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STA 507+50 END
K.D.O.T. Proj. No. 71 C-5233-01

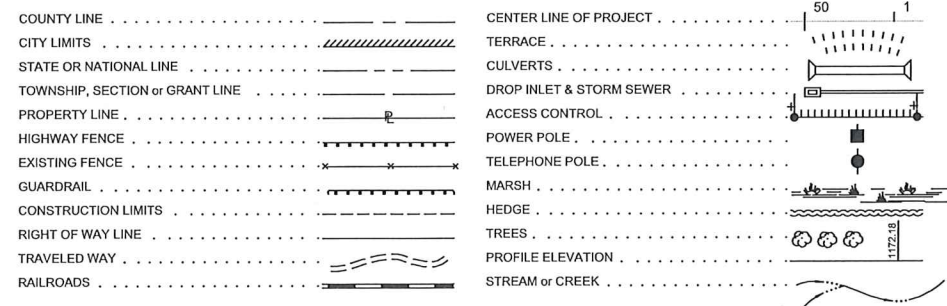
STA 502+95
Br. No. 000710661004006
55' Steel Stringer Bridge
w/28'-6" Bridge Width

STA 500+00 BEGIN
K.D.O.T. Proj. No. 71 C-5233-01

DESIGN DESIGNATION

AADT(2014)	15
AADT(2033)	20
DHV	
D	
T	
V	35 mph
C of A	None
Clear Zone	10 feet

CONVENTIONAL SIGNS



GROSS LENGTH OF PROJECT	750.00 FT.	
EXCEPTIONS	0.00 FT.	
ADDITIONS	0.00 FT.	
NET LENGTH OF PROJECT	750.00 FT.	0.142 MILES
NET LENGTH OF BRIDGES	55.00 FT.	0.010 MILES
NET LENGTH OF ROAD	695.00 FT.	0.132 MILES



PLANS PREPARED BY:
PENCO ENGINEERING, P.A.
PLAINVILLE, KANSAS

RECOM. FOR APPROVAL-DATE

Terry Nichols

TERRY NICHOLS
ROAD & BRIDGE SUPERVISOR

WATER RESOURCES RECEIVED

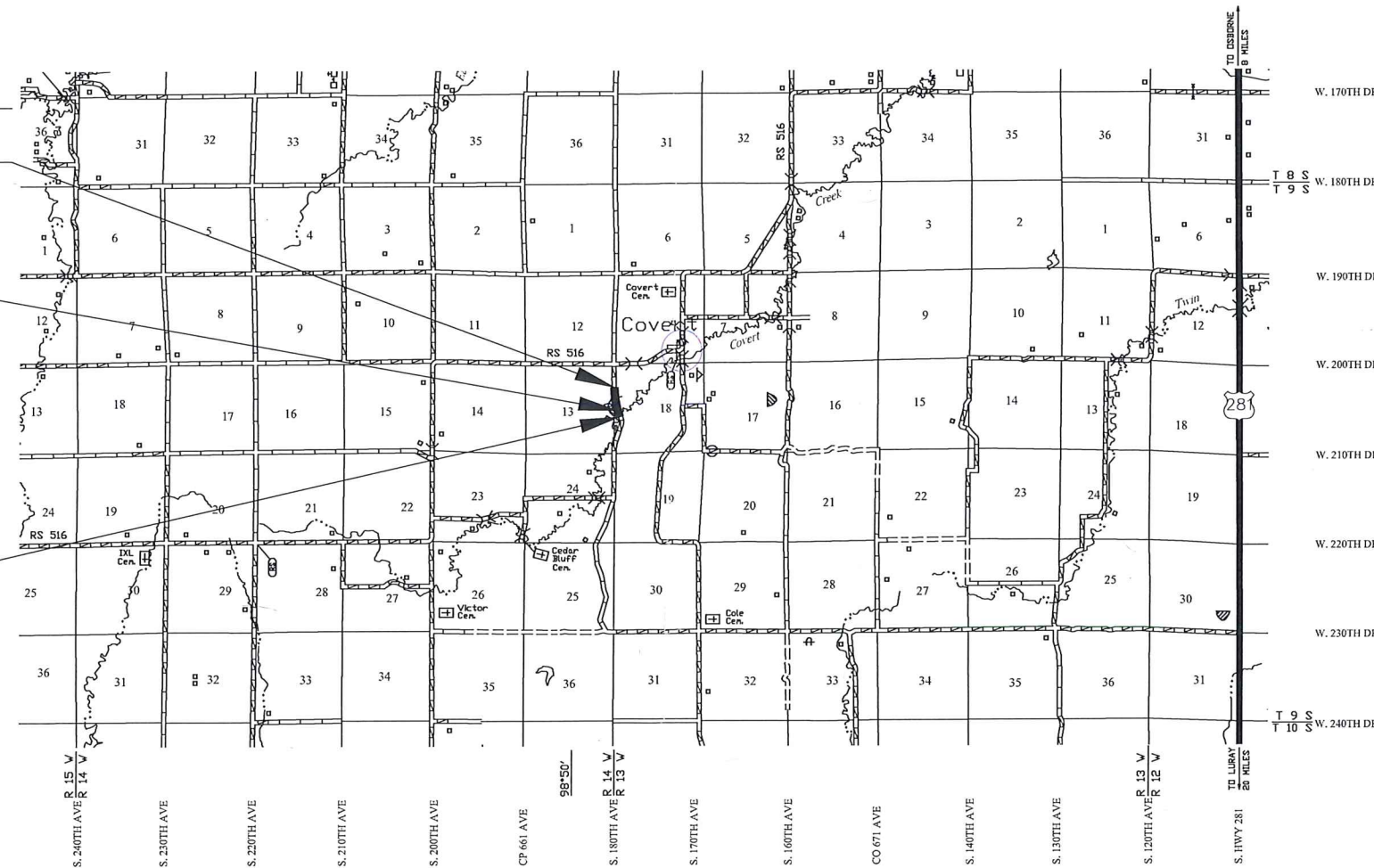
MAR 26 2024

KS DEPT OF AGRICULTURE

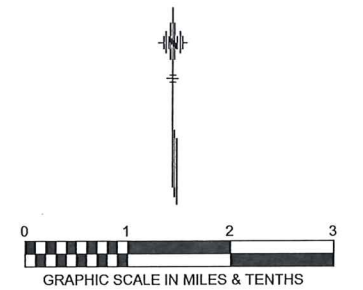
KANSAS DEPARTMENT OF TRANSPORTATION

STATE OF KANSAS
DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE OF PROPOSED
71 C-5233-01
FEDERAL AID PROJECT
OSBORNE COUNTY

GRADING
BRIDGE
SEEDING

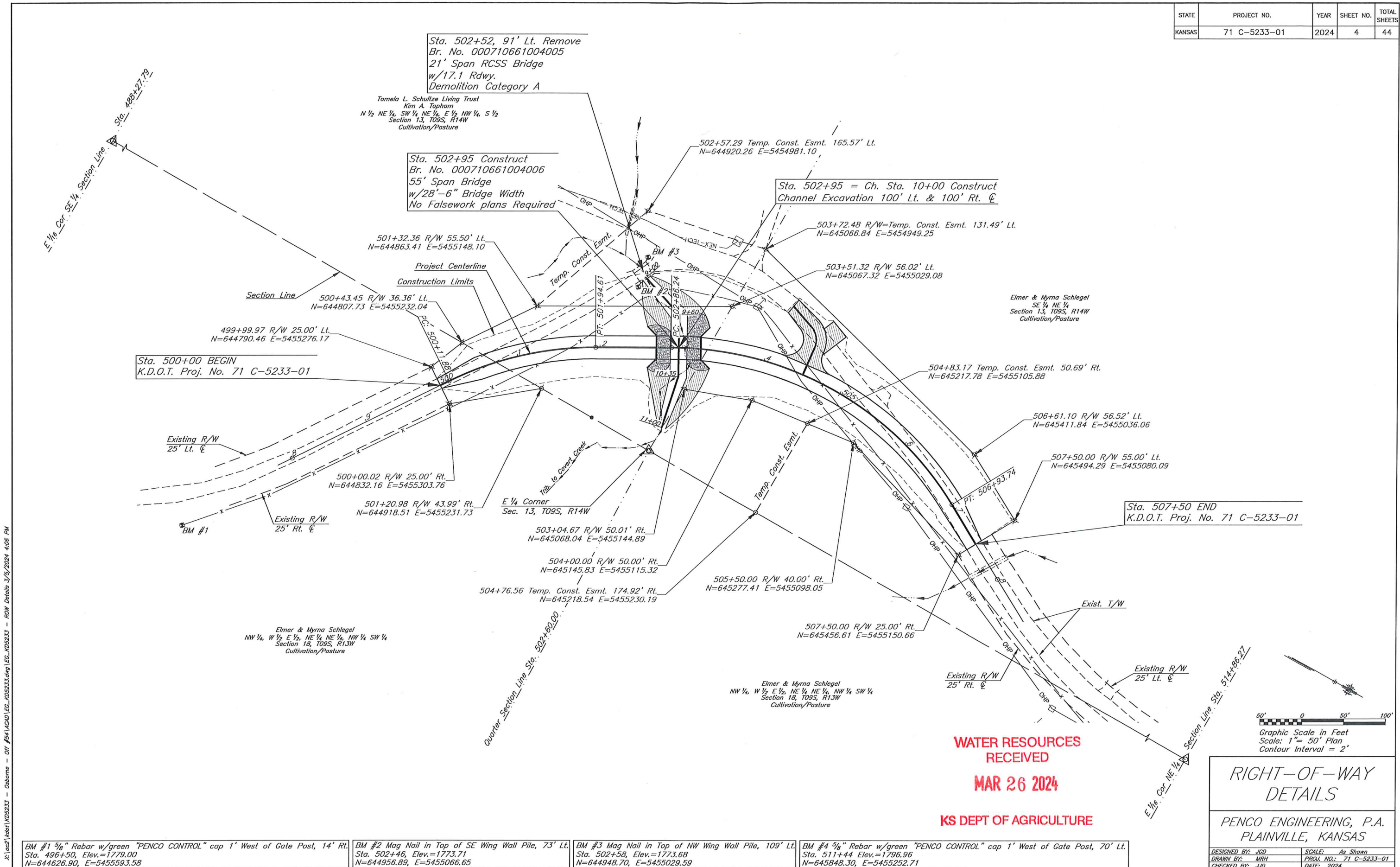


Note: This project will be closed to all traffic during construction.



