

ADDENDUM NO. 1

Sedgwick County Project: 596-18-4180; Bridge on 93rd St. North between 119th & 135th Streets West (B513)


The items contained herein now become a part of the referenced plans and specifications. Please read the following items and acknowledge receipt of this addendum on the Proposal Page Number P-1. NOTE: THIS ADDENDUM MUST BE ACKNOWLEDGED TO CONSTITUTE A VALID BID.

SPECS:

- Replace SOP-1 to 2 with SOP-1R to 2R (updated bid items for Contractor Construction Staking and Bridge Deck Grooving)

PLANS:

- Replace Sheet 21 with 21R (added quantity for Bridge Deck Grooving)
- Replace Sheet 34 with 34R (revised quantities)

By: 
for James Weber
Director of Public Works/County Engineer

Date: October 1, 2020

SCHEDULE OF PRICES

Project: 93rd Street N Bridge over Eagle Drainage Ditch (B513)
Type of Work: R.C.S.F. Span Bridge, Grading, Seeding, Guardrail

ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Clearing and Grubbing	1	L.S.		
Removal of Existing Structures	1	L.S.		
Mobilization	1	L.S.		
Field Office	1	L.S.		
Contractor Construction Staking	1	L.S.		
Common Excavation	538	C.Y.		
Common Excavation (Contractor Furnished)	57	C.Y.		
Compaction of Earthwork (Type B)(MR-90)	476	C.Y.		
Water (Grading)(Set Price)	1	Mgal	35.00	35.00
Concrete Pavement (10" Uniform)(AE)(BR App)	81	S.Y.		
Aggregate Base (Special)(6")	87	S.Y.		
Surfacing Material (SA-X)	199	Ton		
Aggregate Base (AB-3)(6")	1,769	S.Y.		
Water (Aggregate Base)(Set Price)	1	Mgal	35.00	35.00
Guardrail, Steel Plate	150	L.F.		
Guardrail End Terminal (MGS)(MSKT)	4	Each		
Entrance Pipe (18")(RCP)	61	L.F.		
Storm Sewer (18")(RCP)	143	L.F.		
Storm Sewer (30")(RCP)	74	L.F.		
End Section (18")(RC)	5	Each		
End Section (30")(RC)	1	Each		
Headwall Structure (18")	3	Each		
Headwall Structure (30")	1	Each		
(18") Flapgate	3	Each		
(30") Flapgate	1	Each		
Class I Excavation	140	C.Y.		
Concrete (Grade 4.0)(AE)	227	C.Y.		
Reinforcing Steel (Gr. 60)	63,860	Lb		
Piles (Steel)(HP 12x53)	2,200	L.F.		
Contractor Furnished PDA	4	Each		
Bridge Deck Grooving	309	S.Y.		
Slope Protection (Riprap Stone)	520	C.Y.		
Geotextile Fabric	99	S.Y.		
Slope Drain (Stone)	73	L.F.		
Riprap (Light Stone)(18")	42	S.Y.		
Mulch Tacking Slurry	540	Lb		
Temporary Seeding	1	L.S.		
Sediment Removal (Set Price)	1	C.Y.	35.00	35.00
Temporary Berm (Set Price)	1	L.F.	1.00	1.00
Biodegradable Log (20")	125	L.F.		
Silt Fence	124	L.F.		

Water (Erosion Control)(Set Price)	1	Mgal	35.00	35.00
Seeding	1	L.S.		
Traffic Control	1	L.S.		
Object Marker (OM-3)	4	Each		
GRAND TOTAL				

In Words:

DOLLARS

Company or Firm Name

BY

TITLE

SUMMARY OF QUANTITIES								
Item Location	Class I Excavation	Concrete (Grade 4.0) (AE)	Reinforcing Steel (Grade 60)	Piles (Steel) (HP12x53)	Contractor Furnished PDA	Bridge Deck Grooving	Slope Protection (Riprap Stone)	Geotextile Fabric
	Cu. Yds.	Cu. Yds.	Lbs.	Lin. Ft.	Each	Sq. Yd.	Cu. Yds.	Sq. Yds.
Abutment No. 1	52	**	**	400	1		260	47
Pier No. 1	18	15.9	1,270	700	1		—	—
Pier No. 2	18	15.9	1,270	700	1		—	—
Abutment No. 2	52	**	**	400	1		260	52
Substr. Total	140	31.8	2,540	2,200	4		520	99
Superstr. Total	—	194.3	61,320	—		308.3	—	—
Total	140	226.1	63,860	2,200	4	308.3	520	99

** Quantities are included in the Superstructure Total Quantity.

GENERAL NOTES

PLAN SPECIFICATIONS: "KDOT Standard Specifications for Road and Bridge Construction, 2015 Edition" are referenced for bridge construction. When differences occur between plan notes and these specifications, the plan notes govern.

