

ABUTMENT DRAIN INFORMATION				
BR. NO. 54-87-19.29(492) F.E.B.				
REFERENCE	POINT	N COORD.	E COORD.	ELEVATION
ABUT. #1	A	511441.409	491957.342	400.47
	B	511431.307	491960.417	400.36
	C	511430.513	491959.397	400.34
	D	511429.848	491959.648	400.33
	E	511431.468	491964.967	399.93
ABUT. #2	A	511479.787	492056.589	400.17
	B	511463.807	492061.454	400.00
	C	511463.753	492062.749	399.98
	D	511463.066	492062.929	399.96
	E	511459.224	492050.305	398.00

ABUTMENT DRAIN INFORMATION				
BR. NO. 54-87-19.30(493) E.B.				
REFERENCE	POINT	N COORD.	E COORD.	ELEVATION
ABUT. #1	A	511450.105	491954.772	400.71
	B	511466.506	491949.781	400.54
	C	511482.799	491944.823	400.37
	D	511482.824	491943.537	400.35
	E	511483.622	491943.307	400.33
ABUT. #2	A	511485.227	491948.682	399.93
	B	511497.389	492051.231	400.18
	C	511513.680	492046.272	400.00
	D	511514.400	492047.330	399.98
	E	511515.209	492047.071	399.96

ABUTMENT DRAIN INFORMATION				
BR. NO. 54-87-19.31(494) W.B.				
REFERENCE	POINT	N COORD.	E COORD.	ELEVATION
ABUT. #1	B	511466.506	491949.781	400.54
	C	511482.799	491944.823	400.37
	D	511482.824	491943.537	400.35
	E	511483.622	491943.307	400.33
	F	511485.227	491948.682	399.93
	G	511497.389	492051.231	400.18
ABUT. #2	B	511485.227	491948.682	399.93
	C	511513.680	492046.272	400.00
	D	511514.400	492047.330	399.98
	E	511515.209	492047.071	399.96
	F	511510.974	492033.773	397.75

ABUTMENT DRAIN INFORMATION				
BR. NO. 54-87-19.32(495) F.W.B.				
REFERENCE	POINT	N COORD.	E COORD.	ELEVATION
ABUT. #1	A	511500.531	491939.505	400.25
	B	511490.415	491942.427	400.14
	C	511489.712	491941.360	400.12
	D	511489.029	491941.558	400.10
	E	511490.691	491947.018	399.93
ABUT. #2	A	511531.369	492040.810	399.83
	B	511521.341	492044.020	399.70
	C	511521.351	492045.297	399.68
	D	511520.674	492045.514	399.66
	E	511516.432	492032.195	397.75

BILL OF MATERIALS FOR ABUTMENT STRIP DRAIN			
ITEM	BR. NO. 54-87-19.29(492) F.E.B.	ABUT. #1	ABUT. #2
Bridge Backwall Prof. Sys.	38	55	m ²
Strip Drain	24	45	m ²
* 100mm Dia. Perforated Pipe	10.6	16.7	m
* 100mm Dia. Non-Perforated Pipe	5.4	13.0	m
* 150mm Dia. C.M.P.	2.5	2.5	m

* Subsidiary to 'Abutment Strip Drain'

BILL OF MATERIALS FOR ABUTMENT STRIP DRAIN			
ITEM	BR. NO. 54-87-19.30(493) E.B.	ABUT. #1	ABUT. #2
Bridge Backwall Prof. Sys.	75	52	m ²
Strip Drain	63	45	m ²
* 100mm Dia. Perforated Pipe	17.1	18.1	m
* 100mm Dia. Non-Perforated Pipe	5.5	13.8	m
* 150mm Dia. C.M.P.	2.5	2.5	m

* Subsidiary to 'Abutment Strip Drain'