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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	4	44



Sta. 500+00 BEGIN
K.D.O.T. Proj. No. 71 C-5233-01

Sta. 502+52, 91' Lt. Remove
Br. No. 000710661004005
21' Span RCSS Bridge
w/17.1 Rdwy.
Demolition Category A

Sta. 502+95 Construct
Br. No. 000710661004006
55' Span Bridge
w/28'-6" Bridge Width
No Falsework plans Required

Sta. 502+95 = Ch. Sta. 10+00 Construct
Channel Excavation 100' Lt. & 100' Rt. C

Sta. 507+50 END
K.D.O.T. Proj. No. 71 C-5233-01

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**RIGHT-OF-WAY
DETAILS**

**PENCO ENGINEERING, P.A.
PLAINVILLE, KANSAS**

BM #1 5/8" Rebar w/green "PENCO CONTROL" cap 1' West of Gate Post, 14' Rt.
Sta. 496+50, Elev.=1779.00
N=644626.90, E=5455593.58

BM #2 Mag Nail in Top of SE Wing Wall Pile, 73' Lt.
Sta. 502+46, Elev.=1773.71
N=644956.89, E=5455066.65

BM #3 Mag Nail in Top of NW Wing Wall Pile, 109' Lt.
Sta. 502+58, Elev.=1773.68
N=644948.70, E=5455029.59

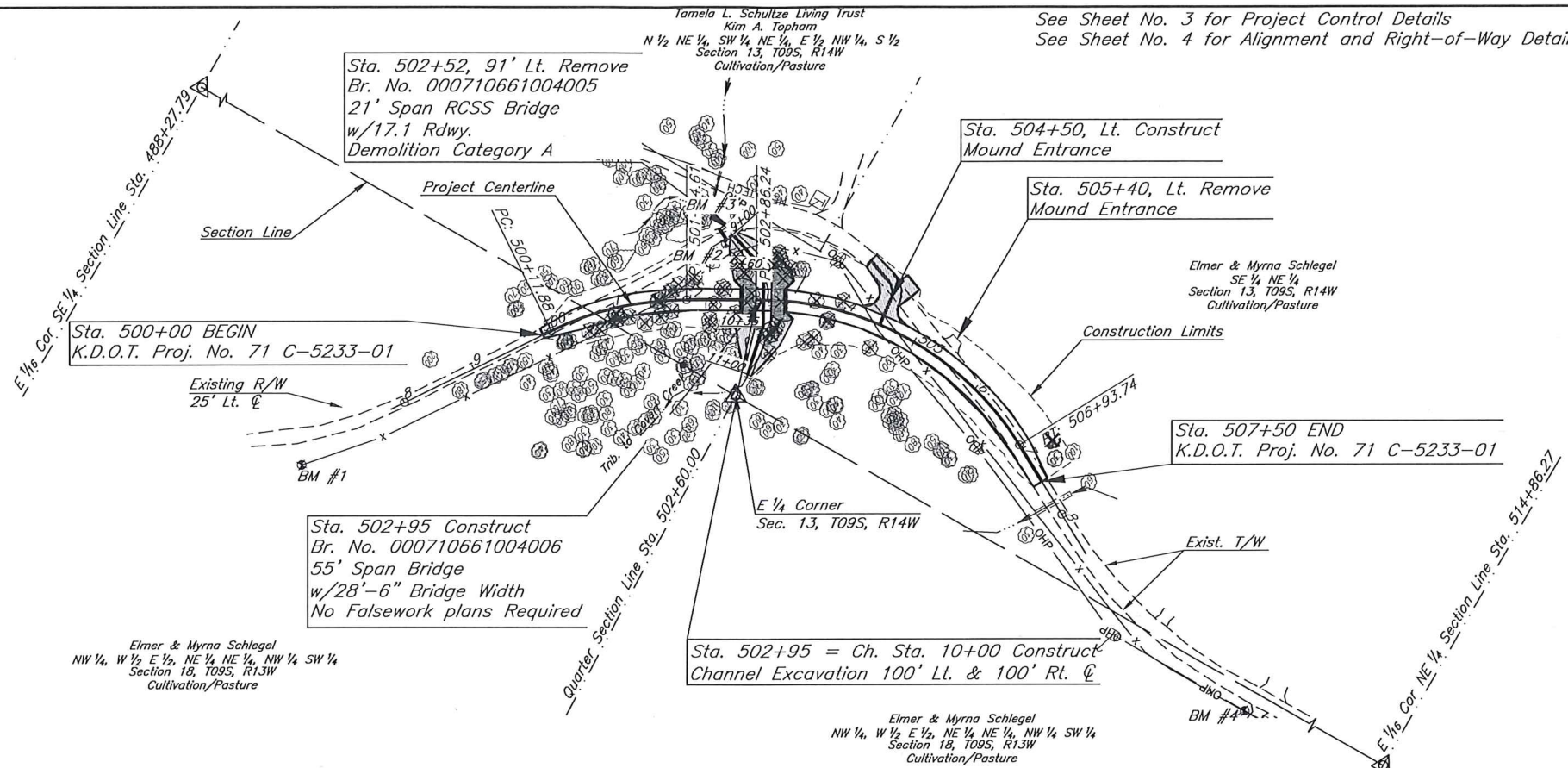
BM #4 5/8" Rebar w/green "PENCO CONTROL" cap 1' West of Gate Post, 70' Lt.
Sta. 511+44 Elev.=1796.96
N=645848.30, E=5455252.71

DESIGNED BY: JGD SCALE: As Shown
DRAWN BY: MRH PROJ. NO.: 71 C-5233-01
CHECKED BY: JUD DATE: 2024

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Utilities
 Power: Rolling Hills Electric Co.
 Mankato, KS 66956
 1-7851378-3151
 Telephone: Nex-Tech/Rural Telephone Co.
 Lenora, KS 67645
 1-877-567-7872

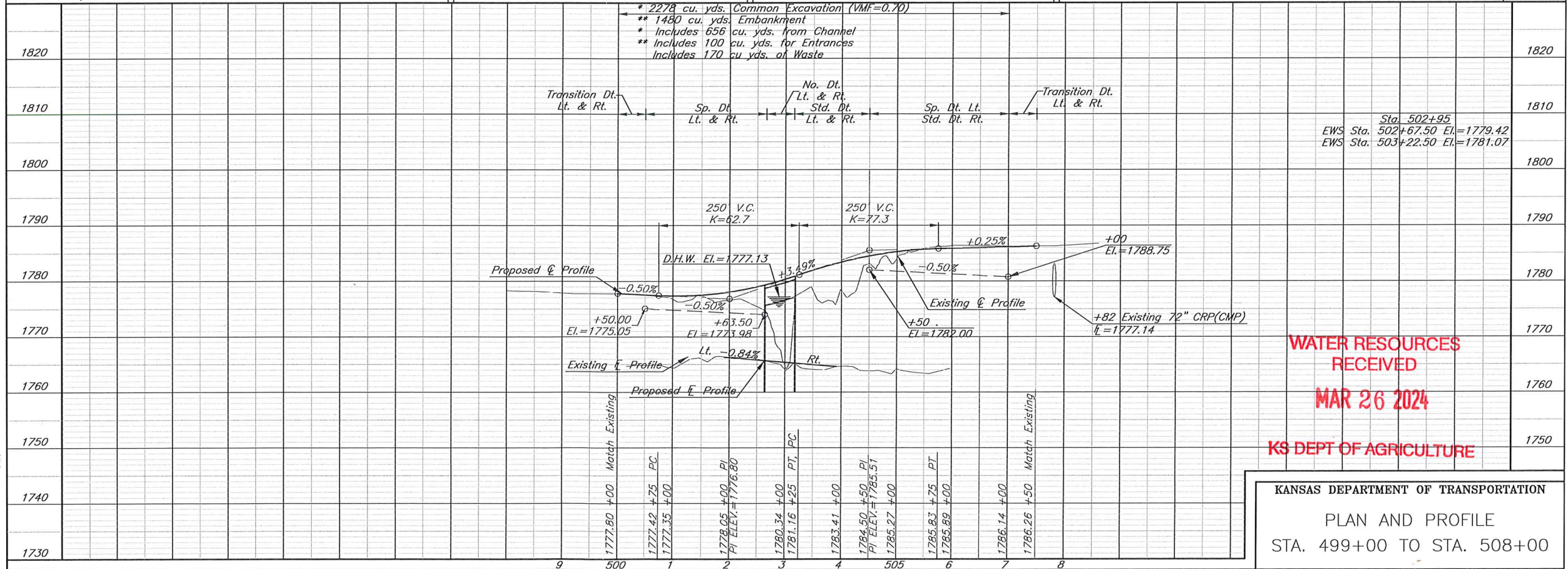
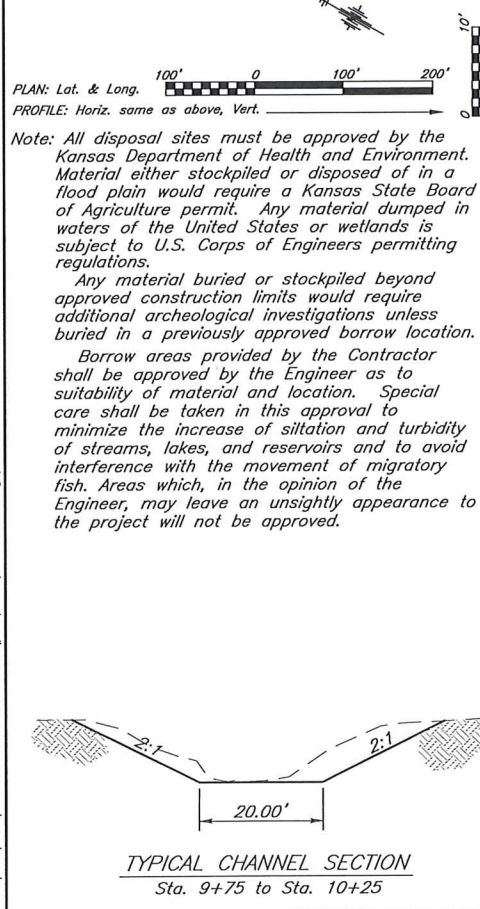
PROJECT SURVEY CONTROL
 PROJECT COORDINATE SYSTEM: KRCS
 HORIZONTAL DATUM: NAD83(2011) Kansas Regional Coordinate System Zone 4 Hays, using Geoid 18(Consus)
 VERTICAL DATUM: North American Vertical Datum (NAVD) 1988
 DATUM BENCHMARK: 5/8" Rebar w/Green plastic cap designated as BM #4 Sta. 511+44, 70' Lt. Project C, 1' west of gate post = 1796.96.
 NOTE: The Contractor shall remove the existing 21' span RCSS bridge (Br. No. 000710661004005) with 17.1' rdwy. width. All materials shall become property of the Contractor and shall be removed from the site.
 Existing Bridge consists of: concrete deck, abutments, wingwalls, and steel guardrail.
 The Contractor shall excavate the channel prior to construction of the bridge.



