		87 U 0853-01		1	16

472 76 245 812 89000 000 007
FHWA NO. 87 BRM 6150 (003)

STATE OF KANSAS

DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

FEDERAL AID PROJECT

87 U 0853-01

MAC ARTHUR ROAD BRIDGE

OVER

THE BIG SLOUGH

CITY OF WICHITA PROJECT

472 76 245 81289 000 000 001

BRIDGE
GRADING

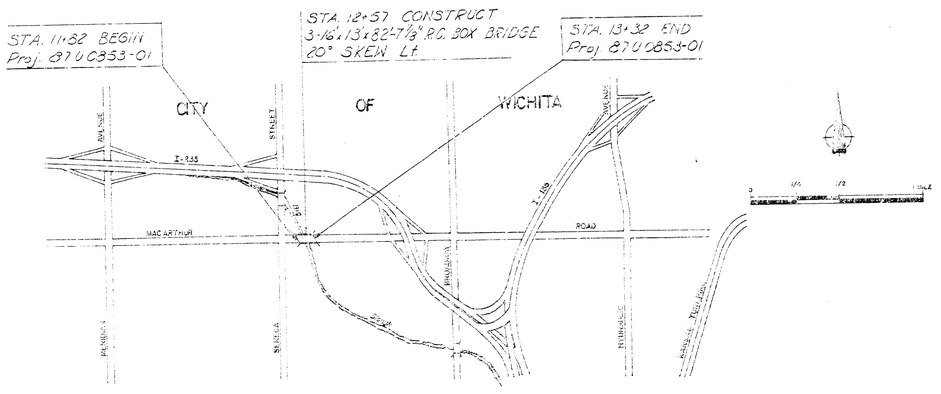
Completed - Construction Plans
87 U 0853-01 Project Not Constructed

Prepared By [signature] Const. Engineer

Date 12-30-86

INDEX OF SHEETS

1. Title Sheet
2. Plan Profile
3. Channel Excavation & Compacted Embankment
4-7 ~~Steel Plate Guard Fence Details~~
8-9 Bridge Details
10 Bridge Excavation
11 Supports and Spacers for Reinforcing Steel
12 Temporary Project Water Pollution Control
13 Summary of Quantities
14 Traffic Control Plan
15-16 Cross Sections
Deleted



MICROFILMED
YEAR 1988
ROLL NO. 644/92

DESIGN DESIGNATION

Traffic Count; 9,848 V.P.D., 1983
Traffic Count; 9,170 V.P.D., 2000

Design Speed 40 M.P.H.
Design Load HS-20-44

CONVENTIONAL SIGNS

COUNTY LINE		RETAINING WALL	
CORPORATE LIMITS		CENTER LINE OF PROJECT	
STATE OR NATIONAL LINE		LEVEE	
TOWNSHIP LINE		CULVERTS	
SECTION LINE		DROP INLETS	
GRANT LINE		ACCESS CONTROL	
FENCE LINE		POWER LINE	
GUARD FENCE		TELEPHONE OR TELEGRAPH LINE	
UNFENCED PROPERTY		MARSH	
RIGHT OF WAY LINE		HEDGE	
TRAVELLED WAY		TREES	
RAILROADS		GRADE ELEVATION	50

GROSS LENGTH OF PROJECT	150.00	FT.		
EXCEPTIONS	0.00			
ADDITIONS	0.00			
NET LENGTH OF PROJECT	150.00	FT.	0.028	MILES
NET LENGTH OF BRIDGES	54.62	FT.	0.010	MILES
NET LENGTH OF ROAD	95.38	FT.	0.018	MILES

NOTE:
The Contractor shall be responsible for preserving property irons. The Contractor shall be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor or a licensed professional engineer in accordance with state laws.

APPROVED BY — DATE 5-10-84
[signature]
MIKE LINDEBAK, P.E.
CITY ENGINEER
CITY OF WICHITA

RECOM. FOR APPROVAL — DATE
[signature]
CHIEF, BUREAU OF RURAL AND URBAN DEVELOPMENT
KANSAS DEPARTMENT OF TRANSPORTATION

APPROVED — DATE 1984
[signature]
STATE TRANSPORTATION ENGINEER
KANSAS DEPARTMENT OF TRANSPORTATION

DESIGNED BY — DATE 5-10-84
A. S. DELAMATER & ASSOCIATES INC.
CONSULTING ENGINEERS
WICHITA, KANSAS
[signature]

RECOM. FOR APPROVAL — DATE
ENGINEER
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE
DIVISION ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

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FHWA REG NO	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87-U-0853-01	1984	2	16

472 78 245 812 89000 000 007

P.O.T. Sta 6+00 & Extended = Sta 25+25 Project 87U-0754-01 25.0' South to thimble @ Section Corner

P.O.T Sta 10+00 Iron Pipe @ & 42.32' NNW to 20d Nail in PP 121.08 NNE to 20d Nail in PP 55.14 SSW to 20d Nail in PP

P.O.T. Sta. 15+00 Iron Pipe @ & 41.71' NNE to 60d Nail in PP 122.27' NNW to 60d Nail in PP 54.00' SSE to 20d Nail in PP

P.O.T. Sta 32+41.85 Iron @ & 25'-0" South to Thimble @ ¼ Section Corner.

SW¼ Sec. 8 - T28S - R1E
Platted residential

Remove existing Timber Bridge

City Service Oil & Gas Co. Storage & Truck Loading Facility

148.5 Drainage District

Riverside Dr.

Sta. 12+51 Construct 3 - 16'x 13'x 82'-7"a.l.C. Box Bridge, 20° Skew Lt. 13'-8" Roadway
See Sheets 6 & 7

26' Lt Install 18"x80' CMP with End Section into Box See Note # Remove 36" CMP

Install 18"x 74' CMP 26' Lt. with End Section into Box See Note # Remove 30"x 60' CMP

Sta 11+22 Begin Proj. 87U-0853-01

Sta 13+32 End Proj. 87U-0853-01

Install 18"x 70' CMP 36' Rt with End Section into Box See Note #

Install 2 - 24"x 70' CMP 36' Rt with End Section into Box See Note #

City Service Oil & Gas Co. Natural Gas Plant

Sta 10+00 Centerline Grading* Sta 10+57 & Project

Northwest Central Pipeline Co. Pipeline Facility

Cities Service Gas Co. 12" Gas Line

Southwestern Bell Telephone Co. Underground Cable

Mac Arthur Rd.

Seneca St.

UTILITY COORDINATION
City of Wichita, Kansas
Paving Ph. 268-4440
Drainage Ph. 268-4235
Traffic Ph. 268-4125
Water Ph. 268-4555
Southwestern Bell Telephone Co. Ph. 268-8254
Kansas Gas & Electric Co. Ph. 261-6666
Gas Service Co. Ph. 263-1311
Continental Pipeline Co. Ph. 268-7781
Cities Service Gas Co. Ph. 564-3621

Grade and crown to match existing pavement

Plant Mix Bituminous Mix (Comm. Gr.)

PROPOSED ROADWAY SECTION
THIS PROJECT

Future Handrail

ROADWAY SECTION
FUTURE CONSTRUCTION

SCALE: PLAN 1" = 50'
PROFILE HORIZ.: 1" = 50'
VERT.: 1" = 5'

GENERAL NOTES

Public and private utility facilities shall be moved or adjusted as necessary by the owners to fit the new construction, unless otherwise noted on the Plans or in the proposal.

Publicly owned and maintained street signs will be removed by the Traffic Operations and Maintenance Division of the City of Wichita after installation of project construction signing. Such signs will be reinstalled after the project is completed by the City's Traffic Operations and Maintenance Division.

Incorporate rock excavation in completed fill; chunks not over 0.5 cu. ft.

The Contractor shall remove the existing structural concrete deck girder bridge with four spans @ 10 feet + 1 foot to become the property of the contractor and to be removed from the site. * Structure No. 410-00010-0-07-00

See Sheet 3 for Limits of Construction

CHANNEL CROSS SECTION
AT THE BRIDGE

See sheet 3 for limits of common excavation and compacted embankment

B.M. Datum: C.O.S. City of Wichita 1187.4 M.S.L.

B.M. #1 City Std. Disc. 86' North & 28.5' West of Section Corner Seneca & Mac Arthur Elev. 30.37 *
* Ref. Proj. 87U-0754-01

B.M. #2 RR Spike in PP 35' Lt Sta 11+15 Elev. 32.87

B.M. #3 RR Spike in PP 37' Lt Sta 16+57 Elev. 29.81

*Note: Inlet FE elevations on all pipes, set 6" below existing ditch grade.

