THE FOUNTAINS OF FAIRFIELD TOWNSHIP

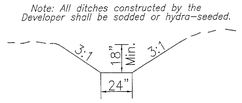
2865 PRINCETON ROAD
SECTION 25, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY OHIO

AS A GENERAL REMINDER, PLEASE BE AWARE THAT AN APPROVED SWPPP IS NECESSARY PRIOP TO THE START OF CONSTRUCTION ACTIVITY.

NOTES:

1. Regular inspection and maintenance will be provided for all erosion and sediment control practices. Permanent records of maintenance and inspections must be kept throughout the construction period. Inspections must be made a minimum of once every seven (7) days and immediately after storm events greater than 0.5 inches of rain in a 24 hour period. Provided will be name of inspector, major observations, date of inspection and corrective measures taken.
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12. Slopes greater than 20% are to be reinforced with Coconut Matting or approved equal.

Note: All ditches constructed by the Developer shall be sodded or hydra-seeded.



TYPICAL DITCH SECTION

Silt Fence or Mulch Berm

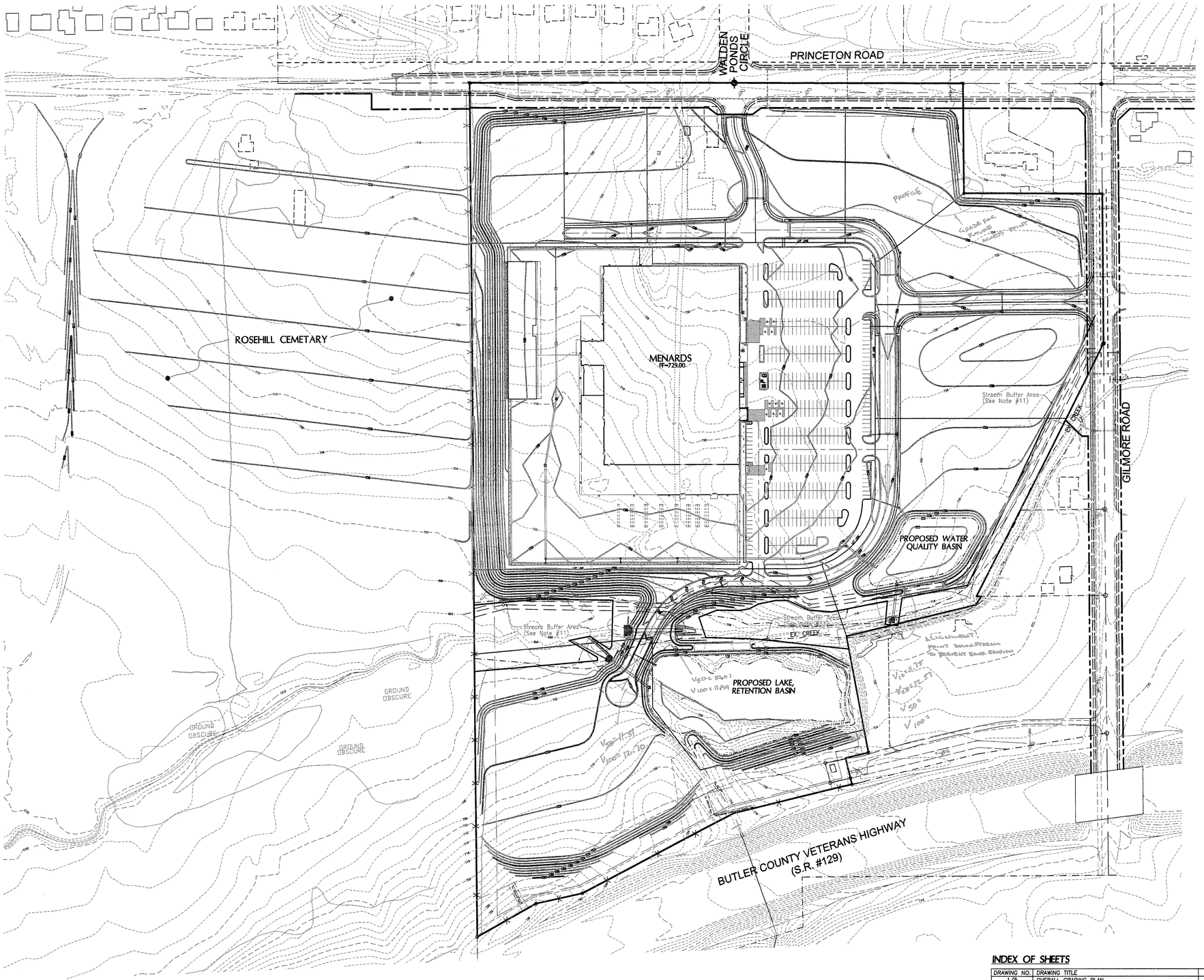
Clearing Limits

Coconut Matting or Approved Equal

EROSION CONTROL NOTES

1. SEEDING AND MULCHING
2. SODDING
3. PRESERVE EXISTING VEGETATION
4. STRAW BALE
5. SILT FENCE OR MULCH BERM
6. SOIL PILES
7. TEMPORARY STREAM CROSSING
8. GRAVEL CURB INLET SEDIMENT FILTER
9. GEOTEXTILE INLET SEDIMENT FILTER
10. GABIONS
11. STRAW BALE DROP INLET SEDIMENT FILTER
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15. TEMPORARY SEDIMENT TRAPS & DAMS
16. DIKES & SLOPE PROTECTION
17. ROLLED GRAVEL CURB INLET SEDIMENT FILTER
18. CHECK DAM
19. TEMPORARY DETENTION SEDIMENT FILTER/BASIN
20. DANDY BAG/BEAVER DAM® OR EQUAL
21. CONSTRUCTION ENTRANCE

SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET (Page 4)



0 100 200
SCALE: 1" = 100'

RECEIVED
JUL 22 2008
BUTLER COUNTY PLANNING COMMISSION

PRINTED
JUL 22 2008

INDEX OF SHEETS

DRAWING NO.	DRAWING TITLE	ISSUE DATE	REVISION NO.	REVISION DATE
1/5	OVERALL GRADING PLAN	05-30-08	3	07-21-08
2/5	GRADING & EROSION CONTROL PLAN	05-30-08	3	07-21-08
3/5	GRADING & EROSION CONTROL PLAN	05-30-08	3	07-21-08
4/5	GRADING & EROSION CONTROL PLAN	05-30-08	3	07-21-08
5/5	EROSION CONTROL DETAILS	05-30-08		

Item	Revision Description	Date	Drwn	Chk
1	REVISED PER BUTLER COUNTY SOIL AND WATER COMMENTS	06-13-08	JLR	GLK
2	REVISED PER BUTLER COUNTY SOIL AND WATER COMMENTS	07-10-08	JLR	GLK
3	REVISED DETENTION BASIN/CREEK CROSSING AND PAVEMENT CONTOURS	07-21-08	ELB	GLK

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THE FOUNTAINS OF FAIRFIELD TOWNSHIP
2865 PRINCETON ROAD
SECTION 25, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY OHIO

OVERALL GRADING PLAN

bayer becker
www.bayerbecker.com
9049 Tyler-ville Road, Suite A
Mason, OH 45040 - 513.336.6600

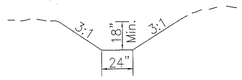
Drawing: 07M097-000 GRADING
Drawn By: JLR
Checked By: GLK
Issue Date: 05-30-08
Sheet: 1/5

Plot time: Jul 21, 2008 – 3:32pm
Drawing name: J:\2007\07M097-000\DWG\07M097-000 GRADING.dwg – Layout Tab: Erosion 1

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TYPICAL DITCH SECTION

Silt Fence or Mulch Berm

Clearing Limits

Coconut Matting or Approved Equal

EROSION CONTROL NOTES

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21. CONSTRUCTION ENTRANCE

SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET (Page 4)

MATCH LINE (See Sheet #3)

SHAFER'S RUN SUBDIVISION SECTION ONE

WALDEN PONDS CIRCLE

PRINCETON ROAD

Section Corner

Section Line

Section 26 / Section 25 / Section 28 / Section 20 / Section 19

SCALE: 1" = 50'

EX GAS

445 L.F. Silt Fence or Mulch Berm
122 L.F. Silt Fence or Mulch Berm
75 L.F. Silt Fence or Mulch Berm
180 L.F. Silt Fence or Mulch Berm

Ex.Well

Ex.Conc.

Ex. 10" Gravel Drive

Lot 582 Rosemary McQueen O.R. 9239, Pg. 313

Lot 581 Rosemary McQueen O.R. 9239, Pg. 313 0.99 Ac.

Pt. Lot 430 G 120 LLC. O.R. 7599, Pg. 762

Ex. 10" Gravel Drive (Private Lot Access)

NOTES:
1. ALL PROPOSED CONTOURS REFLECT SUBBASE GRADES UNDER ALL PROPOSED STREETS AND MENARDS BUILDINGS AND PAVEMENT AREAS.
2. ALL STORM SEWERS NOT LABELED ARE TO BE CONSTRUCTED WITH EITHER THE FOUNTAINS OF FAIRFIELD TOWNSHIP CONSTRUCTION DRAWINGS OR MENARDS AT THE FOUNTAINS OF FAIRFIELD TOWNSHIP CONSTRUCTION DRAWINGS.

LOT LINE

CLEARING LIMITS

FF=729.00

PROPOSED LAKE, WATER QUALITY BASIN
NORMAL POOL ELEV.=714.0
TOWE ELEV.=720.0
LAKE BOTTOM ELEV.=707.0
100 YEAR ELEV.=719.69

Outlet Struture
See Sheet 3 for Detail
Sta.24+78.97, 113.0'Lt.
42"Inv.=709.75

SPILLWAY
(SEE SHEET 3 DETAIL)
30'x115' OF VEGETATED PYRAMAT OR APPROVED EQUAL

(2)-Anti-Seep Collars
See Sheet 4 for Detail

PRE-DEVELOPED 100-YEAR ELEVATION

Lot 583 Randall Sorber O.R. 7350, Pg. 284 0.947 AC.

GILMORE ROAD

Section Line

29' L.F. Silt Fence or Mulch Berm
244 L.F. Silt Fence or Mulch Berm
36 L.F.
56 L.F. Silt Fence or Mulch Berm
14 L.F. Silt Fence or Mulch Berm
983 L.F. Silt Fence or Mulch Berm
133 L.F. Silt Fence or Mulch Berm
143 L.F. Silt Fence or Mulch Berm
314 L.F. Silt Fence or Mulch Berm

(716-700)÷50 = .333 3:1 SLOPES

MATCH LINE (See Sheet #3)

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Item	Revision	Date	Drawn	Chkd
1	REVISED PER BUTLER COUNTY SOIL AND WATER COMMENTS	06-13-08	JLR	GLK
2	REVISED PER FIELD TOPO AND DETAIL GRADING	07-01-08	LBA	GLK
3	REVISED DETENTION BASIN, CREEK CROSSING AND PAVEMENT CONTOURS	07-21-08	ELB	GLK

