

2019

Planning and  
Development  
Services

# Single Family Residential Erosion and Sediment Control Standards



This booklet contains standard plans and procedures appropriate for typical residential building construction; it is not intended to address all circumstances. The primary objective is perimeter control with best management practices (BMPs) being utilized to minimize erosion and prevent sediment from leaving the site. Additionally, since Overland Park streets are conduits for stormwater, it is important to keep mud and sediment off the streets. The building permit holder is responsible for ensuring that adequate BMPs are in place and functioning until the construction project is brought to a close.

A Stormwater Pollution Prevention Plan (SWPPP) may be in effect for your lot in accordance with the subdivision's Construction Stormwater Permit issued by the State of Kansas. Check with the developer of the subdivision to complete an Individual Lot Certification (ILC) as required by the State of Kansas and to obtain a copy of the SWPPP, as you may be responsible for that portion of the permit that affects your lot.

When reviewing this standard against your construction project, always keep in mind the intent of the standard: "to minimize erosion and prevent sediment from leaving the site." Failure to comply is a violation of Overland Park's Erosion and Sediment Control Ordinance Chapter 16.200 as well as federal and state regulations and could result in a substantial fine. Failure to comply may also result in damage to adjacent

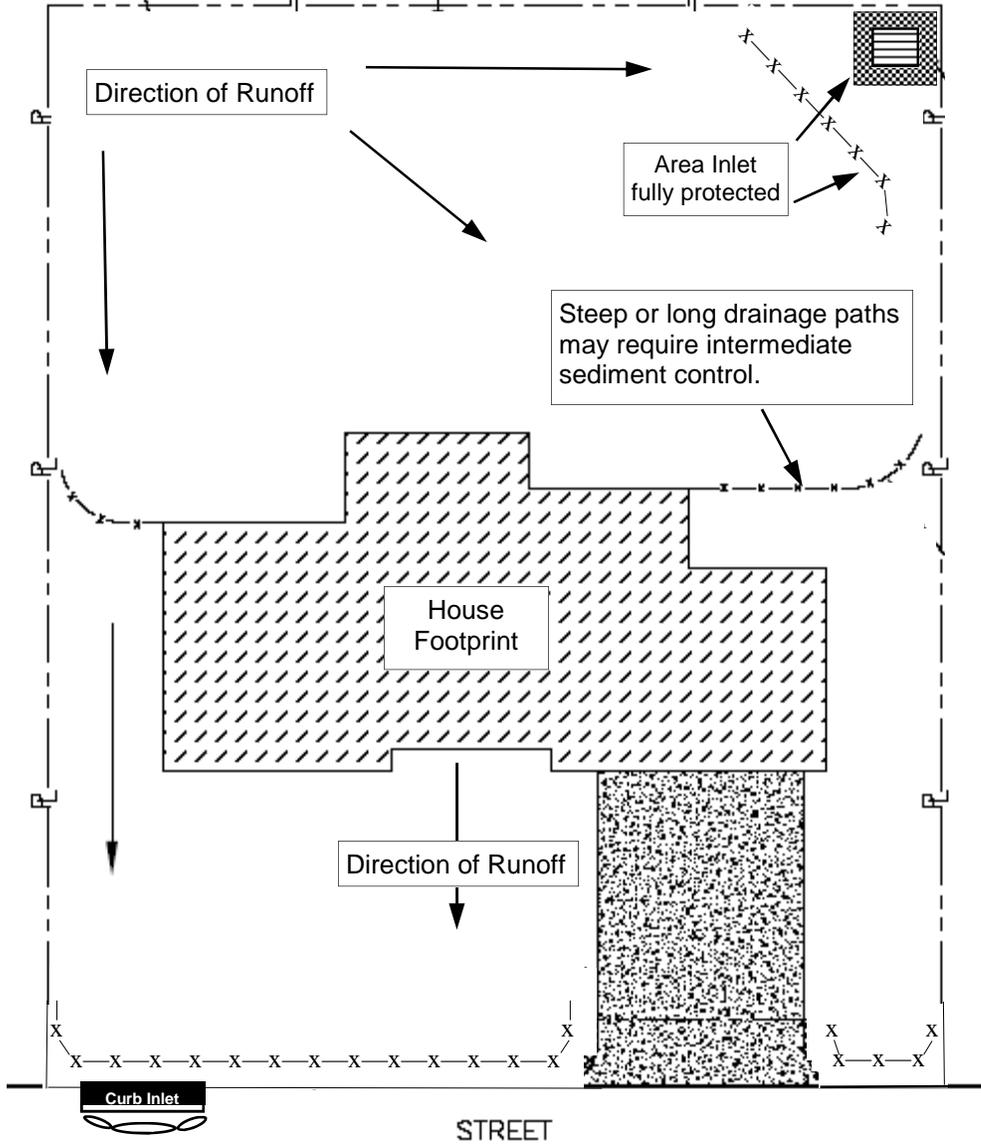
property, damage to the city's storm sewer system and contribute to the polluting of streams, lakes and rivers. If you have any questions or concerns, please contact Building Safety at 913-895-6225. We are committed to helping all involved with the implementation of these construction procedures.