EMBANKMENT: Complete the embankment of the abutments as shown on the Bridge Excavation sheet prior to driving the abutment piling or commencing with the abutment footing excavation.

BRIDGE EXCAVATION: Elevation 1364.72 shall designate the Excavation Boundary Plane of Class I and Class II Excavation: Class I above the plane, Class II below the plane. See the Bridge Excavation sheet for the limits of pay excavation.

BACKFILL COMPACTION: Compact backfill at the abutments.

PILING: Use the Pile Driving Analyzer (PDA) equipment at the locations shown on the Construction Layout. Use PDA equipment and methods compliant with KDOT Special Provision. The piling shall remain in place as permanent piling. Drive the piling to the resistance value of Strength I divided by Phi or 110 Tons at the Abutments and 84 Tons at the Piers.

Drive remaining Abutment piling to a minimum elevation of 1292.22 and Pier piling to a minimum elevation of 1273.72 unless the Engineer directs otherwise based on the PDA results. Driving shall stop when in the opinion of the Engineer additional driving may damage the piling. Drive remaining piling to the Pile Driving Formula Load of:

Abutment No. 1 and 2	54.2 Tons
Pier No. 1 and 2	71.0 Tons

As a minimum drive each pile to the load and penetration, but in no case shall the pile be driven to more than 110% of Pile Driving Formula Driving Load. At any location where problems are experienced, pile damage is suspected, or the Pile Driving Formula Load occurs significantly above the design pile tip elevation, the Engineer may request that the Pile Driving Analyzer (PDA) equipment be used.

PILING SPLICE LOCATION: Integral pile splice locations and weld testing criteria for Abutments and Piers will follow the "Standard Pile Details" Sheet (BR110).

⚠ CONSTRUCTION STAKING: The performance of all necessary construction staking shall be paid for as "Contractor Construction Staking".

CORRAL RAIL: Build the corral rail after the falsework is struck.

REMOVAL OF EXISTING STRUCTURE: Removal of existing structure is included in the bid item, "Removal of Existing Structures", Lump Sum. All materials removed from the existing structure shall become the property of the Contractor. Remove this material from the site.

SLOPE PROTECTION (Riprap Stone): Place Slope Protection (Riprap Stone) (Light 18") to the limits and thicknesses shown on the plans or as directed by the Engineer.

CONCRETE: All concrete is bid as Concrete (Grade 4.0)(AE). Bevel all exposed edges of all concrete with a 3⁄4" triangular molding, except as otherwise noted on the plans. Construction joints are optional with the Contractor, but if used, place only at locations shown, or at locations approved by the Engineer.

REINFORCING STEEL: All reinforcing steel dimensions are out to out of bars unless otherwise noted. All reinforcing steel, except the spiral bars, shall conform to the requirements of ASTM A615, Grade 60. Spiral bars may meet the requirements of either ASTM A615 (Gr. 40 or 60) or AASHTO M32, and are included in the bid item "Reinforcing Steel (Gr. 60)".

DRIP LINE PROTECTION: Place a 10 foot wide mat of geotextile under the rock/rubble embankment on the berm slopes and centered on the drip lines of the slab.

CAMBER: Provide camber as shown on the Camber Diagram unless the Contractor uses either long span steel beam falsework (concrete dead load deflection greater than 1⁄4") or timber falsework with greater than 12'-0" clear span. If either case exists, submit falsework plans that show the additional required camber.

FALSEWORK PLANS: A licensed Professional Engineer shall design the falsework details. Details shall bear the seal of a licensed Professional Engineer. See KDOT Bridge Design Manual, Section 16.1 "Review and Approval of Falsework Plans", for a listing of items to be included on the falsework plan. Submit electronic plans conforming to Section 105 of the Standard Specification with details in compliance with KDOT Specifications to the Engineer for review.

