

**Santa Cruz County Flood Control District
Required Information
For
Single Lot Engineering (i.e. Safe Building Site)**

- Plot plan of parcel, to scale, showing the location of the structure (existing or proposed) on the lot, and its relation to parcel boundaries and all channels.
- Topography of the parcel at one (preferred) or two foot contour intervals and at the same scale as the plot plan, extending to include areas equidistant from the channel(s) in question. Topography is also to show the location of all cross-sections used and is to have the datum source listed. (Note, topography and plot plan may be one and the same.)
- At least two channel cross-sections, one of which must be at the most upstream portion of the structure, perpendicular to the channel.
- Photography, as necessary, to illustrate channel and over-bank conditions.
- Table or hydrologic data sheet containing the numerical information used in calculations including, but not limited to: drainage area, channel increments and slopes, basin factor, cover type, Manning's number for channel and over-bank areas, rainfall intensity, runoff supply rate, and time of concentration. (Data supplied will depend on method used.)
- Peak discharge (Q_{100}) for the base flood event (100-year flood) is to be calculated by an approved method (Pima County Method, Hec1, ADOT Rational Method, etc). All calculations are to be shown, if computed via a computer program, a copy of the data on a floppy disk will be provided.
- Second plot plan showing relationship between the structure's location (actual or proposed) and the floodplain, as determined by an approved method (Q2, Hec2, Hec-Ras, etc.).
- Also to be included is information on a safe erosion hazard setback for the structure, the elevation of the lowest floor (finished or unfinished), and a statement indicating no adverse impact to any neighboring parcels or structures (including infrastructure).
- Plans and letter/calculations must be signed and sealed by an Arizona Registered Professional Engineer.