THE FOUNTAINS OF FAIRFIELD TOWNSHIP

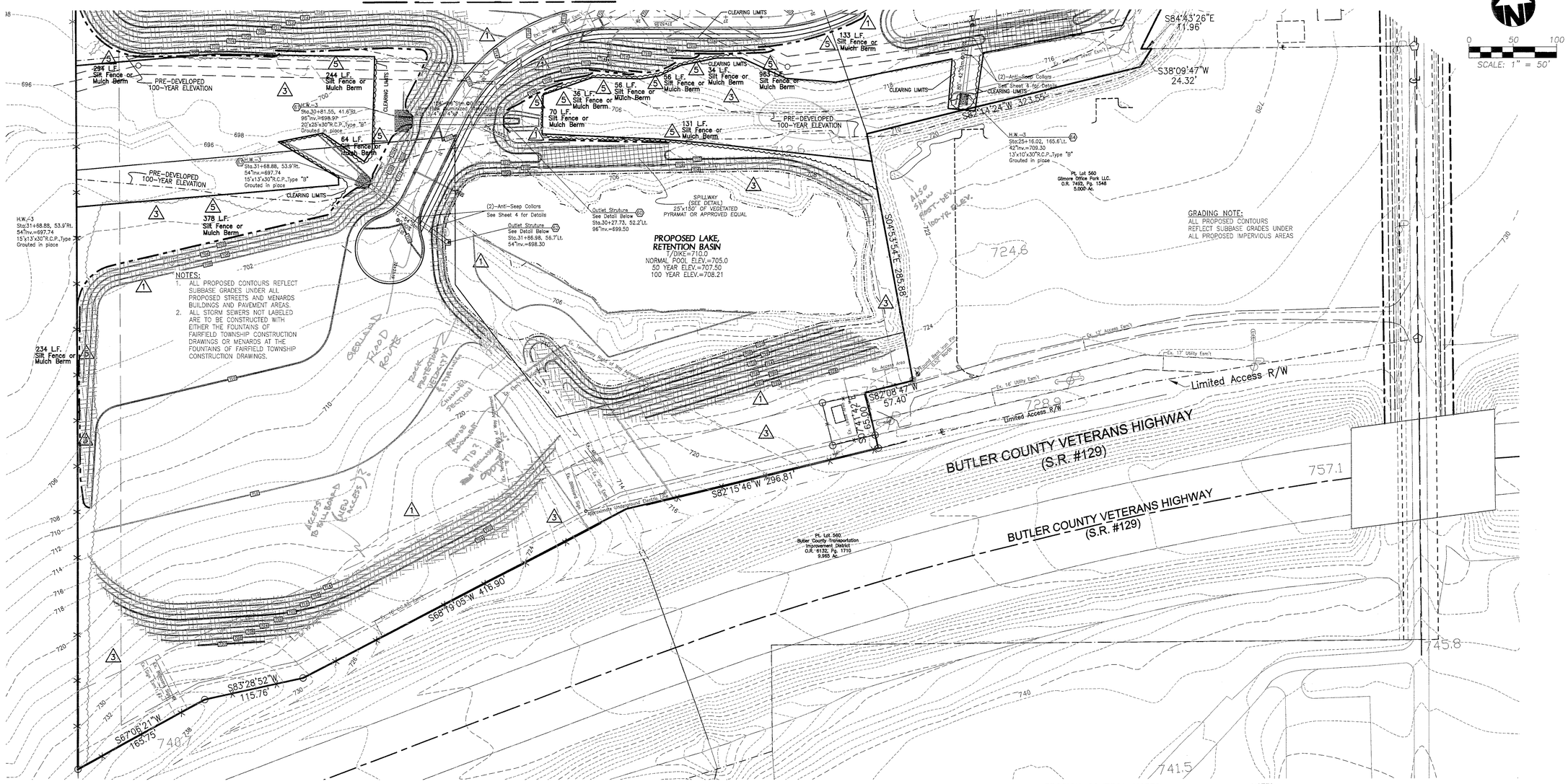
2865 PRINCETON ROAD
SECTION 25, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

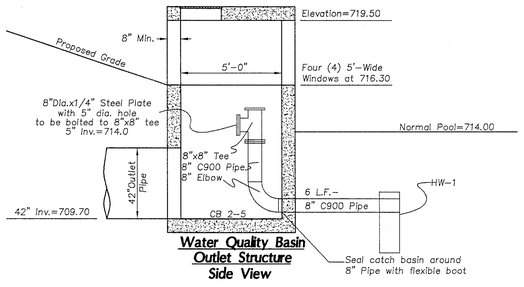
GRADING & EROSION CONTROL PLAN

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

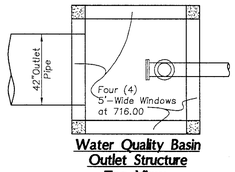
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Drawn by: JLR
Checked By: GLK
Issue Date: 05-30-08
Sheet: 2/5

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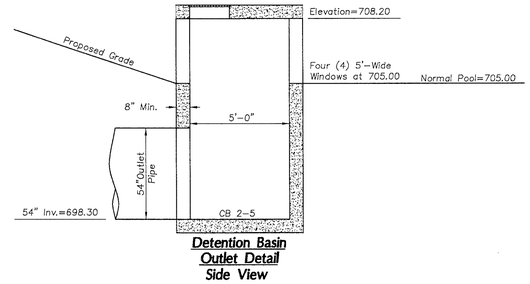


Water Quality Basin Outlet Structure Side View

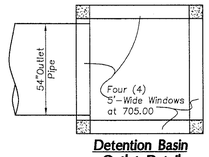


Water Quality Basin Outlet Structure Top View

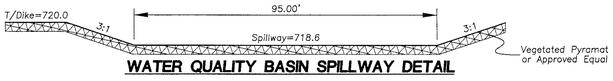
NOTE:
1. 8" diameter pipe is designed to be submerged. Contractor will be responsible for removing any debris that will migrate into the 8" pipe during the filling of the retention pond and site construction.