FALSEWORK PLANS AND SHOP DRAWINGS: Use the U.S. Customary system of units on falsework plans and shop drawing details.

FALSEWORK INSPECTION: This project has falsework plan requirements which are considered "Category 2" by KDOT specifications. If falsework deficiencies or variations from the approved and sealed plans are found, the falsework design Engineer of Record will provide written approval of the changes. If for the convenience of the Contractor the falsework becomes "Category 1" by the use of non-typical supports: then the inspection and review requirement of "Category 1" will be fully enforced, but at no cost to the County. "Category 2" falsework inspection is not paid for directly, but is subsidiary to other bid items.

Summary of Piling	
Abutment No. 1	5 @ 80'
Pier No. 1	7 @ 100'
Pier No. 2	7 @ 100'
Abutment No. 2	5 @ 80'

FALSEWORK: Leave the falsework in place for the entire unit until 15 days after the last concrete pour for the unit or longer as directed by the Engineer.

CONCRETE PLACING SEQUENCE: The sequence of placing concrete in the slab and curbs shall be as shown, or the Contractor may submit an alternate placing sequence for review. Submit the alternate placing sequence to the Engineer at the Preconstruction Conference. Include the proposed rate of concrete placement in C.Y./h, the plant capacity, placement direction, construction joint location, a description of the equipment used in placing the concrete, proposed admixtures, and the quantity of concrete in each placing segment. Any additional cost for the Contractor's alternate plan of placing concrete, including admixtures, shall be at the Contractor's expense and shall be considered subsidiary to the bid item, "Concrete (Grade 4.0)(AE)". Approval of the Contractor's alternate sequence is required prior to placement of concrete in the deck.

CONSTRUCTION LOADS: Only foot traffic is permitted on the new sub-deck, one-course deck or any concrete overlay during the seven day curing period, keep any exposed deck wet during the 7-day curing period. See KDOT Specifications Section 710 Table 710-2.

TEMPERATURE: The design temperature for all dimensions is 60° F.

QUANTITIES: Items not listed separately in the Summary of Quantities are subsidiary to other items in the contract.

DIMENSIONS: All dimensions shown on the design plans are horizontal dimensions unless otherwise noted. Make necessary allowances for roadway grade and cross slope.

CONSTRUCTION JOINTS: The construction joints shown are optional with the Contractor. If used, place the construction joints only at locations shown or at locations approved by the Engineer.

BRIDGE DECK GROOVING: After the bridge deck has cured, transversely groove the deck in accordance with KDOT Specifications.

COUNTY	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	B513	2020	21R	55

INDEX TO BRIDGE DRAWINGS	
Sh. No.	Drawing
21	Bridge General Notes and Quantities
22	Contour Map
23	Construction Layout
24	Abutment Details
25	Pier Details
26	Typical And Longitudinal Sections
27	Slab Reinforcing Details
28	Corral Rail
29	Bill of Reinforcing Steel
30	Bridge Project Marker
	Standards
31	Standard Pile Details
32	Supports and Spacers for Reinforcing Steel
33	Bridge Excavation (LRFD)

DESIGN DATA

DESIGN SPECIFICATIONS: AASHTO Specifications, 8th Edition, 2017. Load and Resistance Factor Design

DESIGN LOADING: HL-93
Design Dead Load includes an allowance of 25 psf for a future wearing surface.

UNIT STRESSES:
Concrete (Grade 4.0)(AE): f'c = 4 k.s.i.
Reinforcing Steel (Grade 60): fy = 60 k.s.i.
Steel Piles (ASTM A572, Gr. 50): fy = 50 k.s.i.

LRFD DESIGN PILE LOAD:

Design Loading (Tons/Pile)	Strength I	Service I	Phi
Abutment	54.2	36.9	0.65
Piers	71.0	47.1	0.65

LRFR RATING FACTORS		
Design Load \ Rating Level	Inventory	Operating
HL-93 Loading	1.27	1.65
2016 Manual for Bridge Evaluation		

1 <i>Revised</i>			
SEDGWICK COUNTY PUBLIC WORKS			
STRUCTURE NO. 596-18-4180		STA. 24+56.12	
BRIDGE GENERAL NOTES AND QUANTITIES			
PROJ. NO. B513		SEDGWICK CO.	
M K E C ENGINEERING CONSULTANTS, INC.			
WICHITA, KANSAS			
DESIGNED BY:	J.T.H.	CHECKED BY:	J.T.H.
DRAWN BY:	J.D.H.	DATE: 7/29/20	SHEET 21R OF 55