See Sheet No. 3 for Project Control Details
 See Sheet No. 4 for Alignment and Right-of-Way Details.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	5	44

BM #1 5/8" Rebar w/green "PENCO CONTROL" cap 1' West of Gate Post, 14' Rt. Sta. 496+50, Elev.=1779.00 N=644626.90, E=5455593.58	BM #2 Mag Nail in Top of SE Wing Wall Pile, 73' Lt. Sta. 502+46, Elev.=1773.71 N=644956.89, E=5455066.65	BM #3 Mag Nail in Top of NW Wing Wall Pile, 109' Lt. Sta. 502+58, Elev.=1773.68 N=644948.70, E=5455029.59	BM #4 5/8" Rebar w/green "PENCO CONTROL" cap 1' West of Gate Post, 70' Lt. Sta. 511+44 Elev.=1796.96 N=645848.30, E=5455252.71
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Note: All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations.
 Any material buried or stockpiled beyond approved construction limits would require additional archeological investigations unless buried in a previously approved borrow location.
 Borrow areas provided by the Contractor shall be approved by the Engineer as to suitability of material and 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. Areas which, in the opinion of the Engineer, may leave an unsightly appearance to the project will not be approved.

WATER RESOURCES RECEIVED
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KS DEPT OF AGRICULTURE
 KANSAS DEPARTMENT OF TRANSPORTATION
 PLAN AND PROFILE
 STA. 499+00 TO STA. 508+00

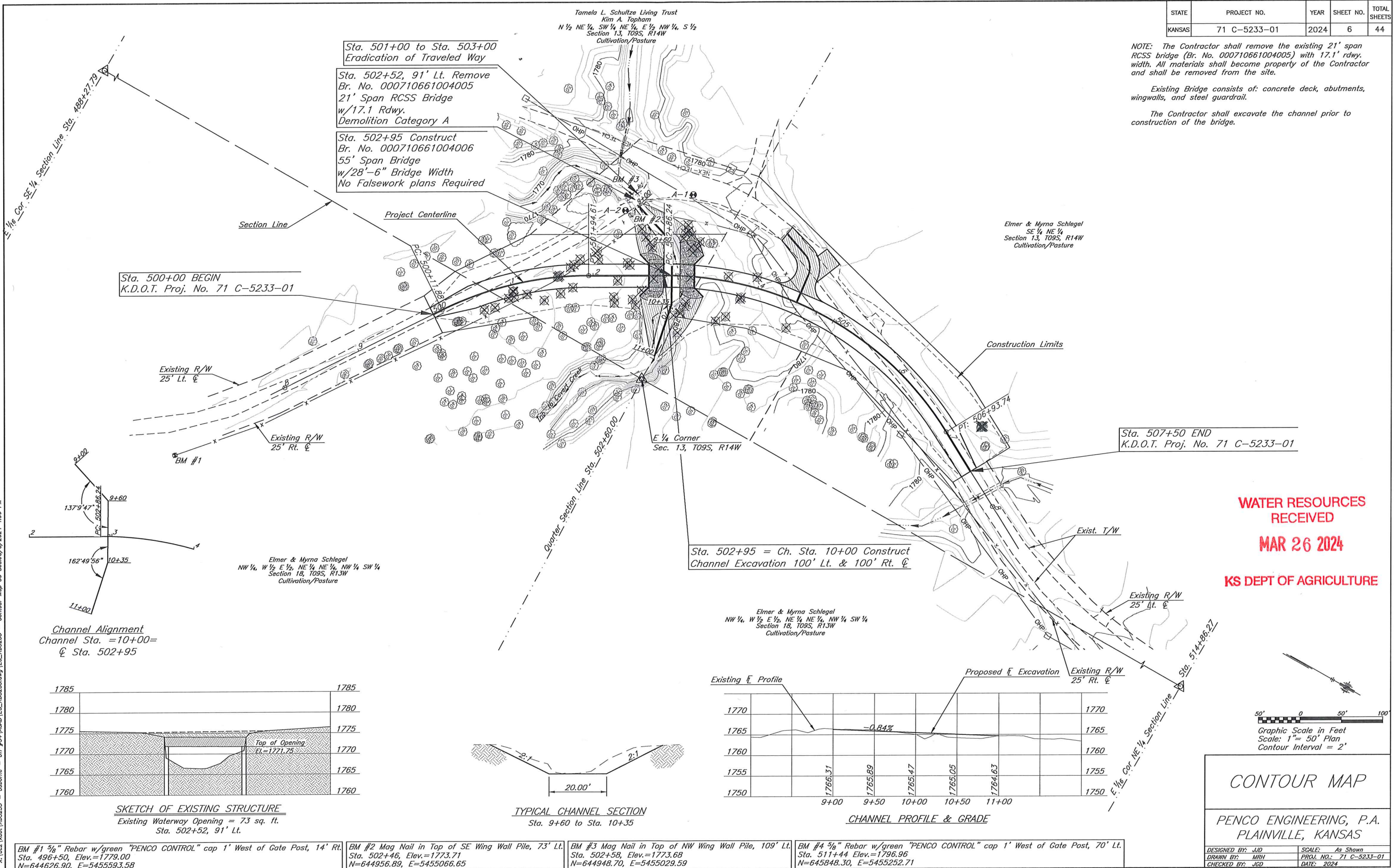
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	6	44

NOTE: The Contractor shall remove the existing 21' span RCSS bridge (Br. No. 000710661004005) with 17.1' rdwy. width. All materials shall become property of the Contractor and shall be removed from the site.

Existing Bridge consists of: concrete deck, abutments, wingwalls, and steel guardrail.

The Contractor shall excavate the channel prior to construction of the bridge.



Sta. 500+00 BEGIN
K.D.O.T. Proj. No. 71 C-5233-01

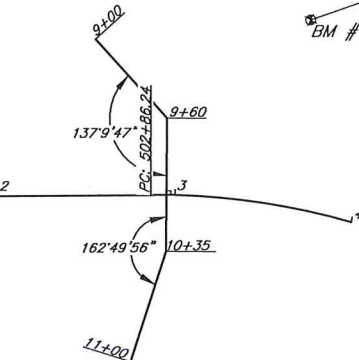
Sta. 501+00 to Sta. 503+00
Eradication of Traveled Way

Sta. 502+52, 91' Lt. Remove
Br. No. 000710661004005
21' Span RCSS Bridge
w/17.1 Rdwy.
Demolition Category A

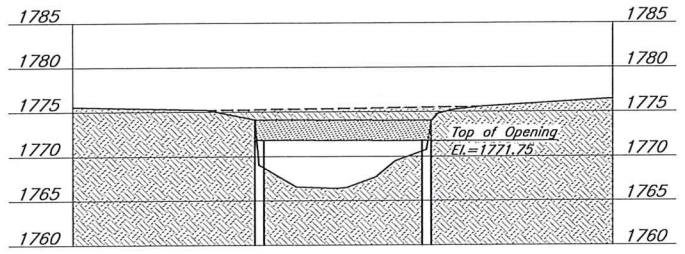
Sta. 502+95 Construct
Br. No. 000710661004006
55' Span Bridge
w/28'-6" Bridge Width
No Falsework plans Required

Sta. 507+50 END
K.D.O.T. Proj. No. 71 C-5233-01

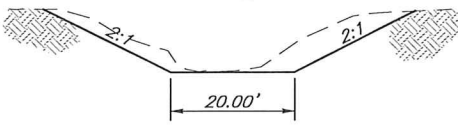
Sta. 502+95 = Ch. Sta. 10+00 Construct
Channel Excavation 100' Lt. & 100' Rt. ϕ



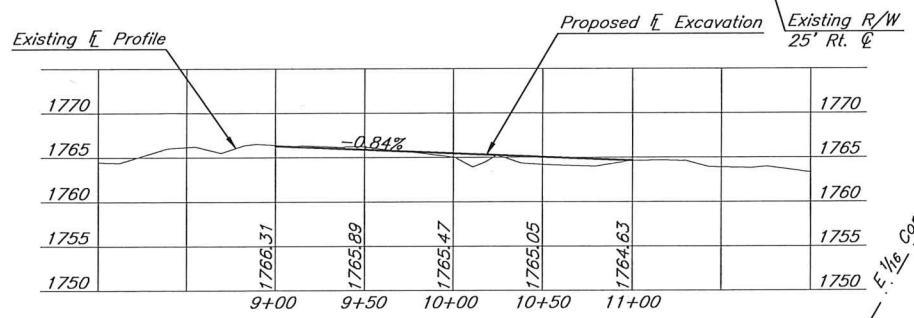
Channel Alignment
Channel Sta. = 10+00 = ϕ Sta. 502+95



SKETCH OF EXISTING STRUCTURE
Existing Waterway Opening = 73 sq. ft.
Sta. 502+52, 91' Lt.