BILL OF MATERIALS FOR ABUTMENT STRIP DRAIN			
ITEM	BR. NO. 54-87-19.31(494) W.B.	ABUT. #1	ABUT. #2
Bridge Backwall Prof. Sys.	69	47	m ²
Strip Drain	60	39	m ²
* 100mm Dia. Perforated Pipe	17.1	17.1	m
* 100mm Dia. Non-Perforated Pipe	5.5	13.8	m
* 150mm Dia. C.M.P.	2.5	2.5	m

* Subsidiary to 'Abutment Strip Drain'

BILL OF MATERIALS FOR ABUTMENT STRIP DRAIN			
ITEM	BR. NO. 54-87-19.32(495) F.W.B.	ABUT. #1	ABUT. #2
Bridge Backwall Prof. Sys.	38	38	m ²
Strip Drain	24	23	m ²
* 100mm Dia. Perforated Pipe	10.6	10.6	m
* 100mm Dia. Non-Perforated Pipe	5.5	13.8	m
* 150mm Dia. C.M.P.	2.5	2.5	m

* Subsidiary to 'Abutment Strip Drain'

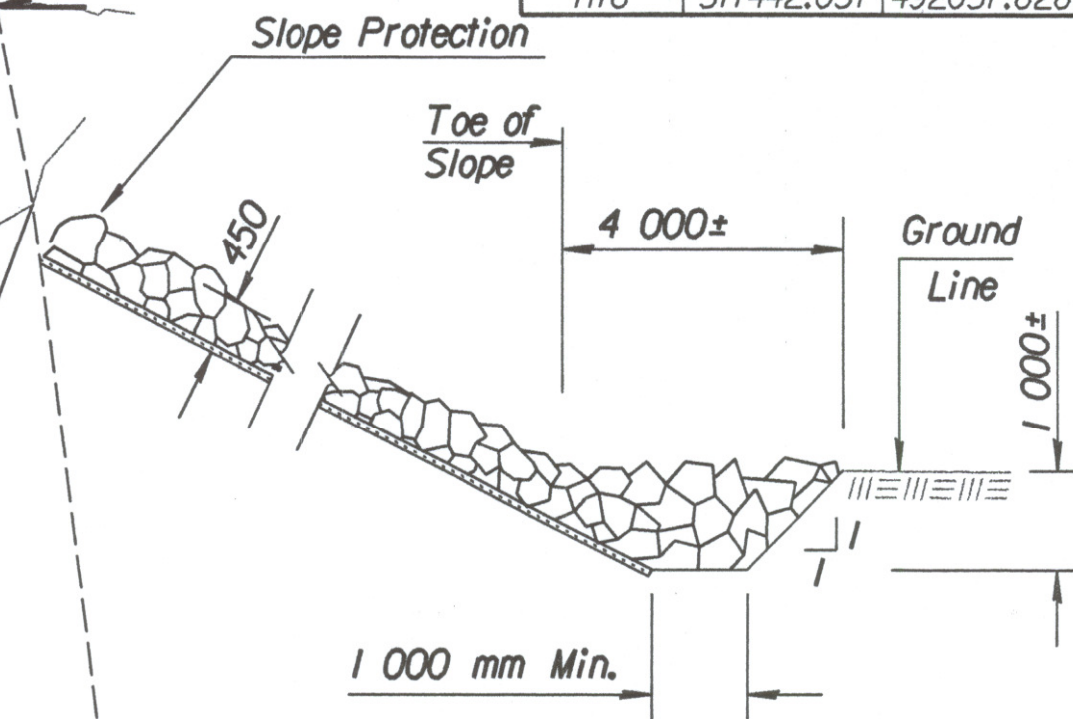
HEADWALL INFORMATION		
POINT	N COORD.	E COORD.
H9	511553.118	492022.494
H10	511555.509	492021.765
H11	511557.390	492027.935
H12	511554.998	492028.664
H13	511441.217	492055.159
H14	511442.863	492054.659
H15	511443.676	492057.327
H16	511442.031	492057.828

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	54-87 K-6657-01	2002	563	1122

