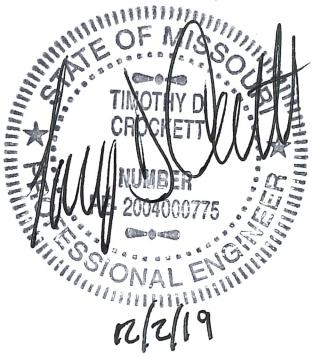
STORM WATER POLLUTION PREVENTION PLAN

FOR

Clean Fill – Lot 29, Lakewood Business Center on I-470, Plat Q

Date:
December 2019



PREPARED BY:

CROCKETT
ENGINEERING CONSULTANTS
1000 W. Nifong Blvd., Bldg. 1, • Columbia, Missouri 65203

GENERAL PROJECT INFORMATION

PROJECT

Clean Fill – Lot 29, Lakewood Business Center on I-470, Plat Q (Export from Kansas City Surgical & Dental Office)

PROJECT LOCATION

The project site is located in Section 20, Township 48, Range 31 in Lee's Summit, Jackson County Missouri.

General Location: 3051 NE Hagan Road

GENERAL DESCRIPTION OF PROJECT

Cean fill, export from KC Surgical & Dental Office project

PROJECT PROPERTY OWNER

Name: LBC Development Corp

Address: P.O. Box 7258

City: Columbia State: MO Zip: 65205

Phone: (573) 875-5151

Contact: Jay Burchfield

GENERAL CONTRACTOR

Name: _____

Address: _____

City: _____State:____Zip:_____

Phone: _____Fax:_____

Contact: _____

CONSULTANT

Crockett Engineering Consultants

1000 W. Nifong Blvd., Bldg. 1

Columbia, MO 65203

Phone: 573.447.0292

Contact: Tim Crockett

EROSION CONTROL INSPECTOR

Name: _____

Address: _____

City: _____State: ____ Zip: _____

Phone: _____Fax:_____

Contact: _____

NOTE: The Owner must designate an approved **EROSION CONTROL INSPECTOR**, who will be responsible for the inspection logs, updating the **SWPPP**, and reporting to the site manager any noncompliance findings.

The **GENERAL CONTRACTOR** shall notify the **EROSION CONTROL INSPECTOR** when a precipitation event occurs.

The person selected to conduct inspections should be knowledgeable in the principles and practices of erosion and sediment controls, possess the technical skills to assess conditions at the construction site that could impact stormwater quality, and assess the effectiveness of any erosion and sediment control measures selected.

SWPPP OBJECTIVES

- Stabilize the site as soon as possible
- Protect slopes and channels
- Reduce impervious surfaces and promote infiltration
- Control the perimeter of the site
- Protect adjacent receiving waters
- Follow pollution prevention measures
- Minimize the area disturbed and the duration of bare soil exposure

SWPPP REQUIREMENTS

- Cover/Title Page
- Project and SWPPP contact information
- Site and activity description, including the site map
- Identification of potential pollutant sources
- Description of controls to reduce pollutants
- Maintenance/inspection procedures
- Records of inspections and follow-up maintenance of BMPs
- SWPPP amendments
- SWPPP certification

REMINDER

- The SWPPP must remain on site until the site has been closed out.
- A copy of the permit and/or NOI needs to be attached to the SWPPP.
- Modifications and updates to BMPs or drainage areas on the project site should be recorded in or attached to the SWPPP.
- Any additional Federal, State, or Local permits need to be attached to the SWPPP.
- The SWPPP, as well as all supporting documentation (permits, inspection reports, addendums, to the SWPPP, location map, site plan, NOI/NOT etc.), must be retained for three (3) years.
- SWPPP's are meant to be changed during the course of the construction process. The goal of the SWPPP is to keep sediment on the project sites and assure water quality standards. If BMPs or procedures are not attaining this goal, then the SWPPP may be changed or updated in order to better address specific conditions.

SITE MAP CONSIDERATIONS

Site maps should show the construction activities and stormwater management practices for each major phase of construction (e.g., initial grading, infrastructure, construction, and stabilization). Site maps should identify the following features:

- Areas and features to be protected
- Disturbed areas (locations and timing of activities)
- Clearing limits
- Identify locations of structural and non-structural BMPs
- Identify locations of Post-construction BMPs
- Areas of stabilization
- Indicate locations of material, waste, borrow, or equipment storage

Site maps should be kept up to date showing changes that have been made to BMPs and for stabilization methods as the site progresses. The Missouri State Operating Permit requires that the SWPPP and site map be kept up to date, so mark up the site map with the locations and dates of any changes being made. Also include the current locations of the following:

- Portable toilets
- Material storage, vehicle and equipment fueling and maintenance areas
- Concrete, paint and stucco washouts
- Dumpster containers
- Spill kits
- Stockpiles
- Any other non-structural non-stormwater BMPs, temporarily removed structural BMPs or changes to the structural BMPs