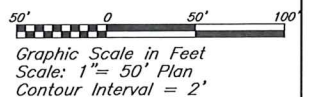


TYPICAL CHANNEL SECTION
Sta. 9+60 to Sta. 10+35



CHANNEL PROFILE & GRADE

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CONTOUR MAP

PENCO ENGINEERING, P.A.
PLAINVILLE, KANSAS

BM #1 5/8" Rebar w/green "PENCO CONTROL" cap 1' West of Gate Post, 14' Rt. Sta. 496+50, Elev.=1779.00 N=644626.90, E=5455593.58	BM #2 Mag Nail in Top of SE Wing Wall Pile, 73' Lt. Sta. 502+46, Elev.=1773.71 N=644956.89, E=5455066.65	BM #3 Mag Nail in Top of NW Wing Wall Pile, 109' Lt. Sta. 502+58, Elev.=1773.68 N=644948.70, E=5455029.59	BM #4 5/8" Rebar w/green "PENCO CONTROL" cap 1' West of Gate Post, 70' Lt. Sta. 511+44 Elev.=1796.96 N=645848.30, E=5455252.71
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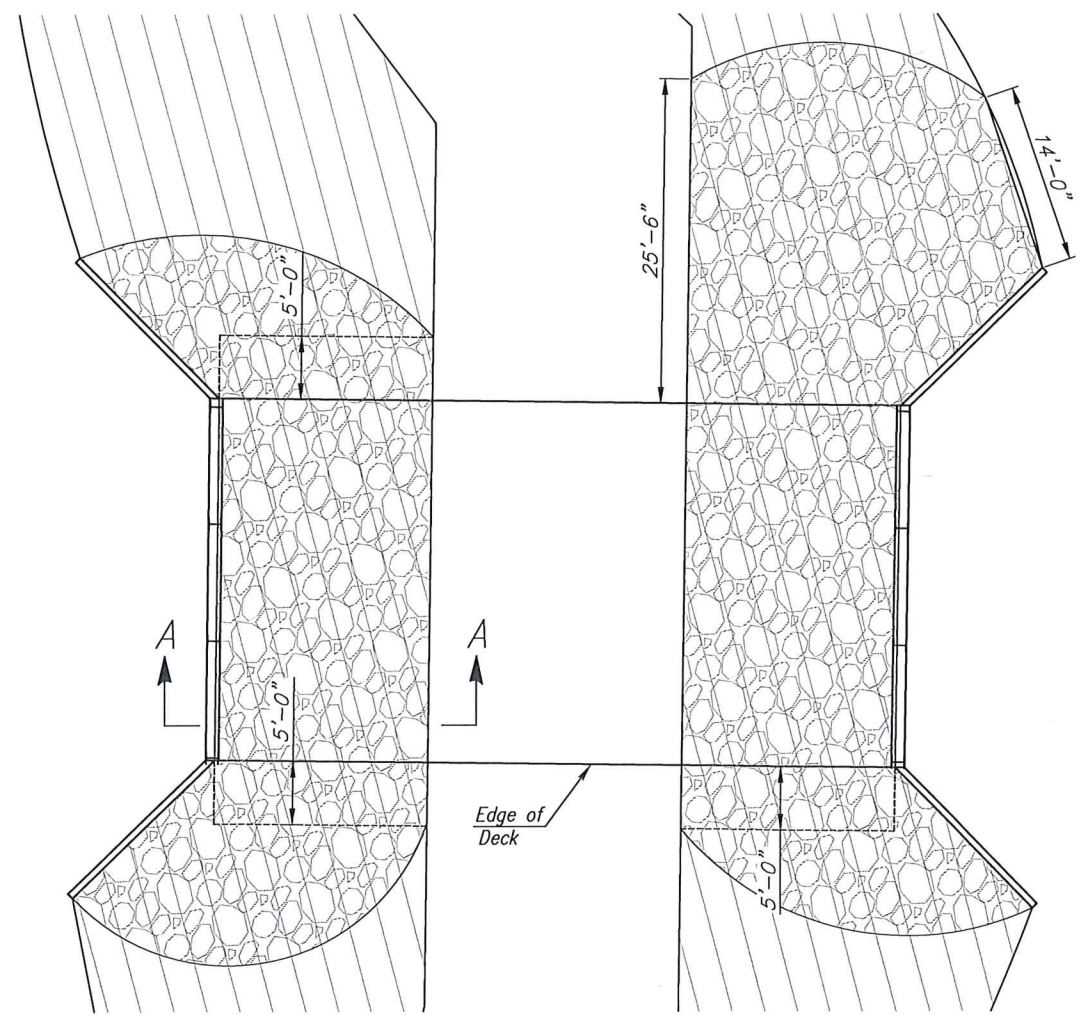
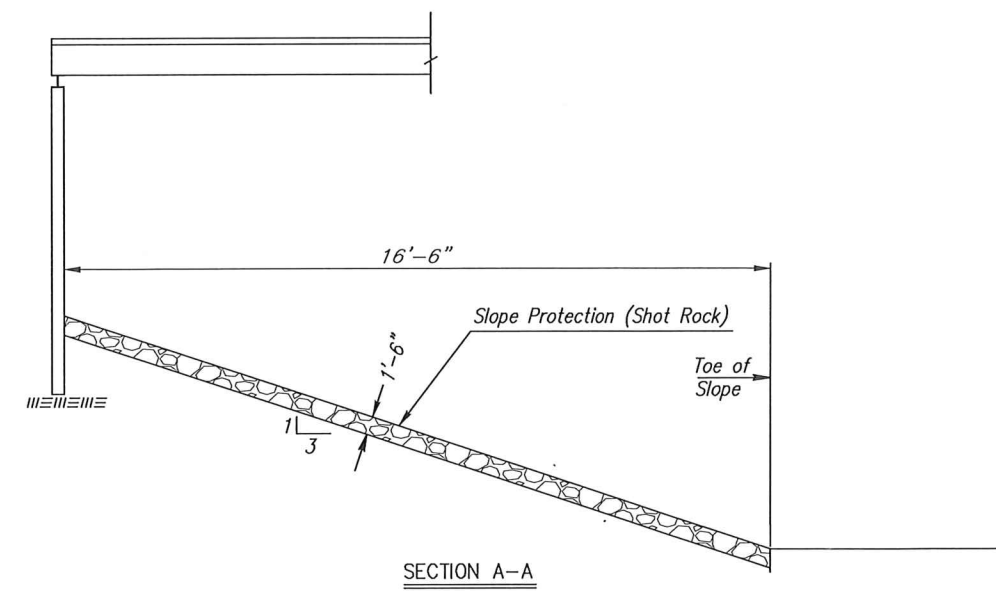
DESIGNED BY: JJD	SCALE: As Shown
DRAWN BY: MHR	PROJ. NO.: 71 C-5233-01
CHECKED BY: JJD	DATE: 2024

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	18	44

GENERAL NOTES

- Limits of slope protection are as shown and centered along centerline of the slab.
- Excavation and grading for placement of slope protection and all work shall be subsidiary to slope protection.
- The Contractor shall place the rock from the bottom to the top of the slope. Place the rock in a manner which produces a reasonably well graded mass of rock without segregation of the material sizes. Placement, measurement, and payment shall conform to KDOT Specifications for Slope Protection.
- The maximum size of the shot rock will be limited to a thickness of 18".



SLOPE PROTECTION (Shot Rock)			
Sta. to Sta.	Side	Cu. Yds.	
9+81	10+19	Rt.	58
9+60	10+19	Lt.	77
TOTAL			135

QUANTITIES For Information Only		
		Geotextile Fabric Sq. Yds.
		285

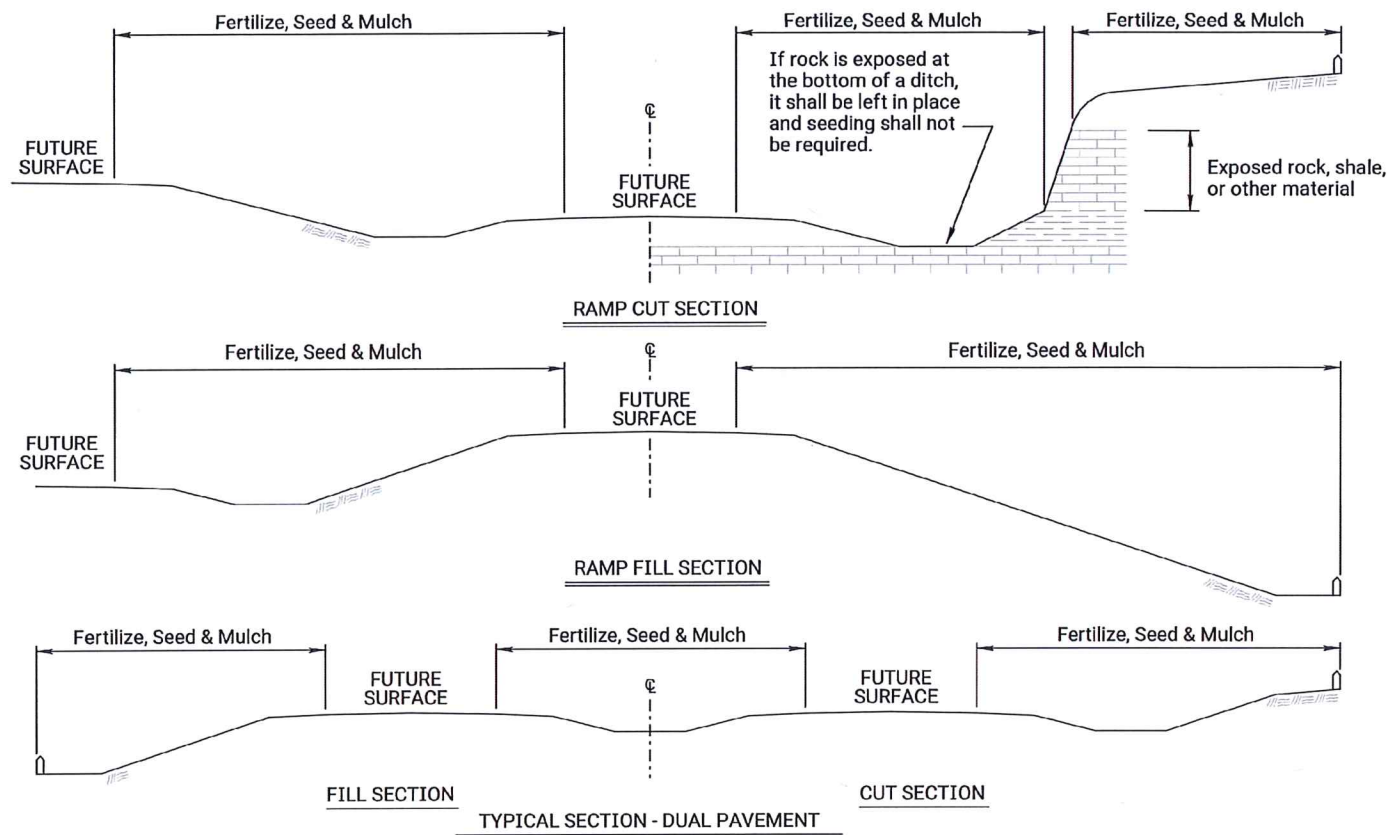
NO.	DATE	REVISIONS	BY	APP'D

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BRIDGE BERM AND SLOPE PROTECTION STRAIGHT WINGWALL ABUTMENT			
FHWA APPROVAL	DESIGNED	APP'D	QUANTITIES
DESIGN CK.	DETAIL CK.	QUAN. CK.	CADD CK.

