

STEWART & ASSOCIATES
Consulting Engineers and Surveyors

PRELIMINARY STORM DRAINAGE REPORT
1420 North College Avenue P.U.D.

The proposed P.U.D. is a 0.41 acre site at 1420 North College Avenue. It is an existing service station that is being converted to an automobile sales and service business. The entire site is presently hard surfaced. It has very low slopes from Northwest to Southeast or from College Avenue to the alley. The site is within the Dry Creek Drainage Basin.

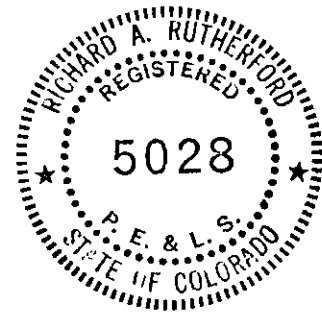
The proposed P.U.D. creates landscaped areas that will reduce the runoff by approximately 14%.

Because the site is small and flat and the runoff is being reduced, a variance for the requirement for on-site storm detention is requested.

The developed run off quantities are enclosed.

Richard A. Rutherford

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and Associates, Inc.
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SUBJECT 1420 W. COLLEGE AVE. P.U.D. RAR DATE 8/5/87

SHEET NO. _____

STORM DRAINAGE PROJECT NO. _____

AREA = 0.41 AC. ZONING = H.B.

C = 0.95

$$T_c = \frac{1.87(1.1 - 0.95) 200^{1/2}}{0.35^{1/3}} = 10 \text{ MIN.}$$

$$Q_{2\text{yr DEV.}} = 0.95 \times 2.5 \times 0.41 = 0.97 \text{ C.F.S.}$$

$$Q_{10\text{yr DEV.}} = 0.95 \times 4.4 \times 0.41 = 1.71 \text{ C.F.S.}$$

$$Q_{100\text{yr DEV.}} = 1.25 \times 0.95 \times 7.2 \times 0.41 = 2.95 \text{ C.F.S.}$$