

DAN

RIVER

\*\*\* INPUT CARD PRINTOUT \*\*\*

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0      1      2      3      4      5      6      7      8
.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0.....5.....0
1      1 DAN RIVER SHORES X-SECTION PROPERTIES FIRST 1 1 01 01 10
2      2 74870
3      3 PROP 1 40 1 745 10000 99 99
4      4 32703
5 1001 0 1 7509 5 1 7493 15 1 7466 25 1 7449 35 1 7430
5 1002 45 1 7415 55 1 7401 65 1 7388 75 1 7376 85 1 7367
5 1003 105 1 7339 125 1 7360 145 1 7361 165 1 7361 185 1 7360
5 1004 205 1 7351 225 1 7356 245 1 7351 285 1 7360 305 1 7370
5 1005 310 1 7343 315 1 7322 320 1 7289 330 1 7217 335 1 7213
5 1006 340 1 7201 345 1 7190 355 1 7191 365 1 7196 375 1 7205
5 1007 385 1 7202 405 1 7199 425 1 7202 435 1 7204 445 1 7206
5 1008 450 1 7214 460 1 7276 470 1 7338 480 1 7410 490 1 7518
6 1010 1 2 066 066
    
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1 CROSS SECTIONS SPECIFIED (OR ASSUMED)

FOUND 1 TYPE 3 CARDS

KEPT 1 CROSS SECTIONS FOR EDITING

1 " " VALID FOR PROPERTY COMPUTATIONS

1 " " " " PROFILE "

CROSS-SECTION PROPERTIES FOR: DAN RIVER SHORES X-SECTION PROPERTIES FIRST

SECTION ID	PROP	AT DISTANCE =	10000						PART	1 OF	2
NS	A	K	ALPHA	B	P	LEW	REW	QC			
745.0	6090	755997	1.00	459	472	24	484	125793			
745.1	6136	764738	1.00	460	473	24	484	127125			
745.2	6182	773521	1.00	461	474	23	484	128463			
745.3	6229	782350	1.00	461	475	23	484	129806			
745.4	6275	791222	1.00	462	475	22	484	131155			
745.5	6321	800149	1.00	463	476	21	484	132511			
745.6	6367	809110	1.00	463	477	21	484	133871			
745.7	6414	818114	1.00	464	478	20	484	135236			
745.8	6460	827162	1.00	465	478	20	484	136607			
745.9	6507	836255	1.00	465	479	19	485	137984			
746.0	6553	845402	1.00	466	480	19	485	139367			
746.1	6600	854583	1.00	467	480	18	485	140755			
746.2	6646	863806	1.00	467	481	17	485	142148			
746.3	6693	873075	1.00	468	482	17	485	143547			
746.4	6740	882386	1.00	469	483	16	485	144951			
746.5	6787	891754	1.00	470	483	16	485	146362			
746.6	6834	901154	1.00	470	484	15	485	147777			

746.7	6881	910861	1.00	471	485	15	485	149231
746.8	6928	920613	1.00	471	485	14	485	150692
746.9	6975	930408	1.00	472	486	14	485	152157
747.0	7022	940259	1.00	472	486	14	486	153629
747.1	7070	950142	1.00	473	487	13	486	155105
747.2	7117	960068	1.00	473	487	13	486	156586
747.3	7164	970039	1.00	473	488	12	486	158073
747.4	7212	980052	1.00	474	488	12	486	159565
747.5	7259	990121	1.00	474	489	12	486	161064
747.6	7307	1000223	1.00	475	489	11	486	162566
747.7	7354	1010366	1.00	475	490	11	486	164074
747.8	7402	1020554	1.00	476	490	11	486	165587
747.9	7449	1030784	1.00	476	491	10	486	167105
748.0	7497	1041070	1.00	477	491	10	486	168630
748.1	7545	1051388	1.00	477	492	9	487	170159
748.2	7592	1061747	1.00	478	492	9	487	171693
748.3	7640	1072151	1.00	478	493	9	487	173232
748.4	7688	1082597	1.00	479	493	8	487	174776
748.5	7736	1093099	1.00	479	494	8	487	176327
748.6	7784	1103632	1.00	479	495	8	487	177882
748.7	7832	1114207	1.00	480	495	7	487	179442
748.8	7880	1124825	1.00	480	496	7	487	181007
748.9	7928	1135486	1.00	481	496	6	487	182577
749.0	7976	1146203	1.00	481	497	6	487	184154
749.1	8024	1156950	1.00	482	497	6	488	185735
749.2	8072	1167738	1.00	482	498	5	488	187321
749.3	8120	1178571	1.00	483	498	5	488	188911
749.4	8169	1189533	1.00	483	499	5	488	190519

