



TYPICAL CROSS-SECTION SHOWING SEEDED DITCH REQUIREMENTS

FLOW LIMITS OF SEEDED DITCHES

Based on Manning formula

$$\text{Flow } Q = A \times \frac{1.486}{n} R^{\frac{2}{3}} S^{\frac{1}{2}}$$

where A = cross-sectional area
 n = Manning coeff = 0.05
 R = hydraulic radius
 S = slope of ditch in ft/ft

Assumed

Ditch width = 10 feet.
 Max. allowable velocity = 4 ft/sec
 Max. allowable Q = 25 c.f.s.
 (For ditches expected to carry more than 25 c.f.s. separate calculations are required)

Ditch grade	Max. allowable flow
6%	16 c.f.s.
5%	18 c.f.s.
4%	22 c.f.s.
3%	25 c.f.s.
2%	25 c.f.s.
1%	25 c.f.s.
0.5%	25 c.f.s.

DWG. N^o S-722

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