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W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020
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MEMO

TO: Maureen A. Murphy, Administrator
FROM: Sean M. Sullivan, P.E.
DATE: December 5, 2008
SUBJECT: Project Narrative-Tennies Pond Construction, Village of Slinger

The proposed project involves the construction of 2 earthen berms and the enlargement of an existing detention pond to reduce the massive quantity of storm water runoff currently impacting downtown Slinger. The purpose of this project is to reduce peak storm event runoff flows and alleviate flooding in the Village of Slinger downtown Business District and at the construction site. Currently, this area receives over 400 cfs during a 100-year storm event but the downstream storm sewer system capacity is less than 50 cfs. Recurring property damage and sanitary sewage back-ups are frequently occurring during peak storm events. Excavation/Enlargement of the existing detention pond will create additional storage capacity during times of peak runoff flows. The two additional earthen berms approximately 2-6 feet in average height will allow small storm event flows to pass and help to reduce downstream discharges during larger storm events. There is currently no 100 year flood plain delineated in the downtown Slinger area as this storm system consists entirely of underground storm sewer and no delineation has been performed. The Village does have documentation, however, of up to 6 feet of flooding in the Village park and both residential and commercial areas of downtown Slinger during the extreme storm events of the late 1990's.

Over the past 5 years, the Village has met numerous times with representatives from the DNR as well as representatives from the U.S. Army Corps of Engineers in order to find a solution that was both cost-effective and efficient in dealing with this storm water issue.

The control structures for both these facilities involve the construction of concrete pipe and concrete structures as outfalls. Since both structures are in line facilities, concrete culverts were used as control structures to minimize the impact of these 2 berms on the waterway during low flow periods. This system acts as the control structures and does not accept any additional flow from downstream of the berms. There are no pumps, lift stations, or any other mechanical devices involved with this project.

In order to efficiently transfer this storm water thru the downtown Village business district and residential area, we have also modeled the downstream storm sewer system. By modeling this system we have been able to locate areas within the existing storm sewer system that are not functioning as efficiently as they could be. Back pitched pipes, flat pipes and other deficiencies that reduce potential flow are also being looked at as part of this project. As a result of this analysis, some existing storm sewer will be replaced and or enlarged.



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The project is scheduled to be publicly bid in January/February of 2009 with construction to begin in the summer of 2009, assuming all project permits have been obtained. The project is anticipated to be completed by the end of the construction season in 2009.

SMS:sjs

cc: File