Proposed Trailer Parking Lot
For
Sterilite Corporation
4495 Sterilite Street
Massillon, Ohio 44646

Index

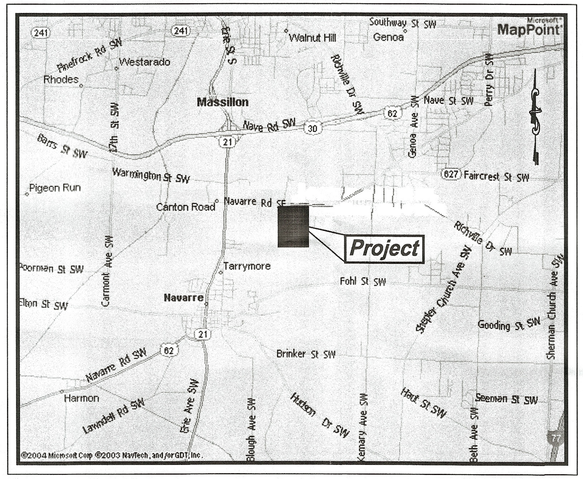
Title Sheet 1

Site & Geometric Plan 2–3

Grading & Drainage Plan & General Notes 4–5

Stormwater Pollution Prevention Plan 6

Stormwater Pollution Prevention Plan Notes & Details 7–8



Vicinity Map

Approvals

Prepared By:
Howells & Baird, Inc.
1156 East State Street
Salem, Ohio 44460

Jon D. Vollnogle Reg. Engineer #55991

7-16-04
Date

STATE OF OHIO
JON D. VOLLNOGLE
55991
REGISTERED
PROFESSIONAL ENGINEER

REVISIONS

DESIGNED BY: MSL
DRAWN BY: MSL
CHECKED BY: JDV
DATE: 07/15/04
JOB NUMBER: 04-2831
FIELD BOOK: 564

Title Sheet
Sterilite Corporation
Massillon, Ohio

Howells & Baird, Inc.
CIVIL ENGINEERS & SURVEYORS
SALEM, OHIO
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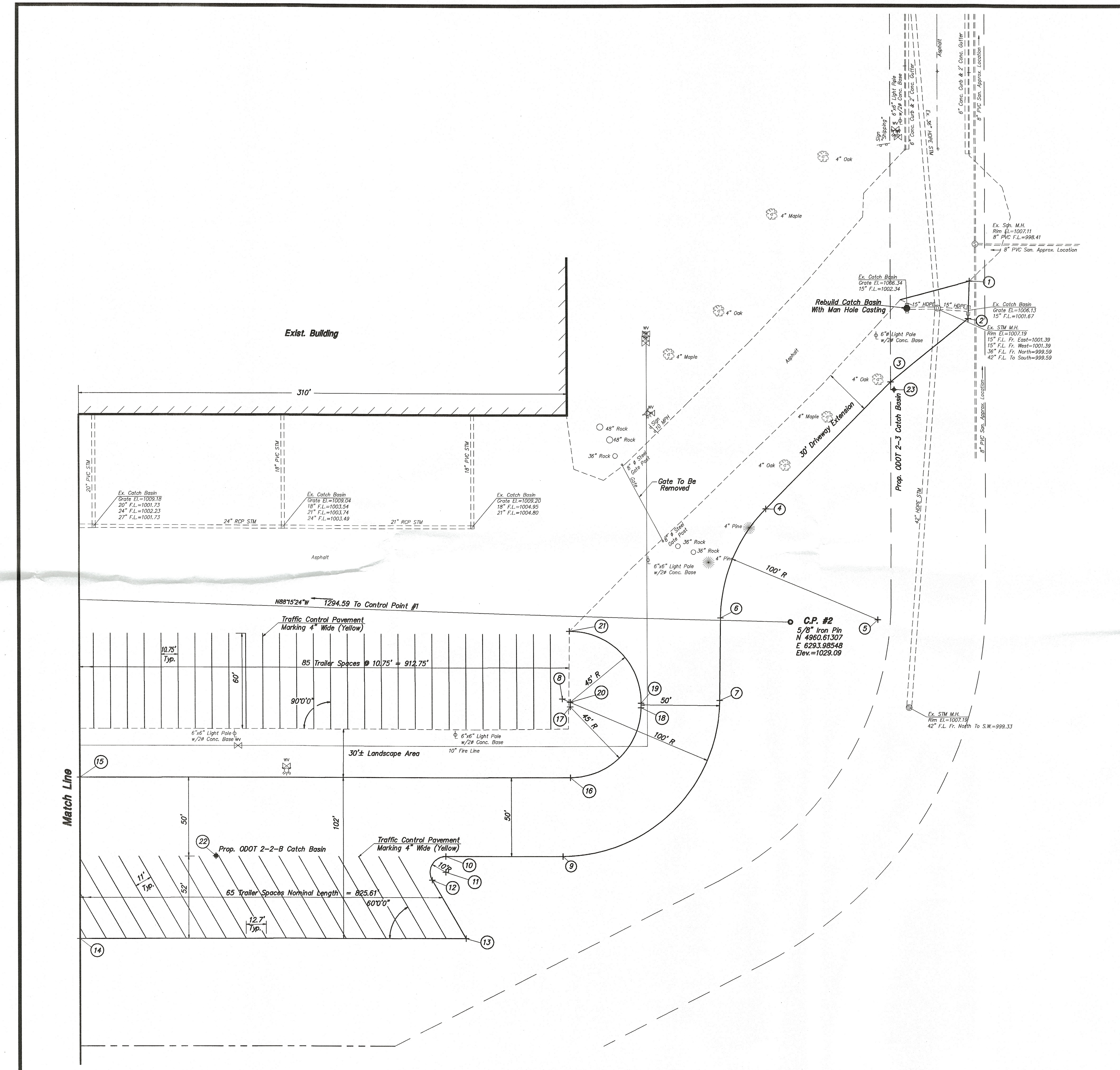
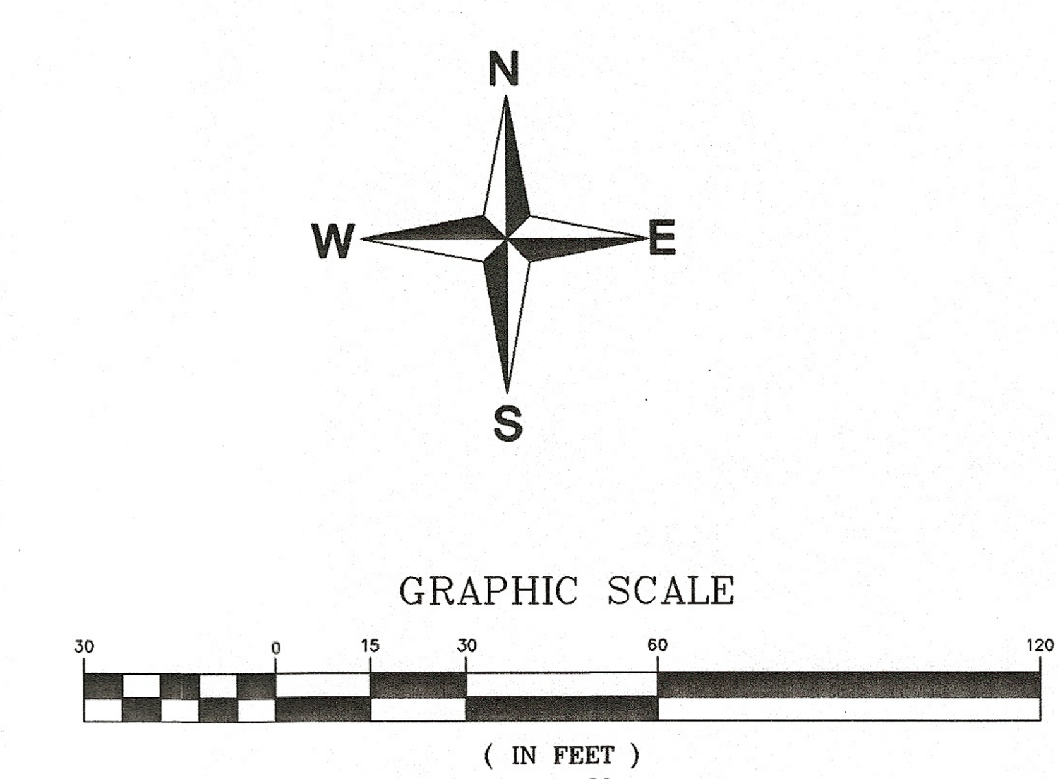
SCALE
N.T.S.
SHEET
1 Of 8


Exist. Building
310'
Asphalt
Ex. Catch Basin
Grate El.=1009.18
20" F.L.=1001.73
24" F.L.=1002.23
27" F.L.=1003.49
Ex. Catch Basin
Grate El.=1009.04
18" F.L.=1003.54
21" F.L.=1003.74
24" F.L.=1003.49
Ex. Catch Basin
Grate El.=1009.20
18" F.L.=1004.95
21" F.L.=1004.80
24" RCP STM
21" RCP STM
Gate To Be Removed
30' Driveway Extension
Rebuild Catch Basin With Man Hole Casting
Prop. ODOT 2-3 Catch Basin
N88°15'24"W 1294.59 To Control Point #1
Traffic Control Pavement Marking 4" Wide (Yellow)
85 Trailer Spaces @ 10.75' = 912.75'
10.75' Typ.
60'
90°0'0"
45' R
100' R
50'
C.P. #2
5/8" Iron Pin
N 4960.61307
E 6293.98548
Elev.=1029.09
6"x6" Light Pole w/2# Conc. Base
10" Fire Line
30'± Landscape Area
Match Line
102'
Prop. ODOT 2-2-B Catch Basin
65 Trailer Spaces Nominal Length = 825.61'
11' Typ.
12.7' Typ.
60°0'0"
52'
Ex. Sdn. M.H.
Rim El.=1007.11
8" PVC F.L.=998.41
8" PVC San. Approx. Location
Ex. Catch Basin
Grate El.=1006.34
15" F.L.=1002.34
Ex. Catch Basin
Grate El.=1006.13
15" F.L.=1001.67
Ex. STM M.H.
Rim El.=1007.19
15" F.L. Fr. East=1001.39
15" F.L. Fr. West=1001.39
36" F.L. Fr. North=999.59
42" F.L. To South=999.59
Ex. STM M.H.
Rim El.=1007.19
42" F.L. Fr. North To S.W.=999.33
42" HDPE STM

