

**Overview of  
Section 8**

**8.0**  
**Section 8 The DESC Permit Program** addresses the purpose and requirements for the DESC Permit process.

**Step 1. Determine if a DESC Permit is Required.**

**Section 8.2.1 Projects that Require a DESC Permit** identifies the kinds of projects that require a DESC Permit.

**Section 8.2.2 Projects that Do Not Require a DESC Permit** identifies projects that are exempt from the DESC Permit requirements.

**Step 2. Getting Started on DESC Permit Submittals.**

**Section 8.3** identifies the steps for preparation of a DESC Permit Application submittal and who prepares a DESC Plan.

**Step 3. Preparing a DESC Plan.**

**Sections 8.4.1 through 8.4.8 DESC Plan Requirements** discusses the items required for a complete DESC Plan.

**Section 8.4.9 through 8.4.18 Erosion and Sediment Control Drawing Required Elements** details the items required for a complete Erosion and Sediment Control Drawing submittal.

**Section 8.4.19 Drainage Plan Requirements** identifies the items needed for a complete Drainage Plan submittal.

**Section 8.4.20 DESC Plan Required Elements for Non-Habitable/Accessory Structures** discusses the information required for a complete Non-Habitable/Accessory Structure Erosion and Sediment Control Plan.

**Section 8.4.21 Multi Lot Perimeter DESC Plan** identifies the items required for a complete Multi Lot Perimeter DESC Plan.

**Step 4. DESC Plan Submittal, Review and Acceptance.**

**Section 8.5.1 through 8.5.4** discusses the submittal, review and acceptance process of the DESC Permit Application.

**Step 5. Responsibilities and Preconstruction Meeting Requirements.**

**Section 8.6.1 through 8.6.18** identifies the responsibilities of DESC and Alternate DESC Managers, Preconstruction Meeting, Preconstruction Meeting Release, Inspection Criteria and issuance of the DESC or Multi Lot Perimeter DESC Permits.

**Step 6. Installation and Routine Maintenance of Erosion and Sediment Controls.**

**Section 8.6.19 through 8.6.32** provides information and the various BMPs and their installation and maintenance.

**Step 7. General Construction Practices.**

**Section 8.6.33** provides information on limits of construction, chemical and waste control, dust control, portable sanitary facilities, stabilization of exposed soils, storage of construction and landscape materials, street cleaning, temporary stockpiles and trash and construction debris.

**Step 8. DESC Inspections and Violations.**

**Section 8.6.34 through 8.6.40** describes the mandatory DESC Inspections and Violation Levels and procedures.

**Step 9. Final Drainage.**

**Section 8.7 Final Drainage Certificate** discusses the criteria for the Final Drainage Certification needed for close out of the DESC Permit.

**Step 10. Project Acceptance and DESC Permit Closeout.**

**Sections 8.8.1 through 8.8.2** discusses the process to obtain a Certificate of Occupancy and close out the DESC Permit.

**Sections 8.8.3 through 8.8.5** discusses the steps for posting Fiscal Security, if applicable, to receive a release of the Certificate of Occupancy.

**Step 11. Final Lot Stabilization.**

**Section 8.9** provides the requirements for Final Lot Stabilization and enforcement of these requirements.

## Section 8. Drainage, Erosion and Sediment Control (DESC) Requirements

### **The DESC Permit Program**

#### **8.1**

Douglas County is required by the Colorado Department of Public Health and Environment to have a permitting and inspection program to implement erosion and sediment control for single-family residential projects located within the unincorporated limits of Douglas County. This Section of the *GESC Manual* details the DESC Permit requirements.

#### **Purpose of Drainage, Erosion, and Sediment Control (DESC):**

- ◆ *Implement effective erosion and sediment control Best Management Practices (BMPs) as a standard for all single-family detached residential construction projects within unincorporated Douglas County.*
- ◆ *Ensure compliance with Federal, State, and local environmental regulations.*
- ◆ *Ensure adequate drainage for all DESC permitted projects.*

### **Projects Requiring a DESC Permit**

#### **8.2**

**8.2.1 Projects that Require a DESC Permit.** Douglas County requires that a DESC Permit be obtained prior to the start of land disturbing activities within unincorporated Douglas County for the following types of projects:

#### **Projects Requiring a DESC Permit**

- ◆ *All new construction, land disturbance and/or lot grading associated with the construction of single-family detached residential units.*
- ◆ *All reconstruction and additions to single-family detached residential units.*
- ◆ *The construction of, addition to, and land disturbance associated with non-habitable structures such as barns, detached garages, indoor arenas, and any other accessory buildings that require a Building Permit per the International Residential Code, as amended.*
- ◆ *Builders with multi-lot residential developments shall submit a Multi-Lot Perimeter DESC Plan and obtain a Multi-Lot Perimeter DESC Permit.*

**8.2.2 Projects that Do Not Require a DESC Permit.** The projects listed below are automatically exempt from the DESC Permit program.

#### **Projects Not Requiring a DESC Permit**

- ◆ *The construction of, addition to, and land disturbance associated with non-habitable and any other accessory buildings that DO NOT require a Building Permit per the International Residential Code, as amended.*
- ◆ *Construction of Decks.*
- ◆ *Construction of Patio Covers.*
- ◆ *Stand-Alone Retaining Wall Projects.*
- ◆ *Interior Remodels.*
- ◆ *Vertical additions that do not change the footprint of the existing foundations.*
- ◆ *Demolition Projects (See Section 7 Low Impact GESC Permit requirements).*
- ◆ *Landscape Projects (See Section 7 Low Impact GESC Permit requirements).*
- ◆ *Swimming Pools (See Section 7 Low Impact GESC Permit requirements).*

**Getting Started on DESC Permit Submittal**

**8.3**

The first step in the DESC Permit process is to determine if the project meets the requirements outlined in Section 8.2 of the *GESC Manual*. Once it has been determined that the project meets these requirements then the Applicant shall proceed with the Permit Steps outlined in Section 8.

**8.3.1 Preparation of DESC Permit Submittals.** A complete DESC submittal shall consist of a DESC Permit Application, Lot Specific Erosion and Sediment Control Drawing, Lot Specific Drainage Plan, and appropriate fees as outlined in the User Fee Manual, as amended. See Section 8.4 for guidance in preparation of the submittals.

Checklists are available in Appendix G to assist with submittal of a complete Building/DESC Permit Application.

**8.3.2 Who Prepares DESC Plans?** Designing erosion and sediment controls and drainage on a site may involve engineering design issues such as slope stability, peak discharge estimates, and hydraulic computations.

The Division of Professions and Occupations Local Officials' Guide to Architecture, Engineering & Land Surveying requires that a professional engineer or architect who is licensed with the State of Colorado be included in the preparation of the DESC Permit submittal. For the purposes of this Section of the *GESC Manual* this individual, as selected by the Applicant, is referred to as the Designer. Douglas County requires that a professional engineer or architect who is licensed with the State of Colorado prepare the DESC plan submittal. For the purposes of this Section of the *GESC Manual* this individual, as selected by the Applicant, is referred to as the Designer. It is the responsibility of the Designer to use professional judgment in the development of the DESC Plans. If the Designer determines that any DESC requirements, as applied to their specific project, pose a safety hazard, it is the Designer's responsibility to notify Douglas County of these issues, as well as to recommend an approach to alleviate the concerns.

**Preparing a DESC Plan**

**8.4**

The DESC Plan is the controlling document for all site grading, temporary erosion and sediment control, and final drainage for a DESC permitted site. A complete DESC Plan submittal shall consist of the Erosion and Sediment Control Drawing; Lot Specific Drainage Plan; and DESC Plan Standard Notes and Details. A DESC Plan showing both the Erosion and Sediment Control and Drainage Plan can be shown on a single drawing, as long as this can be accomplished clearly.

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***A Complete DESC Plan consists of 3 parts:***

- 1. Erosion and Sediment Control Drawing,*
  - 2. Lot Specific Drainage Plan, and*
  - 3. DESC Plan Standard Notes and Details.*
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**8.4.1 Preparing a DESC Plan.** A DESC Plan shall be developed in accordance with this Section for all individual lot projects that require a DESC

*Preparing a  
DESC Plan,  
continued*

Permit. Where special conditions exist, the County may require additional information on any specific plan.

The submittal of an individual lot DESC Plan requires drawings and plans be done by the Designer and if available, appropriate Phase III Drainage Plan information will be reflected on the Lot Specific Drainage Plan. The DESC Plan may be a copy of the individual plot plan modified to meet the requirements of this Section. The DESC Plan will be reviewed for compliance with Section 8 and, when applicable, the approved drainage patterns set forth in the approved Over Lot Grading Plan, and/or the Phase III Drainage Plan.

**8.4.2 Type of Control.** 3 general types of BMPs are shown on an Erosion and Sediment Control Drawing:

- Construction Control. These BMPs are related to construction access and staging.
- Erosion Control. These BMPs are used to limit the amount and extent of erosion.
- Sediment Control. These BMPs are designed to capture eroded sediments prior to their conveyance off site.

**8.4.3 Phase of Construction.** The BMPs listed in Section 8 apply to one or more of the following construction phases. All BMPs shall be indicated in the Erosion and Sediment Control Drawing as being part of the Initial Stage, Interim Stage or Final Stage of construction. This is to help clarify when each BMP is to be installed.

- Initial Stage. These BMPs shall be installed at the outset of construction, prior to the initial Preconstruction Meeting and/or any other land-disturbing activities. Initial controls are to be placed on existing grades, but shall be based in part on proposed grading operations.
- Interim Stage. These BMPs shall be based on proposed grades and drainage features and are installed after initial site grading.
- Final Stage. These BMPs shall be installed as one of the last steps in the construction process.

**8.4.4 Erosion and Sediment Control Drawings are to Use the Standard BMPs.** When preparing Erosion and Sediment Control Drawing, the Designer shall use the standard BMPs shown in Section 8. These BMPs have shown to be effective under actual construction site conditions within Douglas County and therefore are accepted for use by Douglas County. A complete set of details, the Douglas County DESC Plan Standard Notes and Details, are available in Appendix B.