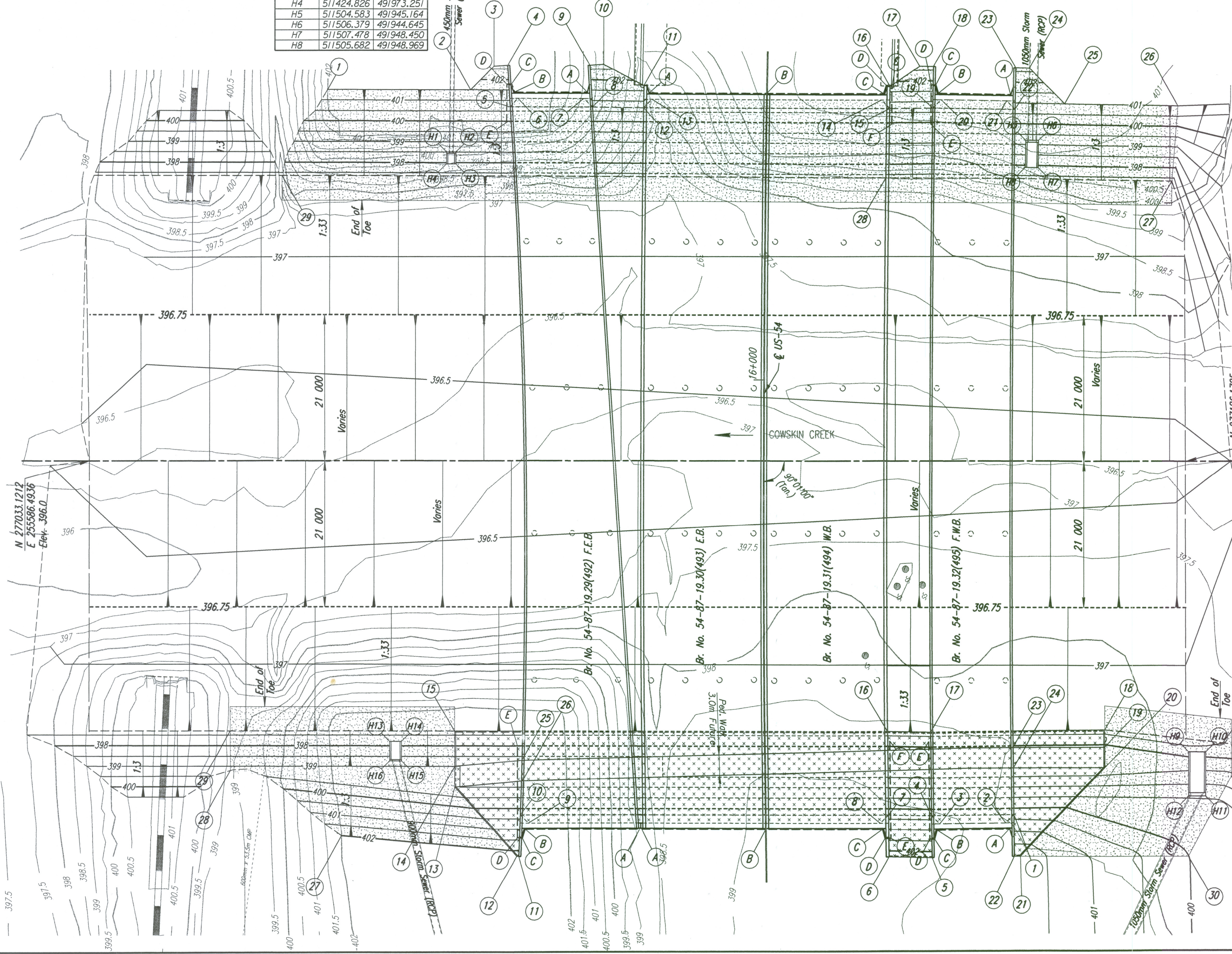
RIPRAP INFORMATION				
ABUTMENT NO. 1 (WEST)				
POINT	N COORD.	E COORD.	ELEVATION	
1	511405.147	491968.067	401.50	
2	511425.073	491962.001	401.50	
3	511427.319	491957.764	402.50	
4	511429.190	491957.057	402.62	
5	511431.291	491962.617	400.70	
6	511432.016	491961.142	400.70	
7	511441.220	491958.340	400.70	
8	511442.796	491959.115	400.70	
9	511440.681	491953.518	402.87	
10	511442.552	491952.811	402.75	
11	511449.044	491953.972	401.75	
12	511449.942	491957.019	400.70	
13	511450.745	491955.520	400.70	
14	511482.784	491945.767	400.70	
15	511484.270	491946.569	400.70	
16	511483.376	491943.534	401.75	
17	511486.667	491939.499	402.55	
18	511488.589	491938.946	402.69	
19	511490.238	491944.664	400.70	
20	511491.059	491943.178	400.70	
21	511500.282	491940.514	400.70	
22	511501.767	491941.334	400.70	
23	511500.119	491935.618	402.44	
24	511502.041	491935.065	402.30	
25	511508.455	491938.466	401.00	
26	511524.326	491933.881	401.00	
27	511526.696	491944.585	397.34	
28	511486.669	491956.381	397.35	
29	511402.425	491981.899	397.36	