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CROSS-SECTION PROPERTIES FOR: DAN RIVER SHORLS X-SECTION PROPERTIES FIRST  
 SECTION=PROP AT DISTANCE= 10000 PART 2 OF 2

VS	A	K	ALPHA	B	P	LEW	REW	QC
749.5	8217	1200551	1.00	483	499	4	488	192133
749.6	8265	1211599	1.00	484	500	4	488	193750
749.7	8314	1222688	1.00	484	500	4	488	195373
749.8	8362	1233821	1.00	485	500	3	488	197001
749.9	8411	1244995	1.00	485	501	3	488	198633
750.0	8459	1256226	1.00	486	501	3	488	200273
750.1	8508	1267487	1.00	486	502	2	488	201916
750.2	8556	1278787	1.00	486	502	2	489	203563
750.3	8605	1290132	1.00	487	503	2	489	205216
750.4	8654	1301517	1.00	487	503	2	489	206874
750.5	8703	1312960	1.00	488	504	1	489	208539
750.6	8751	1324452	1.00	488	504	1	489	210207
750.7	8800	1335944	1.00	488	505	1	489	211880
750.8	8849	1347499	1.00	489	505	0	489	213558
750.9	8898	1359055	1.00	489	506	0	489	215241
751.0	8947	1371156	1.00	489	506	0	489	216999
751.1	8996	1383245	1.00	489	506	0	489	218761
751.2	9045	1395373	1.00	489	506	0	489	220527
751.3	9094	1407541	1.00	490	507	0	490	222299
751.4	9143	1419747	1.00	490	507	0	490	224074
751.5	9192	1432011	1.00	490	507	0	490	225858
751.6	9241	1444300	1.00	490	507	0	490	227643
751.7	9290	1456628	1.00	490	507	0	490	229434
751.8	9338	1468996	1.00	490	508	0	490	231229

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WATER-SURFACE PROFILE FOR: DAN RIVER SHORES X-SECTION PROPERTIES FIRST  
 PAGE 1 OF 1, PROFILE NUMBER 1, UPSTREAM COMPUTATIONS

SECID	AT DISTANCE / WS ELEV /	LENGTH / HV /	DISCHARGE / HF /	AREA / HE /	CONVEYANCE / EG /	ALPHA / V /	LEW / FN /	REW / ACC /	REW / ID*
PROP AT	10000 / 748.70 /	0 / 0.27 /	32700. /	7832. /	1114206. /	1.00 /	7. /	487. /	
									*IS*

END OF THIS PROFILE

Slope from profile of August 1966 flood =  $\frac{751.5 - 748.5}{2600} = .00115$   $1/2 = .0297$

Assume same slope for 100 year flood.

$D = 1.5^{1/2}$

$16,200 = K \cdot 0.297$

$K = 54,210$

Corresponds to elevation of 747.3

$0.17 \cdot 10000 = 1700 = 748.7 - 747.3 = 1.4$

Note:  $K$  value is a composite value computed to satisfy  $Q = K D^{1/2}$  using elevation, discharge, and slope of August 1966 flood.