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	20	44



FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P₂O₅, K₂O listed in Summary of Quantities will be acceptable.

- * - N = Nitrogen Rate of Application
- ** - P₂O₅ = Phosphorous Rate of Application
- *** - K₂O = Potassium Rate of Application

The Contractor will be required to finish areas of excavation, borrow and embankment in accordance with the specifications. Areas that require installation or construction of temporary water pollution control items will be finished in reasonable close conformity to the alignment, grade and cross section shown on the plans or as established by the Engineer.

CLT = Construction Limit Tract. This area is defined by the entire disturbed area of the project that requires seeding and erosion control measures to be placed. Any impervious areas (i.e. pavement, gravel, riprap, etc.) shall not be included in this measurement.

Slope = Defined by the area of the project that requires Class 1 erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

Channel = Defined by the area of the project that requires Class 2 erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications.

Temporary seeding shall be done during any time of the year that the soil can be cultivated. After the temporary seeding has been completed on the entire project, permanent seeding shall be done during the normal seeding season.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching materials is generally as follows:

1 1/4 - 2 1/4 Tons per Acre = 1 1/2" loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards. Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

SUMMARY OF SEEDING / EROSION CONTROL QUANTITIES

P.L.S. RATE/ ACRE		ACRES		BID ITEM	QUANTITY	UNIT
CLT	SL/CH	CLT	SL/CH			
150		1.50		Temporary Fertilizer (16-20-0)	225.0	LB
20		1.50		Temporary Seed (Canada Wildrye)	30.0	LB
45		1.50		Temporary Seed (Grain Oats)	67.5	LB
45		1.50		Temporary Seed (Sterile Wheatgrass)	67.5	LB
	47.8		0.19	Soil Erosion Mix	9.1	LB
				Erosion Control (Class 1, Type C)	930	SQ YD
				Erosion Control (Class 2, Type E)		SQ YD
				Sediment Removal (Set Price)	1	CU YD
				Synthetic Sediment Barrier		LF
				Temporary Berm (Set Price)	1	LF
				Temporary Ditch Check (Rock)	25	CU YD
				Temporary Inlet Sediment Barrier		EACH
				Temporary Sediment Basin		CU YD
				Temporary Slope Drain		LF
				Temporary Stream Crossing		EACH
				Biodegradable Log (9")		LF
				Biodegradable Log (12")		LF
				Biodegradable Log (20")	580	LF
				Filter Sock (****)		LF
				Geotextile (Erosion Control)	500	SQ YD
				Silt Fence		LF
				SWPPP Design †	1	LS
				SWPPP Inspection †	15	EACH
				Water Pollution Control Manager †	25	EACH
900 lbs / acre				Mulch Tacking Slurry		LB
2 tons / acre		1.31		Mulching	3.93	TON
				Water (Erosion Control) (Set Price)	1	MGAL

NOTE: Projects less than 1 acre shall be bid as "Seeding" by the lump sum. See Permanent Seeding Summary of Seeding Quantities sheet LA850 for further details.

Geotextile (Erosion Control) shall be removed prior to placement of permanent slope protection.

Regreen and Quick Guard are the approved sterile wheatgrass products.

† If the total disturbed area of the project, not just the seeding area, is 1 acre or more, then these bid items must be included.

**** List size of material.

The amount of mulch and mulch tacking slurry in the bid quantities is estimated. (Acres of Seeding X 1.5 X 2 Tons/Acre). The estimated quantity includes mulching associated with both temporary and permanent seeding operations. The total mulch and mulch tacking slurry required shall be determined in the field. The bid item for mulching and mulch tacking slurry shall be paid for according to the Standard Specifications.

Quantities for all erosion control items are estimated to give full flexibility for compliance with the NPDES permit. Final quantities will be determined in the field.

SOIL EROSION MIX

PLS RATE	NAME	QTY (lb)
1.0	Seed (Blue Grama Grass)(Lavington)	0.19
24.5	Seed (Buffalo Grass)(Treated)	4.65
6.3	Seed (Side Oats Grama Grass)(El Reno)	1.20
10	Seed (Sterile Wheatgrass)(Regreen/Quickguard)	1.90
6.0	Seed (Western Wheatgrass)(Barton)	1.14
47.8	Total (lb)	9.08

The Soil Erosion Mix is to be placed under the Class 1 and/or Class 2 erosion control material.

The Soil Erosion Mix consists of the Shoulder Area of the Permanent Seed Mix used on the project.

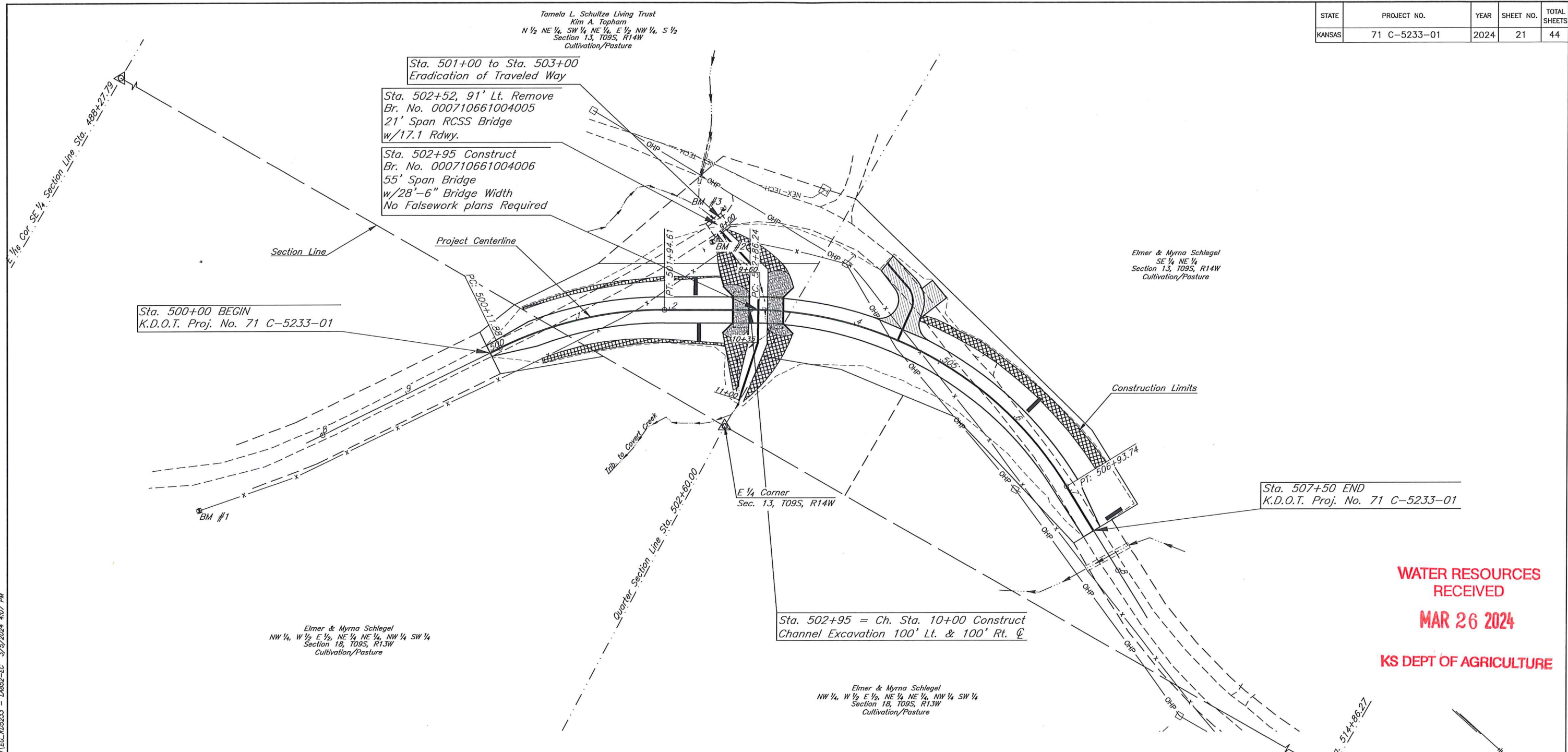
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03	08-03-20	Added Note	M.R.D.	M.L.
02	12-01-17	Revised Standard	M.R.D.	S.H.S.
01	06-01-17	Revised Standard	M.R.D.	S.H.S.
NO.	DATE	REVISIONS	BY	APPD
KANSAS DEPARTMENT OF TRANSPORTATION				
TEMPORARY EROSION AND POLLUTION CONTROL				
LA852A				
FHWA APPROVAL		01/26/18	APPD.	Scott H. Shields
DESIGNED	M.R.D.	DETAILED	M.R.D.	QUANTITIES
DESIGN CK.	S.H.S.	DETAIL CK.	S.H.S.	QUAN CK.
				TRACED
				TRACE CK.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	21	44



WATER RESOURCES RECEIVED
MAR 26 2024
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EROSION CONTROL- CLASS 1, TYPE C				
STATION TO STATION	SIDE	LENGTH	WIDTH	SQ YARD
500+50 to 502+43	LT.	193'	VARIES	80
500+50 to 502+43	RT.	193'	VARIES	114
504+62 to 507+00	LT.	238'	VARIES	283
9+00 to 9+60	LT.	60'	VARIES	89
9+00 to 9+75	RT.	75'	VARIES	119
10+25 to 11+00	LT.	75'	VARIES	139
10+25 to 11+00	RT.	75'	VARIES	106
TOTAL EROSION CONTROL (CLASS 1, TYPE C) =				930

EROSION CONTROL- CLASS 2, TYPE E				
STATION TO STATION	SIDE	LENGTH	WIDTH	SQ YARD
TOTAL EROSION CONTROL (CLASS 2, TYPE E) =				

- EROSION CONTROL- CLASS 1, TYPE C
- EROSION CONTROL- CLASS 2, TYPE E
- BIODEGRADABLE LOG (20")
- ENTRANCE
- SLOPE PROTECTION (SHOT ROCK)

KANSAS DEPARTMENT OF TRANSPORTATION
EROSION CONTROL SEEDING-SODDING
LA852A-EC

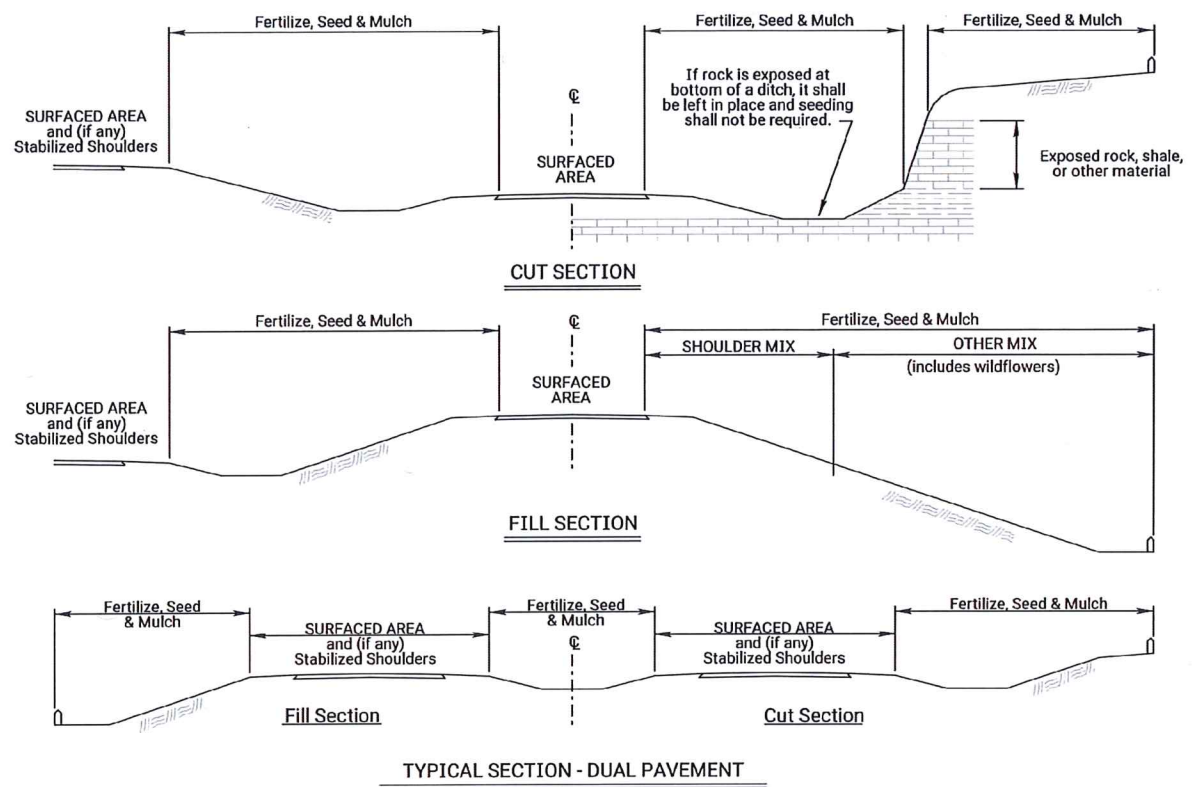
NO.	DATE	REVISIONS	BY	APP'D

FHWA APPROVAL 01/04/2006 | APP'D Scott H. Shields
 DESIGNED MRJ/DETAILED MRJ QUANTITIES TRACED MRJ
 DESIGN CK. SHS/DETAIL CK. SHS QUAN. CK. TRACE CK. SHS

CADconform Certify This File

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	30	44



GRASS & WILDFLOWER SEEDING SEASONS

COOL SEASON GRASSES	WARM SEASON GRASSES & WILDFLOWERS
February 15 thru April 20 August 15 thru September 30	November 15 thru June 1
SPECIES	SPECIES
Bluegrasses	Bermuda Grass
Brome Grasses	Big Bluestem
Canada Wildrye	Blue Grama
Fescues	Buffalo Grass
Prairie Junegrass	Indiangrass
Ryegrasses	Little Bluestem
Sterile Wheatgrass	Sand Bluestem
Tall Dropseed	Sand Dropseed
Western Wheatgrass	Sand Lovegrass
	Side Oats Grama
	Switchgrass
	Wildflower Mixes

When the area to be seeded is 1 acre or more, if Cool Season grasses are mixed with Warm Season grasses, seed the area during the Warm Season.

When the area to be seeded is less than 1 acre, seed the area any time of the year.

SODDING SEASONS

COOL SEASON GRASSES	WARM SEASON GRASSES
March 1 thru April 15 September 1 thru November 15	May 15 thru September 1
SPECIES	SPECIES
Bluegrass Sod	Buffalo Grass Sod
Fescue Sod	

If the soil is workable, the Engineer may allow placement of sod between November 15 and March 1. If sod is placed during this time, maintain the sod until 20 days after the beginning of the spring sodding season.

GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded and mulched. Soil preparation shall conform to the Standard Specifications except as noted below.

All borrow areas shown on the plans are to be fertilized, seeded, and mulched. However, operation in borrow areas where crops are growing may be omitted when requested by the owner.

If temporary cover has provided stable slopes with no erosion, seed the permanent grasses into the existing cover. If there has been erosion that requires repair prior to seeding, then it may be necessary to regrade the area, resulting in bare ground.

FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P₂O₅, K₂O listed in Summary of Seeding Quantities will be acceptable.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching material is generally as follows:

$$1\frac{3}{4} - 2\frac{1}{4} \text{ Tons per Acre} = 1\frac{1}{2}'' \text{ loose depth spread uniformly over acre.}$$

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

**WATER RESOURCES
RECEIVED
MAR 26 2024**

KS DEPT OF AGRICULTURE

NATIVE WILDFLOWER MIX 1

PLS RATE	NAME	QTY (lb)
0.3	Butterfly Milkweed	
0.3	Common Milkweed	
0.3	Black Eyed Susan	
0.5	Blanket Flower	
0.5	False Sunflower	
0.5	Lance-Leaf Coreopsis	
0.2	Maximilian Sunflower	
0.1	New England Aster	
0.2	Pinnate Prairie Coneflower	
0.2	Plains Coreopsis	
0.3	Purple Coneflower	
0.3	Upright Prairie Coneflower	
0.3	Dames Rocket	
0.3	Lemon Mint	
0.2	Pitcher Sage	
0.2	Wild Bergamot	
1.0	Illinois Bundleflower	
0.2	Common Evening Primrose	
0.1	Hoary Verbena	
0.8	Purple Prairie Clover	
0.3	Roundhead Lespedeza	
3.0	Showy Partridge Pea	
0.2	White Prairie Clover	
10.3	Total (lb)	

NATIVE WILDFLOWER MIX 2

PLS RATE	NAME	QTY (lb)
0.3	Butterfly Milkweed	
0.3	Black Eyed Susan	
0.5	Black Sampson Coneflower	
1.0	Blanket Flower	
0.2	Maximilian Sunflower	
0.2	Plains Coreopsis	
0.2	Upright Prairie Coneflower	
0.2	Western Yarrow	
0.3	Lemon Mint	
0.4	Pitcher Sage	
1.5	Illinois Bundleflower	
0.2	Common Evening Primrose	
1.0	Blue Wild Indigo	
0.4	Leadplant	
0.4	Purple Prairie Clover	
0.3	White Prairie Clover	
7.4	Total (lb)	

Package and deliver the wildflower seed separately from the grass seed mix. Package and deliver the Tall Drop Seed separately from the grass seed and the wildflower mix. Place the grass seed (except Tall Drop Seed) in the large seed box and drill (cover) seed $\frac{1}{8}$ " - $\frac{1}{4}$ ". Place the wildflower seed in a separate seed box and drill (cover) seed $\frac{1}{16}$ " maximum. Place the Tall Drop Seed in a separate (third) seed box and place the seed (using the seed drill) on the soil surface.

OPTION: Broadcast Tall Drop Seed on the soil surface.

SUMMARY OF SEEDING QUANTITIES

P.L.S. RATE/ACRE		ACRES		BID ITEM	QUANTITY	UNIT
SHLDR	OTHER	SHLDR	OTHER			
50			1.31	Fertilizer (16-20-0)	65.50	LBS
1			1.31	Seed (Blue Grama Grass Seed)(Lovington)	1.31	LBS
24.5			1.31	Seed (Buffalo Grass Seed)(Treated)	32.10	LBS
6.3			1.31	Seed (Side Oats Grama Grass Seed)(El Reno)	8.25	LBS
10			1.31	Seed (Sterile Wheatgrass)(Regreen/Quick Guard)	13.10	LBS
6			1.31	Seed (Western Wheatgrass Seed)(Barton)	11.80	LBS
				Mulching *		

SHLDR = Seeded with the Shoulder Mix. Typically 15 feet for 2-lane roads and 30 feet for 4-lane roads. Includes outside roadsides, turfed portions of shoulders, and turfed portion of the median.

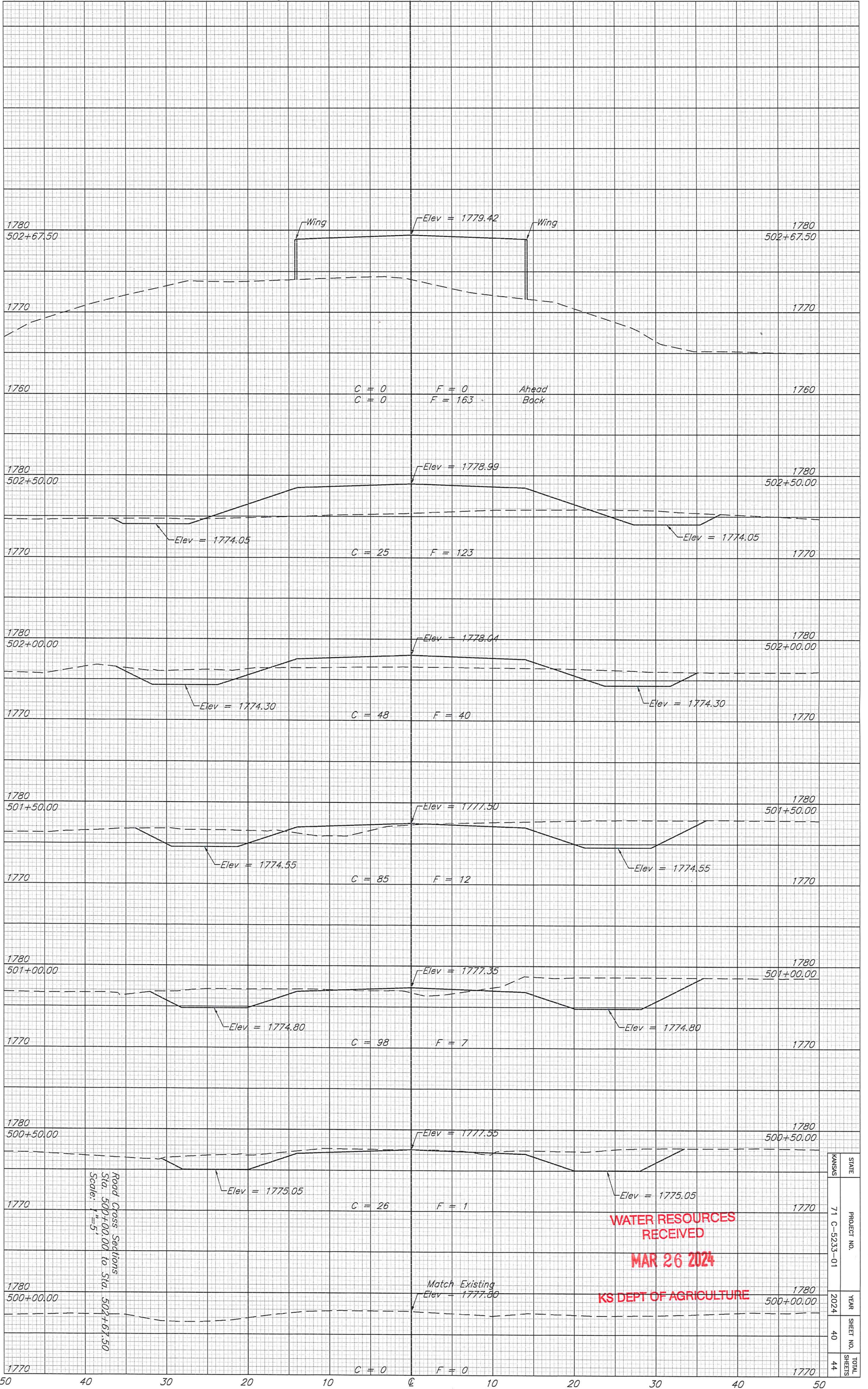
OTHER = Seeded with the "Other" Mix. Designated as all other turf areas, except the Shoulder. Usually includes a Native Wildflower Mix.

NOTE: Projects less than 1 acre shall be bid as "Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

Refer to the Standard Specifications, Division 900, Section 904 'Seeding', and Section 907 'Sodding', for the seeding and sodding seasons.

* See LA852A for mulching quantity. The quantity of mulch is estimated (Acres of Seeding X 1.5 X 2 Tons/Acre). The total mulch required shall be determined in the field. The bid item for mulching shall be paid for according to the Standard Specifications.

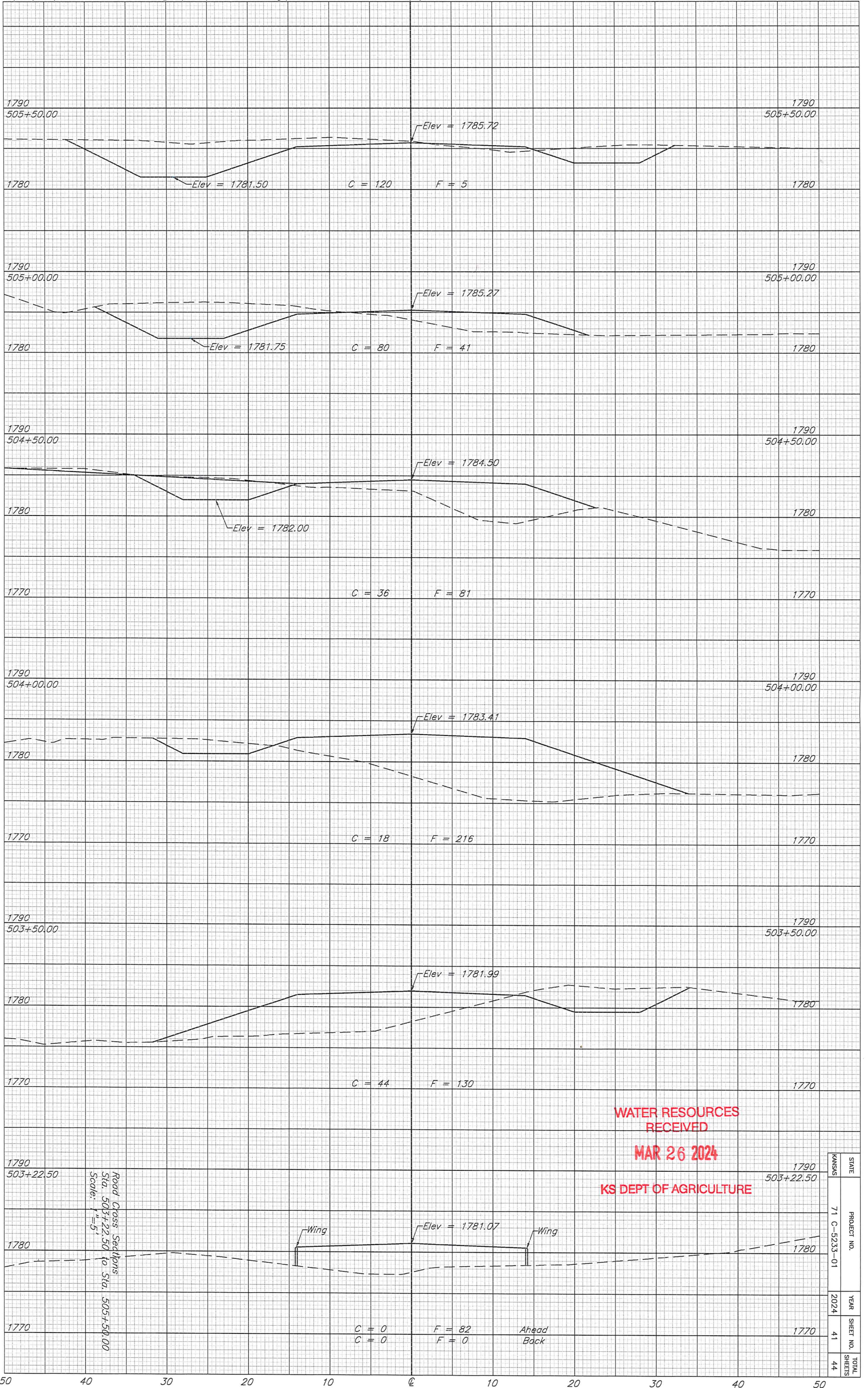
02	11-25-20	Updated Seeding / Sodding Periods Cherts	M.R.D.	M.L.
01	08-03-20	Revised Standard	M.R.D.	S.H.S.
NO.	DATE	REVISIONS	BY	APPD
KANSAS DEPARTMENT OF TRANSPORTATION				
PERMANENT SEEDING SUMMARY OF SEEDING QUANTITIES				
LA850				
DESIGNED	05 06 19	APPD.	Mervin Lore	
DESIGN CK.	DETAIL CK.	QUANTITIES	TRACED	
		QUAN CK.	TRACE CK.	



Road Cross Sections
 Sta. 500+00.00 to Sta. 502+67.50
 Scale: 1"=5'