The Erosion and Sediment Control Drawing submitted to the County for final signatures, and subsequently provided to the Contractor as construction drawings, shall include a set of the DESC Plan Standard Notes and Details. **Other details shall not be used.**

If Douglas County approves additional BMPs in the future (see Section 8.4.5), documentation of the additional BMPs will be made available on the

*Preparing a  
DESC Plan,  
continued*

Douglas County website.

**8.4.5 Use of Alternative or Innovative BMPs.** Public Works Engineering recognizes that there will be new advances in the development of erosion and sediment control BMPs that may prove effective, or even out perform controls currently accepted. Douglas County may allow, under strictly controlled circumstances, the installation of erosion and sediment control BMPs other than the standard BMPs shown in the DESC Plan Standard Notes and Details. These shall be considered pilot programs. See Section 3.2.5 of the *GESC Manual* for information regarding Pilot Programs.

**8.4.6 DESC Plan Standard Notes and Details.** As discussed in Section 8.4.4, the Douglas County DESC Plan Standard Notes and Details have been prepared to depict the BMPs to be used. Construction details and notes provide direction to the Permittee(s) regarding installation and maintenance requirements for each BMP. The Douglas County DESC Plan Standard Notes and Details shall be submitted with the Erosion and Sediment Control Drawings. A copy of these Standard Drawings is included in Appendix B. The DESC Plan Standard Notes and Details comprise minimum measures to be adhered to on a construction site. The Permittee(s) and Designer may select more conservative approaches than indicated herein and exceed minimum criteria.

***The Douglas County DESC Plan Standard Notes and Details serve several purposes:***

- ◆ ***Increased consistency.*** *Consistent details and notes for a standard set of BMPs will increase the likelihood that BMPs will function effectively and will be installed and maintained correctly.*
- ◆ ***Time savings.*** *The set of standard drawings will save Designers the effort associated with developing and drawing their own notes and details. Less time will be needed to review plans and inspect the BMPs, and as field personnel gain experience constructing the standard BMPs, it is anticipated that installation and maintenance will become more efficient.*
- ◆ ***Definition of sizing variables.*** *The standard details identify the critical variables that the Designer must specify on the DESC Plan to locate and size the BMPs. This will reduce the likelihood that information needed on the plans will be missing or unclear, or that BMPs are improperly sized.*

**8.4.7 DESC Plan Checklist.** A DESC Plan Checklist (Appendix G) summarizes the drawing requirements for Plan development. This checklist must be used to ensure that each requirement is addressed. A copy of the completed checklist should be included with the DESC Application packet.

**8.4.8 Erosion and Sediment Control Drawing Required Elements.** The Erosion and Sediment Control Drawing shall be lot specific, and shall provide the detailed temporary erosion and sediment control for the lot, and or disturbed area(s). The Erosion and Sediment Control Drawing shall comply with the requirements of this Section.

This Section describes a systematic approach to control erosion and sediment on a construction site. 8 elements of an effective Erosion and Sediment Control Drawing are summarized. Douglas County requires that



**8 Elements  
of an  
Erosion and  
Sediment  
Control  
Drawing**

each of these elements be addressed in the Erosion and Sediment Control Drawing.

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**8 Elements of an Effective Erosion and Sediment Control Drawing:**

1. *Preserve and Protect Drainageways.*
  2. *Avoid the Clearing and Grading of Sensitive Areas.*
  3. *Limit the Size of Land Disturbance to Reduce Soil Exposure.*
  4. *Stabilize Exposed Soils in a Timely Manner.*
  5. *Implement Effective Perimeter Controls.*
  6. *Protect Steep Slopes.*
  7. *Protect Inlets, Storm Sewers and Culverts.*
  8. *Provide Access and General Construction Controls.*
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A set of example Erosion and Sediment Control Drawings (shown in Appendix C) have been prepared in accordance with the 8 Elements to illustrate the concepts discussed herein and depict the information that shall be shown on Erosion and Sediment Control Drawings. This Section references criteria for individual BMPs found in Section 3 of the *GESC Manual*. The Erosion and Sediment Control Drawing shall follow the design and sizing criteria, however the length, depth, crest length and other dimensions are not required on the Drawing.

**Element 1:  
Preserve and  
Protect  
Drainageways**

**8.4.9 Preserve and Protect Drainageways.** Work in or adjacent to drainageways requires special care and attention. Drainageway corridors comprise an important natural resource with habitat, open space, and aesthetic value. Since drainageways also function to convey stormwater runoff, they are susceptible to damage from the erosive forces of water, especially if they are disturbed. It is critical that construction activities be designed to reduce any adverse impacts to drainageways and that County, State, and Federal permitting processes be complied with (see Sections 2.5, 2.6, and 2.7 of the *GESC Manual* respectively). The Erosion and Sediment Control Drawings shall be in compliance with Section 3.4.



*Disturbance to sensitive resource areas shall be avoided or minimized.*

**Element 2:  
Avoid the  
Clearing and  
Grading of  
Sensitive  
Areas**

**8.4.10 Avoid the Clearing and Grading of Sensitive Areas.** In addition to drainageways, other sensitive resources may exist on a site. These could include:

- Protected habitat for threatened or endangered species.
- Wetlands.
- Nesting bird habitat.
- Riparian corridors.
- Forested areas.
- Mature cottonwood stands.
- Bedrock outcroppings.
- Steep slopes.
- Potential stormwater infiltration areas.
- Historic, cultural, or archeological resources.
- Areas of unique or pristine vegetation, habitat, or landform.

A resource inventory should be conducted for the site and include any sensitive areas such as those listed above. The location, aerial extent, and type of resource, including stream floodplains as discussed in Section 8.4, shall be shown on the Erosion and Sediment Control Drawing.

Disturbance to sensitive resource areas shall be avoided or minimized. Destroying or disturbing wetlands, nesting bird habitat, and protected habitat for threatened or endangered species is sharply restricted. These restrictions shall be addressed through the appropriate Federal or State agency permitting process.

A Designer can go farther than preserving critical resource areas; other open space areas can be left undisturbed and exempt from clearing and grading operations. The technique of mapping out areas of the site that can be left undisturbed, termed “fingerprinting”, can reduce grading costs and contribute to the ultimate value of the development. The Erosion and Sediment Control Drawings shall clearly show Limits of Construction and shall call out **Construction Fence (CF)** or other approved means to protect resources that are to be preserved.

**Element 3:  
Limit the  
Size of Land  
Disturbance  
to Reduce  
Soil  
Exposure**

**8.4.11 Limit the Size of Land Disturbance to Reduce Soil Exposure.** The Limits of Construction should allow adequate room for all necessary construction including but not limited to staging, storage, overexcavation, stockpiling and construction of associated improvements including septic fields. However, the Limits of Construction shall restrict the area of disturbance to the minimum amount necessary.



*Limiting Land Disturbance assists in protecting natural resources in the area.*



**Element 4:  
Stabilize  
Exposed  
Soils in a  
Timely  
Manner**

**8.4.12 Stabilize Exposed Soils in a Timely Manner.** All areas disturbed by construction that will not receive permanent landscaping shall be stabilized as soon as possible to reduce the duration of soil exposure and the potential amount of erosion. Unless otherwise approved, Douglas County requires that these areas be Drill Seeded and Crimp Mulched within 14 days of the substantial completion of construction as determined by the Erosion Control Inspector. This may include areas used for stockpiling, staging, or areas used for septic/leach fields. The Erosion and Sediment Control Drawing shall show the limits of areas that will be Drill Seeded and Crimp Mulched. See Section 3.17.13 of the *GESC Manual* for the design parameters to be specified on the Erosion and Sediment Control Drawing.

Slopes steeper than 3 to 1 are difficult to vegetate and maintain. Long term rill and gully erosion are likely on such slopes. Approved permanent stabilization shall be required to control grades on all sites that cannot be graded at a 3 to 1 slope. Retaining walls may be necessary to control grades on a site. Slopes steeper than 4 to 1 shall be protected with **Erosion Control Blanket (ECB)**.

A permanent or temporary **Diversion Ditch (DD)** shall be depicted above all steep slopes on the site that may receive concentrated or sheet flows. Where steep cut slopes are planned near the site perimeters, enough room should be left to install a Diversion Ditch, unless otherwise accepted by the County.

**Element 5:  
Implement  
Effective  
Perimeter  
Controls**

**8.4.13 Implement Effective Perimeter Controls.**

**8.4.13.1 Upslope Perimeters.** If the upstream off-site area is developed, runoff will most likely enter the site at one or more discrete outfalls. Drainage facilities shall be sized and stabilized to convey off-site runoff through the site (see Section 3.4 for design guidance for streams and drainage channels).

If the upstream off-site area is currently undeveloped, runoff may enter the site in a defined natural channel or via sheet flow (or both). Runoff in existing channels shall be conveyed through the site in a stabilized stream or drainage channel (see Section 3.4). Runoff entering the site via sheet flow may need to be captured in a **Diversion Ditch (DD)** based on upstream topography and directed to a stream or drainage channel (see Section 3.4.5 for a description and photograph of a Diversion Ditch). Diversion Ditches that have mild slopes may be unlined, whereas steeper ditches and rundowns must be lined with Erosion Control Blanket (for moderate slopes), plastic (temporary installations only), or riprap. Design parameters required on the Erosion and Sediment Control Drawing for Diversion Ditches can be found in Section 3.17.6.

**8.4.13.2 Downslope Perimeters.** Downslope perimeter BMPs apply to the downslope perimeters of construction disturbance (generally the downhill site perimeters), perimeters along drainageways, and downslope perimeters adjacent to other areas to be left undisturbed. Sediment controls shall be located as close to the source of erosion as possible, on the downslope side of any disturbed area. The following Downslope Perimeter Controls are approved BMPs for the Erosion and Sediment Control Drawing

**Element 5:  
Implement  
Effective  
Perimeter  
Controls,  
continued**

**Reinforced Rock Berm (RRB)**

A **Reinforced Rock Berm (RRB)** consists of a linear mass of gravel enclosed in wire mesh to form a porous filter, able to withstand overtopping. The berm is heavy and stable and promotes sediment deposition on its upstream side.



**Sediment Control Log (SCL)**

A **Sediment Control Log (SCL)** consists of a cylindrical bundle of wood, coconut, compost, excelsior, or straw fiber designed to form a semi-porous filter, able to withstand overtopping. The log can be staked into the ground and promotes sediment deposition on its upstream side.