PROJECT PLANNING & DESIGN

SOIL DISTURBING ACTIVITIES for this project will include the following (check all that apply):

- ☐ Clearing and grubbing of existing vegetation
- ☐ Construction of sediment basins and stormwater detention
- ☐ Stripping of topsoil within the limits of construction
- ☐ Stockpiling and re-spreading topsoil
- ☐ Utility trench excavation and backfill
- ☐ Preparing subgrade for paved areas
- ☐ Backfilling curbs and sidewalks
- ☒ Disposal areas for excess excavated material
- ☐ Borrow areas for fill material
- ☐ Construction of compacted fill areas for residential/commercial building construction
- ☐ Other (specify): _____

NOTE: The Site Plan must be submitted with the SWPPP.
Limits of Land Disturbance must be clearly shown on the Erosion and Sediment Control Plan**.**

WHAT IS THE FUNCTION OF THE CONSTRUCTION ACTIVITY?

- ☒ Clearing/Grading
- ☐ Commercial/Residential Subdivision
- ☐ Municipality

SITE RUNOFF CHARACTERISTICS

Total Site Area: 4.17 Acres

Estimated Area to be disturbed by all activities: 2.5 Acres

Note: Attach State Operating Permit if area to be disturbed is one (1) acre(s) or more.

Runoff Coefficient prior to development: .35

Runoff Coefficient after development: .35

Name Watershed and Receiving Waterbody: Unknown tributary to May Brook to Lakewood Lake East

Pre-Development Peak 10 year outflow: 10.8 cfs

Post-Development Peak 10 year outflow: 10.8 cfs

PROJECT PLANNING & DESIGN

Endangered or threatened species/critical habitats on or near the project? ☐ Yes ☒ No

Description of species and/or critical habitat:_____

Steps taken to address the impact of construction:_____

Historic Sites on or near the construction site: ☐ Yes ☒ No

Steps taken to address the impact of construction:_____

Will there be work done in a 404/401 stream or creek? ☐ Yes ☒ No

Steps taken to address the impact of construction:

NOTE: A Limited Stream Assessment must be submitted

Are there any impaired waters on the site? ☐ Yes ☒ No

If yes, has a Total Maximum Daily Load (TMDL) been developed? ☐ Yes ☐ No

GENERAL DESCRIPTION OF STORMWATER MANAGEMENT PLAN

To ensure that this project does not promote or aggravate an existing off-site erosion, siltation, or drainage problem, erosion best management practices (BMP's) are to be implemented on this site. The BMP's that have been chosen for this site are silt fence, rock ditch check and sediment trap. Due to the clearing of this site in the manner as shown by the grading plan, it is expected that additional silt laden runoff will be generated. To ensure proper containment of said silt laden runoff, silt fence will be utilized to filter the runoff prior to it leaving the site. The above referenced erosion control devices are to be placed in areas of highly concentrated flows or sources of point flow and sheet flow. A construction entrance will also be used during construction to help prevent silt leaving the site on tires of construction vehicles.

GENERAL DESCRIPTION OF STORMWATER FACTOR AFFECTING RUNOFF

The existing conditions of this site include an open pasture with 2-10% slopes. The 4.17 acre site includes the following features. During construction the site will manage runoff with traditional BMP practices including silt fence. The post-development site will consist of reseeding and stabilizing disturbed areas to bring the site back to open pasture condition.

CONSTRUCTION PHASE

IMPORTANT RECORDED DATES (to be filled in during construction activities)

Major grading activities begin and end (dates): _____

Construction temporarily or permanently ceased (dates):_____

Stabilization measures initiated (dates): _____

BLASTING (list all contractors who will perform blasting work or handle explosives. Attach insurance certificates for all contractors on this list):

_____

_____

GENERAL SEQUENCE OF CONSTRUCTION:

Describe the general sequence/phasing of construction. (Address any critical construction sequences, time restrictions, etc. of which the contractor must be aware in planning his activities.)

This project will be completed in two general phases. The first task of construction will be the installation and inspection of all erosion control facilities. These facilities must be placed as per the approved land disturbance plan and SWPPP. Once the facilities have been properly installed, the fill material can be placed on the site.

The second phase will be to fine grade placed fill material. All disturbed areas shall be seeded. The erosion control facilities shall remain in place throughout this process. The disturbed areas are to be periodically inspected to check for wash-outs, gulleys, scouring, etc. Should any of these situations exist, the affected area shall be regarded and reseeded.