COUNTY	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	B513	2020	34R	55

ROADWAY ITEMS				
Location	Side	Aggregate Base (Special) (6") (S.Y.)	Aggregate Base (AB-3) (S.Y.)	Remarks
21+50.00 to 23+96.87	C/L		797.0	
23+96.87 to 24+09.87	C/L	43.3		Approach Slab
25+02.37 to 25+15.37	C/L	43.3		Approach Slab
25+15.37 to 28+00.00	C/L		876.2	Excludes Driveway
Totals		86.6	1673.2	

CONCRETE PAVEMENT			
Location	Side	Concrete Pavement (10" Unif.) (AE) (Br. App.) (S.Y.)	Remarks
23+96.87 to 24+09.87	C/L	40.4	Approach Slab
25+02.37 to 25+15.37	C/L	40.4	Approach Slab
Totals		80.8	

REMOVAL OF EXISTING STRUCTURES*			
Location	Offset	Item	Remarks
22+49.2 to 23+22.9	Lt.	73.7 L.F. mesh and barbed wire fence and post	
23+41.9 to 24+18.0	Lt.	88.9 L.F. barbed wire fence and post	
24+87.4 to 26+14.4	Lt.	171.6 L.F. barbed wire fence and post	
24+91.3 to 25+31.3	Lt.	40' of 12" CMP pipe and flap gate **	
24+56.12	C/L	75' Timber span bridge	

See Sh. No. 38 for Sign Removals

* This list does not necessarily constitute a complete list of all items to be removed during construction. This list is provided for information only. Pavement removal is paid for separately.

** Length is approximate

ENTRANCE ITEMS					
Station	Side	L (ft)	W (ft)	R (ft)	Aggregate Base (AB-3) (S.Y.)
26+46.02	Lt.	38	20	20'	95.6
Totals					95.6

RECAPITULATION OF BRIDGE QUANTITIES		
BID ITEM DESCRIPTION	QUANTITY	UNIT
Class I Excavation	140	CY
Concrete (Grade 4.0)(AE)	227	CY
Reinforcing Steel (Grade 60)	63,860	LBS
Piles (Steel)(HP12x53)	2,200	LF
Contractor Furnished PDA	4	EA
Bridge Deck Grooving	309	SY
Slope Protection (Riprap Stone)	520	CY
Geotextile Fabric	99	SY



RECAPITULATION OF ROAD QUANTITIES		
BID ITEM DESCRIPTION	QUANTITY	UNIT
Clearing and Grubbing	1	LS
Removal of Existing Structures	1	LS
Mobilization	1	LS
Field Office	1	LS
Contractor Construction Staking	1	LS
Common Excavation	538	CY
Common Excavation (Contractor Furnished)	57	CY
Compaction of Earthwork (Type B)(MR 90)	476	CY
Water (Grading)(Set Price)	1	MGAL
Concrete Pavement (10" Uniform)(AE)(Br App)	81	SY
Aggregate Base (Special)(6")	87	SY
Aggregate Base (AB-3)(6")	1,769	SY
Water (Aggregate Base)(Set Price)	1	MGAL
Guardrail, Steel Plate	150	LF
Guardrail End Terminal (MGS-MSKT)	4	EA
Entrance Pipe (18")(RCP)	61	LF
Storm Sewer (18")(RCP)	143	LF
Storm Sewer (30")(RCP)	74	LF
End Section (18")(RC)	5	EA
End Section (30")(RC)	1	EA
Headwall Structure (18")	3	EA
Headwall Structure (30")	1	EA
(18") Flapgate	3	EA
(30") Flapgate	1	EA
Slope Drain (Stone)	73	LF
Riprap (Light Stone)(18")	42	SY
Traffic Control	1	LS
Object Marker (OM-3)	4	EA



For Summary of Erosion Control Quantities see sheet 37
For Summary of Seeding Quantities see sheet 42
For Summary of Surfacing Quantities see sheet 35
For Summary of Object Markers see sheet 43
For Summary of Traffic Control Quantities see sheet 45

1 Revised

SEDGWICK COUNTY PUBLIC WORKS			
STRUCTURE NO. 596-18-4180		STA. 24+56.12	
SUMMARY AND RECAPITULATION OF QUANTITIES			
PROJ. NO. B513		SEDGWICK CO.	
M K E C ENGINEERING, INC.			
WICHITA, KANSAS			
DESIGNED BY:	ABC	CHECKED BY:	ABC
DRAWN BY:	ABC	DATE: 8/17/20	SHEET 34R OF 55

EARTHWORK NOTES

Quantities shown for "Common Excavation" are for excavation within the project limits.