**Silt Fence (SF)**

*Silt Fence (SF) is a temporary sediment barrier constructed of woven fabric stretched across supporting posts. The bottom edge of the fabric is placed in an anchor trench that is backfilled with compacted soil.*

*Photo provided by Storm Water Control.*



**Diversion Ditch (DD)**

A **Diversion Ditch (DD)** is a small earth channel used to divert and convey runoff. Depending on slope, the diversion ditch may need to be lined with erosion control blanketing, plastic (for temporary installation only), or riprap.



**Element 6:  
Protect  
Steep  
Slopes**

Of these 4 BMPs, a Reinforced Rock Berm, Sediment Control Log, and Silt Fence function best when installed level, on a contour. However, these BMPs may slope up to 5% from horizontal in accordance with the design information provided in Section 3.17.14. In the County's experience, Silt Fence is the least durable and has the highest maintenance cost of the 4 alternatives; therefore, consideration should be given to all of the alternatives

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before simply specifying Silt Fence. Additional information on maintenance costs is provided in Section 3.21. Design parameters required on the Erosion and Sediment Control Drawing for Reinforced Rock Berm, Sediment Control Log, Silt Fence and Diversion Ditches can be found in Sections 3.17.9, 3.17.11, 3.17.14 and 3.17.6.

**Element 6:  
Protect  
Steep  
Slopes,  
continued**

**8.4.14 Protect Steep Slopes.** Steep slopes may either be comprised of steep existing slopes that are to be preserved or cut or fill slopes created during the grading process. In either case, the measures in this Section shall be taken to protect these slopes against erosion. For the purposes of definition, a slope is considered steep if it is steeper than 4 (horizontal) to 1 (vertical).

**8.4.14.1 Proposed Slopes Shall be No Steeper than 3 to 1.** Slopes steeper than 3 to 1 are difficult to vegetate and maintain. Long term rill and gully erosion are likely on such slopes. Approved permanent stabilization shall be required to control grades on all sites that cannot be graded at a 3 to 1 slope. Retaining walls may be necessary to control grades on a site. Slopes steeper than 4 to 1 shall be protected with **Erosion Control Blanket (ECB)**. Design parameters required on the Erosion and Sediment Control Drawing for Erosion Control Blanket can be found in Sections 3.17.7 of the *GESC Manual*. For areas where the Erosion Control Blanket is going to be used as a temporary measure until permanent landscaping is installed, photo-degradable blanket meeting the specifications provided in Table 8-1, Erosion Control Blanket Types may be used.



*Erosion Control Blanket used to Stabilize Slopes*

**Table 8-1 Erosion Control Blanket Type**

TYPE	COCONUT CONTENT	STRAW CONTENT	MIN. WEIGHT (lbs/sy)	MANNING'S N VALUE (Varies with depth as shown)	ALLOWABLE MAX. SHEAR STRESS (lbs/sf)	ALLOWABLE MAX. VELOCITY (fps)
STRAW	0%	100%	0.5	0.018 for $D \geq 2.0'$ 0.050 for $D \leq 0.5'$	Not allowed in drainageways or diversion ditches	
STRAW-COCONUT	30% MIN.	70% MAX	0.5	0.018 for $D \geq 2.0'$ 0.050 for $D \leq 0.5'$	1.75	5.0
COCONUT	100%	0%	0.5	0.018 for $D \geq 2.0'$ 0.050 for $D \leq 0.5'$	2.25	5.0
EXCELSIOR	N/A	N/A	0.7	0.028 for $D \geq 2.0'$ 0.066 for $D \leq 0.5'$	2.00	5.0
PHOTODEGRADABLE STRAW	N/A	100%	0.47	0.021 for $D \geq 2.0'$ 0.055 for $D \geq 0.5'$	1.55	5.0
PHOTODEGRADABLE STRAW-COCONUT	30% MIN.	70% MAX	0.7	0.018 for $D \geq 2.0'$ 0.050 for $D \leq 0.5'$	2.00	8.0
PHOTODEGRADABLE COCONUT	100%	N/A	0.5	0.014 for $D \geq 2.0'$ 0.022 for $D \leq 0.5'$	2.25	10.0
PHOTODEGRADABLE EXCELSIOR	N/A	N/A	0.57	0.023 for $D \geq 2.0'$ 0.023 for $D \geq 0.5'$	1.6	5.5

**Element 7:  
Protect Inlets,  
Storm Sewers  
and Culverts**

**8.4.15 Protect Inlets, Storm Sewers and Culverts.** The entrances to storm sewer inlets shall be protected using one of the following approved BMPs to reduce the inflow of sediment. Likewise, storm sewer outfalls and culvert outlets shall be protected against scour and erosion.



**Inlet Protection (IP)** consists of a reinforced rock berm placed in front of (but not blocking) a curb-opening inlet or around an area inlet to reduce sediment in runoff approaching the inlet.



**Element 7:  
Protect  
Inlets,  
Storm  
Sewers and  
Culverts,  
continued**

All storm sewer inlets on a site shall be provided with **Inlet Protection (IP)**. The Erosion and Sediment Control Drawing shall specify whether area, sump, or continuous grade Inlet Protection is to be used in a particular location. The half Y-shaped continuous grade Inlet Protection is intended to trap sediment upstream of an inlet on a continuous grade street without causing any bypass of flow around the inlet. Sump and area Inlet Protection is also designed to maintain inlet capacity after runoff flows over the wire-enclosed rock. Design parameters required on the Erosion and Sediment Control Drawing for Inlet Protection can be found in Sections 3.17.8.

All culvert inlets on a site shall be provided with a **Reinforced Rock Berm (RRB)**. Storm sewer outfalls and culvert outlets shall be permanently

**A Reinforced Rock Berm (RRB)** can be placed in front of a culvert to reduce sediment in the runoff approaching the culvert.



protected against erosion with a riprap apron or other approved means in accordance with the *Drainage Manual*, as amended. Riprap shall be installed at the same time as construction of the storm sewer outfall or culvert. In addition, **Erosion Control Blanket (ECB)** shall be provided in the area disturbed by the construction of the storm sewer outfall or culvert. Design parameters required on the Erosion and Sediment Control Drawing for Reinforced Rock Berm can be found in Sections 3.17.9.

**Element 8:  
Provide  
Access and  
General  
Construction  
Controls**

**8.4.16 Provide Access and General Construction Controls.**

**8.4.16.1 Limits of Construction (LOC).** Limits of Construction shall be shown on Erosion and Sediment Control Drawings and shall include all areas of proposed work and disturbance. The Designer shall be careful to delineate Limits of Construction that provide adequate room for the necessary work, including vehicular and temporary storage of equipment and materials, and areas of utility tie-ins while at the same time limiting the disturbed area to the minimum necessary.

**8.4.16.2 Construction Fence (CF).** Construction Fence or **Construction Markers (CM)** shall be shown throughout the site to delineate all Limits of



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Construction along stream corridors and sensitive areas including school zones and trails.

**Element 8:  
Provide  
Access and  
General  
Construction  
Controls,  
continued**

**8.4.16.3 Vehicle Tracking Control (VTC).** Vehicle Tracking Control shall be provided at all entrance/exit points for all independent storage areas, stockpile areas, and on lots larger than 2.5 acres. The number of access points shall be minimized. A location shall be selected that accounts for the safety of the traveling public and avoids disturbance of trees, desirable vegetation, and low, wet areas. Steep grades (greater than 8%) shall be avoided. Design parameters required on the Erosion and Sediment Control Drawing for Vehicle Tracking Control can be found in Sections 3.17.20.

*Vehicle Tracking Control (VTC) consists of a pad of 3" to 6" rock at all entrance/exit points for a site that is intended to help strip mud from tires prior to vehicles leaving the construction site.*



**8.4.16.4 Stabilized Driveway Access (SDA).** For lots less than 2.5 acres, a Stabilized Driveway Access shall be provided at all proposed driveway locations. Stabilized Driveway Access shall be shown on the Erosion and Sediment Control Drawing to cover the entire area of the proposed driveway.

*A Stabilized Driveway Access (SDA) consists of a pad of granular material that is placed in the location of the proposed driveway. Placement of the stabilized driveway access reduces tracking onto roads and provides a stable area on the lot for deliveries.*



**8.4.16.5 Stabilized Staging Area (SSA).** For independent storage areas a Stabilized Staging Area shall be provided near the main access point and should be connected to the Vehicle Tracking Control. The Stabilized Staging Area should be the location used for chemical storage. Design parameters required on the Erosion and Sediment Control Drawing for Stabilized Staging Area can be found in Sections 3.17.16.

*A Stabilized Staging Area (SSA) consists of stripping topsoil and spreading a layer of granular material in the area to be used for a trailer, parking, storage, unloading and loading. A stabilized staging area reduces the likelihood that the vehicles most frequently entering a site are going to come in contact with mud.*



*Preparing a  
DESC Plan,  
continued*

**8.4.17 Erosion and Sediment Control Drawing Requirements.** The Erosion and Sediment Control Drawing shall provide erosion and sediment controls for the life of the project. The Erosion and Sediment Control Drawing for lot sizes of 1.0 acre or less shall be either 8.5" x 11" or 8.5" x 14" with a scale of 1 inch equals 20 feet. The Erosion and Sediment Control Drawing size for lots greater than 1.0 acre shall be either 11" x 17" or 24" x 36" and shall be at a scale of 1 inch equals 20 feet. If the lot does not fit on the specified plan size, then the areas of disturbance can be shown at a scale of 1 inch equals 20 feet with the remainder of the lot being shown at a scale that allows the lot to fit on the page.

**At a minimum, the Erosion and Sediment Control Drawing shall include:**

1. Basic property information including; street address, subdivision, filing, lot and block (Section, Township and Range, if unplatted).
2. Limits of Construction.
3. North Arrow.
4. All property lines, easements and setbacks.
5. Location, map symbol, and letter callouts for all erosion and sediment control BMPs. Each BMP shall be labeled Initial, Interim, or Final in accordance with the timing of installation. Refer to the Sample Erosion and Sediment Control Drawings in Appendix C for examples of a typical Erosion and Sediment Control Drawing for a single-family residential construction project.
6. All planned improvements and permanent structures such as sidewalks, patios, swimming pools, driveways, porches, retaining walls, lined swales, etc.
7. All drainage information including swales and flow arrows as shown on Phase III Drainage Plans.
8. Designer's Firm Name and Address.
9. DESC Drawing Designer's signature block with name, date, and registration number.
10. Signature block shall include the following note:  
**THE *DRAINAGE, EROSION AND SEDIMENT CONTROL DRAWING* INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE *GRADING EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL* OF DOUGLAS COUNTY, AS AMENDED.**
11. Douglas County DESC Acceptance Block.