-Construction Layout Coordinate Table-

Point #	North Coordinate	South Coordinate	Description
1	N 5176.78071	E 6408.31753	Angle Pt. In Pavement
2	N 5153.10342	E 6407.46364	Angle Pt. In Pavement
3	N 5112.95808	E 6358.11859	Angle Pt. In Pavement
4	N 5032.47021	E 6278.52302	P.C. Edge Of Pavement
5	N 4962.15476	E 6349.62674	Rad. Point
6	N 4963.42750	E 6249.63484	P.T. Edge Of Pavement
7	N 4911.11028	E 6248.96892	P.C. Edge Of Pavement
8	N 4912.38302	E 6148.97702	Rad. Point
9	N 4812.38307	E 6149.07694	P.T. Edge Of Pavement
10	N 4812.30881	E 6074.75875	P.C. Edge Of Pavement
11	N 4802.30882	E 6074.76874	Rad. Point
12	N 4797.30017	E 6066.11349	P.T. Edge Of Pavement
13	N 4760.32153	E 6087.51241	Angle Pt. In Pavement
14	N 4760.07661	E 5842.40149	Edge Of Pavement
15	N 4862.07666	E 5842.40149	Edge Of Pavement
16	N 4862.38798	E 6153.95881	P.C. Edge Of Pavement
17	N 4907.38795	E 6153.91385	Rad. Point
18	N 4906.81522	E 6198.91020	P.T. Edge Of Pavement
19	N 4909.67782	E 6198.94664	P.C. Edge Of Pavement
20	N 4910.25055	E 6153.95028	Rad. Point
21	N 4955.25964	E 6153.52310	P.T. Edge Of Pavement
22	N 4812.38875	E 5928.73499	Catch Basin
23	N 5108.05753	E 6360.30435	Catch Basin



REVISIONS

DESIGNED BY: JDV
DRAWN BY: GTL
CHECKED BY: JDV
DATE: 7-15-2004
JOB NUMBER: 04-2831
FIELD BOOK: 564

Site Plan For Trailer Parking

Sterilite
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SCALE
1"=30'

SHEET
2 Of 8

-Construction Layout Coordinate Table-

Point #	North Coordinate	South Coordinate	Description
24	N 4861.45639	E 5221.65959	P.C. Edge Of Pavement
25	N 4906.45636	E 5221.61462	Rad. Point
26	N 4906.96605	E 5176.61751	P.T. Edge Of Pavement
27	N 4907.72706	E 5176.62613	P.C. Edge Of Pavement
28	N 4907.21738	E 5221.62324	Rad. Point
29	N 4952.21449	E 5222.13292	P.T. Edge Of Pavement
30	N 4953.68691	E 5092.14126	P.C. Edge Of Pavement
31	N 4908.68980	E 5091.63158	Rad. Point
32	N 4908.18011	E 5136.62869	P.T. Edge Of Pavement
33	N 4907.41910	E 5136.62007	P.C. Edge Of Pavement
25	N 4906.45636	E 5221.61462	Rad. Point
34	N 4825.98307	E 5194.24586	P.T. Edge Of Pavement
35	N 4819.67156	E 5212.80381	P.C. Edge Of Pavement
36	N 4772.33433	E 5196.70454	Rad. Point
37	N 4797.37758	E 5239.98081	P.T. Edge Of Pavement
38	N 4759.49655	E 5261.90194	Angle Pt. In Pavement
39	N 4811.65700	E 5422.44630	Catch Basin
40	N 4811.84685	E 5612.44621	Catch Basin
41	N 4812.06305	E 5828.80766	Catch Basin

N
W E
S

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

Existing Building

Ex. Catch Basin
Grate El.=1007.70
20" F.L.=1000.65
36" F.L.=991.70

Ex. Catch Basin
Grate El.=1009.05
20" F.L.=1004.50
36" F.L.=993.65

Ex. Catch Basin
Grate El.=1008.86
20" F.L.=1001.56
36" F.L.=994.86

Ex. Catch Basin
Grate El.=1008.64
20" F.L.=1004.89
36" F.L.=996.39

Conc. Pad
El.=1011.93

Ex. Catch Basin
Grate El.=1008.68
20" F.L.=999.68
30" F.L.=998.23
36" F.L.=997.73

Ex. Catch Basin
Grate El.=1009.23
20" F.L.=1002.33
27" F.L.=1000.48
30" F.L.=1000.23

20" PVC STM
36" RCP STM
30" RCP STM
27" RCP STM
4"x4" Sign Post
Asphalt

CP #1
5/8" Iron Pin
N 5000.00000
E 5000.00000
Elev.=1008.44

F.L.=985.56

S88°15'24"E 1294.59' To Control Point #2

Match Line

2-8" Steel Bollards
45' R
85' R
50' R
10.75' Typ.
60'
90°0'0"
Traffic Control Pavement Marking 4" Wide (Yellow)
85 Trailer Spaces @ 10.75' = 913.75'
6"x6" Light Pole w/2# Conc. Base
10" Fireline
10' Wide Emergency Spillway
30'± Landscape Area
3-4"ø Steel Bollards w/Elec. Jct. Box
2-4"x4" Wood Posts
50'
102'
Prop. 2-2-B Catch Basin
11' Typ.
52'
65 Trailer Spaces Nominal Length = 825.61'
60'0"
12.7' Typ.
Approx. Location Of Property Line

REVISIONS

DESIGNED BY: JDV
DRAWN BY: GTL
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DATE: 7-15-2004
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FIELD BOOK: 564

Site Plan For Trailer Parking

Sterilite
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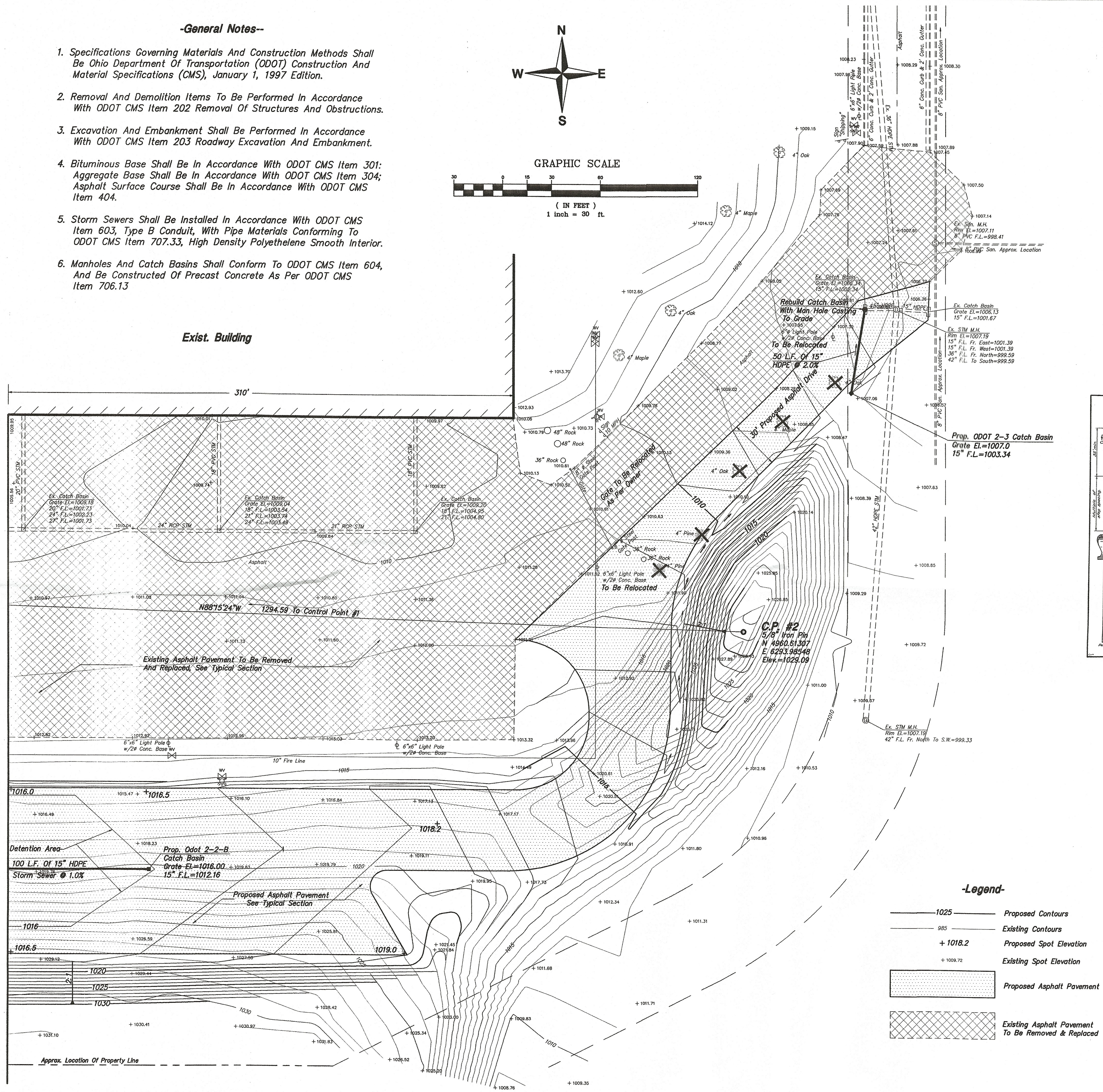
SCALE
1"=30'

