

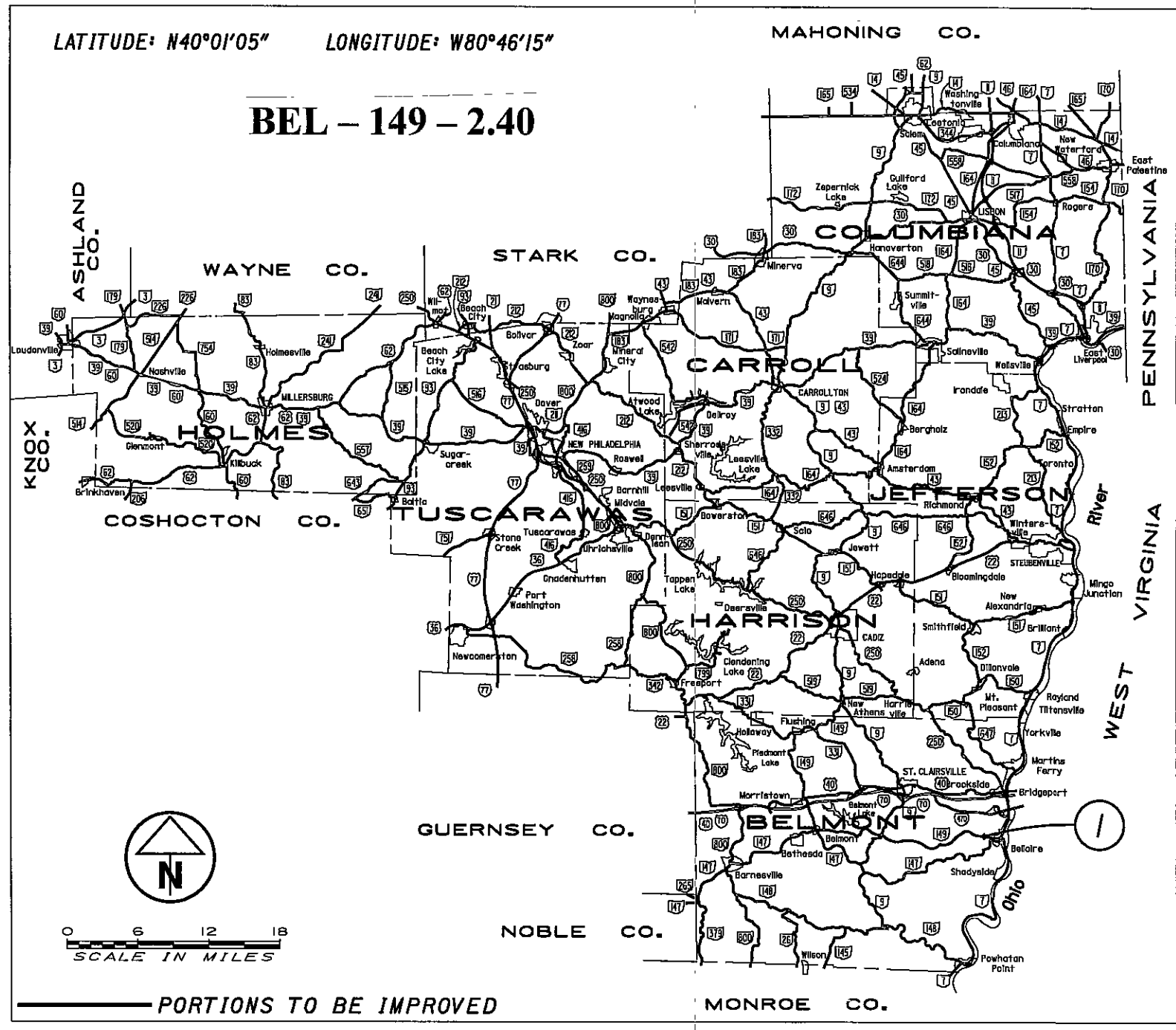
OHIO DEPARTMENT OF TRANSPORTATION

PLAN NO.

CULVERT REPAIR

LATITUDE: N40°01'05" LONGITUDE: W80°46'15"

BEL - 149 - 2.40



PART	COUNTY	ROUTE	SECTION	PROJECT LIMITS	
				BEGIN	END
1	BEL	SR 149	2.40		

The Standard 2002 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Part No. None and that detours will be provided by State forces. The closing of traffic of the highways will not be required on Parts No. and provisions for the maintenance and safety of traffic will be as indicated in the plan.