CONSTRUCTION SITE BEST MANAGEMENT PRACTICES

(check all that apply):

- ☐ Scheduling
- ☐ Preservation of Existing Vegetation
- ☐ Hydraulic/Wood Mulch
- ☐ Hydroseeding
- ☐ Soil Binders
- ☐ Straw Mulch
- ☐ Slope Drains
- ☐ Geotextiles, ECBs, or TRMs
- ☐ Earth Dikes/Swales & Lined Ditches
- ☐ Outlet Protection/Velocity Dissipater
- ☐ Stream bank Stabilization
- ☐ Other (specify)_____

TEMPORARY SEDIMENT CONTROL BMPS:

- ☒ Silt Fence
- ☐ Sediment Trap
- ☐ Top Soil Diversion Berm
- ☐ Sandbag Barrier
- ☐ Storm Drain Inlet Protection
- ☐ Sediment/Desilting Basin
- ☐ Rock Check Dam
- ☐ Gravel Bag Berm
- ☐ Street Sweeping and Vacuuming
- ☐ Other (specify)_____

WIND EROSION & TRACKING CONTROL BMPS:

- ☐ Wind Erosion Control
- ☐ Entrance/Outlet Tire Wash
- ☒ Stabilized Entrance/Exit
- ☐ Other (specify)

GOOD HOUSEKEEPING BMPS:

- ☐ Water Conservation Practices
- ☐ Dewatering Operations
- ☐ Temporary Stream Crossing
- ☐ Clear Water Diversion
- ☐ Potable Water/Irrigation
- ☐ Concrete Curing
- ☐ Concrete Finishing
- ☒ Paving & Grinding Operations
- ☐ Illicit/Illegal Discharge
- ☐ Detection Vehicle & Equipment
- ☐ Cleaning Vehicle & Equipment Fueling
- ☐ Vehicle & Equipment Maintenance
- ☐ Material/Equipment Use Over Water
- ☐ Other (specify) _____

WASTE MANAGEMENT & MATERIALS POLLUTION CONTROL BMPS:

- ☐ Spill Prevention/Control
- ☐ Stockpile Management
- ☐ Concrete Waste Management
- ☐ Solid Waste Management
- ☐ Liquid Waste Management
- ☐ Material Delivery/Storage/Use
- ☐ Contaminated Waste Management
- ☐ Hazardous Waste Management
- ☐ Sanitary/Septic Waste Management
- ☐ Other (specify)

PERMANENT STABILIZATION BMPS:

- ☐ Velocity Dissipation
- ☐ Vegetative Buffers
- ☐ Sod Channel Lining
- ☐ Riprap Channel Lining
- ☐ Other (specify)

NOTE: All temporary BMPs must be in place before construction can begin.

ENVIRONMENTALLY SENSITIVE AREAS

WETLAND PROTECTION:

Protection methods for wetlands include:

- Appropriate setbacks that preserve the wetlands or wetland functions;
- Wetland mitigation, including wetland replacement;
- Wetland restoration or enhancement.

SINKHOLE OR CAVE-RELATED NON-BUILDABLE AREAS:

- No grading or installation of parking areas, streets or other infrastructure within non-buildable areas.

DEVELOPMENT IN SINKHOLE DRAINAGE AREAS WITHOUT DISCHARGE TO SINKHOLE:

- Development may occur in the immediate sinkhole drainage area if alternative surface drainage is provided away from the sinkhole,
- The water shall stay in the same surface drainage basin,
- The water shall not go into another sinkhole drainage area off the applicant's property.
- The immediate sinkhole drainage area which cannot be provided with an alternative drain- age system can be deleted from the development area.

DEVELOPMENT IN SINKHOLE DRAINAGE AREAS WITH DISCHARGE TO SINKHOLE: The sinkhole can be used for limited surface runoff drainage where alternative surface drainage methods cannot be provided if the following conditions are met:

- Runoff from the development is completely retained in a retention or detention basin.
- Enough runoff is diverted from the sinkhole drainage area so that the development of the remaining area does not increase the total quantity or deteriorate the water quality of runoff into the sinkhole.
- Where the sinkhole outlet is off site, either the runoff leaving the subject property must be shown to be no greater in flow or in quantity than that which existed before development, or easements must be obtained from owners of property where any increase in flow or quantity of water must go to reach the sinkhole outlet.

FILLING IN SINKHOLES AND SINKHOLE DRAINAGE AREAS:

- No street shall be placed below an elevation of at least one (1) foot above the sinkhole ponding elevation and only when collapse of the sinkhole will not adversely affect the road.
- No increase in the ponding elevation will be allowed by grading or filling without a stormwater analysis approved by the Director.
- It shall be unlawful for any person to place, dump or deposit trash, debris, rubbish, brush, leaves, grass clippings, yard waste, hazardous waste or similar materials within a sinkhole.
- The alteration of land in a sinkhole by means of grading or the use of motorized equipment without a permit is not allowed.

BUFFER ZONE LIMITATIONS AND PROHIBITIONS:

- Natural vegetative cover must be retained within a buffer zone.
- All construction activities including grading and filling are prohibited.
- Wastewater disposal or irrigation is prohibited.