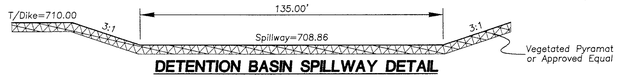
Detention Basin Outlet Detail Side View



Detention Basin Outlet Detail Top View



WATER QUALITY BASIN SPILLWAY DETAIL



DETENTION BASIN SPILLWAY DETAIL

EROSION CONTROL NOTES

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2. SODDING
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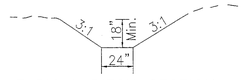
SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET (Page 4)

Silt Fence or Mulch Berm

Clearing Limits

Coconut Matting or Approved Equal

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TYPICAL DITCH SECTION

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THE FOUNTAINS OF FAIRFIELD TOWNSHIP
2865 PRINCETON ROAD
SECTION 25, TOWN 2, RANGE 3,
FAIRFIELD TOWNSHIP, BUTLER COUNTY OHIO

GRADING & EROSION CONTROL PLAN

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Drawing: 07M097-000 GRADING
Drawn by: JLR
Checked By: GLK
Issue Date: 05-30-08
Sheet: 3/5

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Drawing name: J:\2007\07M097-000\CIV\DWG\07M097-000 GRADING.dwg - Layout Tab: Erosion 3

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MATCH LINE *(See Sheet #2)*

0 50 100
SCALE: 1" = 50'

660 L.F. Silt Fence or Mulch Berm

610 L.F. Silt Fence or Mulch Berm

220 L.F. Silt Fence or Mulch Berm

155 L.F. Silt Fence or Mulch Berm

115 L.F. Silt Fence or Mulch Berm

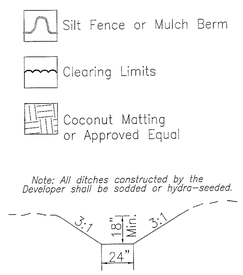
Section Line

Silt Fence or Mulch Berm

Clearing Limits

Coconut Matting or Approved Equal

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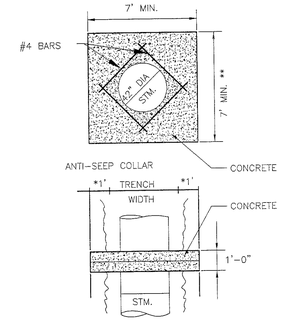


TYPICAL DITCH SECTION

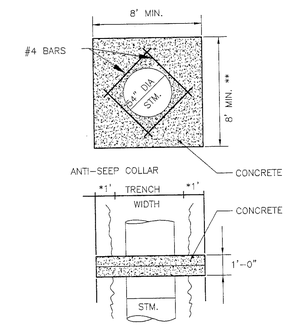
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SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET (Page 4)



42" ANTI-SEEP COLLAR DETAIL



52" ANTI-SEEP COLLAR DETAIL

NOTES:
**WHERE COVER IS NOT AVAILABLE, THE HEIGHT OF THE COLLAR CAN BE REDUCED.
*1' MIN. INTO UNDISTURBED SOIL.

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Item	Revision Description	Date	Dwn	Chk
1	REVISED PER BUTLER COUNTY SOIL AND WATER COMMENTS	06-30-08	JLR	GLK
2	REVISED PER BUTLER COUNTY SOIL AND WATER COMMENTS	07-01-08	LBA	GLK
3	REVISED DETENTION BASIN/CREEK CROSSING AND PAVEMENT CONTOURS	07-21-08	ELB	GLK

THE FOUNTAINS OF FAIRFIELD TOWNSHIP

2865 PRINCETON ROAD
SECTION 25, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

GRADING & EROSION CONTROL PLAN

bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Drawing: 07M097-000 GRADING
Drawn by: JLR
Checked By: GLK
Issue Date: 05-30-08
Sheet: 4/5

Plot time: Jul 21, 2008 - 3:42pm
Drawing name: J:\2007\07M097-000\CVL\DWG\07M097-000 GRADING.dwg - Layout Tab: Erosion 4

GENERAL NOTES

EROSION AND SEDIMENT CONTROLS

Vegetative practices

Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing and protection of trees. The contractor shall initiateappropriate vegetative practices on all disturbed areas within seven (7) days if they are to remain dormant (undisturbed) for more than forty-five (45) days. Permanent or temporary soil stabilization shall be applied to disturbed areas within seven (7) days after final grade is reached on any portion of the site.

Structural Practices

Structural practices shall be used to control erosion and trap sediment from all sites remaining disturbed for more than fourteen (14) days.

Timing

Sediment control structures shall be functional throughout earth disturbing activity. Sediment ponds and perimeter sediment barriers shall be implemented as the first step of grading and within seven days from the start of grubbing. They shall continue to function until the upslope development area is restabilized.

Sediment Barriers

Sheet flow runoff from denuded areas shall be intercepted by sediment barriers. Sediment barriers, such as sediment fences or diversions direction runoff to settling facilities, shall protect adjacent properties and water resources from sediment transported by sheet flow.

Erosion and sediment control practices used to satisify the conditions of this plan shall meet the standards and specifications in the current edition of Water Management and Sediment Control in Urbanized Areas (Soil Conservation Service.)

Waste Disposal

No solid or liquid waste, including building materials, shall be discharged in storm water runoff. Off-site vehicle tracking of sediments shall be minimized. The plan shall ensure and demonstrate compliance and applicable State of local waste disposal, sanitary sewer or septic system regulations.

