## Olson, Greg

From:Fred Arfman [freda@iacivil.com]Sent:Friday, November 01, 2013 2:46 PMTo:Olson, GregSubject:New Day ShelterImportance:HighAttachments:image002.jpg

Greg,

I hope this format is acceptable for conveying the requested information on the subject project.

Based on Civil 3D volume analysis using the as-built information provided by the surveyor, the as-built pond volume with a spillway elevation of 61.0 has an available volume of 285 CY = 7,695 CF (see image below) which exceeds the required volume.

Per the approved Drainage Concept:

BASIN 2 INCLUDES THE NORTHERN PORTION OF THE PROPERTY INCLUDING PARKING, LANDSCAPE AND APPROXIMATELY 25% OF THE PROPOSED BUILDING ADDITION. THIS BASIN WILL GENERATE APPROXIMATELY 3.9 CFS (6203 CF VOLUME) DURING THE 100-YEAR 6-HOUR STORM. ALL OF BASIN 2 DISCHARGE WILL BE PASSED TO THE PROPOSED NORTH DETENTION POND (AVAILABLE VOLUME = 7,743 CF PROVIDING ADDITIONAL CAPACITY FOR FUTURE DEVELOPMENT). THIS POND WILL DRAIN TO BULLHEAD PARK VIA THE PROPOSED 6" STORM DRAIN.

The as-built pond has been constructed with a volume exceeding the required volume. In addition, excess volume is available for future construction. It should be noted that Basin 2 for this phase of construction, generates 6,203 CF. The pond design did not take into account the inflow / outflow hydrograph (0.8 cfs discharge rate from the pond).

Fred



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