BUFFER ZONE WIDTHS:

- Wetlands (at least 50 ft.)
- Sinkholes (shall not be less than 150 ft., or greater than 300 ft. from the sinkhole eye)
- Other environmentally sensitive areas (the buffer zone shall be at least 50 feet)

GENERAL PRACTICES

GENERAL PRACTICES FOR CONSTRUCTION SITE RUNOFF CONTROL:

- Clearing and grading of natural resources shall not be permitted;
- Clearing techniques that retain natural vegetation and natural drainage patterns shall be used to the *maximum extent practicable*;
- Clearing shall not begin until all sediment control devices have been installed and have been stabilized;
- Cut and fill slopes *shall be no greater* than 3:1, except as approved by the City;
- Phasing shall be required on all sites disturbing greater than 40 acres;
- Soil must be stabilized within 14 days of clearing or inactivity of construction;
- Soil stockpiles shall be protected from allowing sediment to leave the site;
- Techniques shall be employed to prevent the blowing of dust or sediment from the site;
- Techniques that divert upland runoff past disturbed slopes shall be employed;
- Sediment controls shall be provided in the form of settling basins or sediment traps or tanks, and perimeter controls;
- Adjacent properties shall be protected by the use of a vegetated buffer strip, in combination with perimeter controls wherever possible;
- When a watercourse must be crossed regularly during construction, a temporary stream crossing shall be provided. *Note:* Work done within a waterway may need additional federal or state permits;
- A temporary access road or driveway shall be provided at all sites;
- Temporary boundary markers shall be clearly visible and installed at 100 foot intervals prior to clearing, joined with marking tape or fencing, to delineate stream buffer limits.

GENERAL PRACTICES FOR MAINTENANCE AND INSPECTIONS:

- All control measures shall be inspected at least once per week and within a time period not to exceed 48 hours following any storm event resulting in runoff on site;
- Parts that have been finally stabilized shall be inspected once per month. All perimeter controls shall be inspected weekly for proper anchorage, leakage, or tears on the control material;
- The responsible party shall make records of the installation and of all maintenance and repairs, and shall retain the records for at least five (5) years;
- Built-up sediment will be removed from silt barriers when it has reached 1/3 of the height of the barrier;
- Sediment basins shall have built-up sediment removed when 1/3 of the basin volume is filled;
- All measures shall be maintained in good working order;

GOOD HOUSEKEEPING

SPILL PREVENTION:

PETROLEUM PRODUCTS

- Construction equipment and vehicles shall be monitored for leaks and receive regular preventative maintenance to ensure proper operation and reduce the risk for leaks or spills.
- Petroleum products shall be stored in clearly labeled and tightly sealed containers or tanks.
- Any soil contaminated by fuel or oil spills shall be removed and disposed of properly.
- Above-or-below ground petroleum storage facilities must be set back 300 feet from any stream.
- Storage for oils, greases, paints, fuels, and chemicals shall be provided with secondary containment.

FUELING AND SERVICING

- Above-or-below ground fueling storage facilities must be set back 300 feet from any stream.
- Up to 500 gallons of gasoline or diesel fuel is allowed, but must remain outside the stream buffer.
- Secondary containment for fuel shall be provided.

MUD TRACKING

- The permittee is responsible for keeping sediment and debris off streets.

CONCRETE TRUCK WASHOUT

- Washout shall not discharge surplus concrete or drum wash water on the site in such a manner that promotes contact with storm waters or natural streams discharging from the site.

HAZARDOUS MATERIALS

- All hazardous materials shall be disposed of according to state regulation or the manufacturer's recommendations.

FERTILIZERS

- Fertilizers shall be applied following manufacture's recommendations.
- Fertilizers shall be stored in a covered area or in watertight containers.
- Partially used products shall be properly sealed and stored to avoid spills or leaks.
- Up to 20 gallons of liquid fertilizer or pesticide and up to 100 pounds of granular fertilizer or pesticide storage is allowed if set back from stream 300 feet.
- Storage must remain out of the stream buffer.

CONSTRUCTION WASTE

- All construction waste material shall be collected, deposited, and stored in a manner to prevent contact with storm waters discharging from the site and shall be disposed of by a licensed solid waste management contractor.
- No waste shall be buried on site.

SANITARY WASTE

- A licensed sanitary waste management contractor shall collect all sanitary waste from portable units that will be maintained on a regular basis from any site that cannot provide other means of sanitary waste disposal.

GOOD HOUSEKEEPING

AIR EMISSIONS:

BURNING

- Any burning on the site requires a permit from the Missouri Department of Natural Resources. Call the Northeast Regional office at 660-385-8000.

DUST CONTROL

- The contractor is required by Missouri State law to control dust from the site.
- Watering must be provided in unstabilized areas and mulch applied as soon as possible.

OTHER GOOD HOUSEKEEPING PRACTICES:

- Whenever possible, all of a product will be used up before disposing of the container in accordance with Missouri State law.
- Manufacturer's recommendations for proper use and disposal will be followed.
- The site manager shall inspect materials daily to ensure proper use, storage, and disposal.
- All paint containers will be tightly sealed and stored when not required for use. Excess paint will not be dumped into the stormwater system, but will be properly disposed of according to Missouri State law.

