

Appendix I

**Comprehensive
Grading Plan**

Comprehensive Grading Plan Requirements

I.1 General. The County recognizes that, on large-scale projects, where there are long term continual earthwork operations, certain criteria within the GESC requirements may need to be adjusted in order to allow the grading operations to progress in an efficient, cost effective manner. The overall goal of completing grading operations with minimal disruption and impact may best be achieved by preparing a site-specific grading plan, which addresses the grading and erosion control measures necessary to reflect the intended construction sequence and schedule.

For these types of projects, the County has included a provision to allow for a Comprehensive Grading Plan (CGP). The CGP will be considered for sites in which the applicant demonstrates a need to waive certain specific GESC requirements in order to perform the grading operations in an efficient manner.

Typically, CGPs may be considered for projects that meet the following criteria:

- total grading operations will exceed 40 acres
- the project proposes long-term, continual grading operations
- the site will drain to a temporary sedimentation pond(s)
- the site is not located within the Cherry Creek Basin, tributary to the Cherry Creek Reservoir (the Cherry Creek Control Regulation requires strict adherence to the GESC criteria.)
- the site is not tributary to an impaired waterway
- grading of the site is contained within defined construction limits and does not have the potential to significantly impact existing roadways, drainageways, and other public infrastructure.
- the site is a mining activity that may be allowed within certain approved areas of Arapahoe County.

The County shall have the ultimate approval on whether a CGP is appropriate for a particular project.

I.2 CGP Requirements. A CGP will be used by the County to determine whether specific GESC requirements may be modified for a project. The CGP must provide sufficient detailed information to address the specific site elements that will be involved in the grading of the project. CGP reports and drawings must meet all GESC report and drawing requirements, and in addition must provide any additional information which would support a variance of the GESC requirements.

I.3 Applicable GESC Criteria. Applicants are required to meet the intent of all of the GESC criteria on a CGP. However, the County will consider a variance request for specific elements of the GESC criteria when appropriate justification is provided. The variances will be for the specific GESC criteria that is being requested. All GESC requirements must be met on a CGP, except for those which have been specifically modified through a variance by the County.

The GESCS criteria which may be considered for a variance on a CGP are listed below. Following the specific GESCS criteria, is a description of the intent of the GESCS requirement and the elements that will be considered when entertaining variances of the specific criteria. The applicant must demonstrate that the intent of the GESCS requirement is being met in order for the County to agree to the variance request.

◆ **Section 4.8 Require separate grading phases for sites that exceed 40 acres of disturbed area.**

Intent: The intent of this requirement is to limit the area of land disturbance to reduce the potential for erosion and sedimentation. It is recognized that even the most effective BMPs, with diligent maintenance cannot provide 100% effectiveness in reducing erosion; therefore the County will require that the areas of impact be minimized and stabilization measures be provided as soon as possible. The County will consider allowing larger areas of land disturbance phases, but will still require that the phasing be limited to areas that are reasonable for the project.

Elements to be considered in the variance justification shall include: proposed area of phased disturbance with relationship to entire project site; schedule for development/build out of site; time of year of earthwork operations; location of project; impacts to adjacent infrastructure; location and impact to affected drainageways; and others as determined by the County.

◆ **Section 4.14.6 Stockpile Areas. (10 ft. maximum height: 3:1 side slopes)**

Intent: The intent of this requirement is to limit side slopes and heights of stockpiles to minimize the potential for erosion from the stockpile to the surrounding property. Tall, steep stockpiles create excessive velocities and result in significant erosion. However, the County recognizes that stockpiles that are a part of a larger earthwork operation and are part of a larger land disturbance, may be less of an impact to the site if allowed to impact less areas through taller, steeper stockpiles. For these sites, the County will consider allowing steeper side slopes and taller stockpiles, but may require engineering slope stability analyses depending on site conditions.

Elements to be considered in this variance will include: the extent and the location of the stockpile with regard to the entire project; the time frame for the stockpile to remain, the impact to adjacent properties and surrounding areas, the condition of the land adjacent to the stockpile (i.e. disturbed or undisturbed.) and others as determined by the County.

◆ **Section 6.1.8 and Section 10.2 At the end of a work day, no trench shall be left open and backfill must be completed to grade.**

Intent: The intent of this requirement is to backfill utility trenches as soon as possible to avoid the need for dewatering and to limit the amount of time the backfill piles are subject to erosion. Trench dewatering requires devices to ensure that the trench discharges are clean. These dewatering techniques are often neglected on project sites. The stockpiles of backfill material are often not protected adequately from erosion. However, the County recognizes that on a large site, with continual earthwork operations, and adjacent land already disturbed from grading operations, the impact may be less significant. Therefore,

variances of this requirement will be considered.

Elements to be considered in a variance request include: location of utility trench; condition of area adjacent to the utility trench (i.e. disturbed, undisturbed); time frame for utility trench to be backfilled, and others as determined by the County.

- ◆ Others, as determined appropriate by the County on a case-by-case basis. Applicants may request variances from other specific GESC criteria that is not applicable or appropriate to the project. As stated, the intent of the GESC requirement must be met, and elements applicable to the variance request must be considered.

I.4 Submittals. It is recommended that the applicant schedule a pre-submittal meeting with the County to address the CGP and the specific variance requests prior to the submittal of a CGP to the County. All submittal requirements shall be consistent with the Standard GESC Report and Plan submittal requirements outlined in the GESC Manual.

I.5 Report and Drawing Requirements. Comprehensive Grading Plans must be prepared and submitted in accordance with all of the GESC requirements outlined in the GESC Manual. CGP submittals will differ from standard GESC reports and plans, in that they must specifically identify any variances that are being requested of the standard GESC requirements. Appropriate justification, including discussion of the elements associated with the variance request must be provided in the GESC report. Special notes will be required on the GESC drawings to address modifications to the GESC requirements, and to identify schedules, construction sequences, etc., that have been provided to support the GESC variance request.

I.6 Approvals. Approvals of CGPs will be generally consistent with the approval of a Standard GESC report and drawing. CGP approvals will differ from Standard GESC approvals in that the approval will identify the specific elements of the GESC requirements that have been modified for the project, based on additional information provided to the County in the CGP.