**OVERLAND PARK**  
K A N S A S

**ABOVE AND BEYOND. BY DESIGN.**

# Single Family Lot Erosion and Sediment Control Plan

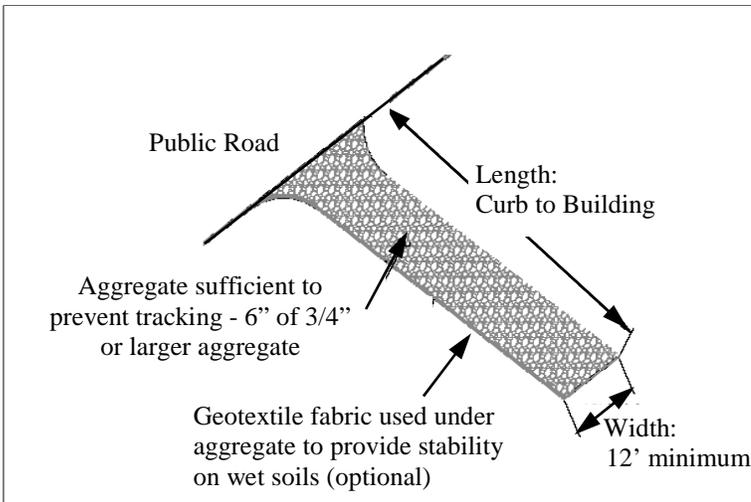
This sample plan represents a typical single family lot. Users of these standards must make their own assessment (or seek professional advice) as to the conditions and drainage patterns of individual sites. These conditions should determine the selection and location of appropriate BMPs.



- X—X—X—X—X Sediment Control (Silt Fence, Biodegradable Logs, Rolled Erosion Control Product, Grass Buffer, etc)
-  Stabilized Lot Access
-  Direction of Surface Water Runoff
-  Area Inlet with Stabilized Buffer (grass, sod, RECP, etc)
-  Curb Inlet with Filter Protection

NOTE: Once sidewalk is installed, BMPs shall be moved to the back of the sidewalk to prevent sediment from reaching the sidewalk.

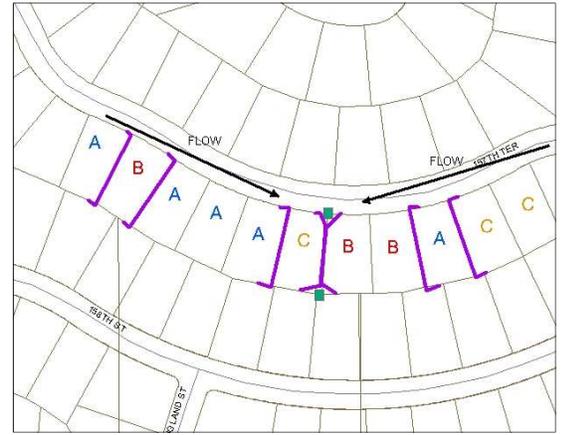
## Stabilized Lot Access



## Perimeter Control

Perimeter controls are required to prevent sediment from leaving your property. Controls should be installed to prevent sediment from reaching streets and sidewalks as well existing vegetation and new sod on adjoining properties.

