CE 365K Hydraulic Engineering Design **Spring 2016**

Assignment 5
Culvert Design

The solution to this homework should be posted in pdf format to the Canvas web site for this class under Assignment 5 by Tuesday Mar 8.

1. Solve problem 3 on p.158 of Haested.

2. Solve problem 7 on p.159 of Haested.

3. Solve problem 11 on p.159 of Haested.

4. You have earlier solved the problem below using StormCAD. I would like you to repeat the computations by hand for determining the pipe sizes for Pipes 1 and 2 draining areas A and B. Assume that the Catch Basins at CW1 and CW2 capture all the flow coming into them. The site is located in Southwest Travis County.

Element	Elev(msl)
Cw1	681.4
Cw2	678.2
Cw3	674.9
Cw4	673.0
Tco1	669.9
Pipe	**Length(ft)**
P1	356.0
P2	567.0
P3	411.0
P4	233.0
Area	**Tc(mins)**
A	64.00
B	60.00
C	81.00
D	68.00

Design for the 25 yr storm. Assume a Runoff Coefficient of 0.30 for the entire project area. Use a Manning Roughness Coefficient of 0.013, and select pipe sizes of integer inch diameter.