

Design Manual Changes

- Now Allen County Engineer's Design Manual
- Minimum design storm was 10 yr.
 - o Now 10yr w/ 25yr hydraulic grade line (pressure flows) for Major Arterial.
 - o Now 5yr w/ 25yr hydraulic grade line (pressure flows) for Minor Arterial.
 - o Now 2yr w/ 5yr hydraulic grade line (pressure flows) for Local Streets and Development Areas.
- Culvert sizing currently needs to accommodate a 50yr stm event.
 - o Revising to ODOT standard
 - Freeways or other multi-lane facilities w/ limited access 50yr
 - 3000 ADT and over 25yr
 - Under 3000 ADT 10yr
- Revised C values for Rational Method.
- Added CN values for TR55 method.
- TR55 method must be used to design outlet structure for detention/WQ basin.
- Revised the way to compute Rainfall Intensity.
 - o Previously computed 10 yr and multiplied by a factor to find design storm.
 - o Now using $I = x/(y+t)^z$ given x, y, and z in a table for different storm frequency (year).
- Revised the technique to find Time of Concentration (Tc).
- Did away w/ regression equation and referenced use of USGS StreamStats and *Flood-Frequency Estimates for Ohio Streamgages Based on Data through Water Year 2015 and techniques for Estimating Flood-Frequency Characteristics of Rural, Unregulated Ohio Streams* where flows can be manually obtained.
- Added a section on flood routing
- Did away w/ nomographs for design
- Added Chapter 4 – Post Construction Runoff Quality and Quantity Control
 - o It's been in our regs/manual before that **As-Builts** be submitted.
 - o Storms above critical storm must not exceed predeveloped design storm.
- Owners Submission of Completion has been added.
 - o Certifying that construction, stabilization and installation of post BMP is complete and good.
 - o Surety/bond

I want to revise fee schedule to be based upon Construction Costs and require a bond.