RIPRAP INFORMATION				
ABUTMENT NO. 2 (EAST)				
POINT	N COORD.	E COORD.	ELEVATION	
1	511531.377	492038.602	400.30	
2	511530.599	492040.111	400.30	
3	511521.456	492043.038	400.30	
4	511519.948	492042.261	400.30	
5	511521.764	492047.927	402.22	
6	511515.729	492049.673	402.38	
7	511513.913	492044.006	400.30	
8	511513.099	492045.508	400.30	
9	511464.008	492060.452	400.30	
10	511462.510	492059.653	400.30	
11	511464.016	492065.376	402.70	
12	511463.726	492065.452	402.63	
13	511452.216	492058.691	399.06	
14	511451.338	492055.810	399.00	
15	511449.860	492050.961	397.29	
16	511510.278	492032.569	397.30	
17	511516.313	492030.824	397.30	
18	511540.508	492023.079	397.27	
19	511541.214	492025.446	398.12	
20	511542.102	492028.312	398.18	
21	511534.050	492043.993	401.90	
22	511533.193	492044.268	401.97	
23	511528.450	492029.405	398.08	
24	511529.357	492032.264	398.14	
25	511460.434	492052.125	398.70	
26	511461.393	492054.974	398.76	
27	511438.431	492070.156	402.00	
28	511420.214	492065.954	399.20	
29	511418.551	492060.491	397.30	
30	511557.495	492036.856	400.00	
31	511560.110	492024.083	398.60	
32	511558.699	492019.613	397.30	

Legend:
 Slope Protection Riprap Stone
 Riprap Reinforced Concrete (100 mm)



Scale: 1:300



DSNR: OPER: DRP SCALE: 1:300
 1/1997/97362/001/BRIDGE/COWSKIN/RIPRAP.DGN 11-26-2001 11:42:12 LAST REV: 3-27-2002 BY: svb

No.	Revisions	By	Date

CITY OF WICHITA
 BR. NO. 54-87-19.30 (493) E.B. BR. NO. 54-87-19.29 (492) F.E.B.
 BR. NO. 54-87-19.31 (494) W.B. BR. NO. 54-87-19.32 (495) F.W.B.

RIPRAP AND ABUTMENT DRAIN LAYOUT

SEDGWICK COUNTY

Professional Engineering Consultants, P.A.
 303 S. TOPEKA • WICHITA, KANSAS 67202
 316-262-2691 • FAX 316-262-3003

Designed by	RAS	Checked by	RAS
Drawn by	DRP	Date	April, 2002
		Job No.	97362