If a permit holder owns two or more consecutive lots, perimeter control may be installed at the most downhill location to prevent sediment from eroding onto adjoining lots. A single lot or a series of adjoining lots should be evaluated for the discharge point(s) and appropriate controls installed at those points.



## Biodegradable Logs (Wattles)

Biodegradable Logs are designed for low surface flows. Logs should be installed per manufacturer's instructions, including proper joining of multiple logs.



Ends shall be turned uphill to pond runoff. Remove sediment when it reaches 1/2 the height of the log and replace any torn, collapsed or damaged logs. Biodegradable logs are NOT to be used for curb inlet protection (see page 4).

## Rolled Erosion Control Products

Rolled erosion control products (RECP), often called mats or blankets, can be used to stabilize the soil and filter runoff. RECP require no special equipment for installation and can be installed in all weather conditions.



The product should be installed according to the manufacturer's specifications with special attention to proper anchoring with staples or stakes. Grass seed placed under the RECP will grow through the RECP, establishing a more permanent buffer for erosion and sediment control.

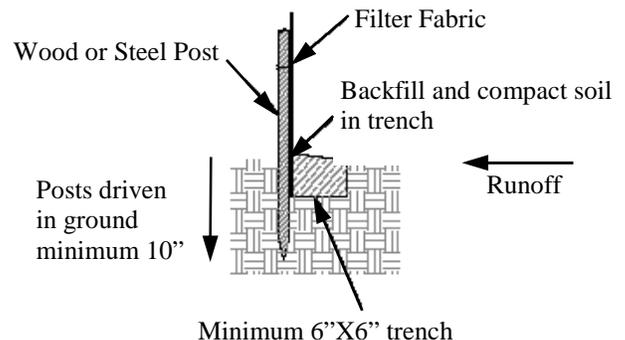
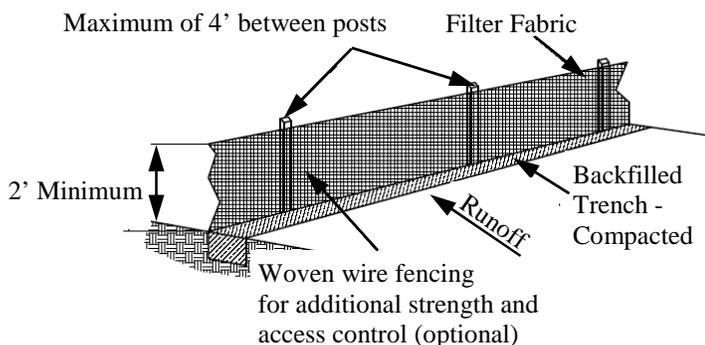


## Silt Fence (Sediment Fence)

- Turn ends of silt fence uphill to capture runoff.
- Overlap to next stake when joining two sections.
- Remove accumulated sediment to maintain capacity and reduce stress on fence.



Wire reinforced silt fence



# Inlet Protection

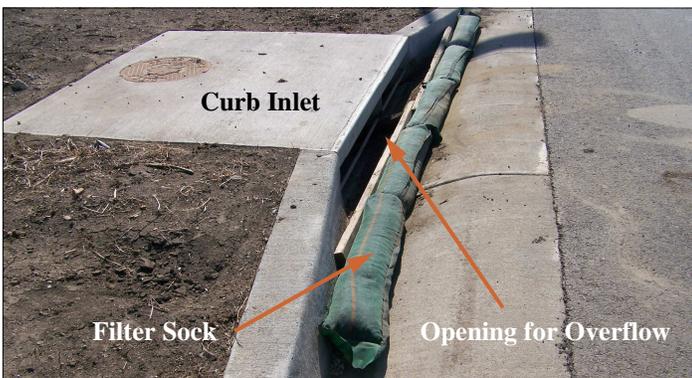
**Regular maintenance of all inlet protection BMPs is critical to prevent localized flooding and to prevent sediment from entering the stormwater system.**

