWING REQUIREMENTS:

CLASS "AA" CONCRETE:

CLASS "AA" CONCRETE SHALL BE USED IN THE CONCRETE PARAPET POSTS. ALL COSTS OF CLASS "AA" CONCRETE TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "CONCRETE PARAPET (HANDRAIL TYPE)."

REINFORCING STEEL:

ALL REINFORCING STEEL USED IN THE CONCRETE PARAPET (HANDRAIL TYPE) SHALL BE EPOXY COATED, GRADE 60, REINFORCING. PLACE AND TIE ALL P#1 BARS BEFORE CONCRETE IS PLACED IN THE DECK SLAB OR APPROACH SLAB, AS APPLICABLE. THE WEIGHT OF P#1 BARS WILL BE MEASURED AND PAID FOR AS "EPOXY COATED REINFORCING STEEL." ALL OTHER REINFORCING STEEL IN THE PARAPET SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "CONCRETE PARAPET (HANDRAIL TYPE)."

ALL COSTS OF INSTALLING THE PEDESTRIAN RAIL INCLUDING MATERIALS, FABRICATION, PAINT, LABOR AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "CONCRETE PARAPET (HANDRAIL TYPE)."

TEMPORARY RETAINING WALL:

CONTRACTOR SHALL DETERMINE EXTENTS FOR A TEMPORARY MSE OR GEOGRID RETAINING WALL AT THE ABUTMENTS BETWEEN PHASE 1 AND PHASE 2 CONSTRUCTION. REFER TO SHEETS RW01-RW09 FOR INFORMATION. THERE IS AN ESTIMATED QUANTITY OF 613.0 SQUARE YARDS. THE ACTUAL QUANTITY OF THE TEMPORARY RETAINING STRUCTURE SHALL BE DETERMINED AS PROVIDED IN THE REVIEWED AND ACCEPTED TEMPORARY DESIGN AND STRUCTURE PLAN.

INCLUDE ALL COST ASSOCIATED WITH THE MATERIALS AND LABOR FOR INSTALLATION OF THE TEMPORARY RETAINING STRUCTURE, AS WELL AS THE COSTS ASSOCIATED WITH THE ENGINEERING SERVICES NECESSARY TO DESIGN, DRAFT, INSPECT, OR CERTIFY THE TEMPORARY RETAINING STRUCTURE IN THE PRICE BID FOR "TEMPORARY RETAINING WALL." ALL DOCUMENTS, INCLUDING BUT NOT LIMITED TO, DESIGN CALCULATIONS, MATERIAL LISTS AND DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED BY THE STATE OF OKLAHOMA. DOCUMENTS SHALL BE SUBMITTED TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION BRIDGE DIVISION FOR ACCEPTANCE PRIOR TO THE BEGINNING OF WORK.

TEMPORARY MEDIAN BARRIER ON BRIDGE DECK:

AT ALL LOCATIONS WHERE TEMPORARY MEDIAN BARRIER SEPARATES TRAFFIC FROM A TERMINATING EDGE OF THE BRIDGE DECK OR THE PEDESTRIAN RAIL, THE TEMPORARY MEDIAN BARRIER SHALL BE SECURED TO THE BRIDGE DECK. ANCHORAGES AND HARDWARE INSTALLED TO SECURE THE BARRIER TO THE BRIDGE DECK SHALL BE DESIGNED TO KEEP THE BARRIER FROM LEAVING THE BRIDGE DECK UPON IMPACT WITH TRAFFIC. ANCHORAGES OR HARDWARE INSTALLED TO SECURE THE BARRIER TO THE BRIDGE DECK SHALL NOT OBSTRUCT TRAFFIC LANES IN ANY FASHION AND SHALL NOT BE HARMFUL TO HUMAN LIFE SHOULD A VEHICULAR COLLISION WITH THE BARRIER OCCUR. THE ANCHORAGES AND HARDWARE SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA. THE DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE ANCHORAGES AND HARDWARE SHALL NOT BE INSTALLED UNTIL THE CONTRACTOR HAS RECEIVED APPROVAL FROM THE ENGINEER. AS A RESULT OF INSTALLING ANCHORAGES AND HARDWARE TO SECURE THE BARRIER, ANY DAMAGE TO THE BRIDGE DECKS OR TEMPORARY MEDIAN BARRIERS INCLUDING BUT NOT LIMITED TO HOLES IN THE CONCRETE, SPALLING OF THE CONCRETE, CUT REINFORCEMENT, OR PROJECTIONS FROM THE DECKS OR BARRIERS SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER.

ALL COSTS OF ANCHORAGES, HARDWARE, MATERIALS, LABOR, EQUIPMENT, PROFESSIONAL SERVICES, REPAIRS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

BRIDGE "A" SH-33 OVER COTTONWOOD CREEK GENERAL NOTES AND SUMMARY OF PAY QUANTITIES (BRIDGE) (SHEET 1 OF 4)	LOGAN COUNTY	
	Design	GT 11/15
	Detail	MAP 11/15
	Check	TT 08/16
Squad: PEARSON Eng: HERNANDEZ		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	
JOB/PIECE NO. 21860(04)		SHEET NO. ABO1