SPILL CONTROLS:

- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- If the permittee or an authorized representative has knowledge of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the storm drain system, or water of the U.S., said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release.
- The permittee or authorized representative is required to notify emergency response agencies of the occurrence via emergency dispatch services and the MDNR Environmental Emergency Response in accordance with 40 CFR 117 and CFR 302 as soon as they have knowledge of the discharge of any hazardous substance or petroleum product in excess of the reportable quantity.
- The applicant shall notify by telephone and in writing the Department of Natural Resources, water Pollution Control Program, Post Office Box 176, Jefferson City, MO 65102, 1-800-361-4827, of any oil spills or if hazardous substances are found during the prosecution of work under this permit.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one.

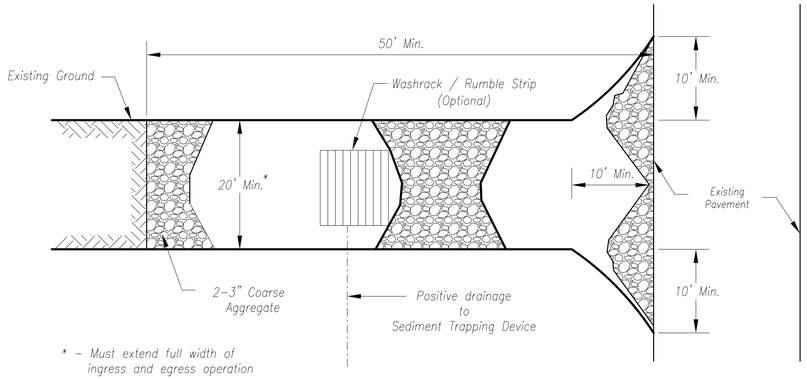
SAMPLING REQUIREMENTS:

- There are no sampling requirements required as a part of this plan.

LOG OF CHANGES TO THE SWPPP

Document changes to the SWPPP here. These should include additions of new BMPs, replacement of failed BMPs, changes in construction activities and times, changes in personnel, inspection, and maintenance procedures, and updates to the site map.

UPDATE	DATE



Plan View

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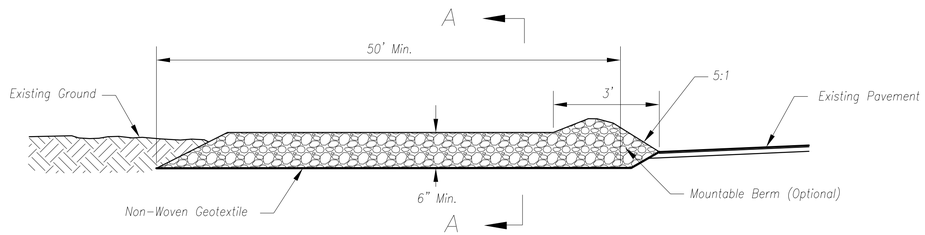

Side Elevation

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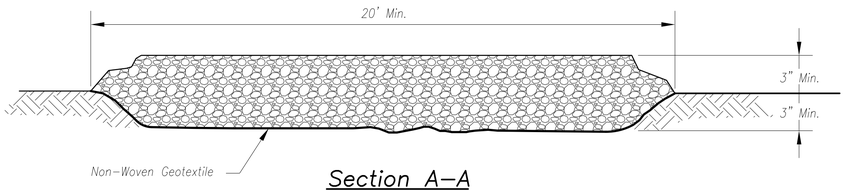


Section A-A

Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.

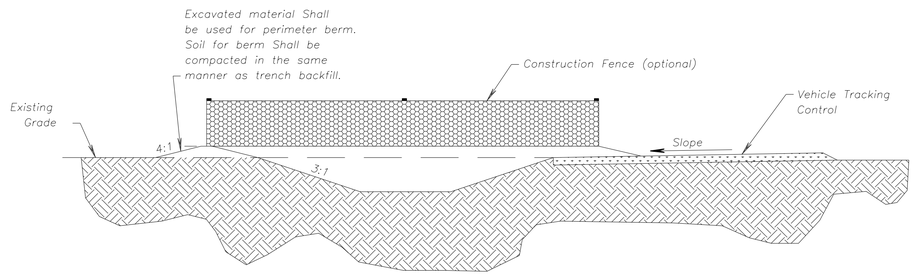
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION

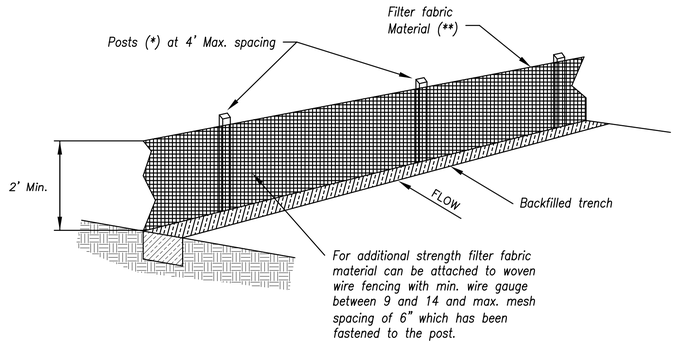
Kansas City Metro Chapter APWA AMERICAN PUBLIC WORKS ASSOCIATION

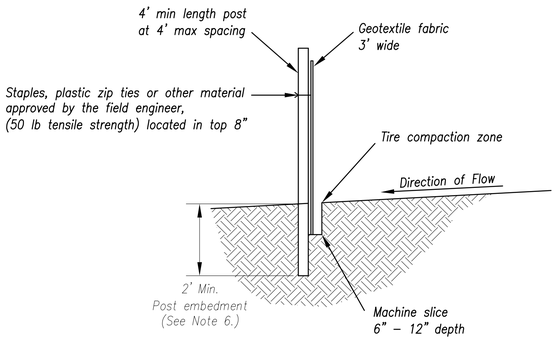
KANSAS CITY
METRO CHAPTER

CONSTRUCTION ENTRANCE
AND CONCRETE WASHOUT

STANDARD DRAWING
NUMBER ESC-01

ADOPTED:
10/24/2016





(*) POSTS

- MIN, LENGTH 4'
- HARDWOOD 1 3/16" x 1 3/16"
- NO.2 SOUTHERN PINE 2 5/8" x 2 5/8"
- STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS

Not to Scale

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ⅓ the height of silt fence.
2. Repair as necessary to maintain function and structure.

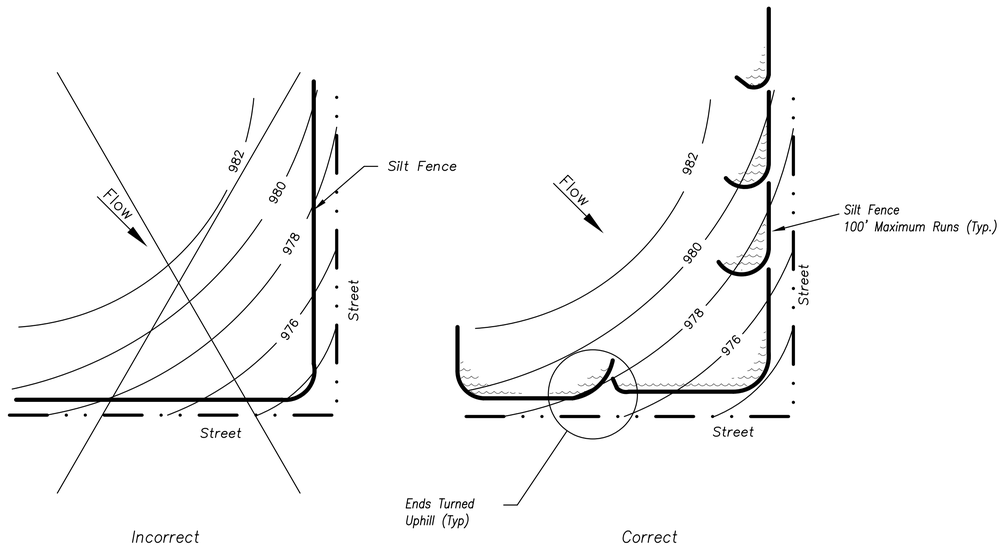


Figure A

SILT FENCE LAYOUT

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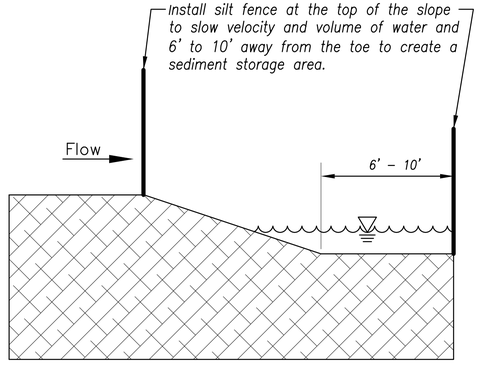

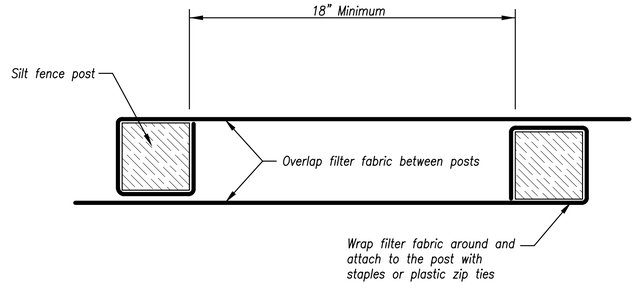

JOINING FENCE SECTIONS

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Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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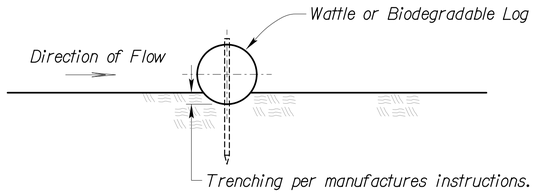
KANSAS CITY METRO CHAPTER

