

# Village of Shawnee Hills, Ohio

40 W. Reindeer Drive

Shawnee Hills, OH 43065

## Site Plan and/or Conceptual Grading Plan Requirements

The following list provides the activities requiring an approved Site Plan

- Construction of a building or structure
- Enlarging or altering any building or structure
- Altering the grade of any lot in excess of two (2) feet), Construction of any streets, alleys, sidewalks, curbs, gutters, retaining walls, drain or sewer, or off street parking lots
- Changing or diverting the flow of Stormwater runoff or natural water courses
- If the proposed site plan is inadequate in detail for Stormwater management, a separate drainage plan will be required. A Professional, licensed in the State of Ohio and experienced in drainage and storm sewer design is be required to design Stormwater systems and prepare plans. These plans, in addition to basic information such as owner name and address, date, scale, north indication, and etc, shall contain, as a minimum, the following items or information.

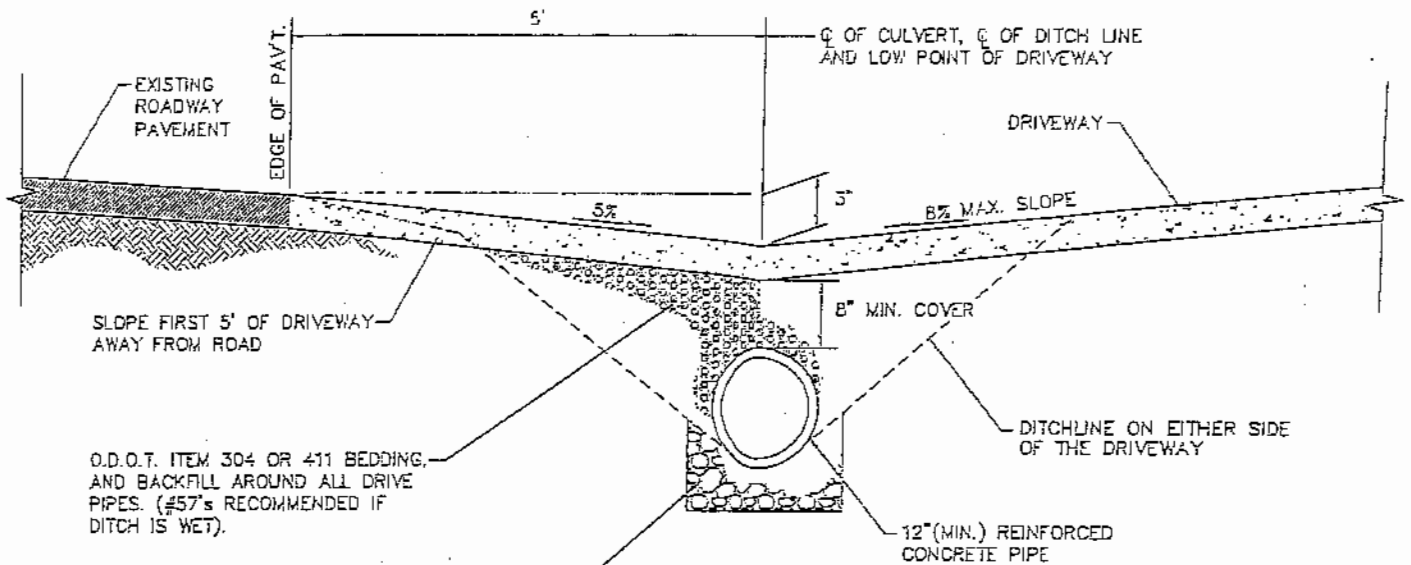
The following is a list of items that should be included in your plan as they pertain to grading and storm issues. Please note that this is a guideline only and other concerns may apply with varying lot conditions

- Indicate the Owners Name, Address of Property, and who prepared the drawing.
- A Bench Mark shall be provided at each site.
- Drawing shall provide the identification (horizontally and vertically) of the Bench Mark used for the site.
- Drawing shall be at a standard scale (ie: 1" = 20', 1" = 40', 1" = 50', etc.).
- Drawing should be prepared on a sheet size no less than 11"x17" in order to appropriately provide the items required and so as to provide for a legible and easy to understand plan.
- It is required that the drawing be prepared by a Professional, licensed in the State of Ohio with knowledge in preparing such a grading plan.
- Provide total land area including easements and right-of-ways.
- Show all existing and proposed topography of existing land and impervious areas shown in two (2) foot intervals. Some situations may require additional elevation verifications.
- Provide elevations of existing and proposed lot grades, streets, alleys, utilities, waterlines, sanitary and stormwater sewers, and including existing and adjacent buildings and structures that may be affected.
- Show all existing and proposed impervious areas (ie: paved parking areas, paved driveways, paved play courts, etc.).
- Show all road right-of-ways and easements.
- Show all natural or artificial watercourses.
- Show limits of flood plains (if applicable).
- Show all existing and proposed slopes, terraces, or retaining walls.
- All existing and proposed Stormwater drainage structures or features.
- All Stormwater structures/features immediately upstream and downstream of the site.
- All Erosion and Sediment Control measures.
- Drainage calculations for storm systems are required.
- Drainage easements are required when storm systems are proposed to be turned over to the Village.
- Provide existing grade and proposed Finish Floor elevations.
- Indicate existing and proposed ground around house (or structure) and adjacent properties.
- Show existing and proposed driveways with grades and elevations. (grades shall not exceed 8%).
- All drainage that is proposed shall drain away from the road, including the driveway. Driveways shall drain away from the traveled road for at least the first five (5) feet. See drawings.
- All runoff that leaves the improved site shall be controlled so that there is no increase in the maximum rate of flow and velocity prior to its improvement and no new runoff shall be allowed onto the adjacent lot(s).