Maintenance

All temporary and permanent control practices shall be maintained and repaired as needed to assure continued performance of their intended function.

Dormant Seedings

1. Seedings shall not be planted from October 1 through November 20. During this period the seeds are likely to germinate but probably will not be able to survive the winter.

2. The following methods may be used for "Dormant Seeding":

From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20 and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.

From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.

Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.

Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

1 REVEGETATION

Seed, sod or mulch bare soil as soon as possible

SEEDING AND MULCHING

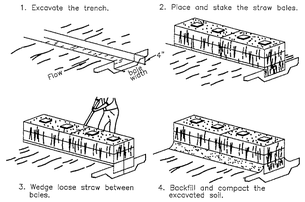
Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer.) Seed with an appropriate mix for the site (see table.) Rake lightly to cover seed with 1/4" of soil. Roll lightly. Mulch with straw (70-90 lb. or one bale per 1000 sq. ft.) Anchor mulch by punching 2 inches into the soil with a dull, weighted disk or by using netting or other measures on steep slopes, or windy areas. Water gently every day or two to keep soil moist. Less watering is needed once grass is 2 inches tall.

SODDING

Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer.) Lightly water the soil. Lay sod. Tamp or roll lightly. On slopes, lay sod starting at the

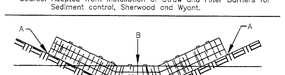
2 bottom and work toward the top. Peg each piece down in several places. Initial watering should wet soil 6 inches deep (or until water stands 1 inch deep in a straight-sided container.) Then water lightly every day or two for 2 weeks. If construction is completed after October 31, seeding or sodding may be delayed. Applying mulch or temporary seed (such as rye or winter wheat) is recommended if weather permits. Straw bale or silt fences must be maintained until final seeding or sodding is completed in spring March 15- May 31.

4 STRAW BALE DETAILS



CONSTRUCTION OF A STRAW BALE BARRIER.

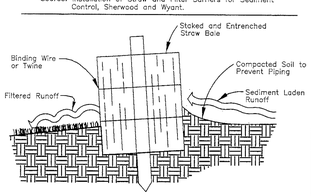
Source: Adapted from Installation of Straw and Filter Barriers for Sediment control, Sherwood and Wyant.



Points A should be higher than point B

PROPER PLACEMENT OF A STRAW BALE BARRIER IN DRAINAGE WAY

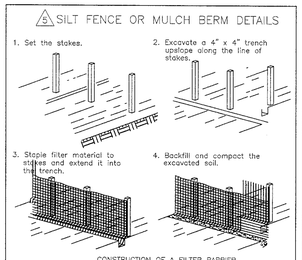
Source: Installation of Straw and Filter Barriers for Sediment Control, Sherwood and Wyant.



CROSS SECTION OF A PROPERLY INSTALLED STRAW BALE

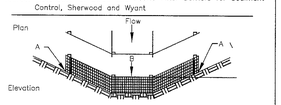
Source: Michigan Soil Erosion and Sedimet Control Guidebook, 1975

5 SILT FENCE OR MULCH BERM DETAILS



CONSTRUCTION OF A FILTER BARRIER

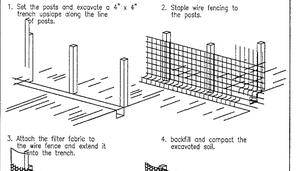
Source: Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



Points A should be higher than point B

PROPER PLACEMENT OF A STRAW BALE BARRIER IN DRAINAGE WAY

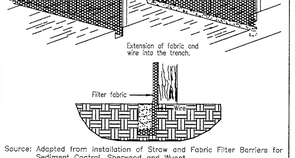
Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

INSTALLATION NOTES AND SPECIFICATIONS FOR MULCH BERM:

1. Mulch berm should be placed along a level contour so that it will not channel runoff and create concentrated flows.
2. Upland drainage limitations (sheet flow)
3. Design Criteria:
   - –particle sizes (99% passing 1 inch sieve etc.)
   - –moisture content
   - –no less than 70% organdies
4. Planning considerations: most effective when combined with vegetated buffer.



3 PRESERVING EXISTING VEGETATION

Wherever possible, preserve existing trees, shrubs, and other vegetation. To prevent root damage, do not grade, place soil piles, or park vehicles near trees marked for preservation. Place plastic mesh or snow fence barriers around trees to protect the area below their branches.

4 STRAW BALE, SILT FENCE or MULCH BERM

Put up before any other work is done. Install on downslope

5 side(s) of site with ends extended up sideslopes a short distance. Place parallel to the contour of the land to allow water to pond behind fence. Entrench 4 inches deep (see back page.) Stake (2 stakes per bale OR 1 stake every 3 feet for silt fence.) Leave no gaps between bales or sections of silt fence. Inspect and repair once a week and after every 1/2 inch rain. Remove sediment if deposits reach half the fence or straw bale height. Maintain until a lawn is established.

6 SOIL PILES

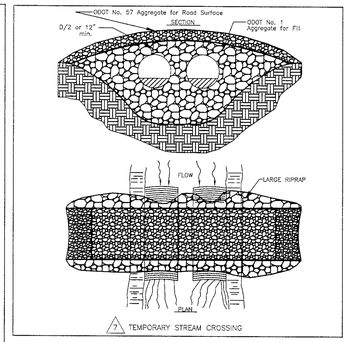
Located away from any downslope street, driveway, stream, lake, wetland, ditch or drainageway. Temporary seed such as annual rye is recommended for topsoil piles. Surround with straw bales or silt fence.

