JORGENSEN & ASSOCIATES
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DAVID L. JORGENSEN, P.E., P.L.S.

4/8/08

City of Elkins
P.O. Box 332
Elkins, AR 72727

Attn: Don Cryder
Re: Detention Ponds at Stokenbury Farms

We have surveyed and determined the "As-Builts" condition of the detention ponds at Stokenbury Farms.

In general, the slope of the north pond is 0.05% grade and the slope of the south pond is 0.17%. Generally you should have at least 0.50% grade for water to flow. Any flatter that 0.50% causes the water to pond up. Naturally because these are so flat they don't drain very well.

Unfortunately there are no good solutions to this problem but we do offer up the following.

1) Regrade the bottom of the ponds so that there is at least 0.50% grade which will create another pond within each pond. These ponds would be made into "retention" ponds. If properly maintained these ponds cold be attractive features to the subdivision but they also could be a liability.
2) Install a pump in each pond. The south pond would be pumped to the north pond which would pump to the ditch.

As you can see, these alternatives are not the most desirable but given the situation it is a difficult problem.

Without a proper grading plan, it would be difficult to estimate the cost of regarding the ponds. A very preliminary estimate of cost is as follows;

Option #1 (Retention Ponds with Fountain)

1) Regrade ponds (3,146 cubic yards @ $8/ cubic yard).....$25,168.00
2) Sod/Hydroseed/Landscaping.....$15,000.00
3) Engineering.....$5,000.00
4) Water Fountain or similar.....$2,500.00

$47,668.00

Option #2 (Retention Ponds with Pumps)

1) Regrade ponds(3,146 cubic yards @ $8/ cubic yard).....$25,168.00
2) Sod/Hydroseed/Landscaping.....$15,000.00
3) Pumps with piping & Housing.....$20,000.00
4) Engineering..... $7,500.00

$67,668.00

Please review this report and call concerning any questions you may have.

Thank you.

Sincerely;

David L. Jorgensen, P.E.