*Bobbi S. Lindner*  
Village Administrator

*10/25/04*  
Date

# Village of Shawnee Hills, Ohio



O.D.O.T. ITEM 304 OR 411 BEDDING, AND BACKFILL AROUND ALL DRIVE PIPES. (#57's RECOMMENDED IF DITCH IS WET).

REMOVE SOD AND SOIL TO 6" (MIN.) BELOW FLOWLINE, AND BACKFILL WITH CRUSHED STONE TO THE FLOWLINE.

PIPE CULVERT SHALL BE INSTALLED AT LOW POINT OF DRIVE, WHICH SHALL COINCIDE WITH FLOW LINE OF ROADSIDE DITCH. PIPE SHALL EXTEND AT LEAST 5' BEYOND EACH SIDE OF DRIVEWAY OR 3' BEYOND THE SLOPE AT THE TOP OF THE PIPE.

PLEASE NOTE THAT SOME SITUATIONS MAY REQUIRE THE INSTALLATION OF A TRENCH DRAIN AT THE LOW POINT OF DRIVEWAY.

NO DRIVEWAY SHALL BE CONSTRUCTED, WHICH PERMITS WATER TO RUN DIRECTLY ONTO THE STREET OR ROAD SURFACE.

## DRIVE CULVERT DETAIL

PLAT PREPARED BY:



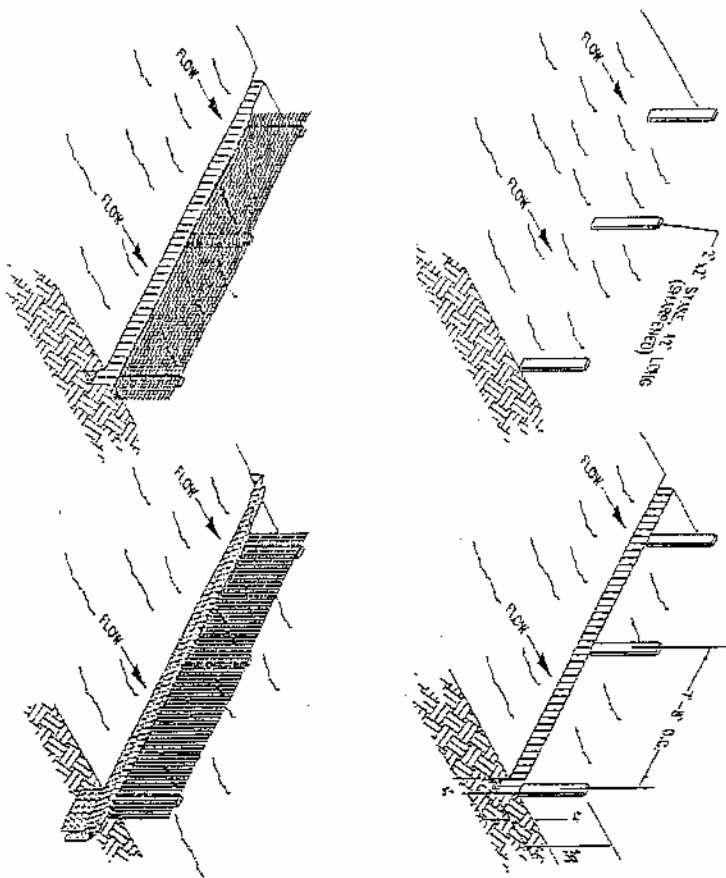
1495 OLD HENDERSON RD.  
COLUMBUS, OHIO 43220  
Phone: 614-459-6992  
Fax: 614-459-6987

*Barbara S. Gindler*  
Village Administrator

*10/25/04*  
Date

# SEDIMENT FENCE DETAIL

By CPS Consulting Group for the Village of Shawnee Hills, Ohio 2004



**Silt Fence:** This sediment barrier utilizes standard strength or extra strength synthetic filter fabrics. It is designed for situations in which only sheet or overland flows are expected.

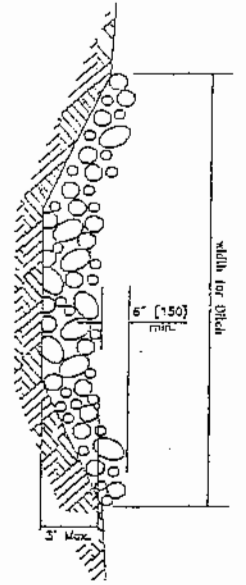
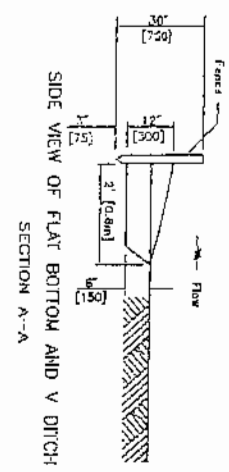
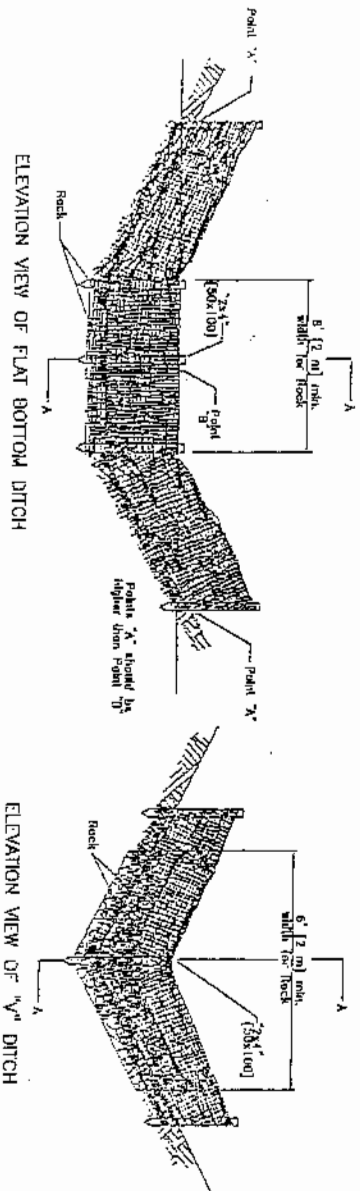
1. The height of a silt fence shall not exceed 36-inches (higher fences may impound volumes of water sufficient to cause failure of the structure).
2. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of a 6-inch overlap, and securely sealed.
3. Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12-inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.
4. A trench shall be excavated approximately 4-inches wide and 4 inches deep along the line of posts and upslope from the barrier.
5. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples of least 1-inch long. The wires or hog rings shall extend more than 36-inches above the original ground surface.
6. The standard strength filter fabric shall be stapled or wired to the fence, and 8-inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36-inches above the original ground surface.
7. Filter fabric shall not be stapled to existing trees.
8. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of Item 5.
9. Silt fences shall be removed and soil compacted over the filter fabric, but not before the upslope area has been permanently stabilized.

**Maintenance**

Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately. Should the fabric on a silt fence or filter barrier decompose or become ineffective fabric shall be replaced promptly.

Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.

Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.



**NOTES**

**FILTER FABRIC DITCH CHECKS:**

- MATERIALS:** Furnish filter fabric which checks consisting of the following materials:
1. 30" (7.62 m) wide filter fabric with sand spread supports with maximum 50% center spacing of 10" (2.54 m). Use filter fabric conforming to 712.09 Type C.
  2. A vertically driven 24" (60x100) side in the center of the ditch.
  3. Quert or limestone material conforming to one of the following conditions: No. 1 through No. 4 or Table 702.01-1.

**CONSTRUCTION:** Install the filter fabric fence as indicated for PROTECTIVE FILTER FABRIC FENCE. Place a vertical 24" (60x100) side in the center of the ditch. The top of the side shall extend to the top of the filter fabric. The bottom of the side shall extend to the bottom of the filter fabric. Place the rock inside the filter fabric fence in the ditch.