GRAVEL DRIVE

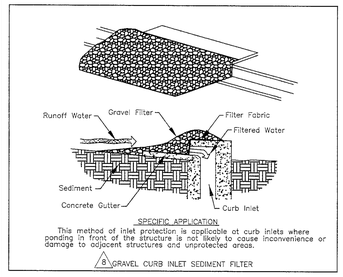
Install a single access drive using 3 to 5 inch oggregate over a geotextile material. Lay gravel 6 inches deep and 10 feet wide from the foundation to the street. Use to prevent tracking dirt onto the road by all vehicles. Maintain throughout construction until driveway is paved. Park all construction vehicles on the street and off of the site.

SEDIMENT CLEANUP

By the end of each work day, sweep or scrape up soil tracked onto the road. By the end of the next work day after a storm, clean up soil washed off-site, and check straw bales and silt fence for damage or sediment buildup. DOWNSPOUT EXTENDERS Not required, but highly recommended. Install as soon as gutters and downspouts are completed. Route water to a grassed or paved area. Maintain until a lawn is established.



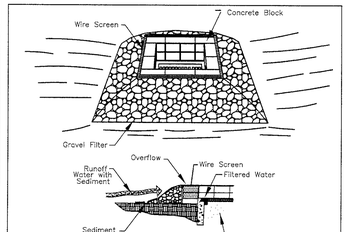
7 TEMPORARY STREAM CROSSING



SPECIFIC APPLICATION

This method of inlet protection is applicable at curb inlets where ponding in front of the structure is not likely to cause inconvenience or damage to adjacent structures and unprotected areas.

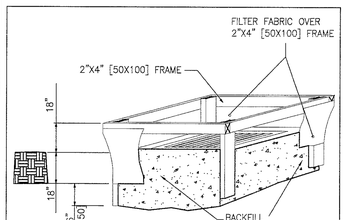
8 GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

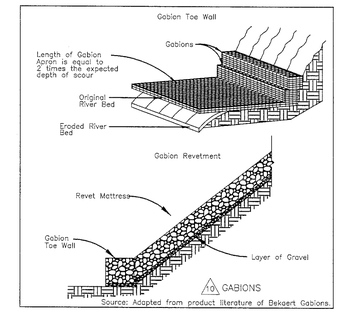
This method of inlet protection is applicable where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the structure.

9 BLOCK AND DROP INLET SEDIMENT FILTER



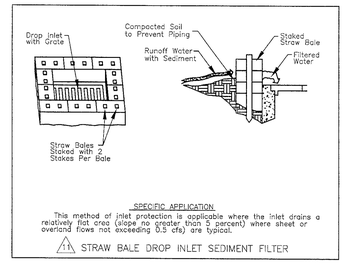
1. Inlet protection shall be constructed either before upslope land disturbance begins of before the storm drain becomes operational.
2. The Earth around the inlet shal be excavated completely to a depth at least 18 in.
3. The wooden frame shall be constructed of 2-by-4-in. constuction-grade lumber. the 2-by-4in. Posts shall be driven 1 ft. into the ground at four corners of the inlet and the top portion of the 2-by-4-in. frame assembled using the overap joint shown. The top of the frame shall be at least 6-in. below adjacent roadsit ponded water pose a safety hazard to traffic.
4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
5. Geotextile shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. it shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 in. below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the some post.
6. Backfill shall be placed around the inlet in compacted 6-in. layers until the earth is even with notch elevation on ends and top elevation on sides.
7. A compacte earth dike or a check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression and if runoff bypassing the inlet will not flow to a settling pond. The top of earth dikes shall be at least 6 in. higher than the top of the frame.

10 GEOTEXTILE INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS



11 GABIONS

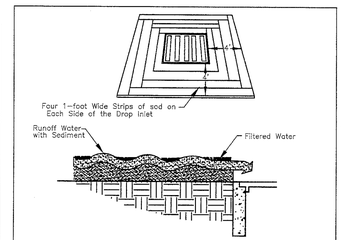
Source: Adapted from product literature of Bekaert Gabions.



SPECIFIC APPLICATION

This method of inlet protection is applicable where the inlet drains a relatively flat area (slope no greater than 5 percent) where sheet or overland flows not exceeding 0.5 cfs) are typical.

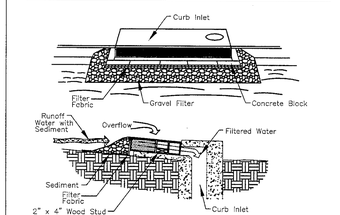
1 STRAW BALE DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

This method of inlet protection is applicable where heavy concetrated flows are expected, but not where ponding around the structure might cause excessive inconvenience or damage to adjacent structures and unprotected areas.

13 GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER

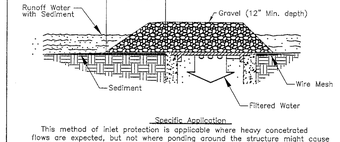


SPECIFIC APPLICATION

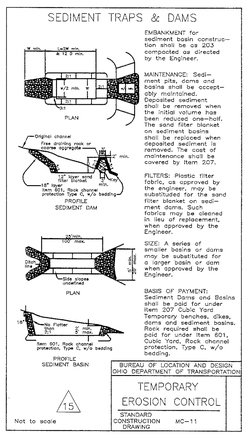
This method of inlet protection is applicable at curb inlets where an overflow capability is necessary to prevent excessive ponding in front of the structure.

14 BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER

INLET PROTECTION DETAILS



SEDIMENT TRAPS & DAMS



Not to scale

15

EMBANKMENT: for sediment basin construction shall be as 203 compacted as directed by the Engineer.