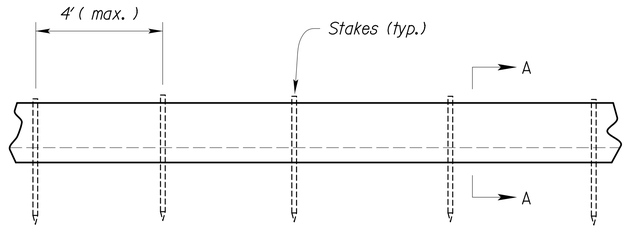
SILT FENCE

STANDARD DRAWING NUMBER ESC-03

ADOPTED: 10/24/2016



Section A–A



Typical Elevation

WATTLES AND BIODEGRADABLE LOG

Notes for Wattles and Biodegradable Log Slope Protection:

1. The Slope barriers shall be placed along contour lines, with a short section turned upgrade at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
2. Install wattles and biodegradable logs per manufacturer's instructions.
3. Spacing of stakes per manufacturer's instructions with 4' max. spacing. Length of stakes shall be a minimum of 2 times the diameter of the log with minimum of 24".

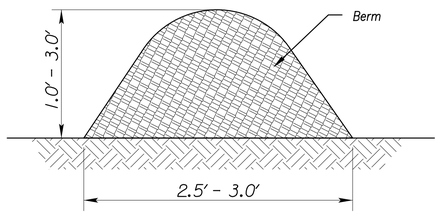


Figure 1
(Perimeter Control)

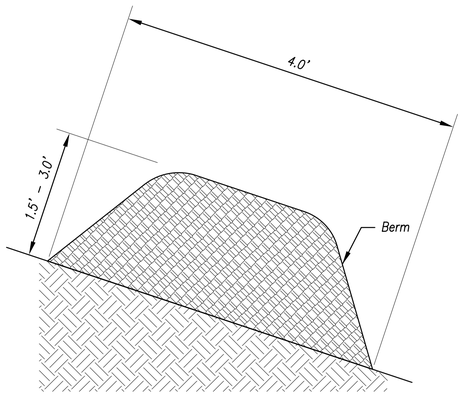


Figure 2
(Steep Slopes)

Notes for Mulch and Compost Filter Beam:

1. The sediment control berm shall be placed uncompacted in a windrow at locations shown on the plans or as directed by the engineer.
2. Parallel to the base of the slope, or around the perimeter of other affected areas, construct a 1 to 3 foot high by 2.5 to 3 foot wide berm (see Figure 1). For maximum water treatment ability or for steep slopes, construct a 1.5 to 3 foot high trapezoidal berm that is a minimum of 4 feet wide at the base (see Figure 2). In extreme conditions, or where specified by the engineer, a second berm shall be constructed at the top of the slope. Engineer will specify berm requirements.
3. If berm is to be left as permanent or part of the natural landscape, the compost berm may be seeded during application for permanent vegetation.
4. Do not use compost or wood mulch berms in any runoff channels or concentrated flow areas.
5. Wood mulch shall consist of tree and shrub debris resulting from clearing and grubbing and shall be ground by the mechanical means such as a chipper, hammermill, tub grinder or other approved method. Mulch sizing varies with a maximum width of 2" and a maximum length of 10".

Maintenance for Mulch and Compost Filter Beam:

1. Berm shall be reshaped and material added as necessary to maintain function and dimensions.
2. Breaches in the berm shall be repaired promptly.

MULCH OR COMPOST FILTER BERMS

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION

Kansas City Metro Chapter APWA American Public Works Association

KANSAS CITY METRO CHAPTER

WATTLES/BIODEGRADABLE LOG AND MULCH/COMPOST FILTER BERM

STANDARD DRAWING NUMBER ESC-04

ADOPTED: 10/24/2016

SPILL OR INCIDENT REPORT FORM

Complete this form for any type of petroleum product or hazardous materials/waste spill or incident.
(Keep a copy of this report with the SWPPP Log.)

