

DAMMON ENGINEERING, INC.

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CONSULTING

DESIGN

STUDIES

EXPERT WITNESS

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December 22, 2010

To: Ms. Paul Carroll
Drainage Engineer
St. Tammany Parish Gov.

REF: El-Bethel Church
Allen Rd.
Slidell, LA 70461

Dear Mr. Carroll,

Please see the below list of responses to your Drainage Plan review comments email dated Dec. 15, 2010.

1. Please see the attached .pdf "Drainage Plan Details 12-22-10". This plan should clarify what areas are being serviced by the swale and what areas are serviced by the retention pond. The original drainage calculations have been revised and updated. Please see attached .pdf. There are 3 sheets for the new drainage calculations. Sheet 1 shows the calculations for the property as a whole, Sheet 2 shows the calculated amount being serviced by the drainage swale, Sheet 3 shows the calculated amount serviced by the retention pond.
2. 9" PVC changed to 10" PVC..
3. The values for run-off coefficients are pulled directly from the cited references in the revised drainage calculations. I have attached a scan of the table these values were pulled from.
 - The coefficient for watertight surfaces = 0.9 (90% of this water will run-off)
 - The coefficient for gravel surfaces with no vegetation = 0.25 (25% will run-off)
 - The coefficient for greenspace with light vegetation (grass) = 0.1 (10% will run-off)
 - These values are consistent with the logic that an open grass area will absorb more water than an open gravel area or paved areas.
4. 6" orifice shown on the 10" PVC pond discharge pipe.
5. Cross section of swale has been added. Please see the attached .pdf

Sincerely,
Brandon Nowakowski
Dammon Engineering

Attachments:

1. Revised Drainage calculations (3 sheets)
2. Drainage Plan with details (1 sheet)
3. Photocopy of Run-off coefficient table