SPECIAL CONSTRUCTION NOTE.

The location of all underground pipelines in the vicinity of the bridge are shown to the best knowledge of the City, from information furnished by the owner.

It is possible, however, that there are lines not located exactly as shown; or abandoned lines; or old lines not showing on anyones records.

The contractor is therefore especially cautioned to satisfy himself, by contacting the owners, or by any other means available, to verify and establish the location and depth of all affected lines, and that they are moved clear of construction, before starting any channel or bridge excavation.

Hi Water El. 37.0* (1933)

4" Water Main

Ground Water El. 32.0

* 4760 Cu. Yds. Common Excavation (~35%)
10 Cu. Yds. Rock Excavation

2700 Cu. Yds. Comp. Type B (MR 90)

* Includes 1340 Cu. Yds. to be wasted in new channel up to original flow line after bridge is completed.

PLAN & ANGLE PLAN & PROFILE

℄ Project

Existing FE

Ground Water

FE 73.6

-0.10'/'

* Future Construction

CHANNEL CHANGE PROFILE

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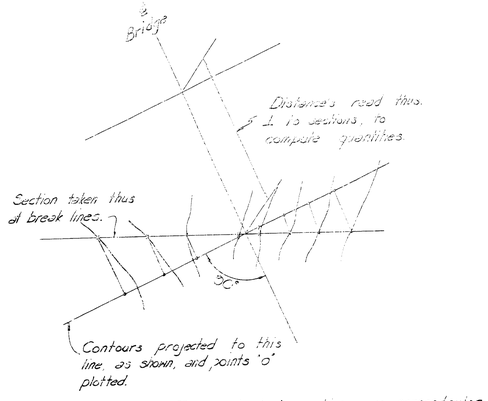
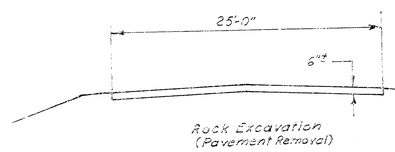
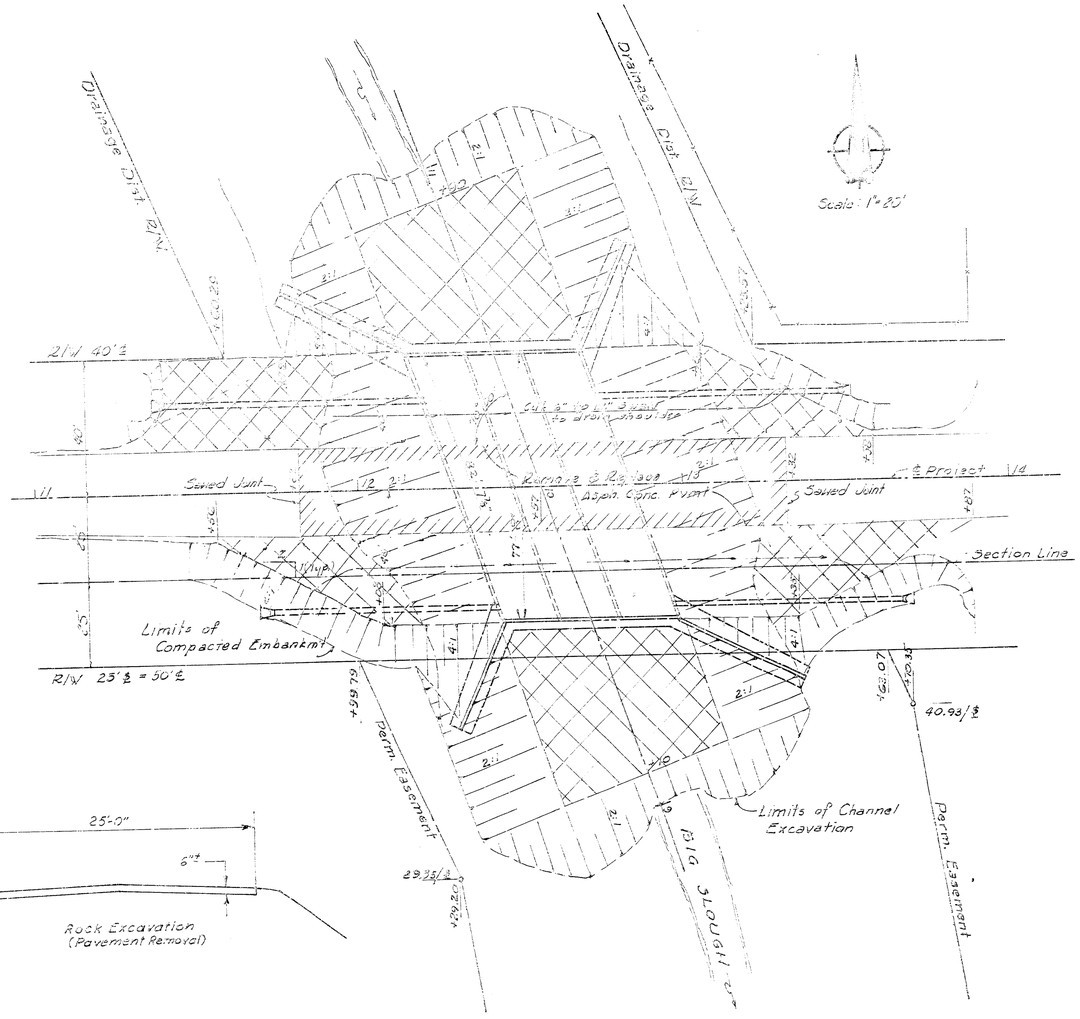


The projected sections are perpendicular to the distance between stations, to give acurate quantities, while keeping the sections along the breaks in grade. ℄, shoulder, top of wing, end of wing, etc, except at ends of channel, where sections are plotted perpendicular to ℄ channel.

CROSS SECTION DIAGRAM





Note: Plant Mix Bituminous Mixture-Commercial Grade when placed as base courses or surface courses shall be a mixture equal in quality to the asphalt surface course mixture Type SC-1 used locally on City of Wichita projects. Plant Mix Bituminous Mixture-Commercial Grade when placed as a leveling course shall be a mixture equal in quality to the asphalt base course mixture Type BC-1 used locally on City of Wichita projects. Such mixtures shall be produced by plants approved for production for local construction on contracts awarded by the City of Wichita. Final rolling of surface courses shall be with a flat steel wheeled roller.

CITY OF WICHITA
McCARTHUR ROAD SHIRLE
OVER THE 3M SLOUGH
PROJECT 472 73 [illegible]

CHANNEL EXCAVATION AND COMPACTED EMBANKMENT

R. S. DELAMATER & ASSOCIATES INC.
CONSULTING ENGINEERS
WICHITA, KANSAS

DES. R.S.D. DR. M.P. CKD. CDS APP. [illegible]
DATE 12/83 SHEET NO. 1012-A-3 5/12