No separate measurement or payment will be made for initial consolidation and settlement. Additionally, no separate measurement was made for compaction of earthwork in cut areas. These items shall be subsidiary to other earthwork bid items.

The Contractor shall place 6" of top soil in all areas to be seeded. This material shall be obtained by stripping soil from within the construction limit and shall be free of rocks, rubble, trash and other foreign or toxic material and shall be capable of supporting vegetation. Stripping and placement of soil shall be subsidiary to other earthwork bid items.

Double handling of material stockpiled, over excavation and placement of material through cuts and over excavation and replacement of material to the original ground line through fills is not quantified and shall be subsidiary to other earthwork bid items.

This project will not include payment for overhaul. Stockpiling of excavated material due to staged construction and/or double handling of excavated material required to complete the embankment will not be paid for separately, but shall be subsidiary to other earthwork bid items.

All borrow to be obtained from areas provided by the Contractor shall be approved by the Engineer, both as to suitability of material and site location. Special care shall be taken in this approval to minimize the increase of siltation and turbidity of streams, lakes, and reservoirs and to avoid interference with the movement of migratory fish. Locations which, in the opinion of the Engineer, contain unsuitable material or will leave an unsightly appearance on the project will not be approved.

All borrow area locations shall be submitted to Sedgwick County Public Works prior to excavation. Common excavation furnished by the Contractor will be paid for as "Common Excavation (Contractor Furnished)". Furnished excavation is included in the balance quantities.

All borrow area locations shall be submitted to the Engineer for clearance from the Kansas Historical Society and the Kansas Department of Wildlife and Parks prior to any excavation.

SLOPE DRAIN			
Station	Side	Slope Drain (Stone) (L.F.)	Remarks
26+09.69	Lt.	26.6	West of Driveway
26+72.29	Lt.	46.2	East of Driveway
Totals		72.8	

RIP-RAP			
Station	Side	Rip-Rap (Light Stone) (18") (S.Y.)	Remarks
26+13.00 to 26+36.00	Rt.	41.9	
Totals		41.9	

EARTHWORK						
Excavation				Compaction	Thru Cuts Not Subgraded#	Common Excavation (Contractor Furnished) C.Y.
Location	Common C.Y.	VMF	Rock (Exist. Pavement) C.Y.	(Type B) (MR-90) C.Y.	(Type B)(MR-90) C.Y.	
93rd St. North						
Sta. 21+50 to Sta. 28+00	538	0.8	0	476		57
Sta. 21+50 to Sta. 28+00					395	
Totals	538		0	476	395	57

Assumed VMF for Contractor Furnished Excavation is 0.80.

± Subsidiary. See notes.

PIPE CULVERT SUMMARY									
Station	Type	Lin. Ft. of Pipe		18" End Section (Each)	30" End Section (Each)	18" Headwall Structure (Each)	30" Headwall Structure (Each)	18" Flapgate (Each)	30" Flapgate (Each)
		18" Dia.	30" Dia.						
23+40.00	RCP		74.0		1		1		1
23+80.25	RCP	50.0		1		1		1	
25+39.01	RCP	39.0		1		1		1	
25+42.01	RCP	54.0		1		1		1	
26+46.02	RCP	61.0		2					
Totals		204.0	74.0	5	1	3	1	3	1

STEEL PLATE GUARDRAIL				
Location	Side	Length (L.F.)	Flare Rate	End Terminal *
23+73.07 to 24+10.56	LT.	37.50	24:1	1
23+73.07 to 24+10.56	RT.	37.50	24:1	1
25+01.68 to 25+39.17	LT.	37.50	24:1	1
25+01.68 to 25+39.17	RT.	37.50	24:1	1
Totals		150.00		4

* End Terminal is MGS-MSKT Parallel