Professional **E**ngineering **C**onsultants, P.A.

September 29, 2006

City of Wichita
Storm Water Management
7th Floor, City Hall
Wichita, KS 67202

Attention: Mr. Scott Lindebak

Reference: Oak Creek 3rd Addition Comments
PEC Project No. 36-04115-3-5526

Dear Mr. Lindebak

Here are the replies to your comments that are in your email letter dated 9/27/06 for Oak Creek 3rd Addition. I have included this letter with the revision package for your use.

1. The outfall for Pond #2 has a 30" pipe with 4.8' of storage above the flow line, with only 15 cfs discharging. Please review this calculation and verify the results are correct.

   This discharge rate is correct but the static elevation of the pond is 1365.00 not 1362.00 as indicated on the plan. This has been corrected on the plan and is included in this submittal.

2. The north half of basin C is routed through Detention Pond #6, however much of this site drains to the north and east and appears not to be tributary to the future pond. Please evaluate Pond #6, will less tributary area and show the north basin as a separate basin in the overall runoff calcs, if necessary.

   The drainage area to Pond C has been changed. The north part of the site will be filled eventually. The new basin matches the existing 1373 contour while anything below this elevation will drain into Pond D. This increases the discharge rate out of pond D from 15 cfs to 26cfs for the 100-yr. storm event. This increase in discharge rate now puts the overall post-development site discharge over the pre-development discharge rate. To account for this the retention area in the southeast corner of the property will be increased and installing an 18" RCP outfall structure. This structure will replace the previously proposed 24" RCP.

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3. The lot grading plan for Lots 1-4, Block 1, do not have a minimum 1% backyard grades. Please provide a plan that includes additional spot grade elevations to determine the location of the runoff, with flow arrows.

   I have enclosed a copy of the Chateau Parkway roadway plans. This shows that the grading for this area in question drains to the roadway and then through the storm water system. I have enclosed the StormCAD calculations for the roadway inlets to show the capacity is adequate for the flows. The plans are still in the process of being finalized and not finished yet.

4. The inlets located in Chateau Parkway need to be evaluated for inlet capacity. Please evaluate bypass and sump conditions, to ensure runoff will be able to reach the intended detention ponds.

   I have enclosed a copy of the Chateau Parkway roadway plans. This shows that additional inlets have been added to the roadway to account for additional flows. The plans are still in the process of being finalized and not finished yet. I have also included the StormCAD calculations for the location in question.

5. The drainage plan should delineate the floodplain and floodway, with scaled location and by elevation. The plan should include the hydrologic and hydraulic runs for the unstudied tributary that are used to establish the minimum pad elevations.

   I have included a map of the site with the FEMA floodplain mapped according to elevation. I have also included the HEC-RAS models that were used to establish the minimum pad and the station mapping.

6. The FEMA floodplain and floodway shall be located within a platted Reserve for Lots 1-5, Block 3.

   I have enclosed the HEC-RAS models with a levee located at the property line of Lots 1-5, Block 3, showing that if these lots were to be filled in the future that it wouldn't raise the water surface profile for the 100 year storm event by more than 1'. Therefore these lots aren't included in a floodplain/floodway reserve or easement and can be filled in the future with the appropriate permits.

7. The view-out elevation of Lot 1, Block 2, uses the same elevation as the 100-yr. water surface elevation of the existing pond located within Reserve E.

   There will be a 1' to 2' berm placed in the back part of Lots 1 & 2, Block 2, to account for the 100-yr. elevation in the pond. This water will then be drained to the east and into Oak Creek Parkway.

8. The pre/post discharge calculations should include the 2 & 5 year storms at the minimum, in addition to the 100-year event.

   I have included the calculations for the 2 & 5 year storm events. To meet the requirements we will be placing modified drop inlet structures with orifices on Ponds D, H & F as their outfall structures. The calculations for the sizing of the orifices has been included along with preliminary details of the outfall structures..

9. The drainage plan should be submitted in pdf format, including the grading plan and calculations.

   This will be included once the drainage plan has been approved.

If you have any questions feel free to contact me at (316) 206-1316.

Sincerely,

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

Shawn R. Bryan, P.E.
Project Engineer

SRB/tac

Encl: As noted