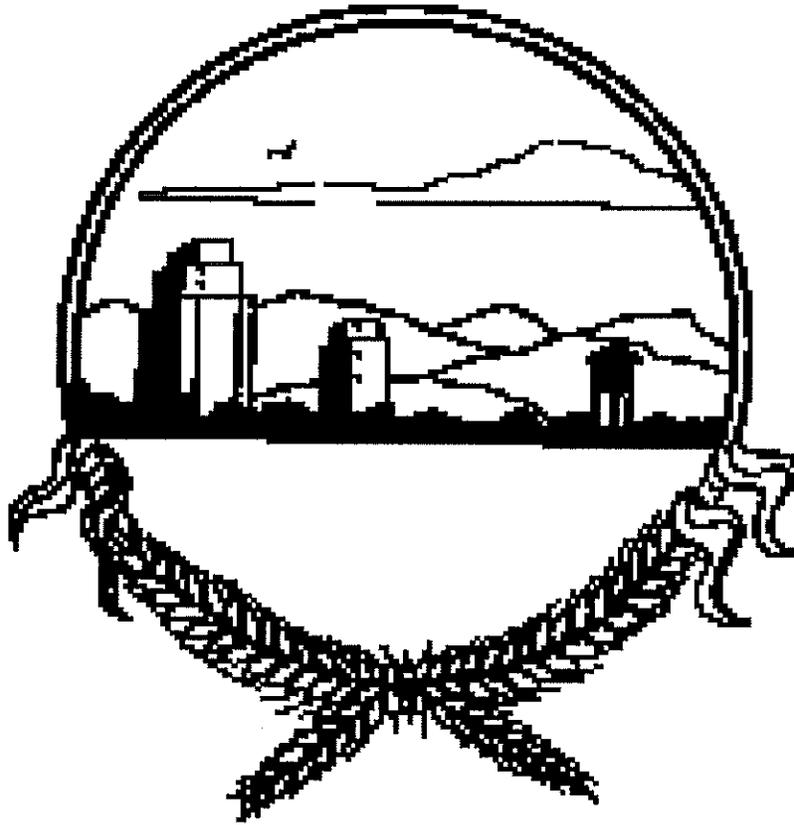


TOWN OF BENNETT



STORM DRAINAGE CRITERIA MANUAL

MAY, 1997

TOWN OF BENNETT, COLORADO
STORM DRAINAGE CRITERIA MANUAL

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INTRODUCTION

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The purpose of this manual is to provide for a uniform system of calculating the impact of development on the historic rainfall runoff pattern. This manual will also provide guidelines for the design and construction of improvements that result from the creation of impervious areas. The methods within this manual are compiled from the latest available technical manuals and regulations of other communities who have enacted similar ordinances and have successfully dealt with the increased runoff associated with development.

This manual has been designed to satisfy the needs of all types of developments anticipated to occur within the Town. The major part of this manual is written with the average lay person in mind and attempts not only to describe the procedures necessary to determine the required drainage improvements but also why these improvements are necessary. This manual is also designed for developers whose projects are to be annexed into the Town, and provides the applicable formulas for the calculation of the increased runoff based either on the rational method, the urban hydrographic method, or the soil conservation service method.

It was assumed that existing lots within established areas of town will not be required to provide detention and release facilities. Therefore a number of alternate requirements that are to be complied with during and after construction are specified for these lots. These requirements are intended to minimize the adverse effects of construction on neighboring residences and to achieve a uniform method of conveying runoff water to central collection points. While many of the existing developments are not in conformance with these new guidelines, the Town will eventually upgrade these sites to conform with the pertaining requirements. The Town will also commence with the establishment and implementation of a Comprehensive Master Drainage Plan for regulating major drainage flows within the Town limits.

Certain streets in Town are to be designated carriers for the major storm. Their choice was based on the topographic location of the streets and the existence of either major structures bounding these streets or the ability of these streets to convey major storm flows. Where possible, paved streets will be selected and designated as carriers and only where necessary shall unimproved streets be used.

Dedicated drainage easements are primarily intended for channelling local runoff to these collectors but, in several instances, they will be used to connect two or more collectors. The historic pattern of flows will be maintained except where anticipated developments cause a serious burden on the natural collector system.

A number of basic assumptions were made which, at first reading, may seem unlikely.

1. At some future time all of the streets in town will be paved and will have curbs, gutters, inlets and storm sewers.
2. All of the commercial sites will be fully developed.
3. All of the residential lots will be completely developed.
4. All of the driveway culverts will have been removed when curbs and curb-cuts are installed.

This criteria manual is anticipated to be updated periodically based on improved drainage data and to take into account the direction and magnitude of development surrounding the Town.