GENERAL INFORMATION

Site:_____

Date: _____Date of Incident: _____

Primary Contractor: _____

PERSON REPORTING SPILL OR INCIDENT

Name: _____

Organization: _____ Title: _____

Address: _____

Telephone: _____ Fax: _____

Signature: _____

TYPE OF SPILL

Common Name of Spilled Substance: _____

Estimated Quantity Spilled: _____ Estimated Concentration: _____

Date of Spill: _____

Time Spill Started: _____ (AM/PM) Time Spill Ended: _____(AM/PM)

SPILL TO LAND

Name of Site: _____

Address: _____

City: _____ County: _____

SPILL TO WATER BODY

Name of Water Body: _____

Location of Discharge: _____

Description of Area from Which Spilled Material May Reach: _____

_____

INCIDENT

If No Spill, Describe Incident: _____

_____

_____

_____

ACTIONS TAKEN

To Contain Spill or Impact of Incident: _____

_____

To Clean Up Spill 0f Recover from Incident: _____

_____

To Remove Cleanup Material: _____

_____

To Prevent Reoccurrence: _____

_____

PERSON RESPONCIBLE FOR MANAGING SPILL REPONSE

Name: _____ Signature: _____

Telephone: _____ Fax: _____

SPILL REPORTING INFORMATION

Where is the Spill: _____

What Spilled: _____

How Much Spilled: _____

How Concentrated is the Spilled Material: _____

Who Spilled the Material: _____

Is Anyone Cleaning up the Spill: _____

Are There Resource Damages (e.g. dead fish or oiled birds): _____

_____

Who is Reporting the Spill: _____

Your Name: _____ Your Telephone: _____

STORMWATER CONSTRUCTION SITE INSPECTION REPORT

GENERAL INFORMATION

Project Name:	
Location:	
Date of Inspection:	Start/End Time:
Inspector´s Name:	
Inspector´s Title:	
Inspector´s Contact Information:	
Completed Boone County´s Inspector Training course for Construction Sites? ☐Yes ☐No	
Describe present phase of construction:	
Type of Inspection: ☐Regular ☐ Pre-storm event ☐ During storm event ☐ Post-storm event	

WEATHER INFORMATION

Has there been a storm event since the last inspection? ☐Yes ☐No
If yes, provide:
Storm Start Date & Time: Storm Duration (hrs): Approximate Amount of Precipitation (in):

Weather at time of this inspection?
☐Clear ☐Cloudy ☐ Rain ☐ Sleet ☐ Fog ☐Snowing ☐High Winds
☐ Other: Temperature:

Have any discharges occurred since the last inspection? ☐Yes ☐No
If yes, describe:

Are there any discharges at the time of inspection? ☐Yes ☐No
If yes, describe:

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

_____

Signature of Inspector/ Printed Name and Title Date

SITE-SPECIFIC BMPS

- Number the structural and non-structural BMPs identified in your SWPPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.
- Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.

BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
1	☐Yes ☐No	☐Yes ☐No	
2	☐Yes ☐No	☐Yes ☐No	
3	☐Yes ☐No	☐Yes ☐No	
4	☐Yes ☐No	☐Yes ☐No	
5	☐Yes ☐No	☐Yes ☐No	
6	☐Yes ☐No	☐Yes ☐No	
7	☐Yes ☐No	☐Yes ☐No	
8	☐Yes ☐No	☐Yes ☐No	
9	☐Yes ☐No	☐Yes ☐No	
10	☐Yes ☐No	☐Yes ☐No	
11	☐Yes ☐No	☐Yes ☐No	
12	☐Yes ☐No	☐Yes ☐No	
13	☐Yes ☐No	☐Yes ☐No	
14	☐Yes ☐No	☐Yes ☐No	
15	☐Yes ☐No	☐Yes ☐No	
16	☐Yes ☐No	☐Yes ☐No	
17	☐Yes ☐No	☐Yes ☐No	
18	☐Yes ☐No	☐Yes ☐No	
19	☐Yes ☐No	☐Yes ☐No	
20	☐Yes ☐No	☐Yes ☐No	

OVERALL SITE ISSUES

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1. All inactive slopes and disturbed areas have been stabilized.	☐Yes ☐No	☐Yes ☐No	
2. Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	☐Yes ☐No	☐Yes ☐No	

3. Are all sanitary waste receptacles placed in secondary containment and free of leaks?	☐Yes ☐No	☐Yes ☐No	
4. Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	☐Yes ☐No	☐Yes ☐No	
5. Are discharge points and receiving waters free of any sediment deposits?	☐Yes ☐No	☐Yes ☐No	
6. Are storm drain inlets properly protected?	☐Yes ☐No	☐Yes ☐No	
7. Is the construction exit preventing sediment from being tracked into the street?	☐Yes ☐No	☐Yes ☐No	
8. Is trash/litter from work areas collected and placed in covered dumpsters?	☐Yes ☐No	☐Yes ☐No	
9. Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	☐Yes ☐No	☐Yes ☐No	
10. Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	☐Yes ☐No	☐Yes ☐No	
11. Are materials that are potential stormwater contaminants stored inside or under cover?	☐Yes ☐No	☐Yes ☐No	
12. Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐Yes ☐No	☐Yes ☐No	
13. (Other)	☐Yes ☐No	☐Yes ☐No	

NON-COMPLIANCE

Describe any incidents of non-compliance not described above: