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Consulting Engineers

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PROJECT Anasazi, Unit 3
SUBJECT Drainage
BY JLD DATE 2-16-05
CHECKED _____ DATE _____
SHEET _____ OF _____

Area of Subdivision = 6.17 AC.

1. Find Q per lot:

$$\begin{aligned}\text{Pods} &= 40' \times 70' = 2800 \text{ sf} \\ \text{Drives} &= 20' \times 20' = 400 \text{ sf} \\ &\underline{3200 \text{ sf}}\end{aligned}$$

$$\therefore 25 \times 3200 = 80,000 \text{ sf} = 1.84 \text{ AC of 'D'}$$

2. Find Q in ROW:

Use 20% B & 80% D

$$\text{ROW Area} = 1.13 \text{ AC}$$

$$\therefore \text{'B'} = .23 \text{ AC}, \text{'D'} = .90 \text{ AC}$$

3. Total Treatment Types

$$\text{'D'} = 1.84 \text{ AC} + 0.90 \text{ AC} = 2.74 \text{ AC.}$$

$$\text{'B'} = 6.17 \text{ AC} - 2.74 \text{ AC} = 3.43 \text{ AC.}$$

4. Rainfall

$$P_i = 1.87 \text{ in}, P_u = 2.2 \text{ in}$$

5. From AHYMO Output:

$$\text{DB 1 (2.96 AC)}, Q = 9.05 \text{ CFS}$$

$$\text{DB 2 (3.21 AC)}, Q = 9.82 \text{ CFS}$$

$$\text{Site, Existing } Q = 8.01 \text{ CFS}$$