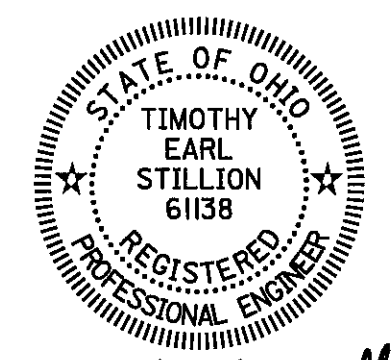
APPROVED DATE 11-23-04

[Signature]
DISTRICT DEPUTY DIRECTOR

APPROVED DATE 12-10-04

[Signature]
DIRECTOR, DEPARTMENT OF TRANSPORTATION

ENGINEERS SEAL:



SIGNED: *Timothy E Stillion*
DATE: 11-23-04

PROJECT EDA	N/A (Maintenance Project)
CONTRACTOR EDA	N/A (Maintenance Project)
NOI EDA	N/A (Maintenance Project)

INDEX OF SHEETS

TITLE SHEET	1
GENERAL NOTES	2
GENERAL SUMMARY	3
PLAN & PROFILE	4
MISCELLANEOUS DETAILS AND QUANTITIES	5

UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
DM-4.3	7-19-02	CB-1J	7-19-02	MT-97.10	4-19-02	832	4-17-04
DM-4.4	7-19-02					833	2-12-03

**PLAN PREPARED BY
ODOT DISTRICT 11**

BEL - SR 149-2.40
 050362 PID - 22088
 Dist 11 6/22/2005

FEDERAL PROJECT NO.
 NON-FEDERAL
 PID NO. 22088
 CONSTRUCTION PROJECT NO.
 TITLE SHEET
 BEL-149-2.40
 1/5

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

- | | |
|---|---|
| SBC
3935 Northpointe Road
Zanesville, Ohio 43701
740-454-3455 | Belmont County Sanitary Sewer District
P.O. Box 457
St. Clairsville, Ohio 43950
740-695-3144 |
| AEP Ohio Power Company
P. O. Box 99
47687 National Road
St. Clairsville, Ohio 43950
740-699-7845 | Bellaire Cable TV
64421 Hilltop Avenue
C.R. 214
Bellaire, Ohio 43906
740-676-6377 |
| The Honorable Joseph F. Campbell
Mayor of Bellaire
23333 West 23rd Street
Bellaire, Ohio 43906
740-676-1769 | Ohio Department of Transportation
2201 Reiser Avenue, SE
New Philadelphia, Ohio 44663
330-339-6633 |

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

TRAFFIC MAINTENANCE

S.R. 149 TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, EXCEPT THAT THE CONTRACTOR MAY CLOSE ONE LANE WITH THE USE OF FLAGGERS PER SCD MT-97.10 AND AT THE APPROVAL OF THE ENGINEER. ALL LANES OF TRAFFIC SHALL BE OPEN WHEN THE CONTRACTOR IS NOT WORKING.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ALL ELEVATIONS ARE ASSUMED, UNLESS OTHERWISE NOTED.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 604 - CATCH BASIN, NO. 2-2B, AS PER PLAN

THE CONTRACTOR SHALL CONSTRUCT A CONCRETE APRON AROUND THE CATCH BASIN AS DETAILED IN THE PLANS.

ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 604 - CATCH BASIN, AS PER PLAN.

ITEM 603 - FIELD PAVING OF EXISTING PIPE, AS PER PLAN

THE CONTRACTOR SHALL PATCH ALL AREAS OF THE EXISTING CONCRETE PAVED INVERT THAT ARE DAMAGED, ALL AREAS WHERE THE CORRUGATED PIPE IS EXPOSED, AND ANY OTHER AREAS AS DIRECTED BY THE ENGINEER.

AN APPROXIMATE LENGTH OF 20% OF THE EXISTING CONDUIT HAS BEEN USED FOR ESTIMATING PURPOSES.

THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE SOUND CONCRETE, THE EXISTING PIPE, OR THE EXISTING WIRE FABRIC WHEN REMOVING THE CONCRETE. ANY DAMAGE TO THE EXISTING PIPE SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

THE CONTRACTOR SHALL REMOVE AND REPLACE A MINIMUM OF 2" OF CONCRETE WITH ANY PATCHED AREA. THE PAVED INVERT SHALL BE A MINIMUM OF 3" THICK OVER THE CORRUGATIONS AND 1" COVER OVER THE WIRE FABRIC.

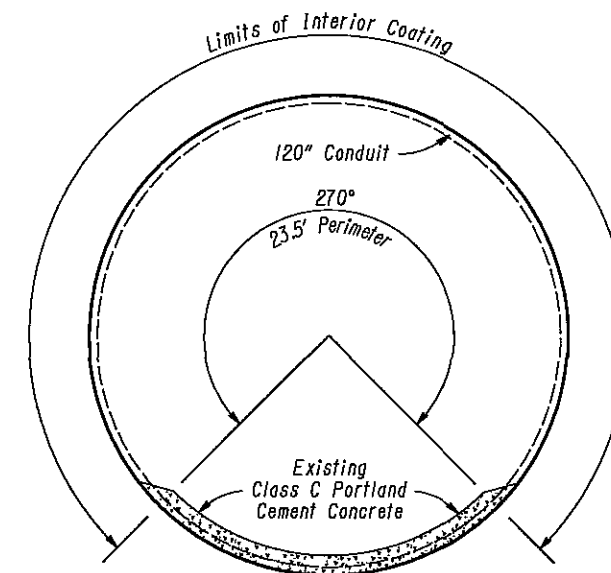
ALL PROVISIONS OF 603.11 SHALL APPLY.

ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 603 FIELD PAVING OF EXISTING PIPE, AS PER PLAN.

ITEM 603 - CONDUIT MISC., SEAL COAT

THE CONTRACTOR SHALL COAT THE INTERIOR OF THE EXISTING CONDUIT AS PER 603.07 TO THE LIMITS SHOWN BELOW.

ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 603 - CONDUIT MISC., SEAL COAT.



SEALING DETAIL

GENERAL NOTES

BEL-149-2.40

P.I. STA. 92+91.14
 $\Delta = 56^{\circ}40'$ Lt.
 $D_c = 8^{\circ}00'$
 $L_s = 400'$
 $T_s = 590.66'$
 $E_s = 108.02'$
 $L_c = 308.33'$
 $R_c = 716.20'$
 $\theta_s = 16^{\circ}$
 T.S. STA. 87+00.48
 S.T. STA. 98+08.81
 LT = 267.76'
 ST = 134.33'