5-5-84

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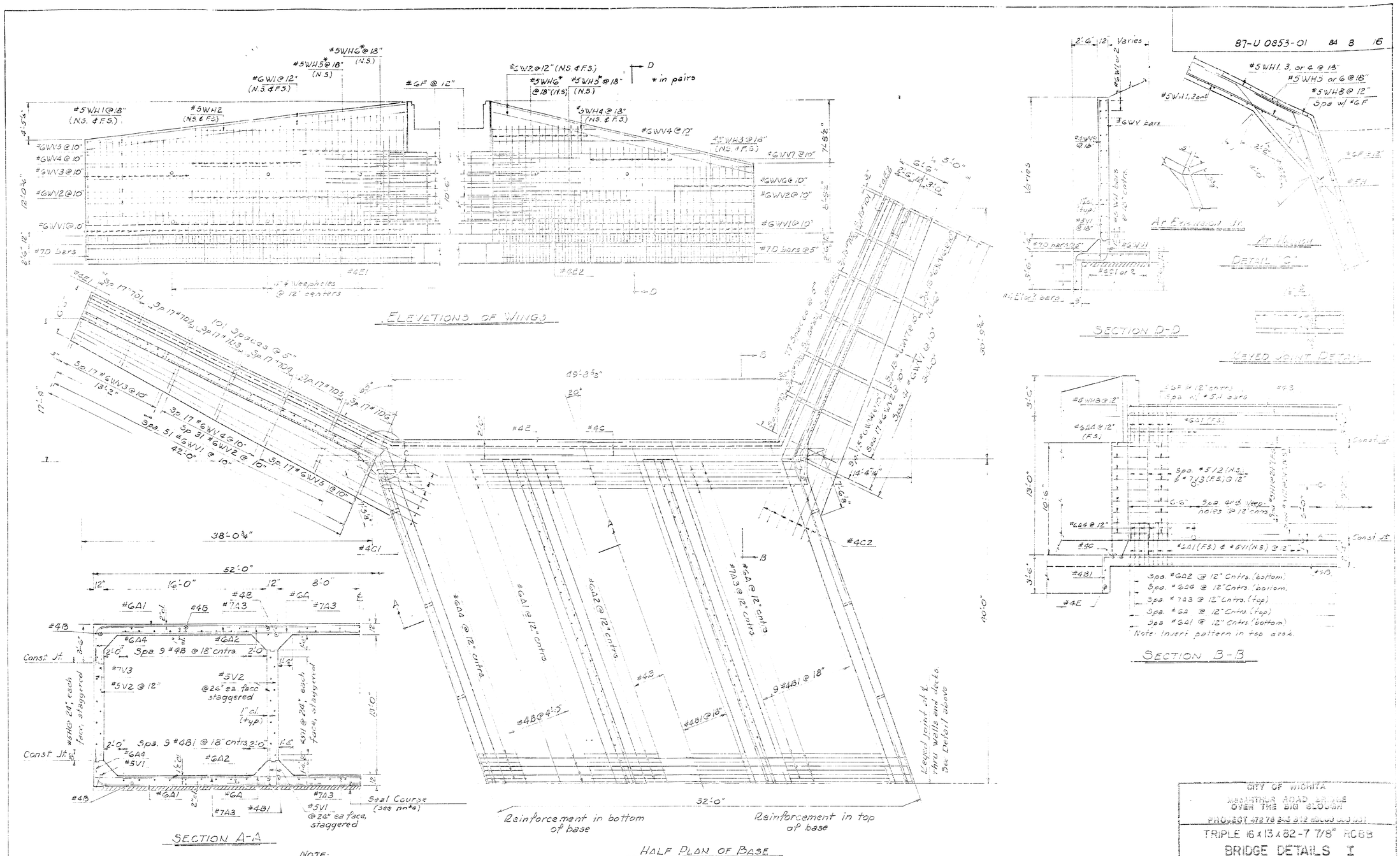

NOTE:
Seal Course consisting of 3" of Class A Concrete shall be constructed only if ordered by the Engineer. No reinforcing steel shall be placed until the Seal Course has gained sufficient strength to permit working upon it without injury.

CITY OF WICHITA
MacARTHUR ROAD BRIDGE
OVER THE BIG SLOUGH
PROJECT 472 78 2-3 & 12 [illegible]

TRIPLE 16 x 13 x 82-7 7/8" RCBB
BRIDGE DETAILS I

H. S. DELAMATER & ASSOCIATES INC.
CONSULTING ENGINEERS
WICHITA, KANSAS

DES. C.P.S.	DR. C.P.S.	CKD. [illegible]	APP. [illegible]
DATE. May, 1984	DWG. NO. 012-A-6		1/2

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	87-U 0853-01	84	3	16	

SUMMARY OF BRIDGE QUANTITIES

Class III Excavation	700	Cu. Yds.
Class AAA Concrete	699.5	Cu Yds.
Reinforcing Steel (Gr 60)	95,480	Lbs.
Foundation Stabilization	1	Cu. Yd.

BAR LIST

Straight Bars				Bent Bars			
Mark	Quan.	Size	Length	Mark	Quan	Size	Length
A	172	6	55'-0"	A1	344	6	31'-10"
A2	336	6	10'-0"	A4	336	6	8'-6"
A3	504	7	13'-0"				
B	114	4	42'-3"	B1	62	4	47'-11"
C	8	4	34'-0"	D1	60	7	9'-3"
C1	14	4	36'-0"	D2	60	7	9'-7"
C2	14	4	42'-0"	D3	60	7	9'-11"
X	32	6	5'-0"	D4	60	7	10'-3"
E	8	4	26'-0"	D5	60	7	10'-7"
E2	12	5	28'-6"	D6	60	7	10'-11"
G	8	6	29'-0"				
H	80	5	42'-3"	E1	4	4	45'-5"
V1	446	5	3'-9"	E2	4	4	34'-10"
V2	344	5	12'-4"				
V3	172	7	11'-0"	F	36	6	10'-7"
W1	8	6	42'-0"	F1	112	5	8'-5"
W2	8	6	34'-6"				
WH1	28	5	41'-6"	WH5	40	5	13'-0"
WR2	4	5	27'-4"	WH6	40	5	8'-0"
WH3	20	5	38'-6"	WH8	26	5	2'-0"
WH4	12	5	*				
WV3	34	6	10'-6"	WV1	134	6	3'-2"
WV4	68	6	12'-0"	WV2	96	6	10'-6"
WV5	34	6	13'-6"				
WV6	26	6	7'-3"				
WV7	26	6	9'-7"				
WV8	56	4	*				
WV9	48	4	*				

* Refer to Bending Diagrams.

GENERAL NOTES:

LOADING: H520-44 AASHTO Specifications, (1977 Ed) & Interims.

UNIT STRESSES: f'_c = 4,000 p.s.i. (Class AAA)
f_c = 1,600 p.s.i. " "
f_s = 24,000 p.s.i. (Reinf. Gr 60)

Class AAA Concrete shall be used throughout. Bevel all exposed corners with a ¾" triangular moulding, unless otherwise noted.

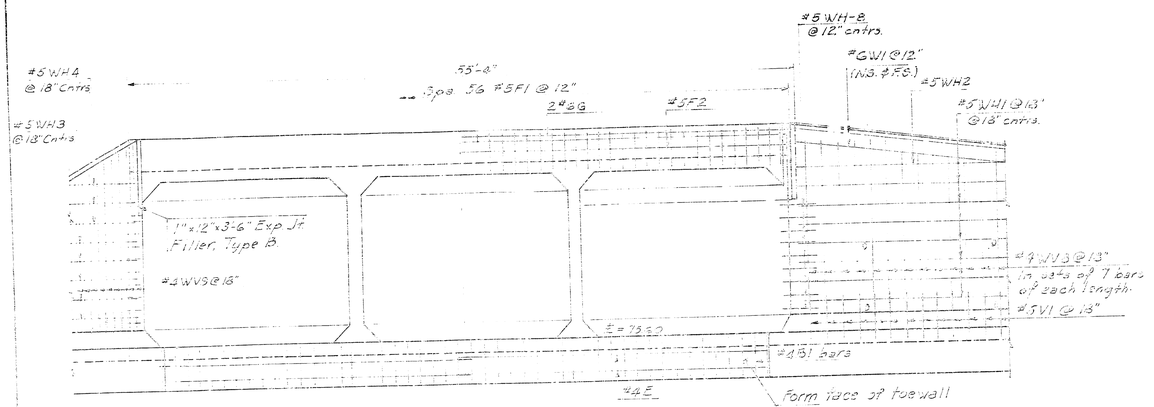
All reinforcing steel shall be Grade 60. All dimensions relative to placement of reinforcing steel are to centerline of bar unless otherwise noted. All dimensions on the bending diagrams are out to out of bars.

Seal course consisting of 3" of Class AA Concrete shall be constructed only when approved by the Engineer. No reinforcing steel shall be placed until the seal course has gained sufficient strength to permit working upon it without injury.

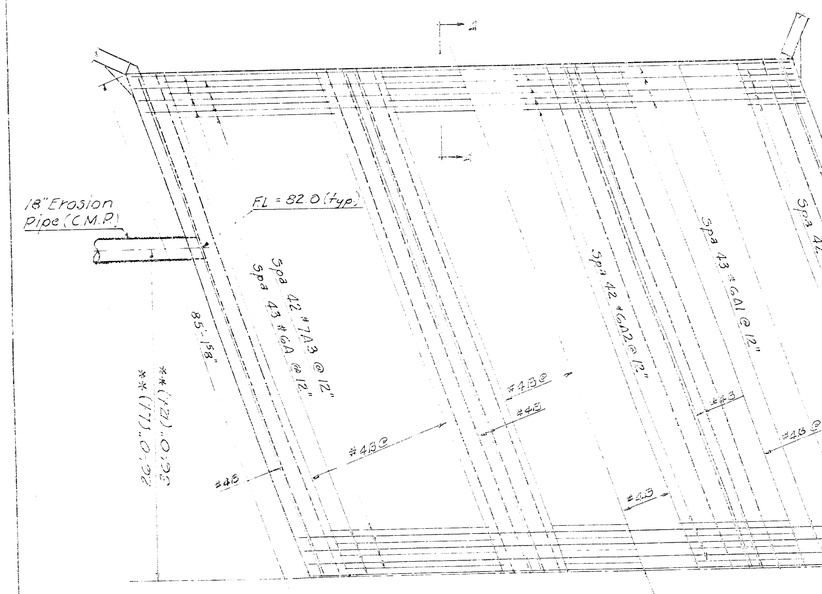
Payment for said final quantities resulting from including seal course as a change in the final plans, shall be made at the unit price bid for Class AAA Concrete.