SHEET
3 Of 8

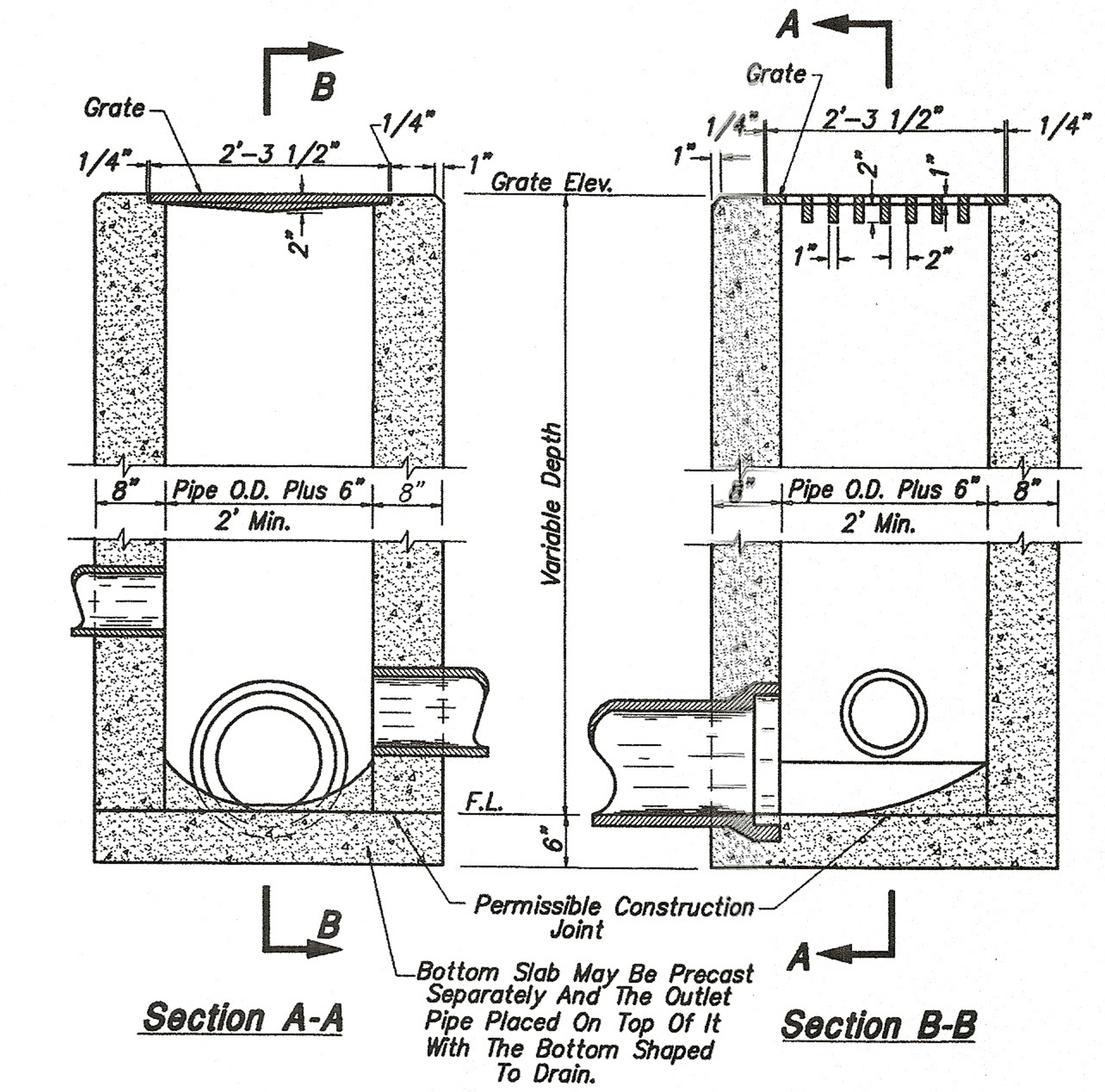
-General Notes--

1. Specifications Governing Materials And Construction Methods Shall Be Ohio Department Of Transportation (ODOT) Construction And Material Specifications (CMS), January 1, 1997 Edition.
2. Removal And Demolition Items To Be Performed In Accordance With ODOT CMS Item 202 Removal Of Structures And Obstructions.
3. Excavation And Embankment Shall Be Performed In Accordance With ODOT CMS Item 203 Roadway Excavation And Embankment.
4. Bituminous Base Shall Be In Accordance With ODOT CMS Item 301: Aggregate Base Shall Be In Accordance With ODOT CMS Item 304; Asphalt Surface Course Shall Be In Accordance With ODOT CMS Item 404.
5. Storm Sewers Shall Be Installed In Accordance With ODOT CMS Item 603, Type B Conduit, With Pipe Materials Conforming To ODOT CMS Item 707.33, High Density Polyethelene Smooth Interior.
6. Manholes And Catch Basins Shall Conform To ODOT CMS Item 604, And Be Constructed Of Precast Concrete As Per ODOT CMS Item 706.13

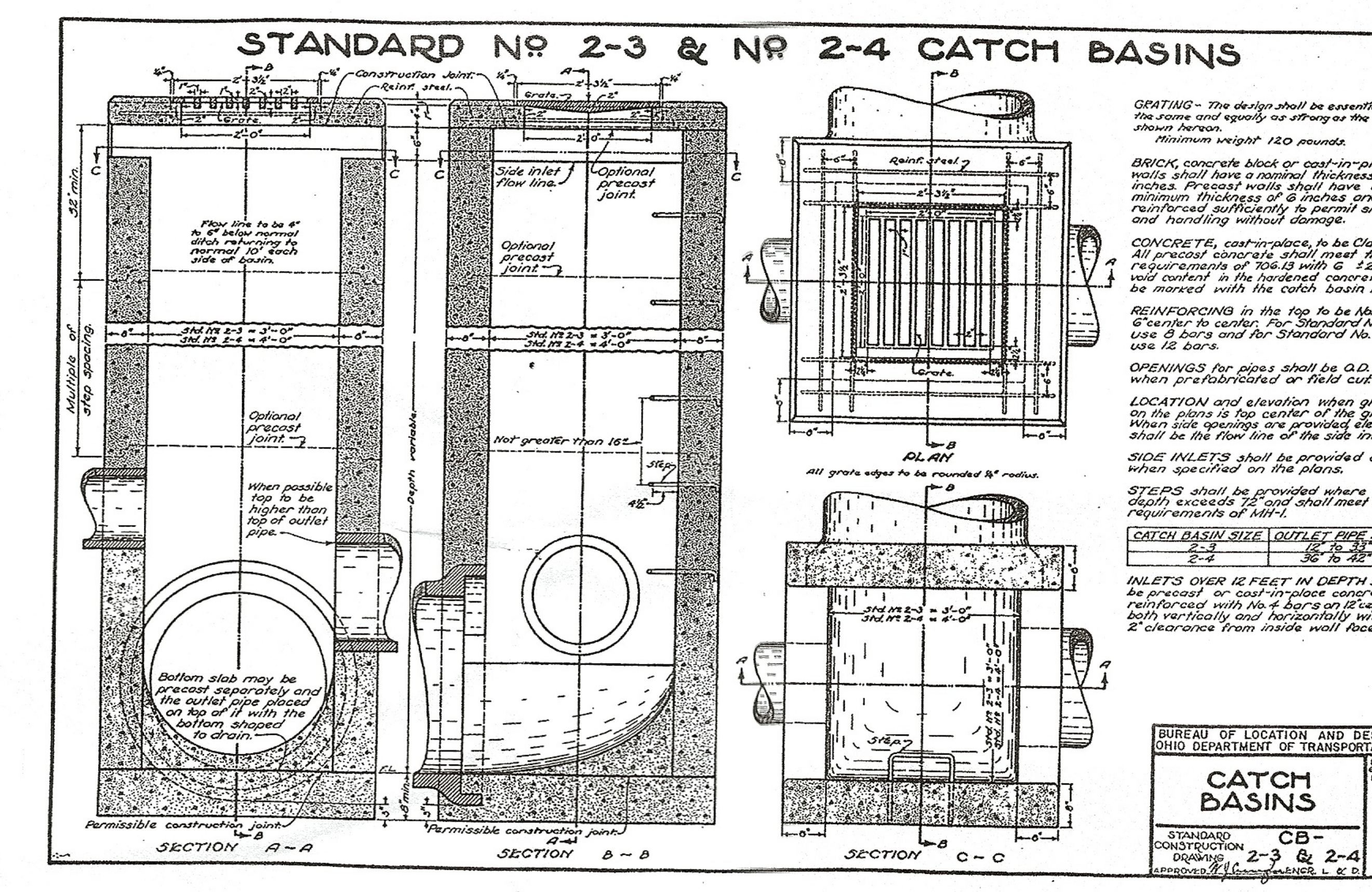


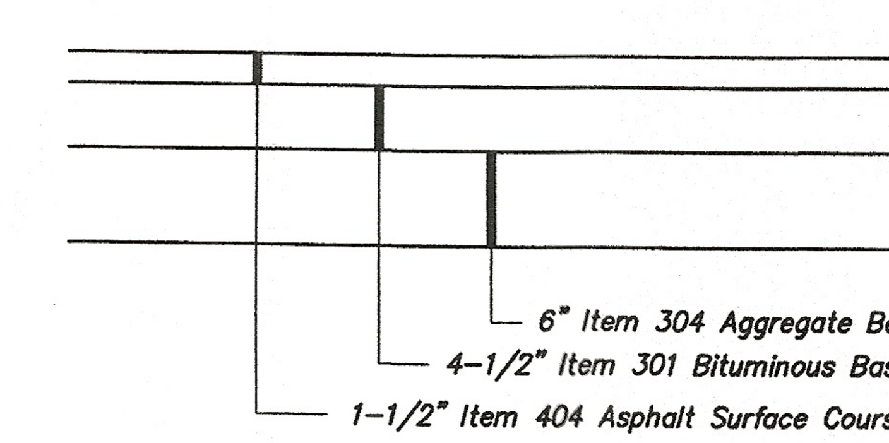
-Legend-

1025	Proposed Contours
985	Existing Contours
+ 1018.2	Proposed Spot Elevation
+ 1009.72	Existing Spot Elevation
(dotted pattern)	Proposed Asphalt Pavement
(crosshatch pattern)	Existing Asphalt Pavement To Be Removed & Replaced



ODOT 2-2-B Catch Basin





-Typical Section-

REVISIONS

DESIGNED BY: JDV
DRAWN BY: GTL
CHECKED BY:
DATE: 7-9-2004
JOB NUMBER: 04-2783
FIELD BOOK:

Grading And Drainage Plan For Trailer Parking

Sterilite
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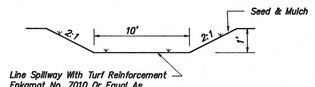
SCALE
1"=30'

SHEET
4 Of 8



Line Spillway With Turf Reinforcement
Enkamat No. 7010 Or Equal As
Manufactured By Akzo Nobel

-Emergency Spillway Detail-

-Legend-

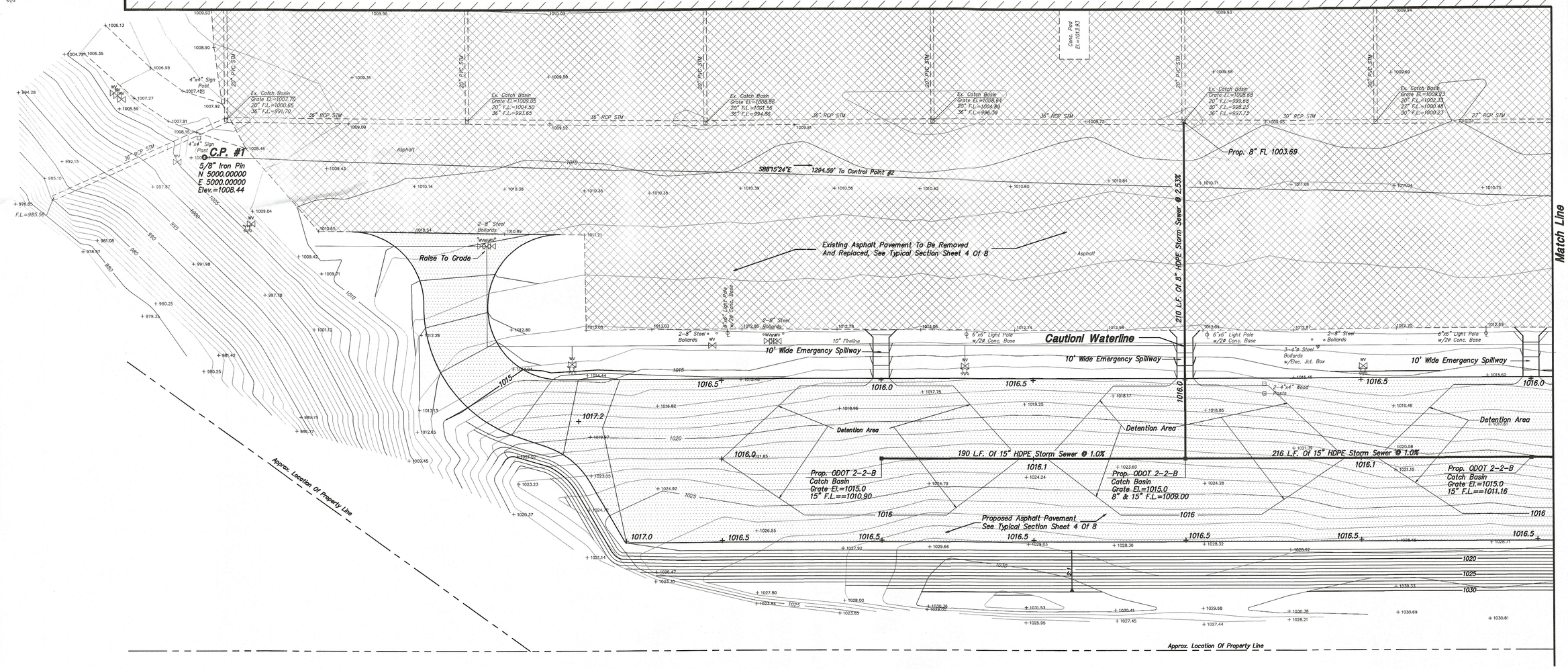
1025	Proposed Contours
985	Existing Contours
+ 1016.5	Proposed Spot Elevation
+ 1010.42	Existing Spot Elevation
	Proposed Asphalt Pavement
	Existing Asphalt Pavement To Be Removed & Replaced

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

Exist. Building



REVISIONS

DESIGNED BY: JDV
DRAWN BY: GTL
CHECKED BY:
DATE: 7-9-2004
JOB NUMBER: 04-2831
FIELD BOOK: 04-2831

Grading And Drainage Plan For Trailer Parking

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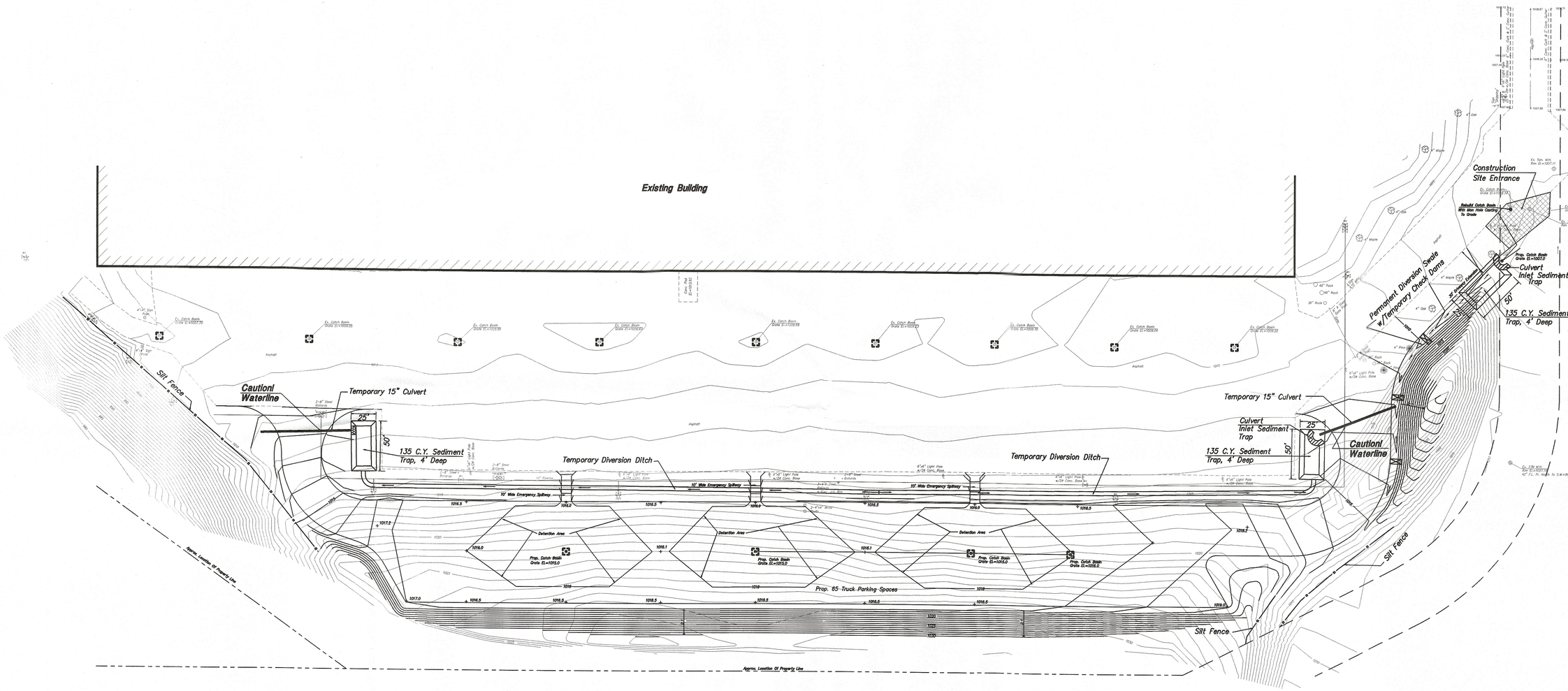
SCALE
1"=30'

SHEET
5 Of 8



-Legend-

- Proposed Contours (1025)
- Existing Contours (955)
- Inlet Protection
- Silt Fence
- Check Dam

-Debris Disposal Note-

All Construction And Demolition Debris Shall Be Disposed Of In An Ohio EPA Approved C & DD Landfill. No Open Burning Is Permitted.

-Project Description-

project Includes An Expansion Of A Truck Trailer Parking Lot And Repair Of An Existing Truck Trailer Parking Lot For Sterilite Corporation.

-Project Data-

Area To Undergo Excavation – 4.5 Ac.
Runoff Coefficient Pre Construction – 0.4
Runoff Coefficient Post Construction – 0.7
Native Soils: Chili & Wooster
Prior Land Use: Vacant/Parking
Receiving Water: Unnamed Tributary Of The Tuscarawas River

N W E S

SWP3 Plan Sheet 1 Of 3

REVISIONS

DESIGNED BY: JDV
DRAWN BY: CTL
CHECKED BY:
DATE: 7-9-2004
JOB NUMBER: 04-2831
FIELD BOOK:

Stormwater Pollution Prevention Plan

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SCALE 1"=50'

SHEET 6 Of 8

Specifications For PERMANENT SEEDING

SITE PREPARATION

1. A subsoiler, plow or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
3. Resoil shall be applied where needed to establish vegetation.

SEEDBED PREPARATION

1. Lime--Agricultural ground limestone shall be applied to acid soilas recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 lb./1,000 sq. ft. or 2 tons/ac.
2. Fertilizer--Fertilizer shall be applied as recommended by a soil test. In lieu of a soil test, fertilizer shall be applied at a rate of 12 lb./1,000 sq. ft. or 500 lb./ac. of 10-10-10 or 12-12-12 analysis.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 in. On sloping land the soil shall be worked on the contour.

SEEDING DATES AND SOIL CONDITIONS

Seeding should be done March 1 to May 31 or Aug 1 to September 30. These seeding dates are ideal but, with the use of additional mulch and irrigation, seedings may be made any time throughout the growing season. Tillage/seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.

DORMANT SEEDING

1. Seeds 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.

MULCHING

1. Mulch material shall be applied immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. Dormant seeding shall be mulched.
2. Materials
   - Straw--If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two or three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide the area into approximately 1,000 sq. ft. sections and spread to 45-lb. bales of straw in each section.
   - Hydroseeders--If wood cellulose fiber is used, it shall be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
   - Other--Other acceptable mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 tons/ac.
3. Straw Mulch Anchoring Methods

   Straw mulch shall be anchored immediately to minimize loss by wind or water.
   - Mechanical--A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
   - Mulch Nettings--Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
   - Asphalt Emulsion--Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./ac.
   - Synthetic Binders--Synthetic binders such as Acylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer.
   - Wood Cellulose Fiber--Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./ac. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

IRRIGATION

1. Permanent seeding shall include irrigation to establish vegetation during dry or hot weather or on adverse site conditions as needed for adequate moisture for seed germination and plant growth.
2. Excessive irrigation rates shall be avoided and irrigation monitored to prevent erosion and damage from runoff.

PERMANENT SEEDING

Seed Mix	Seeding Rate lb./ac.	Seeding Rate lb./1,000 sq.ft.	Notes:
General Use			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20-40 10-20 10-20	1/2 - 1 1/4 - 1/2 1/4 - 1/2	
Tall Fescue	40	1	
Dwarf Fescue	40	1	
Steep Banks or Cut Slopes			
Tall Fescue	40	1	
Crown Vetch Tall Fescue	10 20	1/4 1/2	Do not seed later than August.
Flat Pea Tall Fescue	20 20	1/2 1/2	Do not seed later than August.
Road Ditches and Swales			
Tall Fescue	40	1	
Dwarf Fescue Kentucky Bluegrass	90 5	2 1/4	
Lawns			
Kentucky Bluegrass Perennial Ryegrass	60 60	1 1/2 1 1/2	
Kentucky Bluegrass Creeping Red Fescue	60 60	1 1/2 1 1/2	For shaded areas

*Note: Other approved seed species may be substituted.

Specifications For TEMPORARY SEEDING

SITE PREPARATION

1. Structural erosion- and sediment-control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction-site.
2. Temporary seed shall be applied between construction operations on soil that will not be graded or reworked for 45 days or more. These idle areas should be seeded as soon as possible after grading or shall be seeded within 7 days. Several applications of temporary seeding are necessary on typical construction projects.
3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. However, temporary seeding shall not be postponed if ideal seedbed preparation is not possible.
4. Soil Amendments--Applications of temporary vegetation shall establish adequate stands of vegetation which may require the use of soil amendments. Soil tests should be taken on the site to predict the need for lime and fertilizer.
5. Seeding Method--Seed shall be applied uniformly with a cyclone seeder, drill, cultipacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

MULCHING TEMPORARY SEEDING

1. Applications of temporary seeding shall include mulch which shall be applied during or immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization.
2. Materials
   - Straw--If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two or three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide the area into approximately 1,000 sq. ft. sections and spread to 45-lb. bales of straw in each section.
   - Hydroseeders--If wood cellulose fiber is used, it shall be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
   - Other--Other acceptable mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 tons/ac.
3. Straw mulch shall be anchored immediately to minimize loss by wind or water.
   - Mechanical--A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
   - Mulch Nettings--Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
   - Asphalt Emulsion--Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./ac.
   - Synthetic Binders--Synthetic binders such as Acylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer.
   - Wood Cellulose Fiber--Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./ac. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

TEMPORARY SEEDING

Temporary Seeding Species Selection			
Seeding Dates	**Species**	**Lb./1,000 sq. ft.**	**Per Ac.**
March 1 to August 15	Oats	3	4 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perenial Ryegrass	1	40 lb.
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
August 16 to November 1	Rye	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Wheat	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perenial Ryegrass	1	40 lb.
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
November 1 to Spring Seeding	Use mulch only, sodding practices or dormant seeding.		

*Note: Other approved seed species may be substituted.

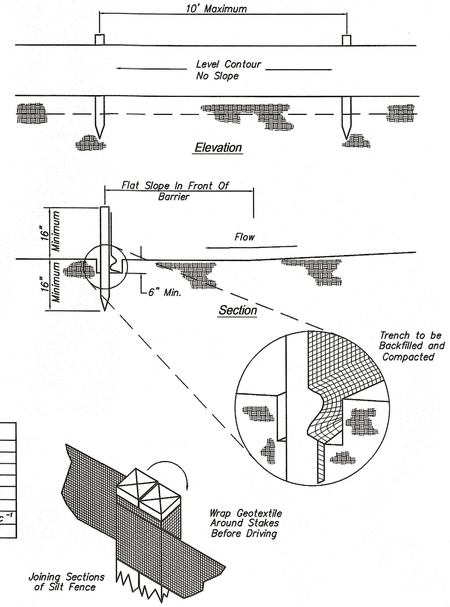
Specifications For SILT FENCE

1. Silt fence shall be constructed before upslope land disturbance begins.
2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions which may carry small concentrated flows to the silt fence are dissipated along its length.
3. To prevent water ponded by the silt fence from flowing around the ends, each end shall be constructed upslope so that the ends are at a higher elevation.
4. Where possible, silt fence shall be placed on the flattest area available.
5. Where possible, vegetation shall be preserved for 5 ft. (or as much as possible) upslope from the silt fence. If vegetation is removed, it shall be reestablished within 7 days from the installation of the silt fence.
6. The height of the silt fence shall be a minimum of 16 in. above the original ground surface.
7. The silt fence shall be placed in a trench cut a minimum of 6 in. deep. The trench shall be cut with a trencher, cable laying machine, or other suitable device which will ensure an adequate uniform trench depth.
8. The silt fence shall be placed with the stakes on the downslope side of the geotextile and so that 8 in. of cloth are below the ground surface. Excess material shall lay on the bottom of the 6-in. deep trench. The trench shall be backfilled and compacted.
9. Seams between section of silt fence shall be overlapped with the end stakes of each section wrapped together before driving into the ground.
10. Maintenance - Silt fence shall allow runoff to pass only as diffuse flow through the geotextile. If runoff overtops the silt fence, flows under or around the ends, or in any other way becomes a concentrated flow, one of the following shall be performed, as appropriate: 1) The layout of the silt fence shall be changed, 2) Accumulated sediment shall be removed, or 3) Other practices shall be installed.

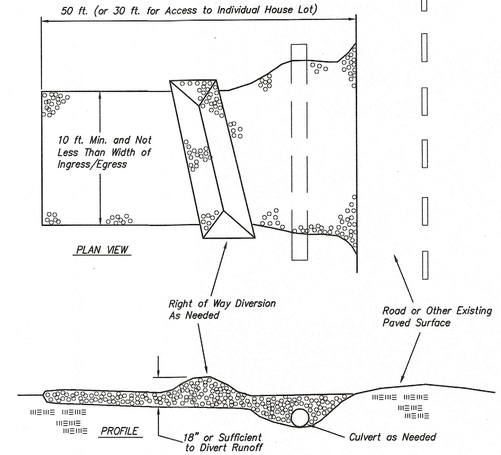
Criteria for Silt Fence Materials

1. Fence Posts - The length shall be a minimum of 32 in. long. Wood posts will be 2-by-2-in. hardwood of sound quality. The maximum spacing between posts shall be 10 ft.
2. Silt Fence Fabric shall be ODOT Type C Geotextile Fabric or as described by the chart below:

Fabric Properties	
Maximum Tensile Strength	120 lbs.
Maximum Elongation at 60 lbs.	50%
Minimum Puncture Strength	50 lbs.
Minimum Tear Strength	40 lbs.
Minimum Burst Strength	200 psi
Apparent Opening Size	≤0.84mm
Minimum Permitivity	1 X 10^{-1} sec^{-1}
Ultraviolet Exposure Strength Retention	70%

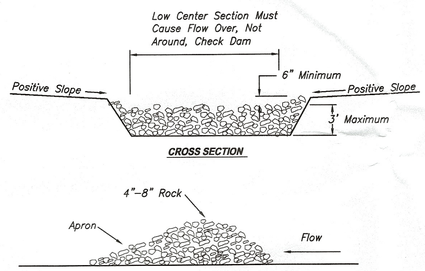


Specifications For CONSTRUCTION ENTRANCE



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 lot 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 surface.
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.

Specifications For CHECK DAM

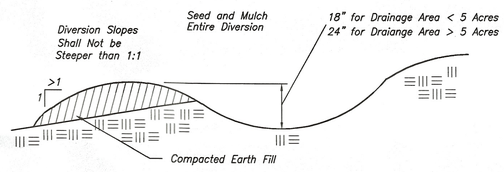


1. The check dam shall be constructed of 4-8 in. diameter stone, placed so that it completely covers the width of the channel.
2. The top of the check dam shall be constructed so that the center is approximately 6 in. lower than the outer edges, so water will flow across the center and not around the ends.
3. The maximum height of the check dam at the center or the weir shall not exceed 3 ft.
4. Spacing between dams shall be as shown in the plans or by the following table:

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.

Specifications For TEMPORARY DIVERSION



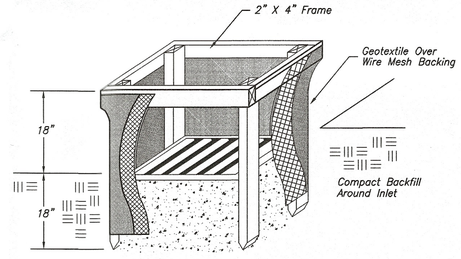
SECTION

1. Diversion shall be compacted by traversing with tracked earth-moving equipment.
2. Diversions shall not be breached or lowered to allow construction traffic to cross: instead the top width may be made wider and side slopes made flatter than specified above.
3. Diversions shall be stabilized with vegetation and check dams or the following treatments:

Temporary Diversion Stabilization Treatment

Diversion Slope	< 2 ac.	2-5 ac.	5-10 ac.
0 - 3%	Seed & Straw	Seed & Straw	Seed & Straw
3 - 5%	Seed & Straw	Seed & Straw	Matting
5 - 8%	Seed & Straw	Matting	Matting
8 - 20%	Seed & Straw	Matting	Engineered

Specifications For INLET PROTECTION



1. Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.
2. The earth around the inlet shall be excavated completely to a depth at least 18 inches.
3. The wooden frame shall be constructed of 2-by-4-in. construction-grade lumber. The 2-by-4-in. posts shall be driven 1 ft. into the ground at four corners of the inlet and the top portion of 2-by-4-in. frame assembled using the overlap joint shown. The top of the frame shall be at least 6 in. below adjacent roads if ponded water would pose a safety hazard to traffic.
4. Wire mesh shall be sufficient strength to support fabric with water fully impunded 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 same 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 compacted 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.

STORMWATER POLLUTION PREVENTION NOTES

1. SEDIMENT PONDS/TRAPS AND PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED. SEDIMENT TRAPS SHALL BE SEEDED & MULCHED WITHIN 2 DAYS OF COMPLETION OF CONSTRUCTION.
2. DISTURBED AREAS WHICH WILL REMAIN UN-WORKED FOR A PERIOD OF 45 DAYS OR MORE, SHALL BE STABILIZED WITH SEEDING & MULCHING OR OTHER APPROVED MEANS WITHIN 7 DAYS. TEMPORARY SEEDING & MULCHING TO BE IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS.
3. FOR AREAS WITHIN 50 FEET OF ANY STREAM, SOIL STABILIZATION PRACTICES SHALL BE INITIATED WITHIN 2 DAYS ON ALL INACTIVE DISTURBED AREAS.
4. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED IN ACCORDANCE WITH THE PERMANENT SEEDING & MULCHING SPECIFICATIONS FINAL STABILIZATION.
5. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGE INTO STORM WATER RUNOFF.
6. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (1996).
7. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
8. REGULAR INSPECTION AND MAINTENANCE TO 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 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN 24 HOUR PERIOD. RECORDED WILL BE THE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION AND CORRECTIVE MEASURES TAKEN.
9. SEE SPECIFICATIONS & DETAILS ON EROSION AND SEDIMENT CONTROL MEASURES.
10. OPEN BURNING IS NOT PERMITED.
11. THE OWNER SHALL BE IMMEDIATELY NOTIFIED IF ANY SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICALS ARE ENCOUNTERED.

Construction Sequence

1. Pre-Construction Meeting
2. Initial Clearing & Grubbing.
3. Installation Of Best Management Practices (BMP'S) Whether Temporary Or Permanent w/n 7 Days.
4. Remaining Phases Of Clearing & Grubbing.
5. Road Grading & Other Excavations.
6. Utility Installation.
7. Final Grading, Paving, Landscaping & Soil Stabilization.
8. Removal Of Temporary Erosion Control Measures.
9. Final Stabilization Meeting.

REVISIONS

DESIGNED BY: MSL
DRAWN BY: JDV
CHECKED BY: 07/15/04
DATE:
JOB NUMBER: 04-2831
FIELD BOOK:

Stormwater Pollution Prevention Plan Notes & Details

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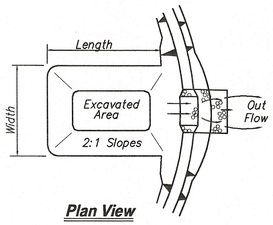
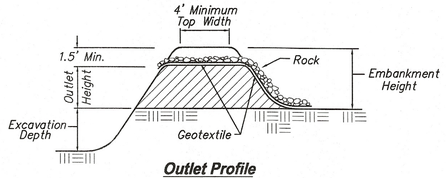
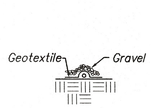


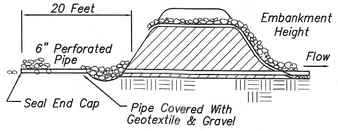
Plan View



Outlet Profile



Dewatering Pipe Section



Outlet Profile

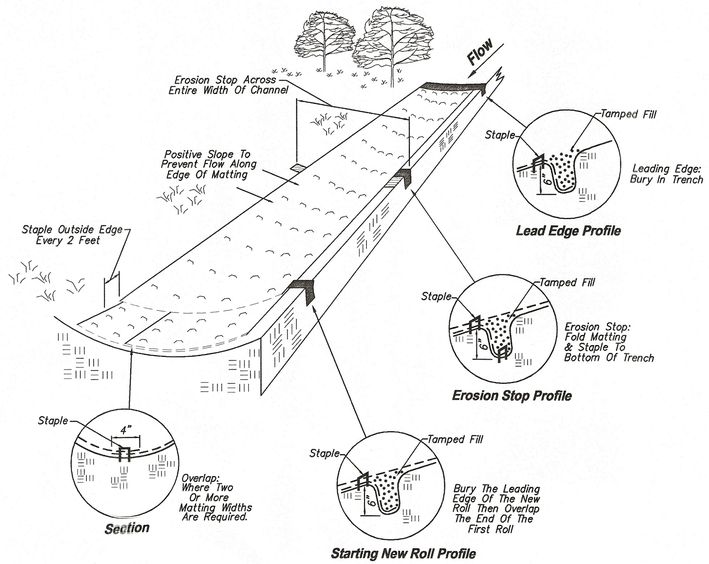
Specifications For Sediment Traps

1. Sediment Traps Shall Be Constructed And Operational Before Upslope Land Disturbance Begins.
2. The Area Under The Embankment Shall Be Cleared, Grubbed, And Stripped Of Any Vegetation And Root Mat. The Pool Area Shall Be Cleared As Needed To Facilitate Sediment Cleanout.
3. Fill Material Used For The Embankment Shall Be Free Of Roots Or Other Woody Vegetation As Well As Oversized Stones, Rocks, Organic Material Or Other Objectionable Material. The Embankment Shall Be Compacted By Traversing With Equipment While It Is Being Constructed. Maximum Height Of The Embankment Shall Be 5 Ft. As Measured From The Surrounding Ground.
4. Cut–And–Fill Slopes Shall Be 2:1 Or Flatter.
5. Dikes Directing Water To The Trap Shall Be Higher Than The Height Of The Embankment.
6. Temporary Seeding Shall Be Established On All Nonsubmerged Areas If The Sediment Trap.
7. The Storage Volumes Shall Be Achieved To The Dimensions Shown In The Plans To Achieve 67 C.Y. Of Storage Volume Below The Crest Of The Outlet For Every Acre Of Contributing Drainage Area.
8. The Outlet Spillway Shall Be Constructed To The Dimensions Shown In the Plans.
9. Geotextile Shall Be Placed Over The Bottom And Slopes Of The Outlet Spillway. Geotextile Shall Continue Downstream Of The Embankment To Form An Apron On The Surrounding Ground. To Prevent Runoff From Flowing Under The Geotextile, The Sections Placed Nearest The Front Shall Overlap Following Sections. Sections Of Geotextile Shall Overlap At Least 2 Ft.
10. Rock Used In The Outlet Spillway Shall Be Placed 1 Ft. Thick On The Geotextile. The Rock Shall Be Between Type "C" And Type "D" Rock Where D_{50} Is About 8 In.
11. Sediment Shall Be Removed And The Sediment Trap Restored To Its Original Dimensions When The Sediment Has Filled One–Half The Pond's Original Depth. Removed Sediment Shall Be Spread In A Suitable Area And Stabilized So It Will Not Erode.
12. The Structure And Accumulated Sediment Shall Be Permanently Stabilized When The Drainage Area Has Been Stabilized.

Specifications For Mulching

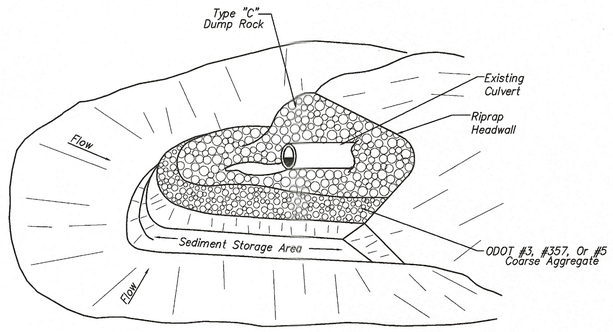
1. Mulch And/Or Other Appropriate Vegetative Practices Shall Be Applied To Disturbed Areas Within 7 Days Of Grading If The Area Is To Remain Dormant (Undisturbed) For More Than 45 Days Or On Areas And Portions Of The Site which Can Be Brought To Final Grade.
2. Mulch Shall consist Of One Of The Following:
   - Straw––Straw Shall Be Unrotted Small Grain Straw Applied At A Rate Of 2 Ton/Ac. Or 90 Lbs./1,000 Sq. ft. (Two To Three Bales). The Straw mulch Shall Be Spread Uniformly By Hand Or Mechanically So The Soil Surface Is Covered. For Uniform Distribution Of Hand–Spread Mulch, divide Area Into Approximately 1,000 Sq. Ft. Sections And Place Two 45 Lb. Bales Of Straw In Each Section.
   - Hydroseeders––Wood Cellulose Fiber Should Be Used At 2,000 Lbs./Ac. Or 46 Lbs./ 1,000 Sq. Ft.
   - Other––Other Acceptable Mulches Include Mulch Mattings Applied According To the Manufacturer's Recommendations Or Wood Chips Applied At 10 – 20 ton/Ac.
3. Mulch Anchoring––Mulch Shall Be Anchored Immediately To Minimize Loss By Wind Or Runoff. The Follwing Are Acceptable Methods For Anchoring Mulch
   - Mechanical––Use A Disk, Crimper, Or Similar Type Tool Set Straight To Punch Or Anchor The Mulch Material Into The Soil. Starw Mechanically Anchored Shall Not Be Finely Chopped But Be Left Generally Longer Than 6 In.
   - Mulch Nettings––Use According To The manufacturer;s Recommendations, Following All Placement And Anchoring Suggestions. Use In Areas Of Water Concentration And Steep Slopes To Hold Mulch In Place.
   - Asphalt Emulsion––For Straw Mulch, Apply At A Rate Of 160 Gal./Ac. (0.1 Gal./S.Y.) Into The Mulch As It Is Being Applied Or As Recommended By The Manufacturer.
   - Synthetic Binders––For Straw Mulch, Synthetic Binders Such As Acrylic DRL (Agri–Tac), DCA–70, Petroset, Terra Tack Or Equal May Be Used At Rates Recommended By The Manufacturer.

     Wood Cellulose Fiber––Wood Cellulose Fiber May Be Used For Anchoring Straw. The Fiber Binder Shall Be Applied At A Net Dry Weight Of 750 Lbs./Ac. The Wood Cellulose Fiber Shall Be Mixed With Water And The Mixture Shall Contain A Maximum Of 50 Lbs./100 Gal. Of Wood Cellulose Fiber.



Specifications For Matting

1. Material––Excelsior Matting Shall Be 48 In. Wide And Weigh An Average Of 0.75 Lbs./Sq. Yd. Or Greater. Jute Matting Shall Be 48 In. Wide And Weigh An Average Of 1.2 Lbs./Yd. Or Greater. Matting Made Of Other Material And Providing Equal Or Greater Stabilization Than The Above May Be Substituted.
2. Site Preparation––After The Site Has Been Shaped And Graded, A Seedbed Shall Be Prepared That Is Relatively Free Of Foreign Material, Clods Or Rocks That Are Greater Than 1.5 In. In Diameter. The Site Shall Be Prepared To Ensure That The Matting Has Good Soil Contact And The Matting Will Not "Bridge" Or "Tent" Over Obstructions.
3. Matting Shall Be Held In Place As Recommended By The Manufacturer As Adequate For The Site Conditions Or With Sod Staples. Sod Staples Are U–Shaped Wire Staples Used For Fastening Sod, Jute Or Excelsior Matting And Other Erosion–Control Materials To The Soil Surface. Sod Staples Shall be No. 11 Gauge Or Heavier And Be 6 – 10 in. in Length. In Loose Or Sandy Soils Longer Staples Shall Be Used.
4. Planting––Lime And Fertilizer Shall Be Used According To The Recommendation Of A Soil Test Or The Seeding Plan. Seed According To The Matting Manufacturer's Recommendations; Or, For Excelsior Matting, Seed Area To Be Protected Before Installation; Or, When Using Jute Matting, Apply Half The Seed Before And Half The Seed After Installation.
5. Matting Shall Be Installed As Specified By The Manufacturer As Appropriate For The Site Conditions Or The Following Procedure May Be Used:
   - After The Site Is Prepared And Erosion Stops Are Installed, Start Laying The Mat From The Top Of The Slope Or Channel And Unroll The Matting Allowing 4 In. Overlap At The Edges.
   - Secure The Matting By Burying The Top Ends In A Trench 6 In. Deep And Staple The Fold Ens To The Bottom Of The Trench. Backfill And Tamp Firmly To The Established Grade.
   - Staple Matting Every 12 In. Across The Width Beginning At The Edges And Every 2 Ft. in Rows The Entire Length Of The Matting. Every Other Row Of Staples running The Length Of The Matting Should Be Staggered.
   - To Join Two Rolls Together, Cut A Trench To Anchor The End Of The New Roll And Secure It The Same As The Top Roll. Overlap The End Of The Previous Roll 18 In. In. Over The The New Roll. Continue To Staple As Described Above.
   - When Using Excelsior Matting, The Plastic Netting Shall Be On Top Of The Wood Fiber.
6. Erosion Stops Shall Be Used Where Recommended By The Matting Manufacturer And On Areas Specified Wher High–Erosion Potential May Cause Undermining And Gullies To Form Beneath The Matting.
   - Erosion Stops Shall Be Made Of Strips Of Matting Placed In Narrow Trenches 6 – 12 In. Deep That Cover The Full Cross Section Of The Channel. They Shall Be Spaced According to the Manufacturer's Recommendations Or By the Following:
     ––3 Ft. Down the Channel From Each point Of Entry Of Concentrated Flow,
     ––At points Where Change In Gradient or Direction Of Channel Occurs, And
     ––On Long Slopes At Spacing From 20 – 100 Ft. Depending Upon The Erodibility Of The Soil, Velocity And Volume Of Flow.
   - Erosion Stops Shall Extend Beyond The Channel Liner To The Full Design Width of The Channel, This Will Check Any Rills That Might Form Outside Or Along The Edge Of The Channel Lining.
   - Erosion Stops Shall Be Constructed With 6 In. Deep Trench, Stapled To the Bottom Of The Trench, Backfilled And Tamped Firmly To Conform With The Cross Section Of The Channel.
   - If Seeding Has Been Done Prior To Installation Of Erosion Stops, Reseed Disturbed Areas Prior To Placement Of Channel Liner.



Perspective View
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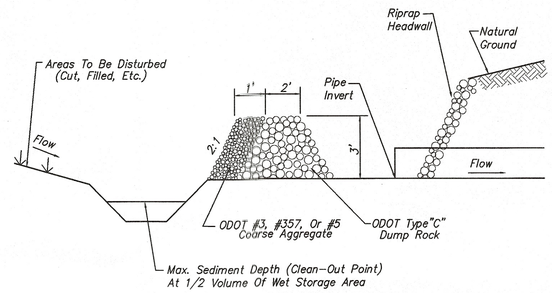

Elevation View
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Culvert Inlet Sediment Trap

Note:
The Owner And/Or Contractor Shall Meet On–Site With A Representative Of The Stark Soil And Water Conservation District For A Pre–Construction Meeting No Less Than (7) Days Prior To The Start Of Any Soil–Disturbing Activity At The Site.

The Contractor Shall Inspect The Erosion And Sediment Control Measures To Certify Compliance With The SWP3 Plan No Less Than 2 Days After The Start Of The Construction And Prepare A Written Report Of The Inspection.

Upon Completion Of All Construction And Final Stabilization Of The Entire Construction Site, The Contractor Shall Notify The Stark Soil And Water Conservation District That All Work Is Complete.

The Contractor Shall Prevent And/Or Reduce And Control Soil Erosion Resulting From The Proposed Improvements. The Use Of Silt Fencing, Jute Matting, Temporary Seeding, Silt Checks, Inlet Protection Around All Catch Basins, Stabilized Construction Entrance(s), Etc.. Will Be Required. Sediment Control Structures/Devices Shall Be Installed In Accordance With The Manual "Rainwater And Land Development – Ohio's Standards For Stormwater Management, Land Development And Urban Stream Protection", Second Edition Dated 1996. Sediment Control Devices Must Be Installed Prior To Beginning Any Construction Activity. The Contractor Shall Be Responsible For Continued Inspection And Maintenance Of All Sediment Control Devices. The Contractor Shall Follow The Requirements Set Forth On The Approved Stormwater Pollution Prevention Plan If Applicable, Or As Detailed On The Construction Plans As Specified By The Stark Soil And Water Conservation District.