BENCH MARK @ STA. 3+52.99
 CONCRETE MONUMENT
 183.16' RIGHT
 ELEVATION = 719.80

BENCH MARK @ STA. 5+69.65
 CONCRETE MONUMENT
 117.64' LEFT
 ELEVATION = 744.19

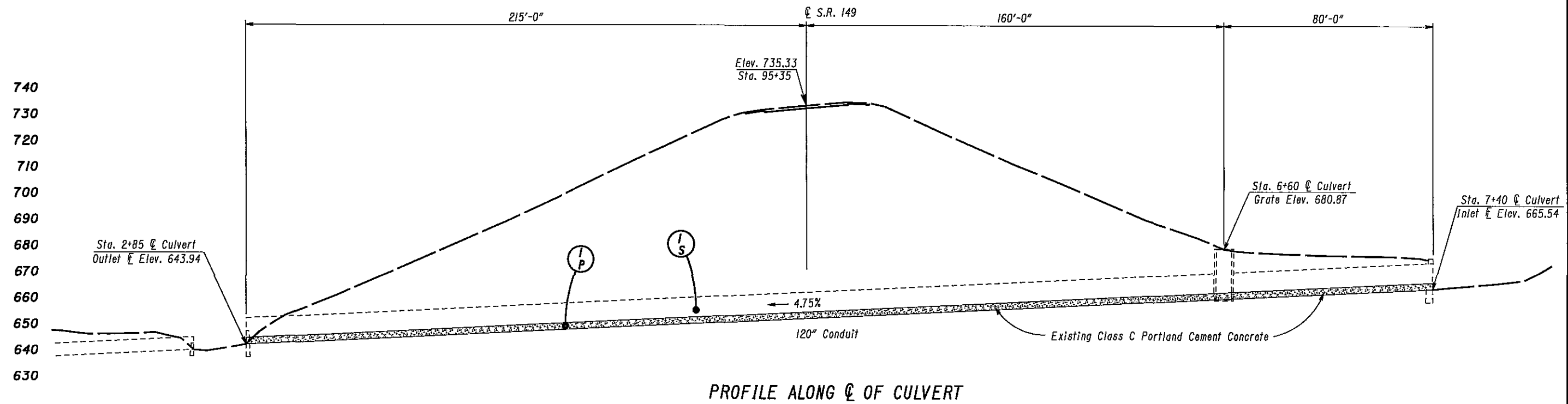
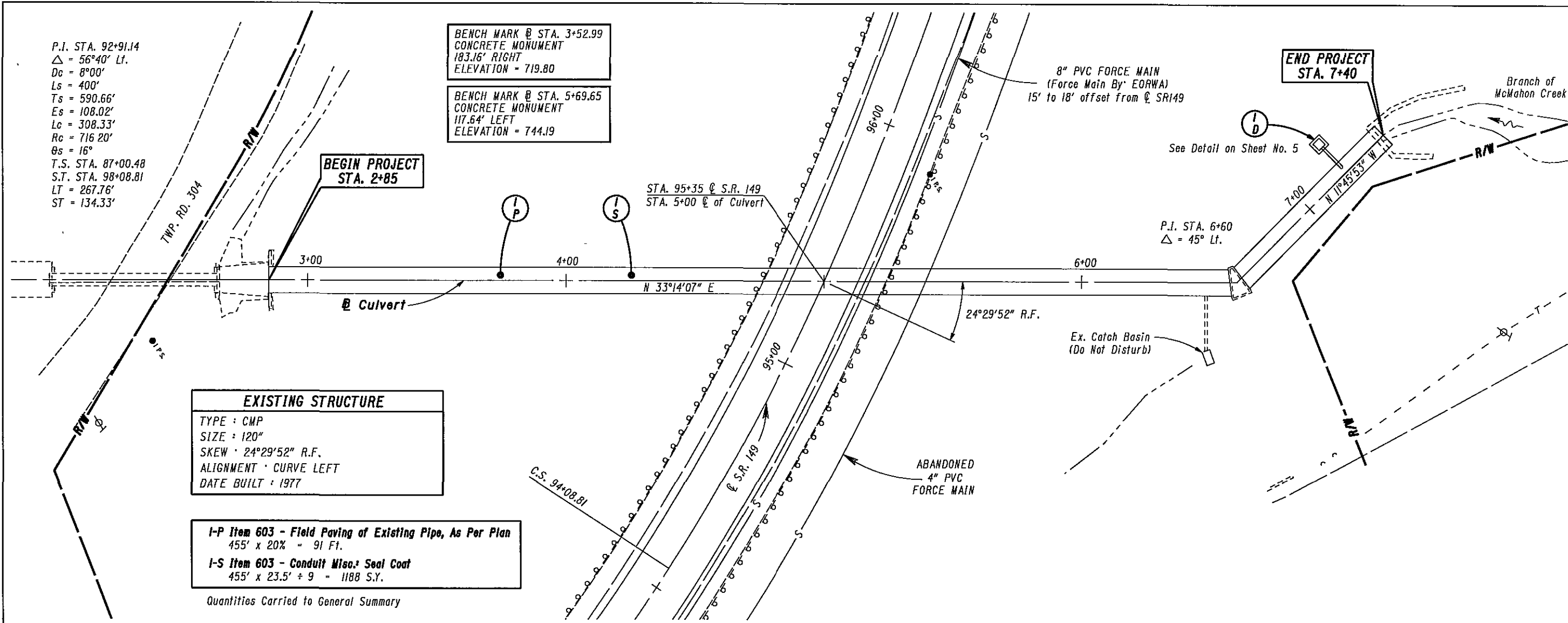
EXISTING STRUCTURE

TYPE : CMP
 SIZE : 120"
 SKEW : $24^{\circ}29'52''$ R.F.
 ALIGNMENT : CURVE LEFT
 DATE BUILT : 1977

I-P Item 603 - Field Paving of Existing Pipe, As Per Plan
 455' x 20% = 91 Ft.

I-S Item 603 - Conduit Miso. Seal Coat
 455' x 23.5' + 9 = 1188 S.Y.

Quantities Carried to General Summary



PROFILE ALONG C OF CULVERT

BEL-149-2.40
 CULVERT PLAN AND PROFILE
 CALCULATED: RDA
 CHECKED: TES
 HORIZONTAL SCALE IN FEET
 4/5

REF NO.	STATION	SIDE	603	604	
			12" CONDUIT, TYPE C	CATCH BASIN, 2-2B, AS PER PLAN EACH	
I-D	7+20	LT.	13	1	
TOTALS CARRIED TO GENERAL SUMMARY			13	1	

CALCULATIONS

ITEM 659 - SEEDING AND MULCHING

$20' \times 20' \div 9 = 45 \text{ Sq. Yd.}$

ITEM 659 - COMMERCIAL FERTILIZER

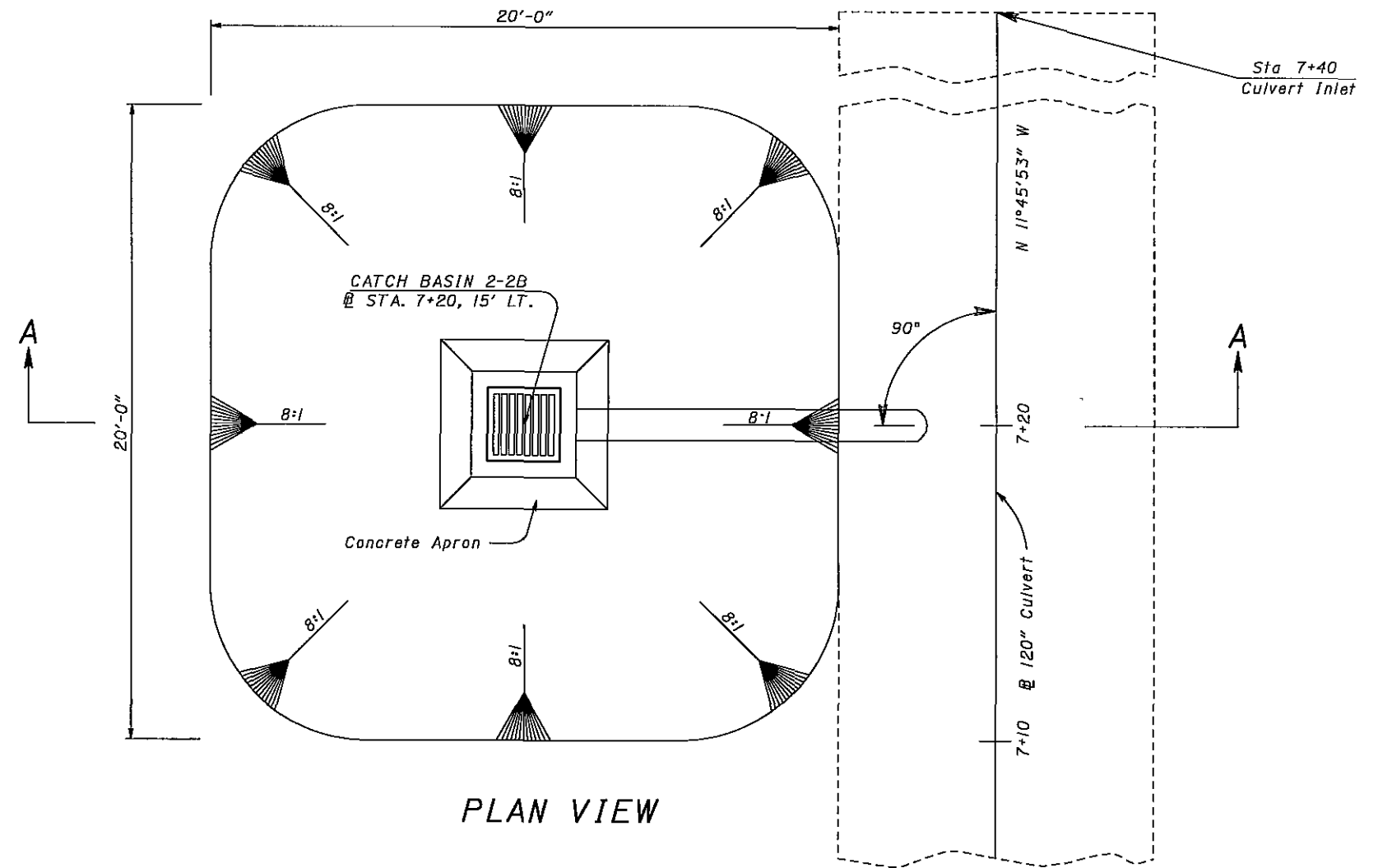
$45 \text{ S.Y.} \times 9 \times 30 \text{ lbs/1000 S.F.} \times (1/2000) = 0.01 \text{ Ton}$

