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SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

May 15, 2001

Vicky Huang
Subdivision Engineer
City of Wichita
455 N. Main, 7th Floor
Wichita, Kansas 67202

Re: Weir Modifications

Tara Falls Addition Phase 2

Dear Vicky:

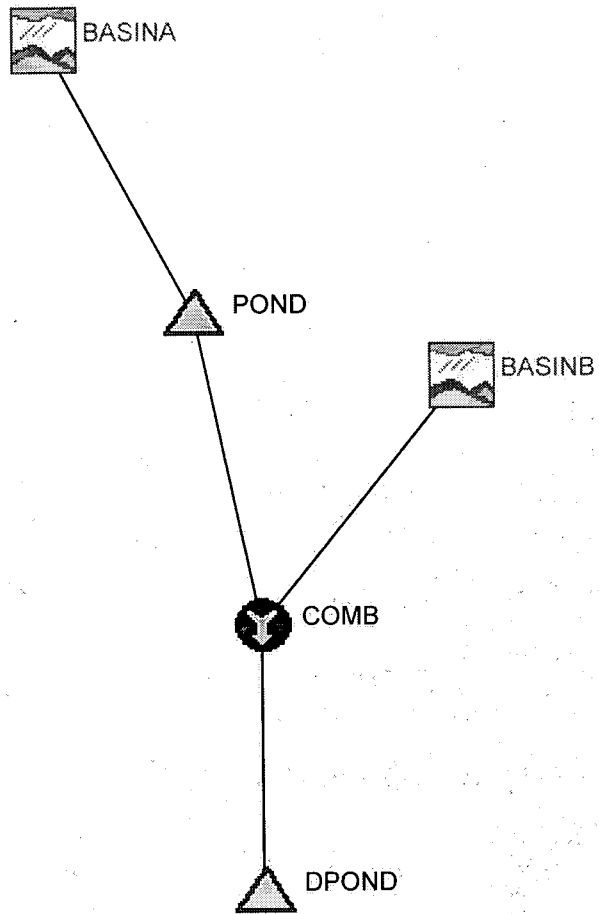
Attached are revised HEC-1 results from our ponds at Tara Falls. The developer has installed concrete ditch checks at the east end of the existing lake for erosion control that were not included in the original weir design.

Due to the lowering of the static pool (0.23') and slight increase in weir length, the weir planned for the west end of the berm is no longer necessary. The increased storage capacity and smaller overall weir size will reduce the maximum runoff from this site and it will eliminate the need for additional stabilization on the west side of the dam.

Please review this information and let me know if you need anything else. Feel free to give me a call at 264-8008 or email me at klee@srb1.com if you have any questions.

Respectfully submitted,

Kenneth W. Lee, P.E.



HMS * Summary of Results

Project : Tara Falls 2

Run Name : Run 1

Start of Run : 01Jan00 0100 Basin Model : Tara Ph 2
 End of Run : 02Jan00 0100 Met. Model : Tara Ph 2
 Execution Time : 04May01 0815 Control Specs : Tara Ph 2

Hydrologic Element	Discharge Peak (cfs)	Time of Peak	Volume (ac ft)	Drainage Area (sq mi)
BASINA	420.92	01 Jan 00 1345	56.026	0.167
POND	307.42	01 Jan 00 1400	58.153	0.167
BASINB	151.45	01 Jan 00 1330	15.474	0.042
COMB	341.46	01 Jan 00 1400	73.627	0.209
DPOND	309.31	01 Jan 00 1410	72.660	0.209

HMS * Summary of Results for POND

Project : Tara Falls 2 Run Name : Run 1

Start of Run : 01Jan00 0100 Basin Model : Tara Ph 2

End of Run : 02Jan00 0100 Met. Model : Tara Ph 2

Execution Time : 04May01 0815 Control Specs : Tara Ph 2

Computed Results

Peak Inflow : 420.92 (cfs) Date/Time of Peak Inflow : 01 Jan 00 1345

Peak Outflow : 307.42 (cfs) Date/Time of Peak Outflow : 01 Jan 00 1400

Total Inflow : 6.29 (in) Peak Storage : 11.009 (in)

Total Outflow : 6.53 (in) Peak Elevation : 1333.9 (in)

HMS * Summary of Results for DPOND

Project : Tara Falls 2 Run Name : Run 1

Start of Run : 01Jan00 0100 Basin Model : Tara Ph 2
End of Run : 02Jan00 0100 Met. Model : Tara Ph 2
Execution Time : 04May01 0815 Control Specs : Tara Ph 2

Computed Results

Peak Inflow : 341.46 (cfs) Date/Time of Peak Inflow : 01 Jan 00 1400
Peak Outflow : 309.31 (cfs) Date/Time of Peak Outflow : 01 Jan 00 1410
Total Inflow : 6.61 (in) Peak Storage : 9.9320 (in)
Total Outflow : 6.52 (in) Peak Elevation : 1323.0 (in)

RUNOFF SUMMARY									
FLOW IN CUBIC FEET PER SECOND									
TIME IN HOURS, AREA IN SQUARE MILES									
OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	BASINA	420.	12.25	89.	28.	28.	0.17		
ROUTED TO	POND	348.	12.42	88.	28.	28.	0.17	1333.97	12.42
HYDROGRAPH AT	BASINB	151.	12.00	24.	8.	8.	0.04		
2 COMBINED AT	COMB	386.	12.42	112.	36.	36.	0.21		
ROUTED TO	DPOND	341.	12.58	111.	36.	36.	0.21	1323.24	12.58

*** NORMAL END OF HEC-1 ***

TARAKEN.HC1

*FREE

ID Tara Falls - Modified Existing Pond with new DS detention pond

IT 5,, ,289

IN 30

IO 4

KKBASINA

BA 0.167

PC 0 0.04 0.08 .12 .17 .22 .27 .32 .37 .43

PC .49 .56 .62 .69 .77 .85 .94 1.04 1.15 1.27

PC 1.41 1.59 1.83 2.21 5.17 5.73 6.02 6.23 6.40 6.54

PC 6.65 6.76 6.86 6.95 7.02 7.09 7.16 7.23 7.29 7.36

PC 7.43 7.49 7.54 7.59 7.63 7.68 7.72 7.76 7.80

UD 0.42

LS 0 88

KK POND

RS 1 ELEV 1332.50

SA 4.3 5 7.4 9.8

SE 1332.5 1333 1334 1335

SQ 0.1 24 69 127 195 272 358 451

SE 1332.5 1332.75 1333 1333.25 1333.5 1333.75 1334 1334.25

KK BASINB

BA 0.042

UD 0.15

LS 0 93

KK COMB

HC 2

KK DPOND

RS 1 ELEV 1319

SA 2.1 2.3 2.5 2.7 2.9 3.1

SE 1319 1320 1321 1322 1323 1324

SQ 0.1 14 39 71 110 154 202 255 312 372 436

SE 1319 1319.5 1320 1320.5 1321 1321.5 1322 1322.5 1323 1323.5 1324

ZZ