REVISIONS

DESIGNED BY: MSL
DRAWN BY: JDV
CHECKED BY:
DATE: 07/15/04
JOB NUMBER: 04–2831
FIELD BOOK:

Stormwater Pollution Prevention Plan Notes & Details

Sterilite Corporation
Massillon, Ohio

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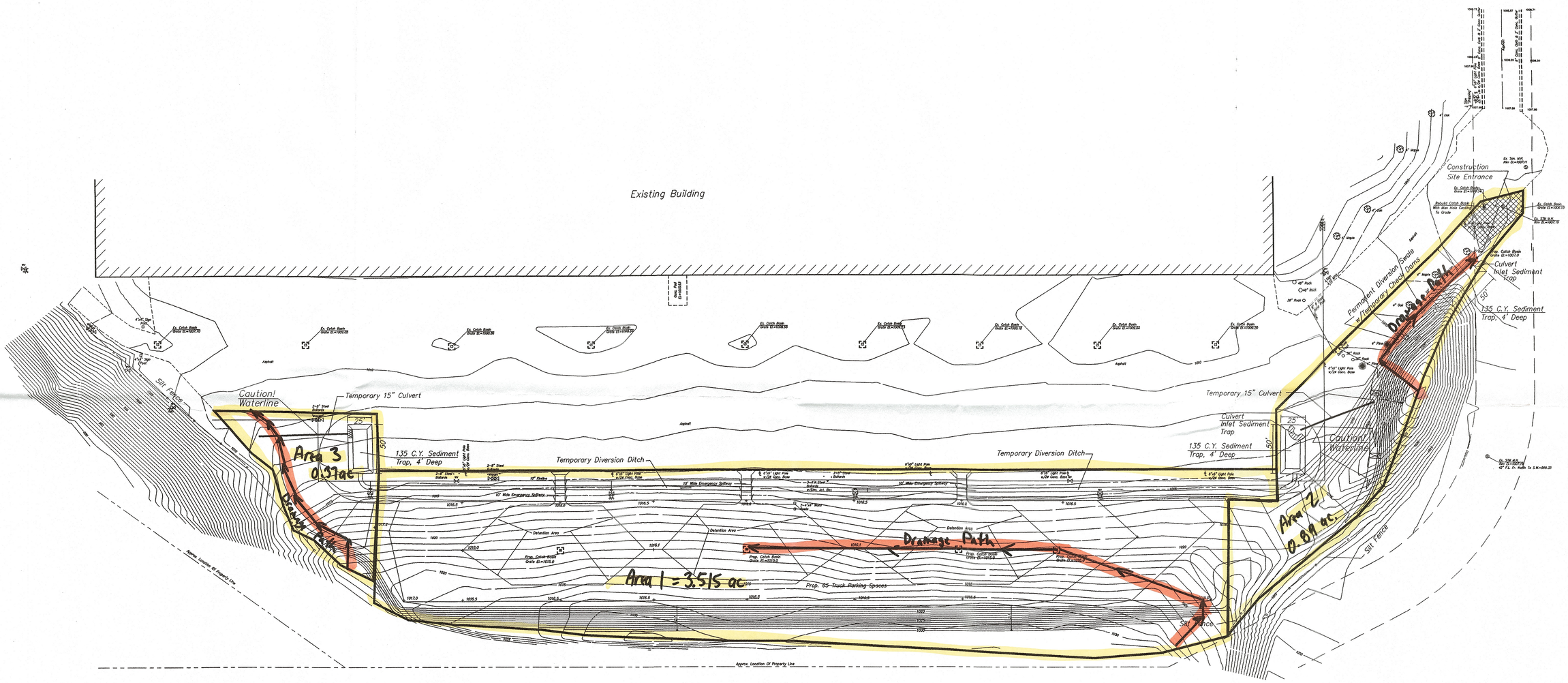

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–Legend–

- 1025 — Proposed Contours
- 985 — Existing Contours
- Inlet Protection
- Silt Fence
- Check Dam

–Debris Disposal Note–

All Construction And Demolition Debris Shall Be Disposed Of In An Ohio EPA Approved C & DD Landfill. No Open Burning Is Permitted.

–Project Description–

project Includes An Expansion Of A Truck Trailer Parking Lot And Repair Of An Existing Truck Trailer Parking Lot For Sterilite Corporation.

–Project Data–

Area To Undergo Excavation – 4.5 Ac.
Runoff Coefficient Pre Construction – 0.4
Runoff Coefficient Post Construction – 0.7
Native Soils: Chili & Wooster
Prior Land Use: Vacant/Parking
Receiving Water: Unnamed Tributary Of The Tuscarawas River

REVISIONS

DESIGNED BY: JDV
DRAWN BY: GTL
CHECKED BY:
DATE: 7-9-2004
JOB NUMBER: 04-2831
FIELD BOOK:

Proposed Conditions - Drainage Map

Sterilite
Mogadore, Ohio

Howells & Baird, Inc.
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SCALE
1"=50'

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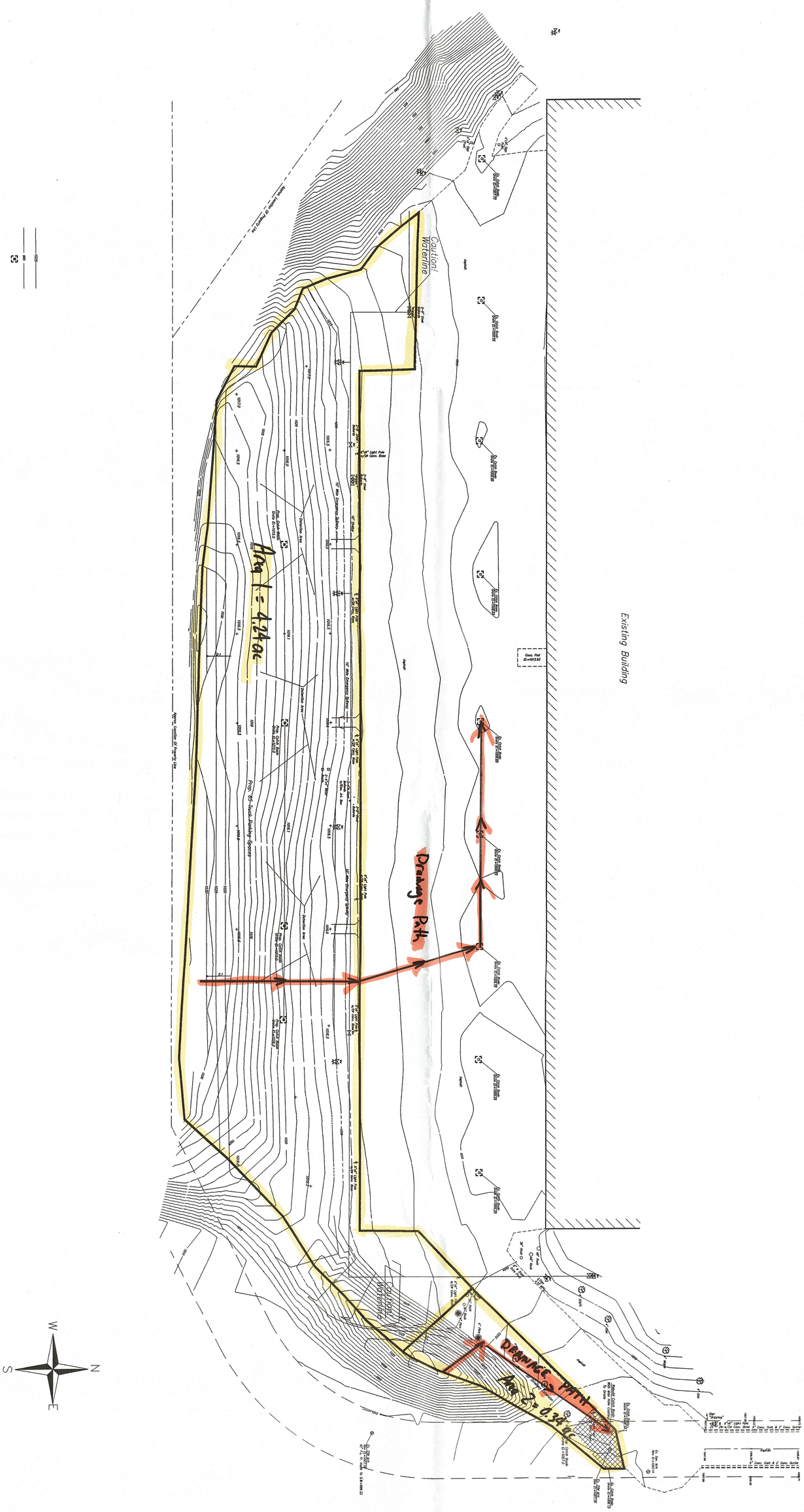

SCALE 1"=50' / SHEET 6 Of 8	Howells & Baird, Inc. CIVIL ENGINEERS & SURVEYORS SALEM, OHIO PH. (330) 332-4834 FAX. (330) 332-4058	EXISTING CONDITIONS - DRAINAGE MAP Sterilite Massillon, Ohio	DESIGNED BY: JDV DRAWN BY: GTL CHECKED BY: DATE: 7-9-2004 JOB NUMBER: 04-2831 FIELD BOOK:	REVISIONS