MAINTENANCE: Sediment pits, dams and basins shall be acceptably maintained. Deposited sediment shall be removed when the initial volume has been reduced by one-half. sand filter blanket on sediment basins shall be replaced when deposited sediment is removed. The cost of maintenance shall be covered by Item 207.

FILTERS: Plastic filter fabric, as approved by the engineer, may be substituted for the sand filter blanket on sediment dams. Such fabrics may be cleaned in lieu of replacement, when approved by the Engineer.

SIZE: A series of smaller basins or dams may be substituted for a larger basin or dam when approved by the Engineer.

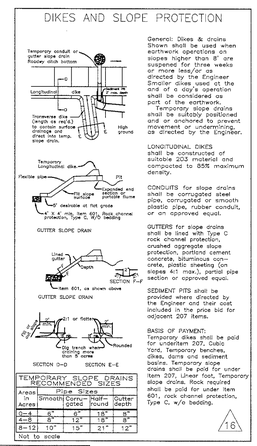
BASIS OF PAYMENT: Sediment Dams and Basins shall be paid for under Item 207 Cubic Yard Temporary benches, dikes, dams and sediment basins. Rock required shall be paid for under item 601, Cubic Yard, Rock channel protection, type C, w/o bedding.

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION CONTROL

STANDARD CONSTRUCTION DRAWING MC-11

DIKES AND SLOPE PROTECTION



SECTION D-D

SECTION F-F

TEMPORARY SLOPE DRAINS RECOMMENDED SIZES				
Area Acres	Pipe Sizes Smooth	Corrugated	Half-Round	Gutter Depth
0-4	8"	8"	18"	8"
4-8	8"	12"	15"	8"
8-12	10"	15"	21"	12"

Not to scale

16

General: Dikes & drains Shown shall be used when earthwork operations on slopes higher than 8' are suspened for three weeks or more less/or as directed by the Engineer. Smaller dikes used at the end of a day's operation shall be considered as part of the earthwork. Temporary slope drains shall be suitably positioned and or anchored to prevent movement or undermining, as directed by the Engineer.

LONGITUDINAL DIKES shall be constructed of suitable 203 material and compacted to 85% maximum density.

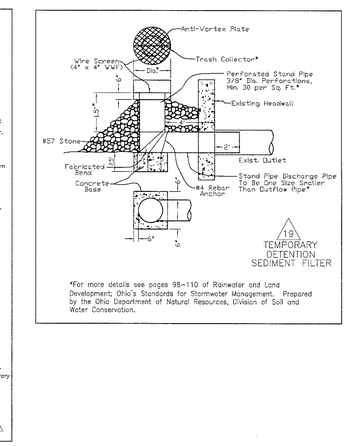
CONDUITS for slope drains shall be corrugated steel pipe, corrugated or smooth plastic pipe, rubber conduit, or an approved equal.

GUTTERS for slope drains shall be lined with Type C rock channel protection, crushed aggregate slope protection, portland cement concrete, bituminous concrete, plastic sheeting (on slopes 4:1 max.), partial pipe section or approved equal.

SEDIMENT PITS shall be provided where directed by the Engineer and their cost included in the price bid for adjacent 207 items.

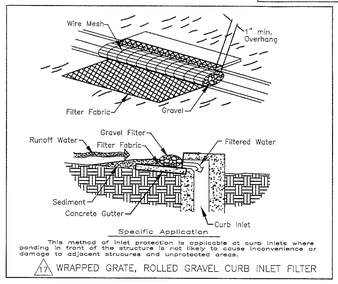
BASIS OF PAYMENT: Temporary dikes shall be paid for underitem 207, Cubic Yard, Temporary benches, dikes, dams and sediment basins. Temporary slope drains shall be paid for under item 207, Linear foot, Temporary slope drains. Rock required shall be paid for under item 601, rock channel protection, Type C, w/o bedding.

16



19 TEMPORARY DETENTION SEDIMENT FILTER

*For more details see pages 98-110 of Rainwater and Land Development, Ohio's Standards for Stormwater Management. Prepared by the Ohio Department of Natural Resources, Division of Soil and Water Conservation.

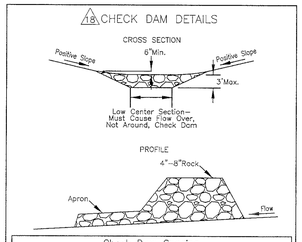


Specific Application

This method of inlet protection is applicable at curb inlets where ponding in front of the structure is not likely to cause inconvenience or damage to adjacent structures and unprotected areas.

17 WRAPPED GRATE, ROLLED GRAVEL CURB INLET FILTER

18 CHECK DAM DETAILS



Check Dam Spacing				
Dam Height (ft.)	Channel Slope < 5%	5–10%	10–15%	15–20%
1	65 ft.	30 ft.	20 ft.	15 ft.
2	130 ft.	65 ft.	40 ft.	30 ft.
3	200 ft.	100 ft.	65 ft.	50 ft.

CHECK DAMS

1. The check dam shall be constructed of 4 to 8 inch diameter stone, placed so that it completely covers the width of the channel.

2. The top of the check dam shall be constructed so that the center is approximately 6 inches lower than the outer edges so water will flow across the center and not around the ends.

3. The maximum height of the check dam at the center of the weir shall not exceed 3 ft.

4. Spacing between dams shall be as shown by the check dam spacing table.

DESCRIPTION

Check dams are small rock dams constructed in swales, grassed waterways or diversions. They reduce the velocity of concentrated flows, thereby reducing erosion within the swale or waterway. While this practice often traps some sediment, its trapping efficiency is extremely poor, thus, it should not be used as a sediment trapping practice.