## Curb Inlet:

Filter Socks are to be used for curb inlet protection. Filter Socks are commercially manufactured, consisting of non-biodegradable bags filled with pervious material, allowing for a high filtration rate. **Biodegradable Logs are not allowed.**

Installation of inlet protection shall only be in locations where temporary ponding and sediment do not create a safety hazard or cause property damage.

Filter Socks shall be installed as a second line of defense, with proper BMPs installed upstream to limit the amount of sediment reaching the street. Installation shall ensure the filter extends beyond each end of inlet opening, with an opening at the top for overflow and no gaps evident between bags or against curb.



## Area Inlet:

When construction begins on a lot that drains to an area inlet, the permit holder shall ensure that the inlet is protected and perimeter control installed between the inlet and the edge of disturbed area. Inlet protection shall include a minimum 10' buffer around the entire inlet consisting of grass, sod or RECP. A Filter Sock or Biodegradable Log shall be properly installed at the inlet opening.



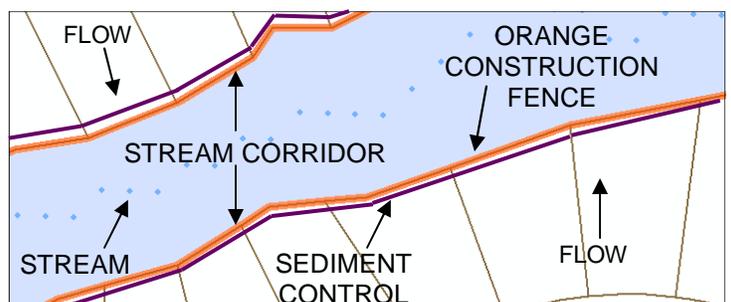
## Grass Buffers and Mulch



Maintaining a strip of existing vegetation or using sod to create a buffer will reduce erosion and filter sediment. A complete covering of mulch can also protect the soil from erosion and can be installed when weather prohibits the installation of other BMPs. These practices work well in conjunction with other perimeter controls or in small areas such as the right-of-way between the curb and sidewalk.

## Stream Corridors

Stream corridors are designated streams and the adjacent land, ranging in width from 60 to 120 feet. The corridors are protected and are generally designated with orange construction fence by the developer. Stream corridors are off limits to any land disturbance. Sediment control BMPs should be used to prevent any sediment from entering the stream corridor.



## Dewatering

De-watering of trenches, foundations or other excavated areas is to be done so as not to deposit sediment offsite or cause erosion. A filter bag, sediment basin or vegetated area may be used to filter sediment before discharging from site. Do not discharge directly into street, inlet or stream.



## Concrete Washout

Concrete wash or rinse water from concrete trucks, chutes, mixing equipment, tools and related items may not be discharged into or be allowed to run into any water body or portion of the stormwater system including streets and storm inlets.



## Inactive Sites

Permitted building sites found to be inactive may be required to stabilize all disturbed areas with permanent vegetation.

## Trash



Trash, debris or building materials, that can blow or wash away, must be contained. A receptacle must be on site and maintained to prevent littering.

## Stockpiles

Stockpiles should not be located near the street or adjacent property lines. All stockpiles must be either stabilized, covered or have sediment control installed around the base of the pile.