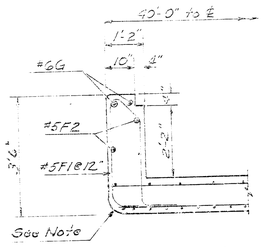
The structure shall be constructed in two equal sections with a construction joint as detailed through the base, walls and deck.

Aggregate shall be deposited in a continuous band behind each row of weepholes enclosed in a wrap of approved filter cloth as shown on the plans. This work and material shall be paid for under the bid item of Granular Backfill.



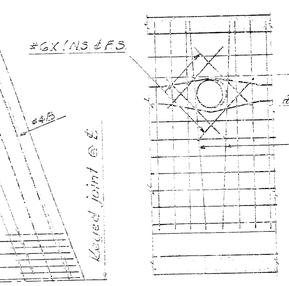
END ELEVATION



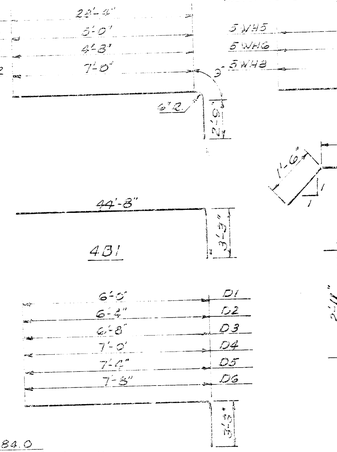


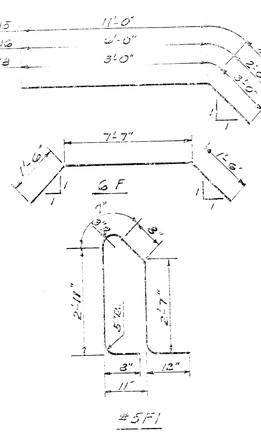
SECTION A-A

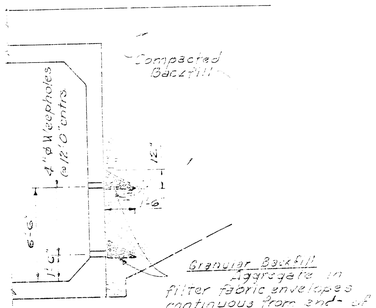
Note: Round at upstream end to 6" radius.



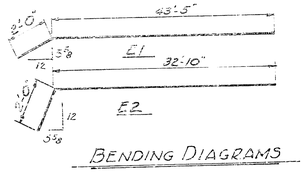
DETAIL "D"







Inc. from 13'-6" to 26'-6" by 6'-5" Incr.	5WH4
Cut 4 each length	
Inc. from 10'-6" to 14'-5¼" by 1'-3"	4WV3
Cut 2 each length	
Inc. from 7'-3" to 14'-7" x 4" Incr.	4WV9
Cut 2 each length	



BENDING DIAGRAMS

CITY OF WICHITA
NORTHEAST LOOP ROUTE
OVER THE BIG BLOWOUT
PROJECT NO. 278-245-212 (BRG. NO. 87-U-0853-01)
TRIPLE 6'x15'x32'-7 7/8" RCBC
BRIDGE DETAILS II
H. J. LEMMON & ASSOCIATES INC.
CONSULTING ENGINEERS
WICHITA, KANSAS
DES. CPS DR. CPS CHD. [illegible] DATE 12-82
DATE May, 1982 DWG. NO. 1012-A-2 5/12

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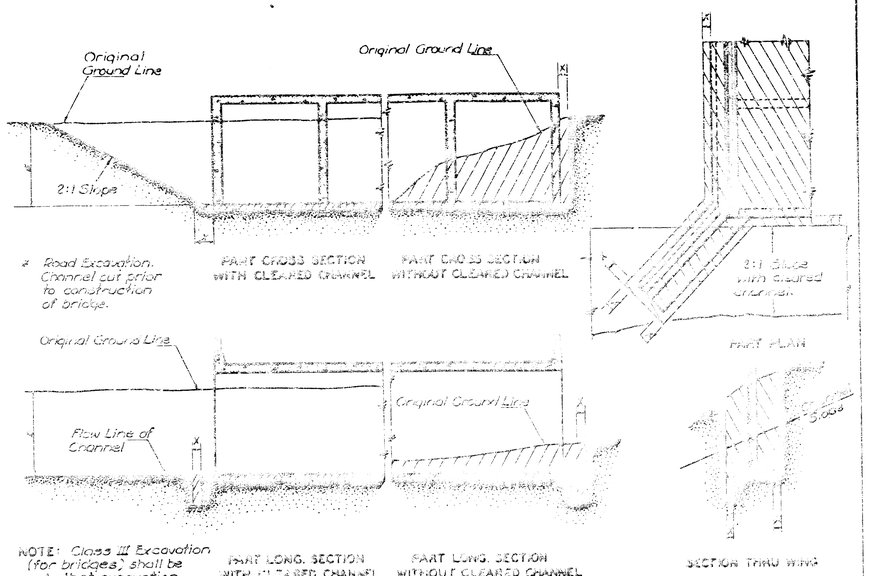
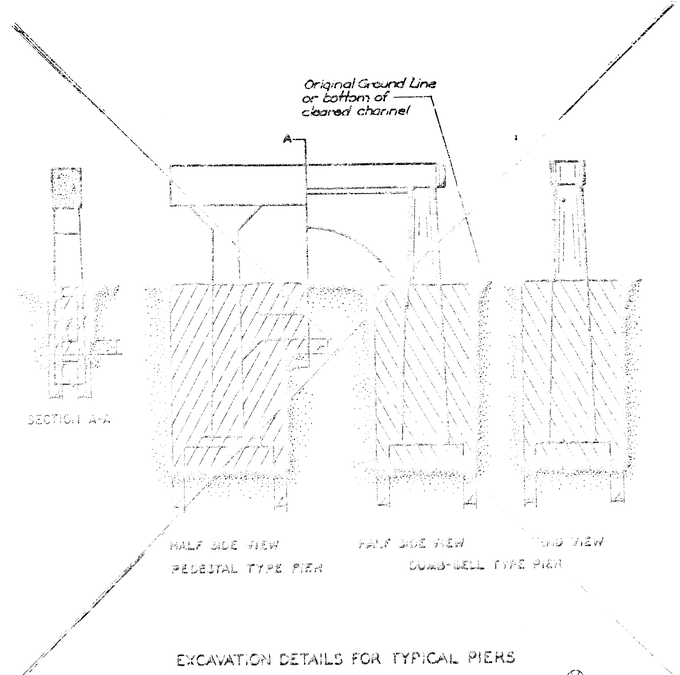
IOWA REGION NO	STATE	PROJECT NO	YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	87U0853-01	1984	10	15



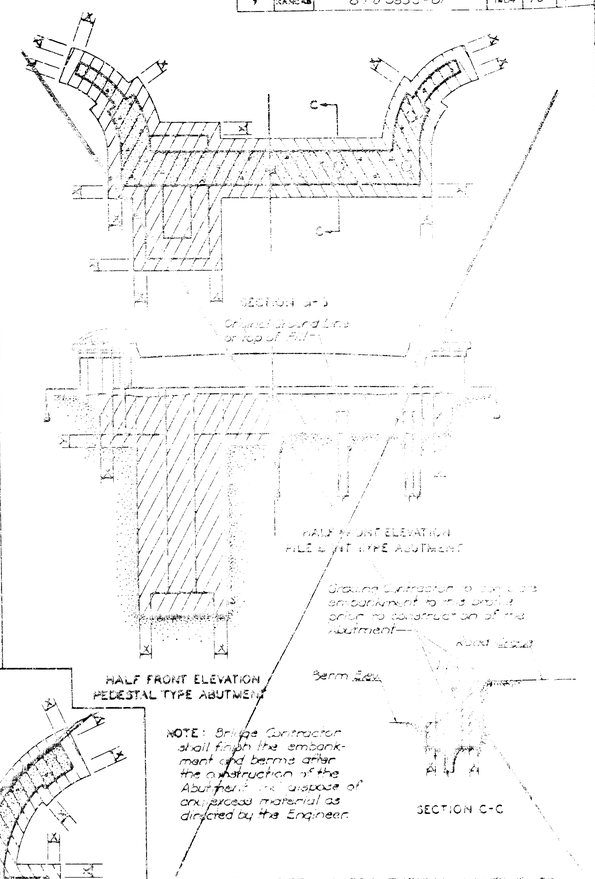
NOTE: Class III Excavation (for bridges) shall be only that excavation below the original ground line or the channel slopes as shown, whichever is the lowest.

EXCAVATION DETAILS FOR TYPICAL MULTIPLE BOX



EXCAVATION DETAILS FOR TYPICAL PIERS

See detail when Rock or Hard Shale is encountered.

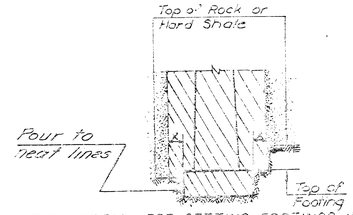


NOTE: Bridge Contractor shall finish the embankment and berms after the construction of the Abutment and dispose of any excess material as directed by the Engineer.

EXCAVATION DETAILS FOR TYPICAL ABUTMENTS

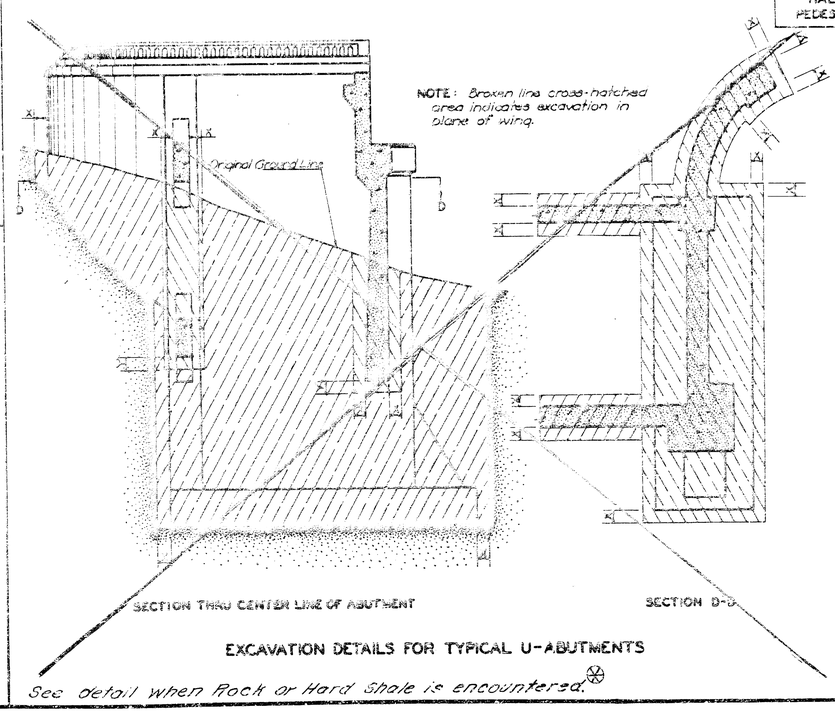
See detail when Rock or Hard Shale is encountered.

Sides of trenches in hard or compacted soil including embankments shall be shored, sheeted, braced or otherwise supported when the trench is more than 5 feet in depth and 8 feet or more in length. In lieu of the shoring, the sides of the trench above the 5 foot level may be sloped to preclude collapse. The slope for average soils shall be 1:1. If the angle of repose of the soil is less, flatter slopes shall be required.



EXCAVATION DETAIL FOR SETTING FOOTINGS IN ROCK
(Piers and Abutments)

Note:
When Rock or Hard Shale is encountered all excavation below top of this material or the top of the footing, whichever is lower, shall be to neat lines.



EXCAVATION DETAILS FOR TYPICAL U-ABUTMENTS

See detail when Rock or Hard Shale is encountered.

NOTE: All bridge excavation shall be computed on the basis of the cross-hatched areas and boundary lines indicated on this sheet.
Dimension 'X' shall be 2'-0" unless indicated otherwise on the general plans.
Dimension 'Y' shall be 1'-6" unless indicated otherwise on the general plans.

NO.	DATE	REVISIONS	BY	APPR.
10	12/83	Revised Detail of Rock Excav.	E.R.A.	A.F.
9	3/83	Revised Limits of Rock Excav.	B.L.	R.R.
8	6/74	Revised 'X' Dimension	W.L.A.	R.R.

KANSAS DEPARTMENT OF TRANSPORTATION

BRIDGE EXCAVATION

~~STD. NO. 100-1~~ SCALE 1/8" = 1' (For 22" x 36" sheet)
DESIGNED BY E.A.R. DATE 6-83 DETAILED BY W.A.B. TRACED BY W.A.B.
CHECKED BY C.T. APPROVED BY [signature] DATE 6/6/83

5-30-84

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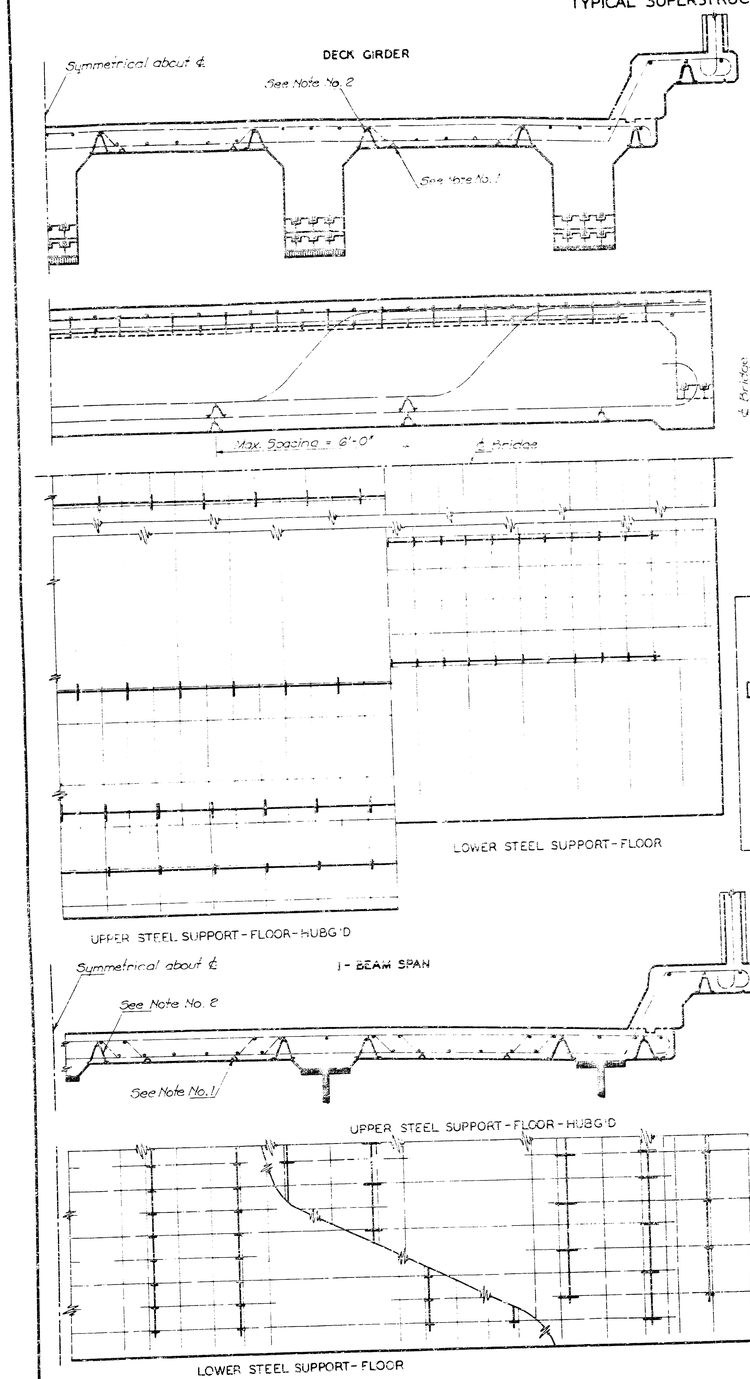
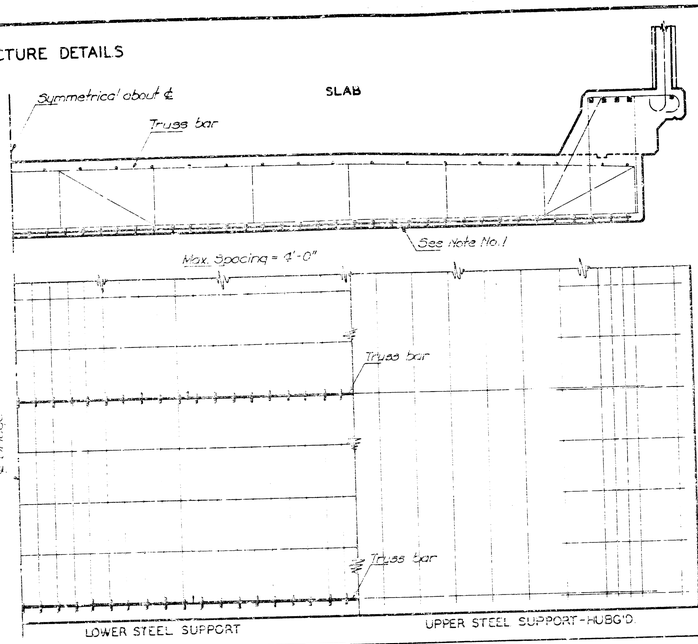
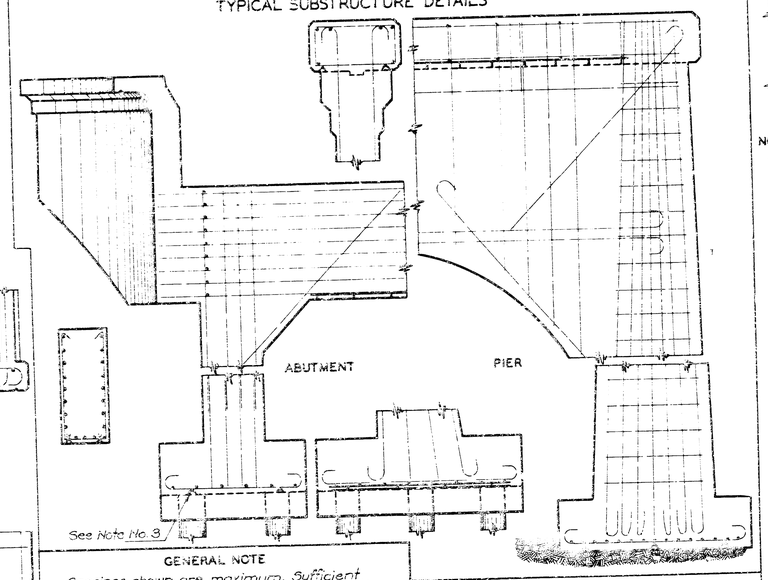
FHWA REGION NO	STATE	PROJECT NO	YEAR	SHEET NO	TOTAL SHEETS
7	KANSAS	87U0853-01	1984	11	16