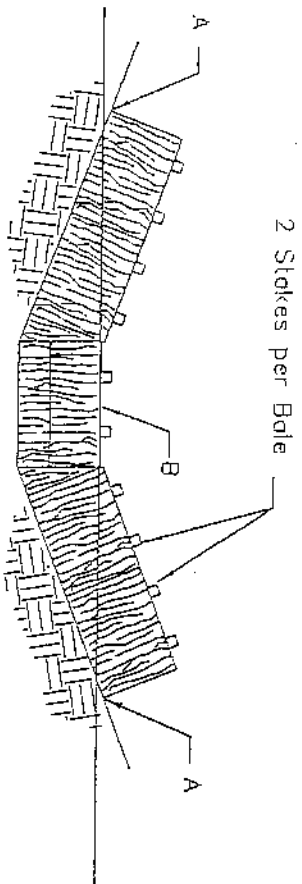
**ROCK CHECKS:**

**MATERIALS:** Furnish material conforming to Item 601 Rock Channel Protection Type C or D without filter.

**CONSTRUCTION:** Place the rock inside the filter fabric fence in the ditch.

# DITCH CHECKS

By CPS Consulting Group for the Village of Shawnee Hills, Ohio 2004



Points A Should Be Higher Than Point B

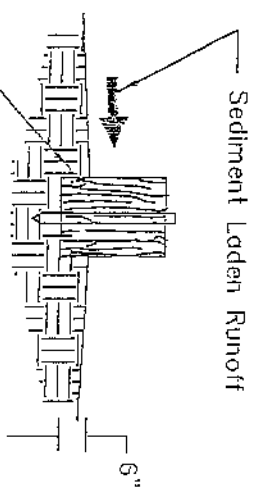
**Channel Flow Applications**

Bales shall be placed in a single row, lengthwise, oriented perpendicular to the contour, with ends of adjacent bales tightly abutting one another.

The remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following addition.

The barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment-laden runoff will flow either through or over the barrier but not around it.

NOTE: Hay bales may be used in place of straw bales.



Compacted Soil To Prevent Piping

**Maintenance**

Straw bales shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.

Close attention shall be paid to the repair of damaged bales, and runs and undercutting beneath bales.

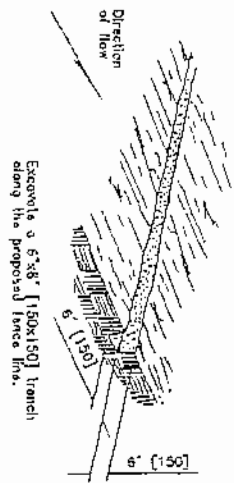
Necessary repairs to barriers or replacement of bales shall be accomplished promptly.

Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.

Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

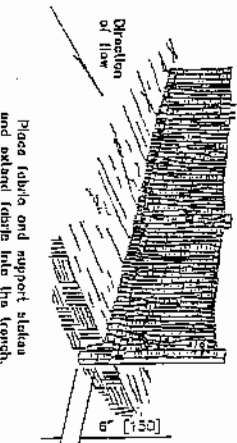
# STRAW BALE BARRIER FOR DRAINAGE WAY OR SHEET FLOW

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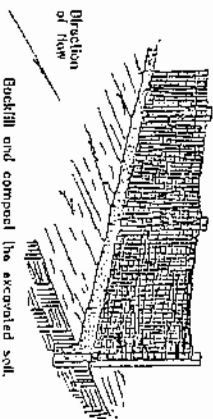
Excavate a 6'x8' [150x150] trench along the proposed fence line.

STEP 1



Place fabric and support stakes and extend fabric into the trench.

STEP 2



Backfill and compact the excavated soil.

STEP 3

### NOTES

**MATERIALS:** Furnish 30" [0.8 m] wide filter fabric with round wood supports with maximum on-center spacing of 10' [3.0 m]. Use filter fabric conforming to 717.08 Type C. The Contractor may elect to use straw or hay bales. Use 30" [750] long 2"x2" [50x50] wooden stakes, reinforcing bars or fence posts for the straw or hay bales.

**CONSTRUCTION:** Trench the filter fabric fence as detailed. The Contractor may elect to place the wood supports on steps 1 through 3 in one stocking operation. When straw or hay bales are used conform to the following: Tightly place each bale adjacent to one another. Cut each 2' [50] into the ground prior to stacking. Finish sides each bale with at least two stakes. Use loose hay or straw to fill the voids under or between the bales.

### EROSION CONTROLS:

**TEMPORARY SEEDING & MULCHING STABILIZATION** must be applied:

1. Within 7 days of the last disturbance on any area that will be dormant for 21 days or longer and
  2. Within 2 days of any area that will be dormant for 7 days or longer and
  3. Prior to the onset of winter in those areas that will be idle over winter.
- PERMANENT SEEDING & MULCHING STABILIZATION must be applied to any areas:
1. Within 7 days of reaching final grade;
  2. Within 7 days for areas that will be dormant for 1 year or more, or
  3. Within 2 days of reaching final grade within 50 feet of a stream.

### CHECK DAMS:

1. The check dam shall be constructed of 4-8 inch stone, placed to cover the width of the ditch.
2. The top of the dam of the center shall be approximately 6 inches lower than the sides and not exceed 3 feet in height.
3. Spacing between dams where required shall be approximately 65 feet.

# PERIMETER FILTER FABRIC FENCE

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