WATER RESOURCES RECEIVED
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KS DEPT OF AGRICULTURE

STATE	KANSAS
PROJECT NO.	71 C-5233-01
YEAR	2024
SHEET NO.	40
TOTAL SHEETS	44



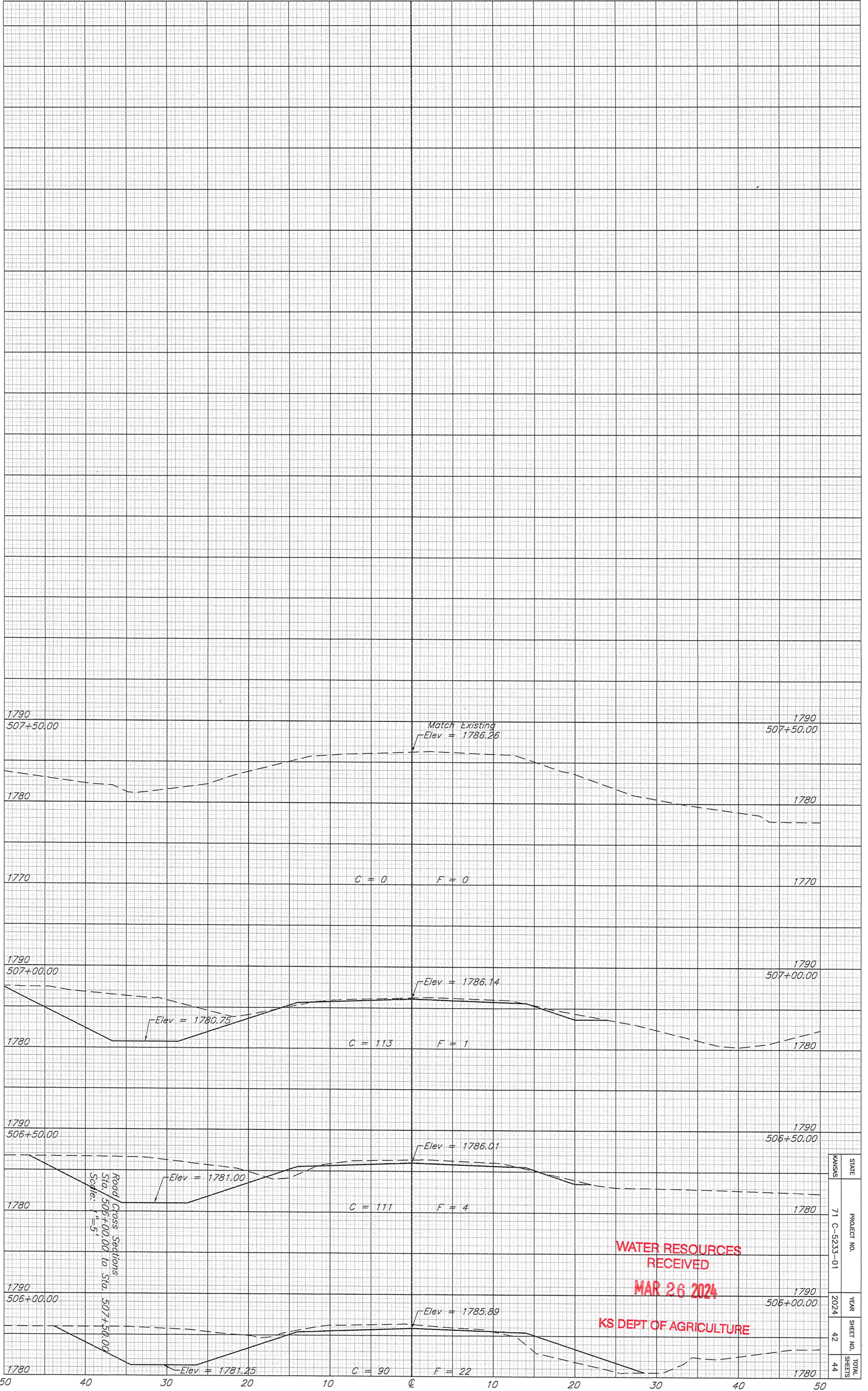
WATER RESOURCES RECEIVED

MAR 26 2024

KS DEPT OF AGRICULTURE

Road Cross Sections
 Sta. 503+22.50 to Sta. 505+50.00
 Scale: 1"=5'

STATE	KANSAS
PROJECT NO.	71 C-5233-01
YEAR	2024
SHEET NO.	41
TOTAL SHEETS	44



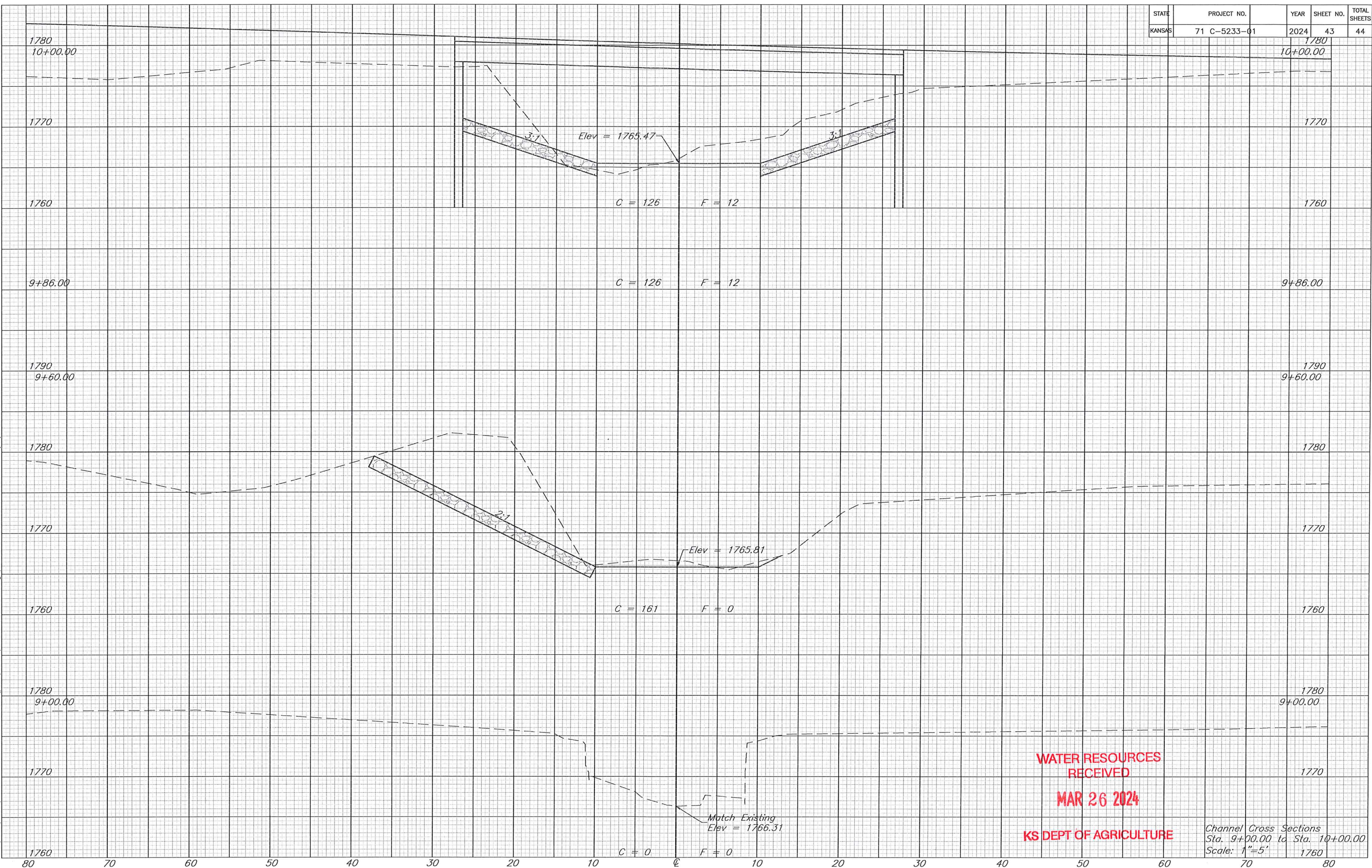
Road Cross Sections
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Scale: 1"=5'

**WATER RESOURCES
RECEIVED
MAR 26 2024
KS DEPT OF AGRICULTURE**

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	42	44

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	43	44

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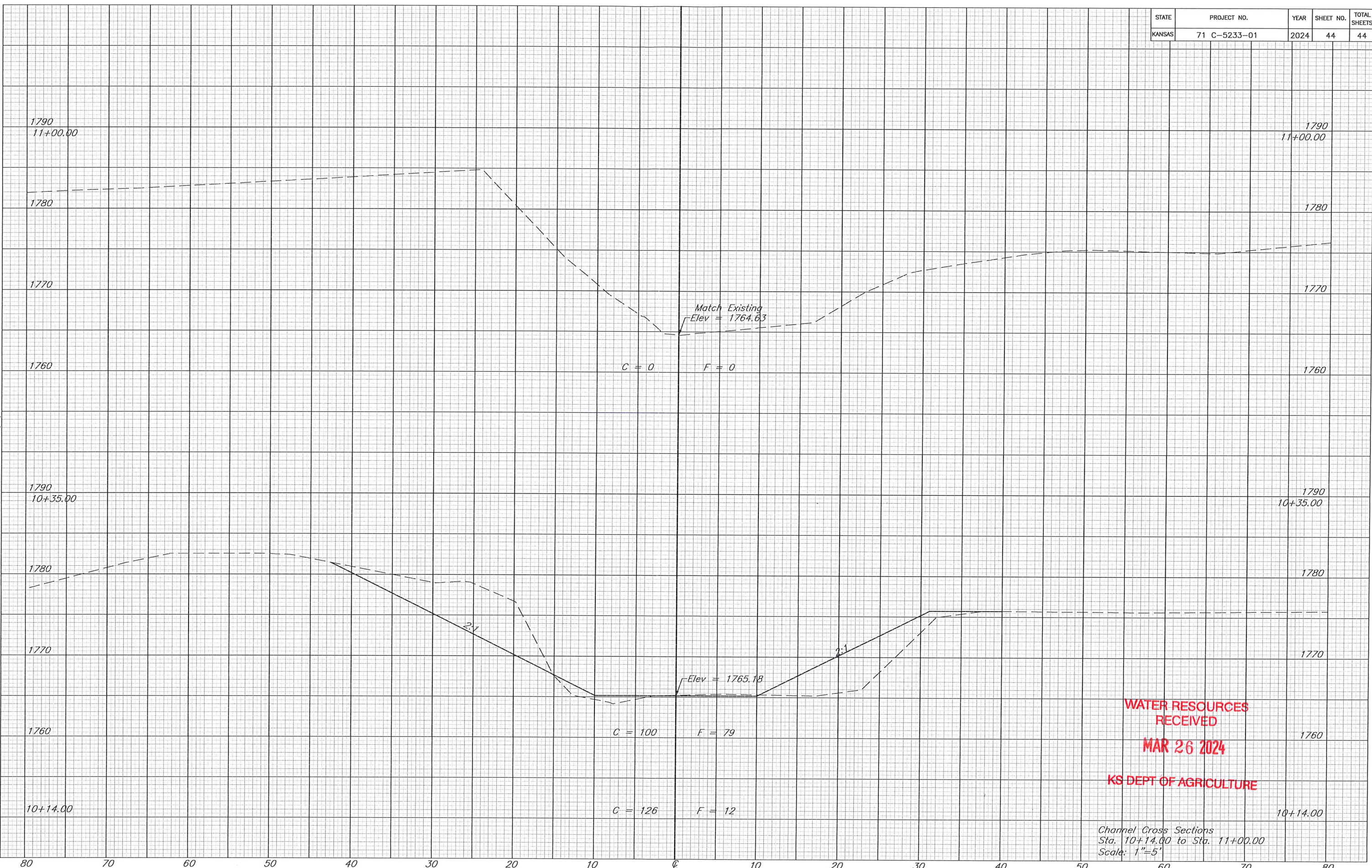
WATER RESOURCES RECEIVED
MAR 26 2024
KS DEPT OF AGRICULTURE

Channel Cross Sections
 Sta. 9+00.00 to Sta. 10+00.00
 Scale: 1"=5' 1760

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	71 C-5233-01	2024	44	44

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WATER RESOURCES RECEIVED
MAR 26 2024
KS DEPT OF AGRICULTURE

Channel Cross Sections
 Sta. 10+14.00 to Sta. 11+00.00
 Scale: 1"=5'