TYPICAL SUPERSTRUCTURE DETAILS





TYPICAL SUBSTRUCTURE DETAILS



GENERAL NOTE

Spacings shown are maximum. Sufficient supports shall be used, as determined by the Engineer, to retain the reinf. steel in position.

Approved designs and arrangements of Supports or Spacers other than as shown on this sheet, may be used with the permission of the Engineer. Component parts of Supports and Spacers shall be securely welded at all contact points. Legs shall be so constructed that only the ends bear upon the forms.

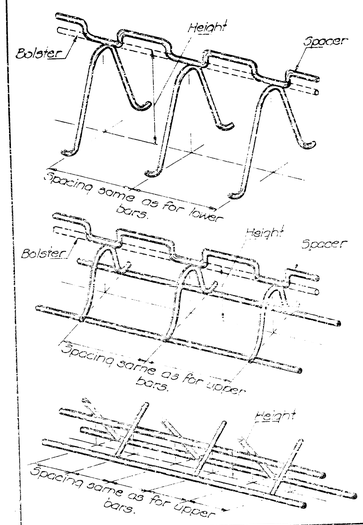
Wire used for Supports and Spacers shall be of sufficient size to insure stability of Reinforcing Steel at the position shown on the Plans, within the limits indicated by Notes 1 & 2. Wire supports shall be supplemented with form ties or other approved devices where necessary.

NOTE 1: The lower side of Reinforcing Steel in these locations shall be not less than one inch (1") from the surface of the concrete.

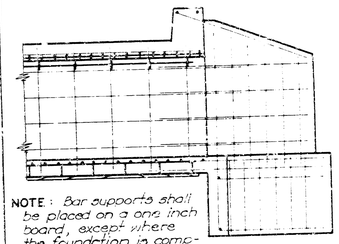
NOTE 2: The upper side of Reinforcing Steel in these locations shall be within the limits shown on the Plans.

NOTE 3: The use of Wire Supports for Reinforcing Steel in these locations is optional. Where they are not used the Steel shall be supported from the forms by means of wire ties or saddles.

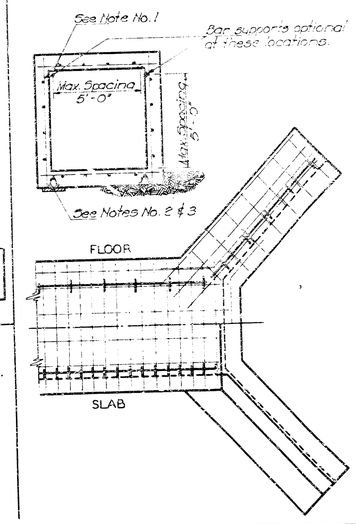
BEAM BAR SPACERS & BOLSTERS



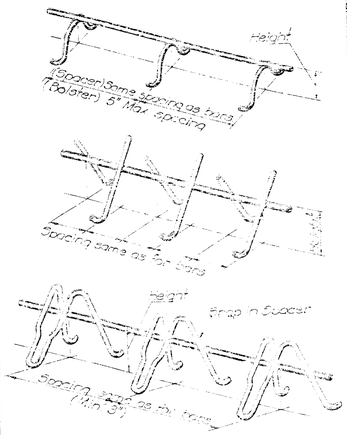
TYPICAL CULVERT DETAILS



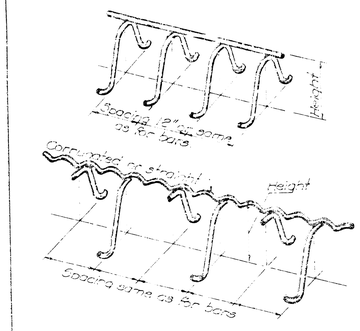
NOTE: Bar supports shall be placed on a one inch board, except where the foundation is composed of rock, firm shale or a seal course. See Note No. 3.



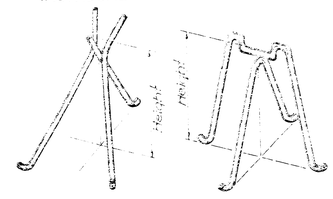
LOW SLAB BAR SPACERS & BOLSTERS



HIGH SLAB BAR SPACERS & BOLSTERS



INDIVIDUAL HIGH BAR CHAIRS



NO	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

SUPPORTS AND SPACERS FOR REINFORCING STEEL

STD. NO. 610 SCALE No Scale

DESIGNED BY S.A.R. DATE 7-83 DETAILED BY W.A.B. TRACED BY W.A.B.