*Drainage  
Plan Design  
Elements*

**8.4.18 Drainage Plan Design Elements.** The Drainage Plan shall be lot specific, and shall provide the detailed final grading for the lot, and or disturbed area(s). The Drainage Plan shall reflect information provided in the Phase III Drainage Plan for the given area and comply with the following requirements:

1. **Slope Requirements.** A minimum constant slope of 10% and a maximum constant slope of 33% in the first 10 feet away from the foundation walls and window wells shall be established for pervious surfaces. All other disturbed areas shall have a minimum of 2% slope (a 2.5% slope is recommended for grassy areas). All pervious

*Drainage  
Plan Design  
Elements,  
continued*

and impervious areas shall slope continuously to the lowest point where stormwater discharges from the lot (e.g., sidewalk, gutter, inlet, adjacent property, or easement). At this point, the discharge water shall be dispersed into a sheet flow and directed in a manner as to not cause harm to downslope properties. Where minimum slopes cannot be attained, alternate means to adequately convey the water from the lot shall be designed and submitted by the Designer to the Building Division for County acceptance. Impervious surfaces adjacent to the foundation shall have adequate drainage away from the foundation as determined by the Designer. Refer to the International Residential Code, as amended for specific requirements.

2. **Drainage Swales.** Drainage swales may not be located within the foundation backfill zone unless limited by property lines. Drainage swales shall have adequate depth, width and longitudinal gradient to convey the stormwater off the lot in an effective, non-damaging manner. Drainage swales shall be designed to spread flows out as much as feasible.
3. **Retaining Walls.** Proposed slopes steeper than 3 to 1 are difficult to vegetate and maintain. Long term rill and gully erosion are likely on such slopes. Approved permanent stabilization shall be required to control grades on all sites that cannot be graded at a 3 to 1 slope. Retaining walls may be necessary to control grades on a site.

Retaining walls shall not encroach onto adjacent properties. Retaining walls taller than 4 feet (including footing) or that carries a surcharge require a Building Permit and shall be designed by a Professional Engineer. Refer to the International Residential Code, as amended for additional requirements.

4. **Driveways.** Driveways shall have a minimum slope of 2% away from the foundation for a distance that will allow adequate drainage away from the garage entrance as determined by the Designer.
5. **Downspouts and Sump Pumps.** Downspouts and sump pumps shall discharge a minimum of 4 feet away from the foundation wall and outside the foundation backfill zone unless limited by property lines. Downspouts shall not directly discharge onto adjacent properties.
6. **Designing to the Phase III Drainage Plan.** The Designer shall ensure that the Drainage Plan functions in accordance with the Phase III Drainage Plan for the development, if applicable.

**8.4.19 Drainage Plan Requirements.** The Drainage Plan shall be lot specific, and shall provide the detailed final grading for the lot, and or disturbed area(s). The Drainage Plan for lot sizes of 1.0 acre or less shall either be 8.5" x 11" or 8.5" x 14" and shall be a scale of 1 inch equals 20 feet. The Drainage Plan size for lots greater than 1.0 acre shall either be 11" x 17" or 24" x 36" and shall be at a scale of 1 inch equals 20 feet. If the lot does not fit on the specified plan size, then the areas of disturbance can be shown at a

*Preparing a  
DESC Plan,  
continued*

scale of 1 inch equals 20 feet with the remainder of the lot being shown at a scale that allows the lot to fit on the page.

**At a minimum, the Drainage Plan shall include:**

1. Basic property information including; street address, subdivision, filing, lot and block (Section, Township and Range, if unplatted).
2. North Arrow.
3. All property lines, easements and setbacks.
4. 100 Year Floodplain limits shall be shown if there is floodplain on the lot.
5. Spot elevations and drainage flow arrows to accurately illustrate the site drainage patterns. At a minimum the plan shall contain:
  - a) Drainage swales labeled with spot elevations to the nearest 1/10 of a foot, and drainage flow arrows, illustrated to the nearest 1%, starting at the high point(s) and along the swale at 25 foot intervals.
  - b) Spot elevations, to the nearest 1/10 of a foot at:
    - Each foundation corner (top of foundation).
    - Each point of foundation elevation change (top of foundation).
    - Top of driveway at the garage entrance.
    - Point of driveway discharge.
    - Top of Wall and Bottom of Wall elevations for all retaining walls at each end and at 20 foot intervals.
  - c) Slopes illustrated with an arrow showing the direction of flow to the nearest 1%, for a distance of 10 feet from the top of backfill at foundation for:
    - Each foundation corner.
    - Along the foundation at 20 foot intervals.
    - Each point of foundation elevation change.
6. Location(s) where existing storm water runoff enters the lot and discharges from the lot to adjacent rights-of-way, properties and easements labeled.
7. Designer's Firm Name and Address.
8. DESC Drawing Designer's signature block with name, date and registration number.
9. Signature block shall include the following note:

**THE *DRAINAGE, EROSION AND SEDIMENT CONTROL DRAWING* INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE *GRADING EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL* OF DOUGLAS COUNTY, AS AMENDED.**
10. Douglas County DESC Acceptance Block.

The Drainage Plan for residential lots 2.5 acres and larger, shall include the acreage of the lot and the percent imperviousness based on the existing and planned improvements.

**8.4.20 DESC Plan Required Elements for Small Additions (less than 500 square feet) to Habitable Structures.** The requirements for a Designer to develop a DESC Plan shall be waived for Small Additions if the following items are submitted with the DESC Application/Permit:

*Preparing a  
DESC Plan,  
continued*

1. A hand-drawn Erosion and Sediment Control Plan (see Section 8.4.17)
2. Drainage flow arrows (meeting criteria reflected in Section 8.4.18) on an aerial photograph with any additional information required by the County depending on specific conditions.
3. The following certification statement with signature:  
“The Drainage, Erosion and Sediment Control Plan (DESC Plan) included herein has been prepared by the property owner or one of their representatives. The property owner understands the potential risks involved by not hiring a professional engineer or architect to prepare this DESC Plan and assumes all responsibility related to the preparation of this DESC Plan and construction activities associated with this DESC Plan. This DESC Plan has been prepared to meet the intent of the Grading, Erosion and Sediment Control (GESC) Criteria Manual of Douglas County, as amended. (Signature and Date)”

**8.4.21 DESC Plan Required Elements for Non-Habitable/Accessory Structures.** The requirements for a Designer to develop a DESC Plan shall be waived for non-habitable/accessory structures if **all** of the following conditions are met:

1. The footprint of the structure does not exceed 2,400 square feet; and
2. The structure is placed more than 25 feet from a habitable structure; and
3. The structure is more than 50 feet from property lines; and
4. The structure is more than 100 feet from a drainageway; and
5. The structure is more than 100 feet from a 100 year floodplain.

The following items are submitted with the DESC Application/Permit:

1. A hand-drawn Erosion and Sediment Control Plan (see Section 8.4.17)
2. Drainage flow arrows (meeting criteria reflected in Section 8.4.18) on an aerial photograph with any additional information required by the County depending on specific conditions.
3. The following certification statement with signature:  
“The Drainage, Erosion and Sediment Control Plan (DESC Plan) included herein has been prepared by the property owner or one of their representatives. The property owner understands the potential risks involved by not hiring a professional engineer or architect to prepare this DESC Plan and assumes all responsibility related to the preparation of this DESC Plan and construction activities associated with this DESC Plan. This DESC Plan has been prepared to meet the intent of the Grading, Erosion and Sediment Control (GESC) Criteria Manual of Douglas County, as amended. (Signature and Date)”

*Preparing a  
Multi Lot  
Perimeter  
DESC Plan*

**8.4.22 Multi Lot Perimeter DESC Requirements.** Douglas County requires builders with multi-lot residential developments to submit a Multi-Lot Perimeter DESC Plan and obtain a Multi-Lot Perimeter DESC Permit. The Multi-Lot Perimeter DESC Permit requires builders to provide perimeter erosion and sediment controls for blocks of lots. The Multi-lot Perimeter DESC Permit provides additional space necessary for residential building-related construction activities, including staging of construction materials, stockpiling of soil, and placement of concrete washout areas, trash containers, and portable sanitary facilities. The Multi-Lot Perimeter DESC Permit does not replace the standard individual lot DESC Permitting process,



***Preparing a  
Multi Lot  
Perimeter  
DESC Plan,  
continued***

but rather is a permit that allows for land disturbing activities to occur on idle single family lots adjacent to permitted homes. In addition to providing a simple mechanism for permit coverage for idle lots, the Multi-lot Perimeter DESC Permit coverage applies to all unfinished homes in the permitted block of lots. This permit approach to multi-lot residential development provides a mechanism by which all construction activities in a given block of lots or development phase can be monitored under one permit.

**8.4.22.1 Submittal of the Multi Lot Perimeter DESC Permit.** Builders shall submit the Multi-Lot Perimeter DESC Plan and Permit application (Appendix J) to Public Works Engineering . Multi-Lot Perimeter DESC Plans shall be prepared in accordance with Section 8.4.22.2.

If a Builder is interested in taking advantage of the Multi Lot Perimeter DESC Permit, it shall submit the Multi Lot Perimeter DESC Plan and Permit application to the Engineering Permits Staff. Multi Lot Perimeter DESC Plans shall be prepared in accordance with Section 8.4.21.2.

**8.4.22.2 Multi Lot Perimeter DESC Plan Requirements.** The following Multi Lot Perimeter DESC Plan requirements shall be adhered to when preparing a Multi Lot Perimeter DESC Plan.

All Multi Lot Perimeter DESC Plans shall be prepared on either 11x17 or 24x36 inch sheets at a scale of 1 inch to 20 feet up to 1 inch to 200 feet, as appropriate, to clearly show sufficient detail for review. An example set of Multi Lot Perimeter DESC Plans are provided in Appendix C.