## Other Pollutants

- ▶ Waste water from paint, drywall, stucco or masonry is not to enter the stormwater system or be disposed of where it can eventually wash into the system.
- ▶ Provide portable toilets for containment of sanitary waste. Locate toilets at least 50 feet away from inlets and **properly secure** to prevent spills.
- ▶ Paint, fuel and other chemicals are to be properly stored. Any spills must be immediately cleaned up and

More information and engineering details can be found at  
[www.opkansas.org](http://www.opkansas.org)

# Compliance Checklist

## Best Management Practice (BMP)



**Perimeter Controls** – BMPs are installed along back of curb and along the lot line of adjacent properties which are downhill and receive runoff from permitted lot. Following sidewalk installation, BMPs are moved to the back of sidewalk to prevent sediment from reaching the sidewalk. BMPs are maintained to ensure proper function, including repair or replacement of torn, degrading, missing or otherwise ineffective materials. Remove sediment deposits as necessary to provide adequate protection.

**Stabilized Lot Access** – Required for each individual lot. A surface suitable for parking and unloading that prevents the tracking of mud and rock onto the street is installed. A minimum of 6” of 3/4” or larger aggregate is suggested. All vehicles that access the lot shall use the designated entrance. Restrict other access if necessary to prevent tracking onto the street.

**Inlet Protection** – BMPs are in place and functioning for both area inlets and curb inlets. Sediment is prevented from reaching the inlets and any inlet BMPs. Do not allow sediment to enter inlet during maintenance.

**Stockpiles** – Stockpiles are protected to prevent sediment from reaching the street and adjacent properties. Stockpiles are located away from street and property lines.

**Intermediate Control** - Long or steep drainage paths have intermediate or interior BMPs installed to help slow the flow of runoff. Failure of perimeter controls due to the force of runoff often determines the need for intermediate controls.

**Trash, Concrete Washout and Other Pollutants** - Dewatering is done in such a manner as not to deposit sediment offsite or cause erosion. Trash and debris are contained. All waste water, including concrete washout, is properly disposed of. Materials and chemicals are properly stored.

### Contractor Responsibilities

- 1) The building permit holder is responsible for the installation and on-going maintenance of all lot-specific erosion and sediment control BMPs. Lot access, inlet protection and perimeter control shall be installed prior to any land disturbance. Additional perimeter, intermediate and stockpile protection shall be installed immediately after wall inspection and backfilling.
- 2) Inspection frequency shall be whatever is deemed necessary to ensure the BMPs are functioning as designed. Problems noted during any inspection shall be corrected within 7 days unless otherwise noted by building inspector.
- 3) Once construction begins, the permit holder is responsible for preventing sediment from reaching any inlets and for protecting existing inlet BMPs. It is critical that sediment not be allowed to enter the storm sewer system.
- 4) The lot access provides a place for parking vehicles off-street and an area where materials can be off-loaded. The intent of this requirement is to provide a stable surface for access and parking where mud and other debris are not likely to be tracked onto the street. Proper maintenance of the entrance is required until such time as a permanent driveway can be installed. Entry to the lot shall be restricted to the lot access.
- 5) During the entire construction process the permit holder is responsible to ensure that mud, dirt, rocks and other debris are not allowed to erode or be tracked onto city streets and sidewalks. Should any mud or other debris find its way to the street, the contractor shall take immediate steps to have it removed.

### Erosion & Sediment Control Inspections - City

- 1) Building inspectors will normally inspect BMPs in conjunction with routine inspections. Inspections will ensure proper placement and installation of BMPs as well as continued maintenance.
- 2) The first ESC inspection will occur with the footing inspection. Standard items to be checked at this time are inlet protection, lot access, perimeter control and trash containment. If BMPs are not installed correctly or in the proper location, the requested inspection may be denied.
- 3) It is anticipated that by the time the plumbing rough-in inspection is requested, backfilling of the foundation will have been completed and all BMPs, including additional perimeter, stockpile and intermediate controls will have been installed. The requested inspection may be denied if the permit holder has failed to install or maintain the proper BMPs.
- 4) There will be situations that fall outside of the norms. Building inspectors will be available to discuss BMPs for any lot and the sequencing for installation.