CHECKED BY C.T. APPROVED BY [illegible] DATE 4-2-12

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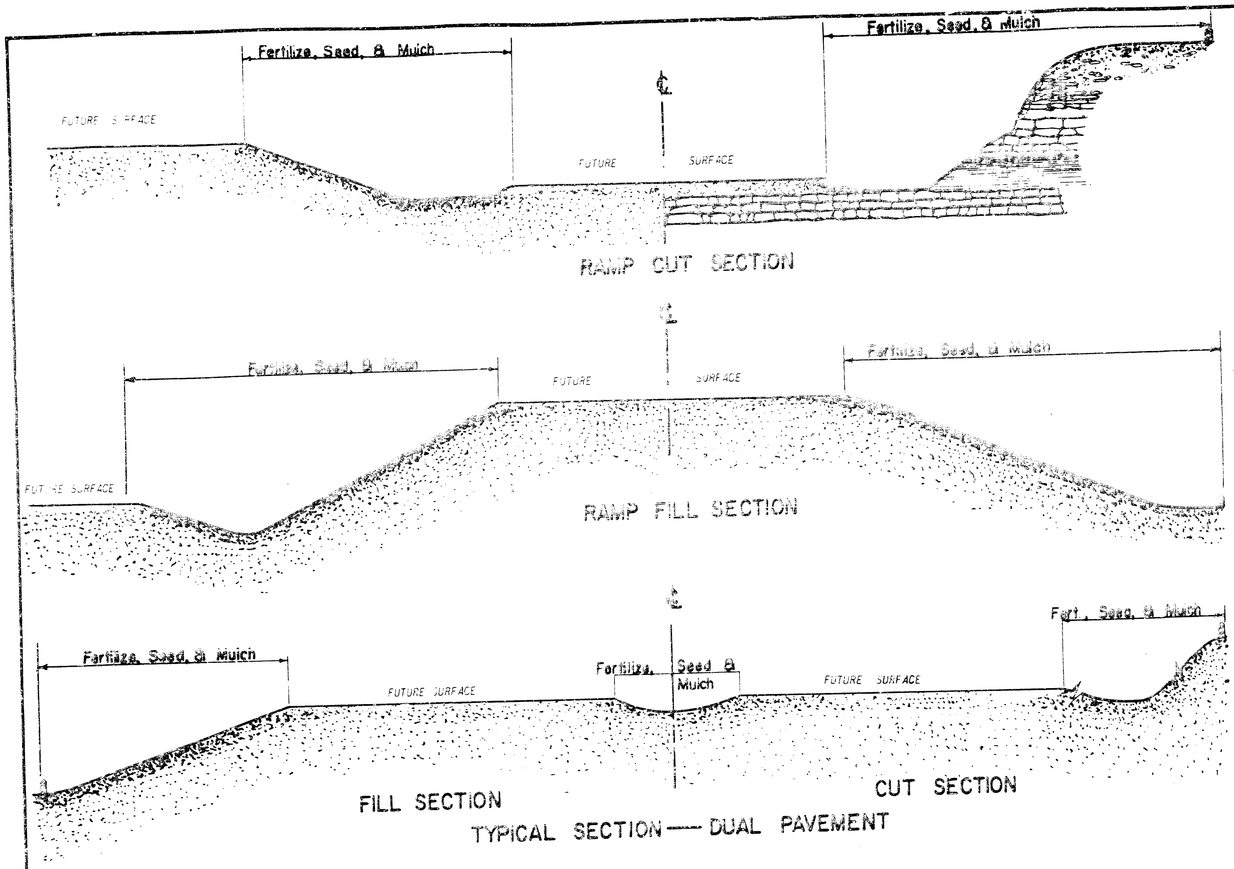
FHWA REG.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS	87U0853-01	1984	12	16



All disturbed areas within the Right of Way excepting steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized, 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, a permanet seeding shall be done by another project during the normal seeding season.

The amount of mulch in the bid quantities is estimated. The total mulch required shall be determined in the field. Mulch shall be spread uniformly over all disturbed areas and punched into the soil, unless otherwise noted on the plans.

The bid item for mulching shall be paid for by one of the following ways: A. Plan quantity as shown on Summary of quantities, seeding sheet or water pollution control sheet, B. Slope measurement as measured in the field, C Drill measurement less 5% as measured at time of seeding.

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 project water pollution (Soil Erosion) items or water pollution control (Soil Erosion)(Lump Sum) will be finished in reasonably close conformity to the alignment, grade and cross section shown on the plans or as established by the Engineer.

The rate of application per acre, thickness in place for the various mulching materials are as follows:

Prairie Hay Mulching	1½ - 2 tons per acre	=	1" loose depth spread uniformly over acre.
Bromegrass Mulching	1½ - 2 tons per acre	=	1" loose depth spread uniformly over acre.
Wheat or Oats Straw Mulching	1½ - 2 tons per acre	=	3" loose depth spread uniformly over acre.
Wood Chips Mulching	4 - 5 tons per acre	=	1"-2" loose depth spread uniformly over acre.
Wood Fiber Mulching	1 ton per acre	=	spread uniformly over acre.

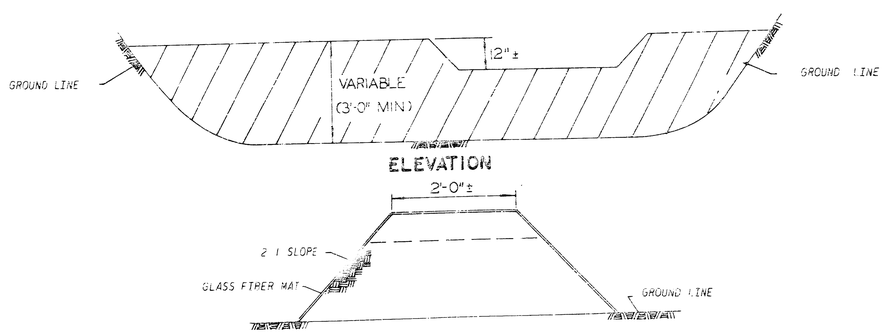
Other vegetative mulches may be acceptable, if Engineer concurs.

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

FERTILIZER NOTE: Any ratio and application rate that equals or exceeds the required minimum rate per acre of $N - P_2O_5 - K_2O$ listed in Summary of Quantities will be acceptable.

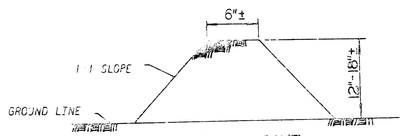
SUMMARY OF QUANTITIES

RATE	ACRES	ITEM	BID QUANTITIES	UNIT
		Water Pollution Control (Soil Erosion)	Lump Sum	L.S.



Cover dike with glass fiber mat, soil retention blanket, or other similar material as approved by the Engineer. The dike and basin shall be of sufficient size to handle the anticipated silt load. The basin shall be utilized at locations of expected heavy silt carrying runoff from slopes, terraces or other similar areas.

TYPICAL DIKE FOR SILTING BASIN



This dike may be used at any location, slopes, ditches, edges of shoulders, etc... that may be deemed neccessary. The dike may drain into a silting area or may be drained down a flume constructed with glass fiber mat, soil retention blanket, or other similar material as approved by the Engineer.

NOTE: Rounding or softening toe of slope and top of slope on dikes, etc. shall be required

NO	DATE	REVISIONS	BY	APP'D
7	Jan. 4 83	Wood Fiber Mulching Added	N.D.R.	C.L.M.
6	May 9 77	Added Soil Retention Blanket Note	L.F.P.	C.L.M.
5	Apr. 18-77	Mulching payment note added	L.F.P.	C.L.M.
4	11-5-75	Added Mulching Note	L.F.P.	C.L.M.
3	8-8-73	Deleted Hydraulic Seeding Note	L.F.P.	C.L.M.
2	10-8-71	Added Fertilizer Note	L.F.P.	L.M.C.

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY PROJECT WATER POLLUTION CONTROL

STD. NO. 852A (SOIL EROSION)

SHEET NO.	OF	SCALE No Scale	APP'D	TRACED	L.F.P.
DESIGNED	C.L.M.	DETAILED L.F.P.	QUANTITIES	TRACE CK	C.L.M.
DESIGN CK	C.L.M.	DETAIL CK C.L.M.	QUAN. CK		12

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FHWA REG. NO.	State	Project No	Fiscal Year	Sheet No.	Total Sheets
7	Kansas	BTUC-9301	1984	13	15

EARTHWORK

Sta. to Sta.		Excavation Cu. Yds. Rock	Excavation Cu. Yds. Common	Compaction of Earthwork Type B MP 20
11+82	13+32	70	4,760*	2,700
* Channel Change				
		70	4,760	2,700

DRAINAGE STRUCTURES

Station	Side	Size	Type	Conc. Cl. "A" Cu. Yds.	Reinf. Steel Lbs.	Erosion Pipe 18"	End Section 18"
11+41	Lt.	18"	Erosion			80	1
11+73	Rt.	18"	Erosion			70	1
12+74	Lt.	18"	Erosion			74	1
12+97	Rt.	18"	Erosion			10	1
Totals				—	—	234	4 ea.

RECAPITULATION OF BRIDGE QUANTITIES

Bridge No. —
Station 12+57

Item	Unit	
Class I Excavation	Cu. Yds.	—
Class II Excavation	Cu. Yds.	—
Class III Excavation	Cu. Yds.	700
Water	M. Gals.	—
Class AAA Concrete	Cu. Yds.	699.5
Class A Concrete	Cu. Yds.	—
Reinforcing Steel	Lbs.	93,480
Structural Steel	Lbs.	—
Bearing Devices	Lbs.	—
Cast Iron	Lbs.	—
Untreated Timber Piles	Lin. Ft.	—
Treated Timber Piles	Lin. Ft.	—
Steel Piles	Lin. Ft.	—
Untr. Timber Test Piles	Lin. Ft.	—
Steel Test Piles	Lin. Ft.	—
Metal Pile Points	Each	—
Foundation Stabilization	Cu. Yds.	1
Removal of Exist. Struct.	L.S.	—

RECAPITULATION OF ROAD QUANTITIES

Clearing and Grubbing	L.S. Lump Sum
Removal of Existing Structure	L.S. Lump Sum
Common Excavation	4,760 Cu. Yds.
Rock Excavation (Pavement Removal)	70 Cu. Yds.
Compaction of Earthwork (Type B)(MP-20)	2,700 Cu. Yds.
Granular Backfill	18 Cu. Yds.
Water	1 M. Gals.
Plant mix Bituminous Mix (Comm. Grade)	140 Tons
18" Erosion Pipe (CMP)	298 Lin. ft.
18" End Sections (CMP)	4 Each
Temporary Surfacing Material	1 Cu. Yd.
Field Office and Laboratory (Type C)	1 Each
Contractor Construction Staking	L.S. Lump Sum
Mobilization	L.S. Lump Sum

Water Pollution Control. See Sheet No. 12
Traffic Control. See Sheet 19

FOR INFORMATION ONLY

RECAP OF ROCK EXCAVATION

Sta. 11+82 to Sta. 13+32 (Pavement Removal)	70 Cu. Yds.
Total	70 Cu. Yds.