Multi Lot Perimeter DESC Plan Cover Sheet shall include the following:

1. Project Name.
2. Project Address (if applicable).
3. Owner Address.
4. Designer's Firm Name and Address.
5. Plan Sheet Index.
6. Designer's Signature Block.
7. Douglas County GESD Acceptance Block.
8. General Location Map at a scale of 1 inch to 1,000 feet to 8,000 feet indicating:
  - General vicinity of the site location.
  - Major roadway names.
  - North arrow and scale.

Multi Lot Perimeter DESC Plan shall include the following:

1. Lot lines, streets, storm sewer inlets, drainage channels, and sensitive areas.
2. Lot and block numbers.
3. Phase lines and labels.
4. Erosion and sediment controls for each phase including but not limited to Perimeter Controls, Vehicle Tracking Control Pads at access points, and Inlet Protection at adjacent inlets.
5. Flow arrows to depict the site drainage characteristics.
6. Douglas County GESD Acceptance Block.

*Preparing a Multi Lot Perimeter DESC Plan, continued*

After the Multi Lot Perimeter DESC Plan has been prepared according to the requirements of Section 8.4.21, the Multi Lot Perimeter DESC Plan and Multi Lot Perimeter DESC Permit Application shall be submitted to the Public Works Engineering.

**8.4.22.3 Signed Multi Lot Perimeter DESC Plans.** The Multi Lot Perimeter DESC Plan will be considered accepted when the submitted copies of the Multi Lot Perimeter DESC Plan and Permit Application are signed by the Public Works Engineering Director. Applicants will be notified by the County when the Multi Lot Perimeter DESC Permit Application have been signed and are ready for pick up.

**8.4.22.4 Multi Lot Perimeter DESC Permit Transfer.** If a project or portion of a project is sold to a new Owner, or if the Builder that is identified on the Multi Lot Perimeter DESC Permit is replaced by a different Builder, the Multi Lot Perimeter DESC Permit shall be transferred to the new Owner and/or Builder using a specific transfer procedure. The transfer shall require a new Multi Lot Perimeter DESC Permit Application Form and another Preconstruction Meeting on-site (the Preconstruction Meeting is discussed in Section 8.6.12). Additionally, the Permittee(s) shall submit a completed DESC Responsible Party Designation Form (Appendix O). Failure to transfer the Multi Lot Perimeter DESC Permit if either the Owner or Builder changes will result in issuance of a Stop Work Order, per Section 5.10.3.

**8.4.22.5 Work under the Multi Lot Perimeter DESC Permit.** Once the Multi Lot Perimeter DESC Permit is submitted and approved by Douglas County, the Owner/Builder shall install the erosion and sediment controls for the first phase of home construction. The Builder shall then call the Engineering Permits Staff to schedule a Preconstruction Meeting in accordance with Section 8.6.12.

*DESC Plan Submittal, Review and Acceptance*

**8.5**  
This Section details the DESC Plan acceptance process and DESC Permit application and submittal requirements. One copy of the DESC Plan will be submitted to the Building Division. For a complete submittal a copy of the DESC Plan Standard Notes and Details must be included with the submittal (Appendix B).

**8.5.1 Submittal of the DESC Plan.** After the DESC Plans have been prepared according to the requirements of Section 8.4, the Erosion and Sediment Control Drawing, Drainage Plan, DESC Plan Standard Notes and Details, Building Permit Submittal Packet (see Building Division for submittal requirements), Building Permit Application, and DESC Permit Application (Appendix J) shall be submitted to the Building Division along with appropriate fees.

**Important!**

***A complete DESC Packet submittal includes:***

- Erosion and Sediment Control Drawing;***
- Individual Lot Drainage Plan; and***
- DESC Plan Standard Notes and Details.***

***Appropriate Permit Applications and Fees shall be included with the submittal.***

***DESC Plan Submittal, Review and Acceptance, continued***

**8.5.2 DESC Plan Review.** After the DESC Plan is submitted to the Building Division, the County shall review the DESC Plan for completeness based on the submittal requirements described in Section 8.4. The review will be done by County Staff in conjunction with the review process for the Building Permit. Review Staff shall notify the Applicant if the submittal is incomplete and specify any necessary modification. This process shall be repeated until a complete DESC Plan set is submitted for DESC Permit processing.

**8.5.3 DESC Plan Acceptance.** Upon approval of the DESC Plan the Permittee(s) shall be notified by Review Staff that a Preconstruction Meeting can be scheduled with Engineering Permits Staff (see Appendix A) and may begin the installation of the temporary erosion and sediment controls for the Preconstruction Meeting. No other grading or soil disturbing activities are allowed until the DESC Permit is approved following the Preconstruction Meeting (see Section 8.6.9 through 8.6.12).

**8.5.4 DESC Preconstruction Meeting Process.** See Section 8.6.1 through 8.6.16.

***Field Section***

**8.6**

The Field Section is oriented toward construction field personnel and addresses the role of the DESC Manager, implementation of the DESC Plan in the field, DESC Inspection requirements, and enforcement for non-compliant sites.

**8.6.1 Responsibilities of the DESC Manager.** The DESC Manager is the Permittee(s) contact person with the County for all matters pertaining to the DESC Plans and DESC Permits. The DESC Manager may be an employee of the Owner or Contractor, but shall have the authority to act on behalf of the Permittee(s) to ensure that the site remains in compliance. If the DESC Manager is not the same person(s) as the Permittee(s), then the Permittee(s) shall remain the legally responsible party. The DESC Manager shall respond to the corrective actions requested by the Erosion Control Inspector, and make any necessary corrections to the site's BMPs.

**8.6.2 Alternate DESC Manager.** An Alternate DESC Manager who is able to serve in the same capacity as the DESC Manager shall also be selected. The Alternate shall be the contact person if the DESC Manager is not available. The DESC Manager shall inform the Alternate DESC Manager of any absences, fill the Alternate in on the status of the DESC Plans implementation, and ensure that the Alternate DESC Manager assumes the DESC Manager's responsibilities during any absence.

**8.6.3 Availability of the DESC Manager.** The DESC Manager shall be present at the project site a majority of the time and (along with the Alternate DESC Manager) shall provide the County with a 24 hour emergency contact number. A Stop Work Order shall be issued in the event that the DESC

*Field Section, continued*

Manager (or Alternate DESC Manager) is not on site, and cannot be reached during any level of violation (see Section 5.10.2).

**8.6.4 Changing the DESC Manager or Alternate.** Notification in writing shall be provided to Douglas County if the DESC Manager or Alternate leaves the company or the Permittee(s) intend to change personnel. A field meeting with the Erosion Control Inspector and new DESC Manager or Alternate shall be scheduled within 7 days of the change to discuss site conditions and responsibilities of the DESC Manager.

**8.6.5 Implementing the DESC Plans in the Field.** Implementing the DESC Plans in the field is a challenging part of the DESC Permit Process. The DESC Plans will not be effective unless the required measures are properly installed and maintained by the Permittee(s). It is to the Permittee(s) advantage to be diligent in controlling erosion from its start and implementing the DESC Plans effectively.

**8.6.6 Review of the DESC Plans and Related Plans and Permits.** Prior to the Preconstruction Meeting, the DESC Manager shall thoroughly review the DESC Plans, the DESC Plan Standard Notes and Details, and related plans and permits for the project. It is the DESC Manager's responsibility to understand all of the requirements of the DESC Permit process as laid out in these documents. In addition, it is the DESC Manager's responsibility to ensure that other field personnel are aware of the DESC requirements. Douglas County welcomes calls from Permittee(s) during this process to answer any questions that the DESC Manager or other Permittee staff may have regarding the DESC permit process.

**8.6.7 Documents Shall Remain On-site.** A copy of the approved DESC Plans, DESC Plan Standard Notes and Details, and DESC Permit shall remain on-site at all times.

**8.6.8 Installation of Initial BMPs.** The Initial BMPs shown on the DESC Plans shall be installed prior to the on-site Preconstruction Meeting. The Initial BMPs are shown on the DESC Plans, and are indicated by the word "Initial" adjacent to the BMP symbol.

If the Permittee(s) think that modifications to Initial BMPs shown on the DESC Plans should be made to provide for a more effective plan, the Permittee(s) shall contact the Designer and Douglas County Engineering (see contact information in Appendix A) to obtain acceptance of the proposed modifications prior to installing the BMPs.

**8.6.9 Construction Shall Not Start.** Other than the installation of the Initial BMPs shown on the DESC Plans, no stripping operations or other construction shall occur. The lot specific DESC Plan shall be required to be approved, implemented in the field, and permitted following an on-site Preconstruction Meeting prior to the start of any land disturbing activities.

**8.6.10 Scheduling the Preconstruction Meeting.** The Permittee(s) shall contact the Douglas County Engineering Permits Staff (see contact information in Appendix A) to schedule the on-site Preconstruction Meeting. The Preconstruction Meeting shall be scheduled, at a minimum, before 3:30

**Important!**

*No individual lot work may begin until the DESC Permit is issued following the Preconstruction Meeting, and the DESC Permit is released by the Douglas County*



*Field  
Section,  
continued*

p.m. the day prior to the requested meeting date. Douglas County will make every attempt to schedule the meeting at the requested time however based on inspector schedules the meeting will be scheduled no later than 3 business days after the requested meeting date.

**8.6.10.1 Preconstruction Meeting Release.** For projects that contain multiple lots owned by one Builder, the Builder has the option of requesting a Preconstruction Meetings Release. The Preconstruction Meetings Release allows the Builder to attend one Preconstruction Meeting prior to the issuance of the first DESC Permit for the area and then follow a set of specific guidelines for the start of future homes without the need for additional Preconstruction Meetings.

**8.6.10.2 Preconstruction Meeting Release Compliance.** Upon successful completion of the Preconstruction Meeting and issuance of the Preconstruction Meeting Release, the Builder may commence work on the first home. Prior to starting subsequent home construction the Builder shall complete the following:

- Install initial erosion and sediment controls per the approved DESC Plan.
- Obtain DESC Permit.

The Erosion Control Inspector will inspect to ensure the approved initial BMPs are installed during routine inspections of the project, in accordance with the approved DESC Plans.



