

STORMWATER ORDINANCE OVERSIGHT SUBCOMMITTEE PUBLIC HEARING

April 15, 2004

A meeting of the Stormwater Ordinance Oversight Subcommittee was held on Thursday, April 15, 2004, in the County Board Room, Bldg. "A", Kane County Government Center.

Members present: Committee members Hurlbut, Jones and Wyatt. Also present: County Board member Allan; Water Resources Dir. Schuch; Transportation Dir. Rogowski and staff Zakosek; members of the public.

The hearing was convened at 11:00 a.m. by committee chairman Wyatt in accordance with Section 903, Article 9, of the Kane County Stormwater Ordinance.

VARIANCE SUBMITTALS

Water Resources Dir. Paul Schuch presented the following:

Kaneland School District #302 - Stormwater Variance #0001 The Kaneland Community School District (Kaneland High School) has requested a variance from Kane County Stormwater Ordinance Article 2, Section 201.(a)(2): Regarding an Increase in Downstream Flood Height due to Proposed Increased Culvert Capacity under Meredith Road and Keslinger Road, Kaneville Township, Sections 3 and 10, Stormwater Permit #WD-2002-0091. Representatives from the School District and area landowners were present.

Variances from the requirements of the Ordinance may be granted when strict compliance is impossible or impracticable (§ 900). The purpose of today's hearing is to give the public the opportunity to comment on the request. This subcommittee will then make a recommendation to the County Development Committee which has the final decision making authority. The County Development Committee meets next on Tuesday, April 20.

A map of the area was displayed with Water Resources Dir. Schuch supplying background on the petition and an explanation of the specifics as follows:

About a year and a half ago, county staff received the permit application for some stormwater work that was going to be constructed in conjunction with the addition to Kaneland High School. The high school campus is located at the northeast corner of Meredith and Keslinger Roads in Section 3 of unincorporated Kaneville Township. At the time the high school was built there were no floodplain regulations as there are today. The school over time has had some flooding problems. Schuch pointed to the pink/red portion of the map saying it is the existing school gym, elevation 839.6 ft. Over the years, water has come in and damaged the floor and the floor has actually had to be reconstructed. Some expansion work has already occurred on the east side of the school and construction has started on the addition to the west side of the building which will be above any floodplain elevation. But because of this construction and the dollar value of the remaining construction there was a desire to do some flood-proofing of the existing portion of the building that floods. Two proposals came in: One was to construct a flood wall around the exterior of the gym but the floodwall would have to be at the flood protection elevation which is 843 ft. and the ground surface there is about 738 ft.-739 ft. They would also have to construct handicap ramps over the flood walls and into the school facility which might be difficult and an extreme solution.

Manhard Consulting, the school's engineers, came up with another possible solution and that is to work with KDOT to look at the existing capacity of the culverts under Meredith and Keslinger roads to see if there is a problem with those culverts in terms of flow or capacity that might be affecting the flooding situation on the high school property. They did an existing condition analysis and found that the culverts restrict the stormwater flood flows in the area and backs up water behind to cause the flooding of the lower portion of the school. Through simulated construction, they also found that the installation of one additional 3 ft. high x 6 ft. wide box culvert under Keslinger Road and one additional 3 ft. high x 10 ft. wide box culvert under Meredith Road reduced the flood plain elevation in the vicinity of the school to 839.5 ft. or about one tenth of a foot below the floor of the gym. That would eliminate the necessity for a floodwall and handicap ramps which were only addressing the symptoms of the problem rather than the cause. The culverts would be installed as part of a previously planned widening project on Keslinger Road. They will lower the floodplain elevation north of Keslinger and east of Meredith and will allow the flow to travel faster under Keslinger. The culverts will mean a lowering of about 1.5 ft. of the floodplain in the area of the school and a raising of the floodplain of about 0.08 of a foot (about one inch) in an area of farmland south of Keslinger Road for approx. 1400 feet.

The county's ordinance does not allow the raising of any floodplain either upstream or downstream if it's done in conjunction with a development project. Thus, the reason for the public hearing is to allow the public to state any concerns

relative to that and for the subcommittee to make a recommendation to the full Development Committee. The recommendation can be to grant the variance, grant it with conditions, or deny the request for a variance.

Staff's Recommendations Staff has reviewed the documents submitted by Manhard Consulting, Ltd., and Kaneland Community Unit School District #303 in support of the requested variance and have found the following:

- 1) The variance will not increase the probability of flood damage or create an additional threat to the public health, safety and welfare.
- 2) The variance is the minimum required considering each of the statements of policy underlying the Stormwater Ordinance and there are no means other than the requested variance by which the demonstrated hardship can be avoided or remedied to a degree sufficient to permit the reasonable continuation of the development.
- 3) The variance is not requested solely for the purpose of increasing the density of the development nor impervious areas on the site.
- 4) The variance is not requested solely as a result of economic hardship.
- 5) The variance is required due to unique, natural topographical features of the site.
- 6) The applicants' circumstances are not self-imposed.

Barring any unforeseen meaningful objection or concerns, staff suggested the subcommittee recommend to the Kane County Board's Development Committee that a variance be granted as requested subject to the following condition: The Kaneland Community Unit School District #302 work with the farm owner on the south side of Keslinger Road to install the required erosion protection.

