Pima County Regional FLOOD CONTROL DISTRICT

# MEMORANDUM

## Director's Office
## Regional Flood Control District

**DATE:** April 9, 2012

**TO:** Regional Flood Control District Staff

**FROM:** Suzanne Shields, P.E.
Director

**SUBJECT: Increasing Pier Widths for Debris Loading in Hydraulic Models**

Debris obstruction on bridge piers is an important consideration for hydraulic modeling. In hydraulic models, the width of bridge piers is to be increased to account for debris. Unless otherwise demonstrated thorough acceptable engineering analysis, the following guidelines are to be used to increase pier widths:

- For bridge piers less than 4 feet wide, the bridge pier width is to be doubled in width or increased to a width of 4 feet, whichever is greater.
- For bridge piers 4 feet wide or wider, 4 feet is to be added to the pier to reflect debris loading.
- The increase in width is to be equally added to both sides of the pier.
- Watershed and river reach considerations are to be taken into account if there is the possibility for additional debris to accumulate on bridge piers during a flood event.

Please let me know if you have any questions,.

SS/tj