Failure of the Builder to install the initial erosion and sediment controls per the approved DESC Plan or failure to obtain the DESC Permit prior to individual lot construction activities including foundation excavation shall result in issuance of a Stop Work Order for the entire filing.

**8.6.11 Attendees at the Preconstruction Meeting.** The on-site Preconstruction Meeting is a critical milestone prior to the start of construction. In addition to the Erosion Control Inspector, the DESC Manager shall be in attendance. In addition, the Alternate DESC Manager's attendance is recommended.

**8.6.12 Preconstruction Meeting.** The Preconstruction Meeting is a visual inspection of all of the Initial BMPs that have been installed. The Erosion Control Inspector will confirm if any corrections are required.

**8.6.13 Field Review of the DESC Plan.** The DESC Plan for all stages of construction will be reviewed to confirm the attendees' understanding of the DESC Plan, and to discuss any modifications to the Plan. The Limits of Construction shall be confirmed. If modifications to the DESC Plan are thought to be advantageous, input will be sought from the Designer and final acceptance of changes shall be at the discretion of the Erosion Control Inspector.

**8.6.14 Acceptance of Initial BMPs.** If the Initial BMPs are accepted by the Erosion Control Inspector, as is, or with minor corrections, the Erosion Control Inspector will inform the Permittee(s), sign the DESC Permit Application, and the County will issue the DESC Permit. Construction shall not start until an executed DESC Permit is obtained from the County.

*Field  
Section,  
continued*

**8.6.15 Corrections to the BMPs.** If the Erosion Control Inspector determines that significant modifications or corrections to the BMPs are necessary, the Erosion Control Inspector will inform the Permittee(s) that such corrections shall be made, that a follow-up inspection shall be scheduled with the County, and that acceptance of the corrected BMPs by the Erosion Control Inspector shall take place prior to the signing of the DESC Permit or prior to any additional inspections. Modifications to the DESC Plan will be required in most cases.

**8.6.16 Pick Up the Executed DESC Permit.** Douglas County will execute the DESC Permit generally within 24 hours of acceptance of the Initial BMPs (either at the Preconstruction Meeting or at a follow-up inspection). The DESC Responsible Party Designation Form (Appendix O) shall be submitted prior to the issuance of the DESC Permit. Once the Permittee(s) pick up the executed DESC Permit, construction can start.

**8.6.17 Duration of the DESC Permit.** A DESC Permit is valid until the Certificate of Occupancy is issued. For DESC projects that do not require a Certificate of Occupancy, the DESC Permit is closed by the Erosion Control Inspector upon confirmation that the following have been completed:

1. The final grading has been achieved, and
2. That the final stabilization measures have been installed.

**8.6.18 Transfer of a DESC Permit.** If a project or portion of a project is sold to a new Owner, or if the Contractor that is identified on the DESC Permit is replaced by a different Contractor, the DESC Permit shall be transferred to the new Owner and/or Contractor. The new Owner/Contractor shall submit a DESC Permit application, Responsible Party Designation Form (Appendix O), and shall schedule an on-site Preconstruction Meeting with the Erosion Control Inspector through the Engineering Permits Staff (see contact information in Appendix A). Failure to comply with the transfer of the DESC Permit if the Owner or Contractor changes will result in issuance of a Stop Work Order per Section 5.10.



**8.6.19 Installation and Routine Maintenance of Erosion and Sediment Controls.** The overall effectiveness of the DESC Plan depends on the correct installation and maintenance of BMPs. With this goal in mind, the County has prepared the DESC Plan Standard Notes and Details, a set



*Field  
Section,  
continued*



*Routine maintenance can save both time and money by reducing the need for regrading, repair, clean-up, and rework, and avoids delays associated with Stop Work Orders.*

of drawings that identify correct installation and maintenance procedures for all of the County-accepted BMPs. These drawings are provided in Appendix B. They are to be included in all DESC Plans and govern all DESC-Permitted construction work in the County. The DESC Plan Standard Notes and Details allow Designers and Permittee(s) to become familiar with 1 set of BMPs and consistent installation and maintenance requirements. Following are brief descriptions and references to Sections of the *GESC Manual* for proper installation of standard erosion and sediment control BMPs accepted for use in Douglas County and some of the important installation and maintenance requirements found in the DESC Plan Standard Notes and Details. Example photographs illustrating correctly installed BMPs and practices to avoid are included.

Routine maintenance can save both time and money by reducing the need for regrading, repair, clean-up, and rework, and avoids delays associated with Stop Work Orders (see Section 5.10). The Permittee(s) shall maintain the site erosion and sediment controls at all times. The Permittee(s), or their designee, shall frequently inspect and maintain the erosion and sediment controls as needed to ensure their operable and functional condition. Damaged, degraded, and otherwise compromised controls shall be repaired or replaced upon discovery.

## Section 8. Drainage, Erosion and Sediment Control (DESC) Requirements

*Field Section, continued*

**8.6.20 Concrete Washout Area (CWA).** The Permittee(s) shall coordinate the installation of Concrete Washout Areas with the Erosion Control Inspector prior to the placement of any concrete on site. A Concrete Washout Area is a shallow excavation with a perimeter berm to contain and isolate concrete truck washout operations. Durable portable concrete washout basins or tubs may be used with the approval of the Erosion Control Inspector. Key installation and maintenance requirements for Concrete Washout Areas can be found in Section 5.7.3.



DO

*A properly installed Concrete Washout Area with Vehicle Tracking Control.*



*Extensive wasting of concrete on the construction site requires additional effort to clean up and can impair subsequent revegetation operations.*

### **8.6.21 Construction Fence (CF) and Construction Markers (CM).**

Construction Fence consists of orange plastic fencing or other County accepted material attached to support posts and used to delineate Limits of Construction and to control access to the construction site. If approved by the Douglas County, Construction Markers (CM), consisting of orange painted survey lath at 100 foot maximum spacing, may be used to delineate Limits of Construction. Construction Fence should be used to delineate environmentally sensitive areas. Key installation and maintenance requirements for Construction Fence and Construction Markers can be found in Section 5.7.4.



DO

*Use construction fence to restrict access to site and demark limits of disturbance.*



*This construction fence is in need of repair. Inspections shall be made daily and downed sections repaired immediately.*

**Correct Installation and Maintenance of BMPs, continued**

**8.6.22 Curb Sock (CS).** A Curb Sock consists of a small reinforced rock berm placed in the curb and gutter flowline in order to filter stormwater runoff, and reduce sediment from entering the storm sewer system. Key installation and maintenance requirements for Curb Sock can be found in Section 5.7.5.



**DO** *These Curb Socks are placed within acceptable distance from each other and do have delineators.*



**DO NOT** *This Curb Sock requires maintenance and replacement and was not installed properly.*



**DO NOT** *These Curb Socks were installed using unapproved material, are placed too close to each other, and do not have delineators.*



*Field Section, continued*

**8.6.23 Dewatering (DW).** The Permittee(s) shall schedule an on-site inspection with the Erosion Control Inspector prior to any site Dewatering operations begin. Key installation and maintenance requirements for Dewatering can be found in Section 5.7.6.



**DO** *Sump pumps or suction lines can be contained within perforated 5-gallon buckets and surrounded with gravel to reduce the pumping of mud during dewatering operations.*



**DON'T** *These discharge lines require a riprap pad and a settling trap.*

**8.6.24 Erosion Control Blanket (ECB).** Erosion Control Blanket is a fibrous blanket of straw, jute, excelsior, or coconut material trenched in and staked down over prepared, seeded soil. The blanket reduces both wind and water erosion. For DESC Permitted projects, Erosion Control Blankets made from photo-degradable material may be used in areas that will receive permanent landscaping. Erosion Control Blankets that are used for temporary stabilization prior to landscaping shall not require seeding underneath the blankets. Key installation and maintenance requirements for Erosion Control Blanket can be found in Section 5.7.8.



**DO** *Erosion Control Blanket has been placed to control sediment movement on disturbed areas.*



**DON'T** *The edges of this erosion control blanket are not trenched in, allowing the blanket to become displaced.*

## Section 8. Drainage, Erosion and Sediment Control (DESC) Requirements

### Field Section, continued

**8.6.25 Inlet Protection (IP).** Inlet Protection consists of a small reinforced rock berm and cinder block frame placed in front of (but not blocking) a curb inlet or around an area inlet to reduce sediment in runoff entering the storm sewer system. All inlets down-gradient of DESC Permitted lots must be protected. Inlet Protection must be installed per the DESC Plan Standard Notes and Details. More than one Permittee may be responsible for maintaining the same Inlet Protection device. Key installation and maintenance requirements for Inlet Protection can be found in Section 5.7.9.



**DO** Properly installed inlet protection with back of curb protection for slope.



**DON'T** Tubular markers were not placed properly and the cinderblocks have not been installed. This installation is in need of immediate repair.



**DO**

Properly installed Inlet Protection for curb-inlets in a sump condition.



**DO**

Properly installed area Inlet Protection.

*Field Section, continued*

**8.6.26 Reinforced Rock Berm (RRB).** A Reinforced Rock Berm consists of a linear mass of gravel enclosed in wire mesh to form a porous filter, able to withstand overtopping. The berm is heavy and stable and promotes sediment deposition on its upstream side. Key installation and maintenance requirements for Reinforced Rock Berm can be found in Section 5.7.11.



**DO** *A reinforced rock berm may be used downgradient of disturbed areas in lieu of silt fence.*

**8.6.27 Reinforced Rock Berm for Culvert Protection (RRC).** A Reinforced Rock Berm for Culvert Protection consists of A Reinforced Rock Berm placed in front of a culvert to reduce sediment in runoff approaching the culvert. Key installation and maintenance requirements for Reinforced Rock Berm for Culvert Protection can be found in Section 5.7.12.



**DO** *A properly installed reinforced rock berm for culvert protection.*



**DON'T** *Although some sediment trapping would occur with this alternate arrangement, the standard detail shall be utilized.*



## Section 8. Drainage, Erosion and Sediment Control (DESC) Requirements

### Field Section, continued

**8.6.28 Sediment Control Log (SCL).** A Sediment Control Log consists of a cylindrical bundle of excelsior, straw, or compost material designed to form a semi-porous filter, able to withstand overtopping. The log shall be staked into the ground in order to promote sediment deposition on its upstream side and reduce flow velocities. Key installation and maintenance requirements for Sediment Control Log can be found in Section 5.7.14.



*Sediment Control Logs are in need of immediate maintenance.*



*Sediment control logs are used to control sediment movement onto sidewalks.*

**8.6.29 Seeding and Mulching (SM).** Seeding and Mulching consists of drill seeding disturbed areas with the approved Douglas County seed mix and crimping in straw mulch to provide immediate protection against raindrop and wind erosion and, as the grass cover becomes established, to provide long-term stabilization of exposed soils. Key installation and maintenance requirements for Seeding and Mulching can be found in Section 5.7.16.



*A drill seeder shall be used to plant seed in Douglas County. With the County's approval, seed may be hand broadcast, at twice the drilled rate, raked and crimp mulched in small areas where it is not possible to drill seed.*



*This mulch was not crimped into soil and is susceptible to displacement, leaving seed bed unprotected.*

## Section 8. Drainage, Erosion and Sediment Control (DESC) Requirements

### Field Section, continued

**8.6.30 Silt Fence (SF).** Silt Fence is a temporary sediment barrier constructed of woven fabric stretched across supporting posts. The bottom edge of the fabric is placed in an anchor trench that is backfilled with compacted soil. Key installation and



*This silt fence is in need of repair immediately.*



*Silt fence has been installed properly along the back perimeter of the lot.*

maintenance requirements for Silt Fence can be found in Section 5.7.17.

**8.6.31 Stabilized Driveway Access (SDA).** The Stabilized Driveway Access provides a stabilized area for vehicle and equipment access, and can also serve as a temporary staging area for construction materials.

#### Key Installation and Maintenance Requirements:

- The Permittee(s) shall install a Stabilized Driveway Access for each DESC Permitted site. The Stabilized Driveway Access shall consist of crushed concrete, crushed aggregate, or road base material.
- Typically, the material(s) used to stabilize the subgrade prior to pouring a driveway is sufficient for a Stabilized Driveway Access.
- It is recommended to install the Stabilized Driveway Access in the same location as the future permanent driveway.



*Stabilized Driveway Access shall be installed at the proposed driveway location.*



*No vehicle tracking control means mud on streets and an immediate Stop Work Order.*

**Field  
Section,  
continued**

**8.6.32 Stabilized Staging Area (SSA).** A Stabilized Staging Area consists of stripping topsoil and spreading a layer of 1-1/2 inch gravel rock, or recycled concrete or CDOT Class 6 road base in the area to be used for a trailer, parking, storage, unloading and loading. A Stabilized Staging Area reduces the likelihood that the vehicles most frequently entering a site are going to come in contact with mud. Key installation and maintenance requirements for Stabilized Staging Area can be found in Section 5.7.18.



**DO** Properly installed stabilized staging area.



**DO NOT** Parking, staging, and storage are spread out all over this site, increasing disturbance and erosion.



**Field Section, continued**

**8.6.33 Vehicle Tracking Control (VTC).** The Vehicle Tracking Control provides a stabilized area for vehicle and equipment access. Vehicle Tracking Control consists of a 3 to 6 inch crushed rock pad 12 inches thick at all entrance/exit points for a site that is intended to help strip mud from tires prior to vehicles leaving the construction site.

**Key Installation and Maintenance Requirements:**

- Vehicle Tracking Control pads shall consist of hard, dense, durable stone, angular in shape and resistant to weathering. Rounded stone or boulders will not be acceptable. The stones shall be 3 to 6 inches in size and have a specific gravity of at least 2.6.
- A stop sign installed in accordance with the MUTCD, as amended, shall be installed for exiting traffic from the Vehicle Tracking Control pad.
- The Erosion Control Inspector may require that a Vehicle Tracking Control be installed for DESC permitted projects that have longer than normal driveways, or that fail to keep adjacent paved areas clean.
- The Vehicle Tracking Control requirements may be waived for some DESC permitted projects such as additions to structures, accessory buildings, arenas, etc. depending on site conditions, and at the discretion of the Erosion Control Inspector.
- The recommended inspection frequency for the Vehicle Tracking Control daily and during and after any storm event.



**DO** Properly installed vehicle tracking control.



**DONT** The Vehicle Tracking Control Pad needs to be re-established on this site.

*Field  
Section,  
continued*

**8.6.34 General Construction Practices.** Sheet 1 of the DESC Plan Standard Notes and Details (see Appendix B) contains a series of standard notes governing construction practices in the County. Permittee(s) working in the County have the responsibility to review, understand, and comply with these notes.

- A. **Complying with Limits of Construction (LOC).** No work, storage of equipment, stockpiling, or parking of vehicles shall be allowed outside of the approved Limits of Construction as illustrated in the approved DESC Plan. Violating the Limits of Construction is considered a Level I Violation and is subject to a Stop Work Order. The Permittee(s) shall obtain written approval from the legal owner, and a Multi-Lot Perimeter DESC Permit, for use of any adjacent property for staging, stockpiling, etc.
- B. **Chemical and Waste Control.** Refer to Sections 5.8.9 through 5.8.14 of the GESC Manual for the specific requirements for Construction Site Chemical Control.
- C. **Chemicals and Hazardous Materials.** All chemical or hazardous material spills which may enter waters of the State of Colorado, which include but are not limited to, surface water, ground water and dry gullies or storm sewer leading to surface water, shall be immediately reported to the CDPHE per Section 25-8-601, CRS, and Douglas County. Releases of petroleum products and certain hazardous substances listed under the Federal Clean Water Act (40 CFR Part 116) must be reported to the National Response Center as well as the CDPHE. Contact information for CDHPE, Douglas County and the National Response Center can be found in Appendix A. Spills that pose an immediate risk to human life shall be reported to 911. Failure to report and clean up any spill shall result in issuance of a Stop Work Order.
- D. **Dust Control.** The DESC Manager shall be responsible for dust control on the site. Disturbed areas not yet ready to be seeded, landscaped, paved, or otherwise stabilized shall be watered, sprayed with a tackifier, mulched (without seed) or ripped as necessary to preclude visible dust emissions.
- E. **Portable Sanitary Facilities.** Sanitary facilities shall be staked down to assist in preventing vandalism and being blown over. Trailer facilities are also acceptable. Sanitary facilities shall not be placed over, or directly adjacent to, any stormwater facilities including but not limited to storm sewer inlets, open channels, and stormwater management facilities.
- F. **Stabilization of Exposed Soils.** All areas disturbed by construction that will not receive permanent landscaping shall be stabilized as soon as possible to reduce the duration of soil exposure and the potential amount of erosion. Unless otherwise approved, Douglas County requires that these areas be Drill Seeded and Crimp Mulched in within 14 days of the substantial completion of construction as determined by the Erosion Control Inspector. This may include areas used for

*Field  
Section,  
continued*

stockpiling, staging, or areas used for septic/leach fields. An extension to the 14 day timeline for stabilization may be granted for inclement weather and site conditions including frozen or muddy soils. Any extensions to the timeline for stabilization of soils shall only be granted in cases where the disturbed soils cannot be effectively stabilized due to site conditions, and shall be at the discretion of the Erosion Control Inspector.

- G. **Storage of Construction and Landscape Materials.** Construction materials, landscaping materials, and stockpiles must be contained within the approved Limits of Construction at all times. At no time shall the Permittee(s) store, stockpile, or stage construction and/or landscape materials on a paved roadway or within the Douglas County right-of-way. A violation of this Section is considered a Level I Violation for failure to comply with the Limits of Construction, and is subject to the issuance of a Stop Work Order.
- H. **Street Cleaning.** Streets shall be kept clean throughout the life of a project. In the event of accidental tracking of mud on streets, the mud shall be cleaned immediately using a vacuum-type street sweeper, a brush-type street sweeper with dust control, or manually using shovels and brooms. If a large quantity of mud needs to be cleaned up, initial removal may take place using a small road grader or loader, but care shall be exercised to avoid damage to the roadway. Any damage shall be repaired at the Permittee(s) expense. Streets shall not be washed with water under any circumstance.
- I. **Temporary Stockpiles.** Stockpile areas for stripped topsoil, excess excavated material, and other materials shall be located within the Limits of Construction or at an approved staging or stockpile location, and at least 100 feet from the banks of a drainageway. Stockpile areas shall be sized to fully contain the material based on maximum allowable stockpile side slopes of 3 (horizontal) to 1 (vertical). Adequate sediment controls (Silt Fence or Sediment Control Log) shall be installed around temporary stockpile areas.
- J. **Trash and Construction Debris.** The Permittee(s) shall properly contain and dispose of all trash materials, construction debris, and personal trash. At no time shall there be trash piles or trash strewn over a DESC Permitted site. Failure to properly contain and dispose of trash and construction debris may result in the issuance of a Stop Work Order depending on the severity of the violation.

**8.6.35 DESC Inspections.** The County requires DESC Inspections to be scheduled and performed at several points in the permitting/building process. DESC Inspections will also be performed randomly, and at the discretion of the Erosion Control Inspector.

**8.6.36 Mandatory DESC Inspections.** The following DESC Inspections are mandatory:

1. Preconstruction Inspection prior to the issuance of the DESC Permit unless Preconstruction Meeting Release is present.



Field Section, continued

2. Any time during construction when a new DESC Manager or Alternate DESC Manager is selected.
3. Final Grade Inspection prior to the issuance of the Certificate of Occupancy and closeout of the DESC Permit (See Sections 8.7.1).

**8.6.37 Violations.** Failure to comply with any term, condition, limit, deadline or other provision of the *GESC Manual* or failure to obtain a DESC Permit, constitutes a violation of the *Douglas County Stormwater Ordinance Regarding Grading, Erosion and Sediment Control, Drainage, Erosion and Sediment Control, Operations and Maintenance of Stormwater Management Facilities, and Illicit Discharge Detection and Elimination*, as amended, and Section 31 of the Douglas County Zoning Resolution, as amended, and may constitute a violation of the Federal Clean Water Act and the Colorado Water Quality Control Act, Section 25-8-101, et seq., CRS (“Act”).

Pursuant to Section 25-8-608, CRS, any person who violates the Act or any permit issued under the Act shall be subject to a civil penalty of not more than \$10,000 per day for each day during which such violation occurs. Pursuant to Section 25-8-609, CRS, any person who recklessly, knowingly, intentionally, or with criminal negligence discharges any pollutant into any state waters commits criminal pollution if such discharge is made in violation of any permit issued under the Act. If the violation is committed with negligence or recklessness, the maximum fine shall be \$12,500 per day. If the violation is committed knowingly or intentionally, the maximum fine shall be \$25,000 per day.

In addition to any other legal or equitable remedies that the County may have for DESC Permit violations, the County may cease issuances of all building permit approvals and other permissions until such violation is corrected and the Permittee(s) takes additional steps to ensure compliance with the DESC Permit, at the direction of Erosion Control Inspector.

**8.6.38 Levels of Violations.** Douglas County classifies violations in one of three categories, depending on the severity of the violation. Enforcement action varies for each category. Level I Violations have the most severe impact on people and the environment and Level III Violations have the least severe impact.



**Level I Violations** are viewed by Douglas County to pose an immediate serious risk to the health, safety, or welfare of people and/or the environment. Level I Violations result in an immediate issuance of a Stop Work Order.



*Level I Violations result in an immediate issuance of a Stop Work Order.*

Examples of Level I Violations include the following:

**Field  
Section,  
continued**

- Clearing, grubbing, grading, or beginning foundation excavation without a Douglas County DESC permit.
- Failure to schedule a Preconstruction Meeting or submit Preconstruction Meeting Release prior to the start of land disturbing activities on a single-family detached residential site for the issuance of the DESC Permit.
- Failure to install erosion and sediment control BMPs prior to land disturbance and prior to obtaining DESC Permit.
- Failure to be able to contact the DESC Manager or Alternate DESC Manager during any level of violation.
- Failure to restrict operations to approved Limits of Construction.
- Failure to clean up tracking of material onto roadways and adjacent paved areas.
- Exporting material to or importing material from a non-permitted single-family detached residential site.
- Failure to correct Level II Violations per the directives of the Erosion Control Inspector.
- Failure to report the release or spill of any hazardous materials.

**Level II Violations** are viewed by Douglas County to pose a moderate immediate risk to the health, safety, or welfare of people and/or the environment; however, if not immediately corrected, will pose a serious risk. Remediation for Level II Violations shall commence immediately after the Permittee(s) are notified of the violation(s).

Examples of Level II Violations include the following:

- Tracking of material onto roadways and adjacent paved areas.
- Failure to perform BMP maintenance as directed by the Douglas County Erosion Control Inspector.
- Failure to correct Level III Violations per the directives of the Erosion Control Inspector.

**Level III Violations** are viewed by Douglas County to pose a low immediate risk to the health, safety, or welfare of people and/or the environment; however, if not corrected quickly, will pose a more serious risk. Level III Violations shall be corrected immediately unless otherwise specified in writing by the Erosion Control Inspector.

Examples of Level III Violations include the following:

- Failure to provide routine maintenance for erosion and sediment controls.
- Installation of non-Douglas County-accepted erosion and sediment control BMPs.
- Failure to have the accepted DESC Permit and accepted DESC Plan on site.
- Failure to properly contain and dispose of trash and construction debris.

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Section,  
continued

**8.6.39 Re-inspection fees.** To offset the cost of additional inspections on non-compliant sites, Douglas County requires that re-inspection fees be paid at Douglas County offices prior to receiving subsequent inspections and approval of work.

Re-inspection fees shall be charged for all projects that are deficient due to the following:

**VIOLATIONS REQUIRING REINSPECTION FEES**

- ◆ *Permittee(s) receives a Level II Violation resulting from a DESC inspection.*
- ◆ *Permittee(s) fails to properly install all Initial BMPs prior to the scheduled Preconstruction Meeting.*
- ◆ *Permittee fails to perform corrective actions to the BMPs at the direction of the Erosion Control Inspector.*
- ◆ *Tracking of material onto roadways and adjacent paved areas.*
- ◆ *Permittee(s) receives a Stop Work Order (fee consists of new Permit fee in this case).*
- ◆ *Permittee(s) removes any BMPs prior to receiving authorization by Douglas County.*
- ◆ *Failure to cancel any inspection before 3:30 pm the day prior to the inspection in the event that a site is not ready for an inspection and an inspection had already been scheduled.*

**8.6.40 Enforcement.** Douglas County shall have jurisdiction over any construction site that is being covered or is required to be under a DESC Permit. If an Erosion Control Inspector visits the project site and determines that the Permittee is not fulfilling the requirements of this Section and the approved DESC Plan, the DESC Manager shall be informed, and corrections shall be made by the Permittee(s). If the corrective actions are not completed in a timely manner, enforcement action in accordance with Section 5.10 shall be followed.



**8.6.41 Stop Work Orders.** The Public Works Engineering Director, or his/her designated representative, is authorized to order work to be stopped on any project that disturbs the land and which is not in compliance with the requirements of the DESC Permit. When a Stop Work Order is issued, the DESC Permit for that project is suspended. Building inspections shall not be performed on a site with a suspended DESC Permit. In addition, the State of Colorado Department of Public Health and Environment may be notified. If a project is issued a Stop Work Order, all work on site shall be stopped. Safety-related items (e.g., backfilling of holes and trenches) as well as corrective actions may be completed; however, the Permittee(s) shall inform the Erosion Control Inspector of such activities.

Final  
Drainage

**8.7**

**8.7.1 Final Drainage Certificate.** To ensure conformance with the approved design and to ensure adequate drainage away from the foundation and off the lot, a Final Drainage Certificate shall be certified by a Registered Professional Engineer (PE) or a Registered Professional Land Surveyor (PLS) and approved by the Douglas County Public Works Engineering before

***Final  
Drainage,  
continued***

a Certificate of Occupancy can be issued. The following items shall be clearly illustrated on a copy of the approved Drainage Plan:

- All vertical and horizontal deviations to grades, drains, spot elevations, slopes and drainage patterns throughout the lot as shown on the approved DESC Plan.
- Location(s) of the sump pump discharge, if applicable.
- The Final Drainage Certificate shall be signed and stamped by a PE or a PLS.

The Drainage Certificate requirement will be waived for non-habitable accessory structures and small additions (as referenced in Sections 8.4.20 and 8.4.21) if:

- Compliant drainage has been verified by the Erosion Control Inspector during a Final Grade Inspection.

***Project  
Acceptance  
and DESC  
Permit  
Closeout***

**8.8**

This Section describes the requirements for the issuance of the Certificate of Occupancy and closeout of the DESC Permit.

**8.8.1 Certificate of Occupancy.** For DESC projects that are required to obtain a Certificate of Occupancy per the International Residential Code, as amended, the following steps shall be completed.

1. The Final Drainage Certificate shall be completed for the site.
2. All final building inspections and punch list items shall be performed and completed per the Douglas County Building Division regulations, and the International Residential Code, as amended.
3. The final erosion and sediment controls shall be installed per the approved DESC Plan, or Final Lot Stabilization shall be achieved (See Section 8.9 for Final Lot Stabilization requirements).
4. All DESC violations shall be closed out, and all re-inspection fees shall be paid at Douglas County Offices.

**8.8.2 DESC Permit Closeout.** DESC Permits will be closed at the completion of construction and prior to the approval of the Certificate of Occupancy only when the following conditions are met:

1. All of the previously disturbed soil areas are covered with the building structure, grass/sod, rock, mulch, pavers, or other approved landscape materials; or
2. In the case that landscaping improvements have not been completed, the Permittee(s) shall install the Final Erosion and Sediment Control BMPs shown on the approved DESC Plan. Additional sediment controls may be required at the discretion of the Erosion Control Inspector in order to protect adjacent lots and the storm sewer system.
3. For DESC Permitted projects that are not required to obtain a Certificate of Occupancy, the Permittee(s) shall restore existing landscaping or native vegetated areas per Section 6.4 prior to the closeout of the DESC Permit.

***Project  
Acceptance  
and DESC  
Permit  
Closeout,  
continued***

**8.8.3 Posting Fiscal Security.** Douglas County recognizes that, in some cases, final grading and drainage measures cannot be immediately achieved prior to the need to close a transaction, and occupy a property. In the event that the final grading and drainage measure cannot be completed prior to the need for a Certificate of Occupancy, Fiscal Security shall be posted with the Douglas County Public Works Engineering. The Certificate of Occupancy will be released upon receipt of the Fiscal Security and after the Erosion Control Inspector has verified that the Erosion and Sediment Control BMPs are effectively implemented in accordance with the approved DESC Plan.

**8.8.4 Amount of Fiscal Security.** The amount of Fiscal Security required is based on the size of the lot. For lots that are 1.0 acres or less, the required Fiscal Security shall be \$2,500.00. For lots larger than 1.0 acre, the required Fiscal Security shall be \$2,500.00 per disturbed acre.

**8.8.5 Forms of Fiscal Security.** Douglas County accepts 3 different forms of security. Fiscal Security can be deposited as a Cashiers Check, Irrevocable Letter of Credit or by Credit Card. A copy of an approved Douglas County Irrevocable Letter of Credit Form is located in Appendix K.

***Final Lot  
Stabilization***

**8.9**

This Section describes the requirements for Final Lot Stabilization, and the potential for an Illicit Discharge from areas where the Final Lot Stabilization has not been installed.

**8.9.1 Requirements for Final Lot Stabilization.** Single-family detached residential lots shall install Final Lot Stabilization within 180 days of the issuance of the Certificate of Occupancy, or within 180 days of the completion of construction as determined by the County; whichever is the shorter duration. For the purposes of this Section, Final Lot Stabilization shall mean covering of all disturbed areas with grass/sod, rock, mulch, pavers, or other approved landscape materials. All Final Lot Stabilization improvements or other landscape improvements shall not alter the approved drainage patterns originally submitted to, and approved by Douglas County, or the minimum drainage requirements set forth in Sections 8.4.18 through 8.4.19.

**8.9.2 Post-Construction Discharges of Sediment from Single-family Detached Residential Lots.** Non-stormwater discharges to the Municipal Separated Storm Sewer System (MS4) from single-family detached residential lots after the issuance of a Certificate of Occupancy shall be considered an Illicit Discharge. Enforcement actions for Illicit Discharges will be conducted per the provisions of the Douglas County Stormwater Ordinance, as amended.