FOR INFORMATION ONLY

RECAP FOR LARGE TREES

Rt. Sta. 12+30	1 Each
Total	1 Each

KANSAS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

REV. 1-10-75

STD. NO. 550.2

DETAILED & TRACED ... APPROVED ... DATE 9/3/84

SUMMARIES TABULATED ..... CHKD. ..... INKED ...

5-30-84

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FHWA REG NO	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO	TOT. SHEETS
7	KANSAS	87-U-0853-01	1984	14	16

472-76-245-812-89000-000-007

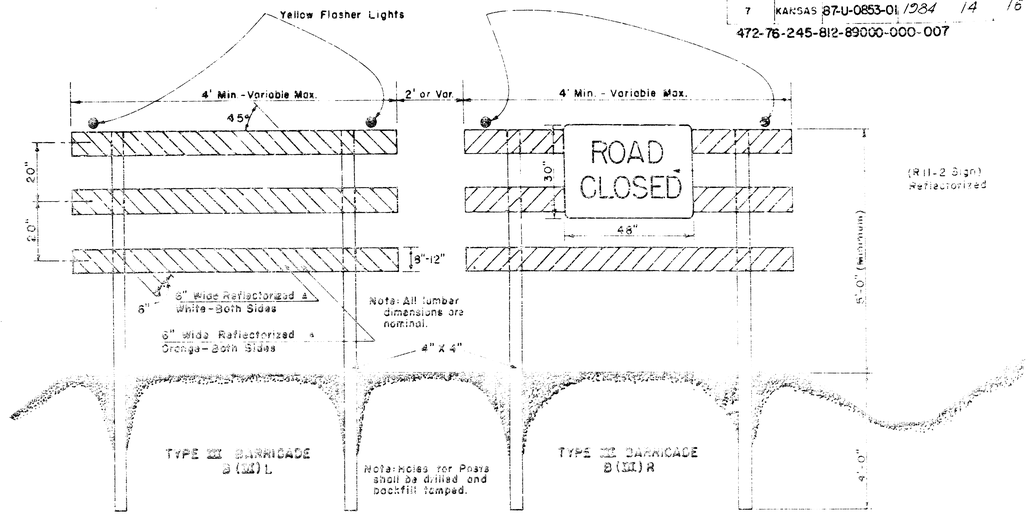
LIST OF TRAFFIC CONTROL DEVICES

MARK	ITEM	M.U.T.C.D. Device No.	Size	No. of Construction Signs by Area: 0 - 9.25 S.F.	9.26-18.25 S.F.	18.26 S.F. +	Barricades Type I or I	Type III Barricades: 4' - 8'	9' - 14'	Flashers Each	Flagger Each	REMARKS
1		B(III)L	10'±						2 **			
2		B(III)R	10'±						2 **			
3		B III R	8'					1 **				
4		B(I)or(II)	12'				4 **					
5	ROAD CLOSED TO THRU TRAFFIC Sign	R11-4	60"x30"		2 **							Mount on B(III)
6	ROAD CLOSED ½ MILE AHEAD Sign	R11-3	60"x30"		1 **							Mount on B(III)
7	ROAD CLOSED 1000' AHEAD Sign	W 30-	48"x48"		2 **							
8	DETOUR Sign	M4-10(R)L	48"x18"		2 **							Mount on B(III)
9	DETOUR Sign	M4-10R	48"x18"		1 **							Mount on B(III)

* By Grading Contractor ** By Bridge Contractor *** By County

RECAPITULATION OF QUANTITIES

Bid Item	Grading Contract Quantity	Unit	Bridge Contract Quantity	Unit	County-Non Participating Item Quantity	Unit
Construction Signs (0-9.25 Sq. Ft.)		Each / Day		Each/Day		
Construction Signs (9.26-18.25 Sq. Ft.)		"		"		
Construction Signs (18.26 Sq. Ft. and Over)		"		"		
Construction Barricades (Type I or II)		"		"		
Construction Barricades (Type III)		"		"		
Construction Warning Lights (Type B - High Intensity)		"		"		
Vertical Panels (Single Type)		"		"		
Vertical Panels (Back to Back Type)		"		"		
Traffic Control			Lump	Sum		



FIXED BARRICADE
Scale 1" = 2'

△ The entire area of orange and white shall be reflectorized with reflective sheeting or other reflective processes as approved by the Engineer

GENERAL NOTES

All Traffic Control Devices and installation on the project shall conform with MUTCD

Barricades are to be set at locations shown on the Traffic Control Plan sheet or as directed by the Engineer. Sufficient barricades shall be erected to adequately close the roadway width to traffic and to provide access for local traffic. The barricades may be fixed by erection as shown, may be weighted with approved skids anchored by use of sandbags or may be mounted on wheels and moved into proper alignment in accordance with MUTCD.

The unit bid price for traffic control devices shall be full compensation for providing, installing, removing, replacing, maintaining, removing and cleaning all traffic control devices required on the project by the Engineer.

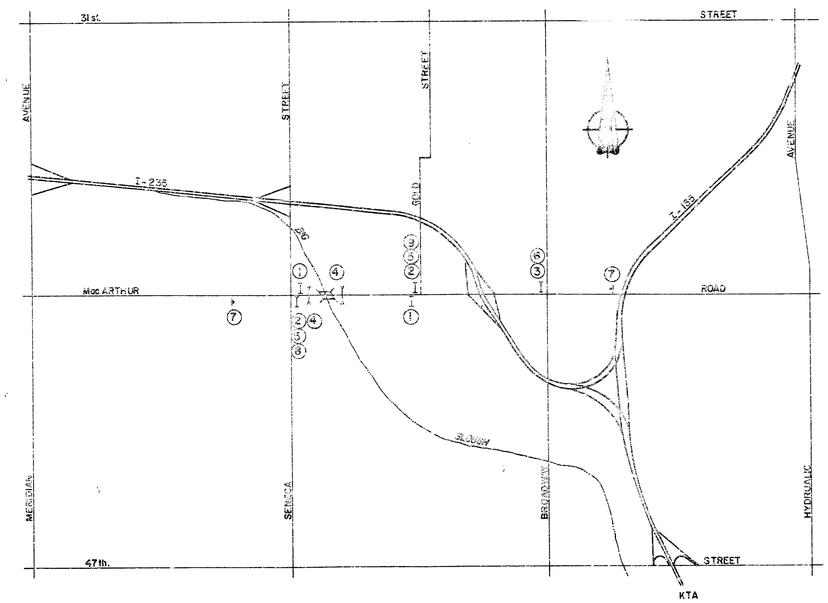
~~Regardless of number, all night-use warning devices required by the plans, engineer's directive or approved by the Engineer shall be paid for the appropriate pay item or lump sum.~~

Yellow Construction Warning Lights are required on all barricades and signs.

Uniformed flagger, when used with the warning devices, shall be paid for.

~~The County shall, when required, be responsible for the erection, removal, maintenance, and operation of~~ ~~who will have the responsibility on each project and~~ ~~shall be available 24 hours a day to respond~~ ~~control devices required as per the Traffic Control Plan. The County shall be responsible for the~~ ~~and of the above mentioned on the project. The County shall be responsible for~~ ~~maintenance as required by the Engineer.~~

All signs shall be mounted on 6"x 4" wood posts, other than those attached to Type II Barricades.



NO	DATE	REVISIONS	BY	APP'D
2	12-22-81	Rel. to Flashing Lights Revised	WLS	AUM
1	9-14-81	Rel. to Plan Process Note Added	WLS	AUM

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

ST'D. NO. 760.1S

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KANSAS 87U0853-01

6" Pavement (Back Only)

5" Pavement

6" Pavement (Ahead Only)

Compacted Fill

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