CONDITIONS

This practice is limited to use in small open channels where it is necessary to slow the velocity of flows in order to prevent erosion. Applications include temporary swales which, because of their short length of service, are not practical to receive a nonerodible lining or swales which need protection during the establishment of grass linings. See specifications for rock check and gravel riffle for larger channels and streams.

DESIGN LIMITS

Check dams must not be relied upon to remove sediment from runoff flowing through a channel but rather are used to reduce erosion of the channel itself. However, innovative applications may produce effective ponding areas behind check dam or silt fence structures adequate to trap sediment from sites with very little slope and very little drainage area, less than 2 % slope and less than 2 ac. drainage area.

SPLASH APRON

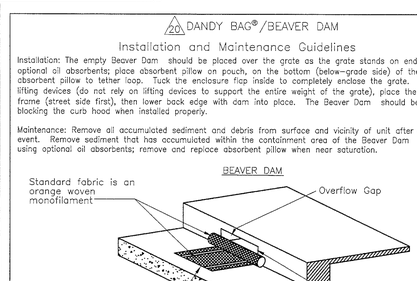
Where check dams are expected to be in use for an extended period of time, a stone apron may be constructed immediately downstream of the check dam to prevent flows from undercutting the structure. The apron should be 6 inches thick and its length two times the height of the dam.

20 DANDY BAG®/BEAVER DAM

Installation and Maintenance Guidelines

Installation: The empty Beaver Dam should be placed over the grate as the grate stands on end. If using optional oil absorbents; place absorbent pillow on pouch, on the bottom (below-grade side) of the unit. Attach absorbent pillow to tether loop. Tuck the enclosure flap inside to completely enclose the grate. Holding the lifting devices (do not rely on lifting devices to support the entire weight of the grate), place the grate into its frame (street side first), then lower back edge with dam into place. The Beaver Dam should be partially blocking the curb hood when installed properly.

Maintenance: Remove all accumulated sediment and debris from surface and vicinity of unit after each storm event. Remove sediment that has accumulated within the containment area of the Beaver Dam as needed. If using optional oil absorbents; remove and replace absorbent pillow when near saturation.



DESIGN CONFORMS TO ALL SHAPES OF CONCRETE CURBS

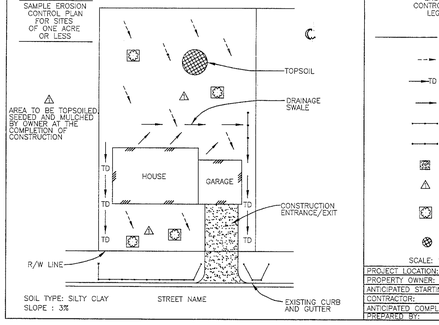
EROSION CONTROL FOR SMALL SITES

WARNING! Extra measures may be needed if your site:

- Is within 300 feet of a stream or wetland
- Is within 1000 feet of a lake
- Is steep (slopes of 12% or more)
- Receives runoff from 10,000 sq. ft. or more of adjacent land
- Has more than an acre of disturbed ground

Typical Lawn Seed Mixtures

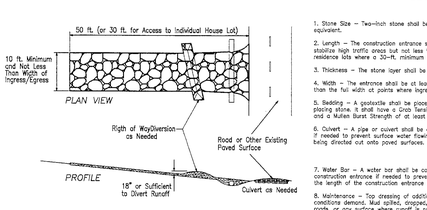
Grass	Sunny Site	Shady Site
Kentucky bluegrass	65%	15%
Fine fescue	20%	70%
Perennial ryegrass	15%	15%
Seeding rate		
Seeding rate (lb./1000 sq. ft.)	3–4	4–5



EROSION CONTROL PLAN LEGEND

PROPERTY LINE
EXISTING DRAINAGE
TEMPORARY DIVERSION
FINISHED DRAINAGE
SILT FENCE
STRAW BALES
GRAVEL
VEGETATION SPECIFICATION AREA
TREE PRESREVATION
STOCKPILED TOPSOIL

PROJECT LOCATION:	
PROPERTY OWNER:	
ANTICIPATED STARTING DATE:	
CONTRACTOR:	
ANTICIPATED COMPLETION DATE:	
PREPARED BY:	DATE:



1. Stone Size – Two-inch stone shall be used, or recycled concrete equivalent.

2. Length – The construction entrance shall be as long as required to stabilize high traffic areas but not less than 50 ft. (except on single residence lots where a 30-ft. minimum length applies.

3. Thickness – The stone layer shall be at least 6 in. thick.

4. Width – The entrance shall be at least 10 ft. wide, but not less than the full width at points where ingress or egress occurs.

5. Bedding – A geotextile shall be placed over the entire area prior to placing stone. it shall have a Grab Tensile Strength of at least 200 lb. and a Mullen Burst Strength of at least 190 lb.

6. Culvert – A pipe or culvert shall be constructed under the entrance if needed to prevent surface water flowing across the entrance from being directed out onto paved surfaces.

7. Water Bar – A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.

8. Maintenance – Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.

9. Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction site shall be restricted from muddy areas.

21 CONSTRUCTION ENTRANCE

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Item	Description	Date	Dwn.	Chk.
	Revision Description			

THE FOUNTAINS OF FAIRFIELD TOWNSHIP
2865 PRINCETON ROAD
SECTION 25, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY OHIO

EROSION CONTROL DETAILS

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Drawing:	07M097-000 ST
Drawn by:	JLR
Checked By:	GLK
Issue Date:	05-30-08
Sheet:	5/5

Plot time: Jul 11, 2008 - 8:51am
Drawing name: J:\2007\07M097-000\CV\DWG\07M097-000 ST.dwg - Layout Tab: Erosion 5