Discussion Per Dir. Schuch, he and the developer's engineers agree that the additional inundation of about an inch of water will not cause additional damage to the farmland. The timing of the flow is such that the peak of the flood waters will travel at a different point in time. Additional capacity in the stream is delayed because of the timing of the flow. Dir. Schuch has met with one of the area farmers who farms both sides of the road. He stated there is an area that of the farm that lays low and floods and said there is crop damage. The reduction of the flood plain in this area will reduce the time of inundation and the amount of crop damage. Schuch reiterated that he does not feel there will be any additional crop damage because the flood waters peak will only occur for an hour or two. Jones asked how many feet out of the flood plain does this take the old gym. Schuch said it does not give them the two feet of additional protection above the base flood elevation that is in the Ordinance. It takes the old gym one tenth of a foot above that flood elevation and the new addition is one foot above that.

Schuch noted the county's Ordinance is more restrictive than the state code. There are two portions of the state statute that would apply if the county did not have a Stormwater Ordinance. One would be the opening of restricted culverts. The State of Illinois allows state highway departments to open restricted culverts and allow any floodwaters that may be backing up to pass through as if there were no restrictions. The county's Ordinance does not allow that. The other item in the state statute is that in northeastern Illinois, when there are development projects, the State of Illinois allows an increase in flood heights upstream or downstream a tenth of a foot. Schuch said the proposed is less than that requirement so it is in compliance with the state statute. Schuch believes this is the best possible solution.

Transportation Dir. Rogowski stated his staff has been working with Dir. Schuch and the Water Resources Dept. staff. From a highway point of view, Meredith Road will not flood any more but KDOT wants to make sure the downstream is satisfied before they open up the culverts.

PUBLIC COMMENT

Joe Lorenz Stated the proposed will flood the property he farms and could not understand why the school was built in a flood plain in the first place.

Bill Mangers (Approached map) Pointed to the area Mr. Lorenz farms and stated he has owned that farm for 20 years so he is very familiar with the water and farming practices. Mr. Mangers posed several concerns. One had to do with increasing the size of the culverts. The only reason he sees for doing that is to accelerate the flow of water and that is a big concern on his farm because of where the water crosses through the fence line. Mr. Mangers has an erosion problem and one section in particular is very difficult to farm. He thinks one thing that could be addressed is the ditch he pointed to on the map: getting water at that fence line into that ditch without it going through the field(s). He wasn't sure if it should be done underground or by extending the ditch up or any other means but he did ask that it be addressed. Mr. Mangers also mentioned that ponding used to occur on the fields of this farm until trenching was done but that created swales which in turn has accelerated the water flow.

Dir. Schuch agreed that the speed of the flow is being increased and the velocity might increase but his interpretation of the problem is that it will not increase to the degree that it will cause substantial damage. He contended the erosion has been there for a while. Schuch advised that there are subsidized programs through the NRCS with regard to construction of

grassed waterways and there is also the county's farm drainage assistance program now wherein the Water Resources Dept. works with farm landowners who have drainage problems or erosion problems associated with the drainage to try and come up with workable solutions. Dir. Schuch suggested Mr. Mangers might want to explore either of those and offered his assistance. He clarified that what is on the table this morning is adding the culverts and raising the elevation by 0.08 ft. Mr. Lorenz reiterated that the property floods all the time and would like something done.

Dir. Schuch said he also was aware of the possible erosion problem from the culvert south of Keslinger Road so the school's engineers, Manhard Consulting, did an engineering analysis of the velocity of the flows in that region and found there are some erosive forces from that culvert on the order of about 5 feet per second in a 100 year storm with three culverts; about 50 feet downstream from the culvert, the forces taper down to about 2 feet per second. If the farmers want, Schuch thinks the school district might be willing to listen to the installation of some additional grass downstream of the culvert (about a tenth of an acre of farmland would be put into grass). There is also the question of some additional easements for the extension of these culverts. The school district and KDOT will have to negotiate that with the farmers.

The school improvements will take place regardless. If the decision is to grant the variance, it will go forward under one particular process. If the decision is not to grant the variance, Schuch said it will go forward under another process. The other avenue will probably be the floodwall scenario. That would rule out any further discussion with the farmers. The drainage would be left the way it is and thus eliminate the opportunity for further improvements in the watershed. Dir. Schuch saw this as an opportunity for change and a change for the better.

ENGINEER'S COMMENTS

Steve Winnike, an engineer with Manhard Consulting, stated that as part of the process, they looked at adding one, two, maybe three culverts and what could be done to help the existing school. They eventually determined there would not be much benefit to the gym floor if more than one or two culverts were added. There would also not be much change in the velocity as a certain amount of headwater is needed to push the water through the culverts.

Mr. Lorenz maintained that if the flood plain were to be raised 4 ft.-5 ft., that would be 5 ft. higher than it used to be (which he thinks could be done) and that would ease the flooding on his property.

Mr. Winnike explained that there are two separate flood plains: the one on the east side of the school is a different elevation than the one on the west but both were done in accordance with regulations.

RECOMMENDATIONS

Dir. Schuch was encouraged to work with the farmers to find out what programs are available to help them to ensure that water does not stay on the property, that it flows through, and if that includes some sort of opening or realignment along the fence line to get the stream to an area that is less destructive to the farmland, and to subsequently submit a report later on regarding same.

Hurlbut moved to forward the question of a stormwater variance to the County Development Committee with the recommendation that a variance be granted from Article 2, Section 201.(a)(2) of the Kane County Stormwater Ordinance to allow an increase in the base flood elevation of 0.08 ft. on the East Branch of Big Rock Creek immediately west of Meredith Road from the centerline of Keslinger Road south for a distance of 1400 feet. Seconded by Jones. Dir. Schuch brought to committee's attention one recommended condition. Motion by Jones to forward the recommendation stated above together with the stipulation that the Kaneland Community School District #302 work with the farm owner on the south side of Keslinger Road to install the required erosion protection. Seconded by Hurlbut and carried unanimously.

The hearing was called adjourned at 11:34 a.m.

Jean Weems
Recording Secretary