ITEM 659 - LINE

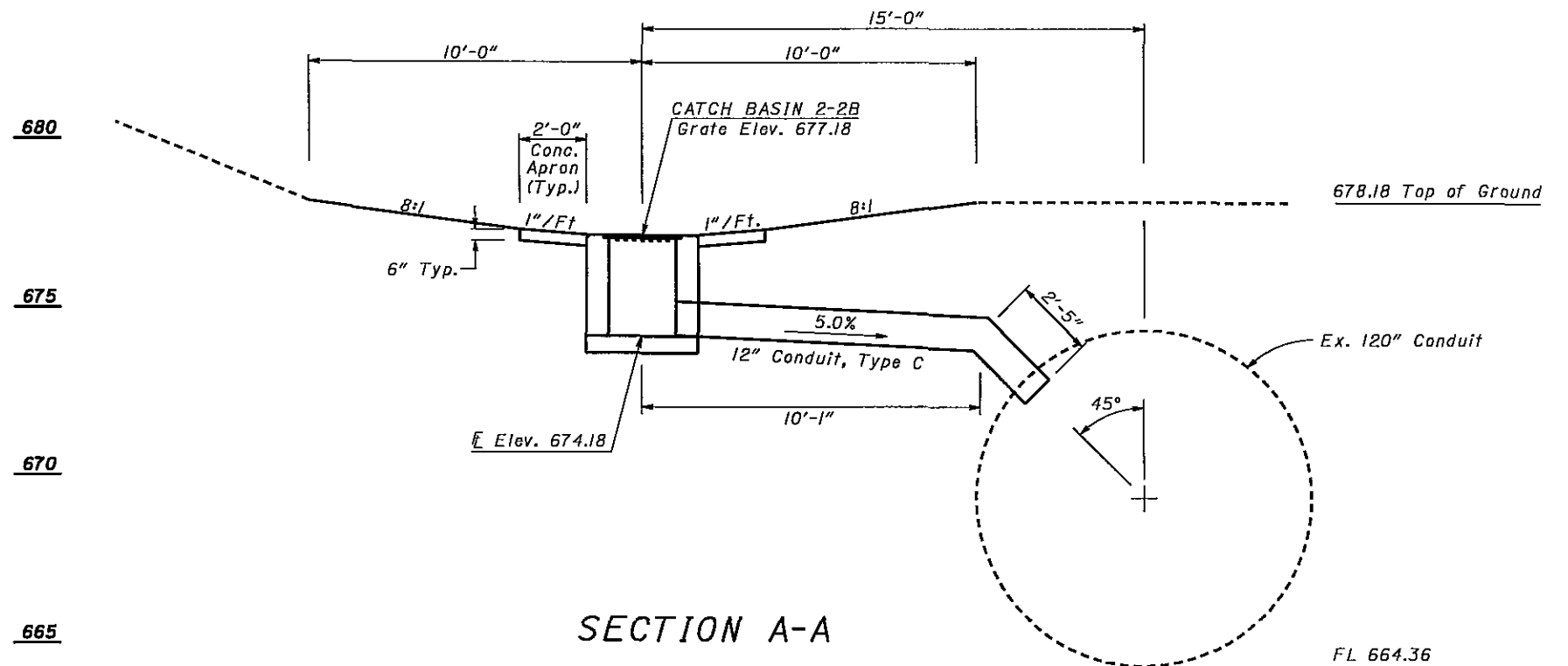
$45 \text{ S.Y.} \times 9 \text{ S.F./S.Y.} \div 43560 \text{ S.F./acre} = 0.01 \text{ Acre}$

ITEM 659 - WATER

$45 \text{ S.Y.} \times 9 \times 300 \text{ Gal/1000/1000} \times 2 \text{ app.} = 0.24 \text{ M. Gal.}$
(Use 1 M. Gal.)



PLAN VIEW



SECTION A-A

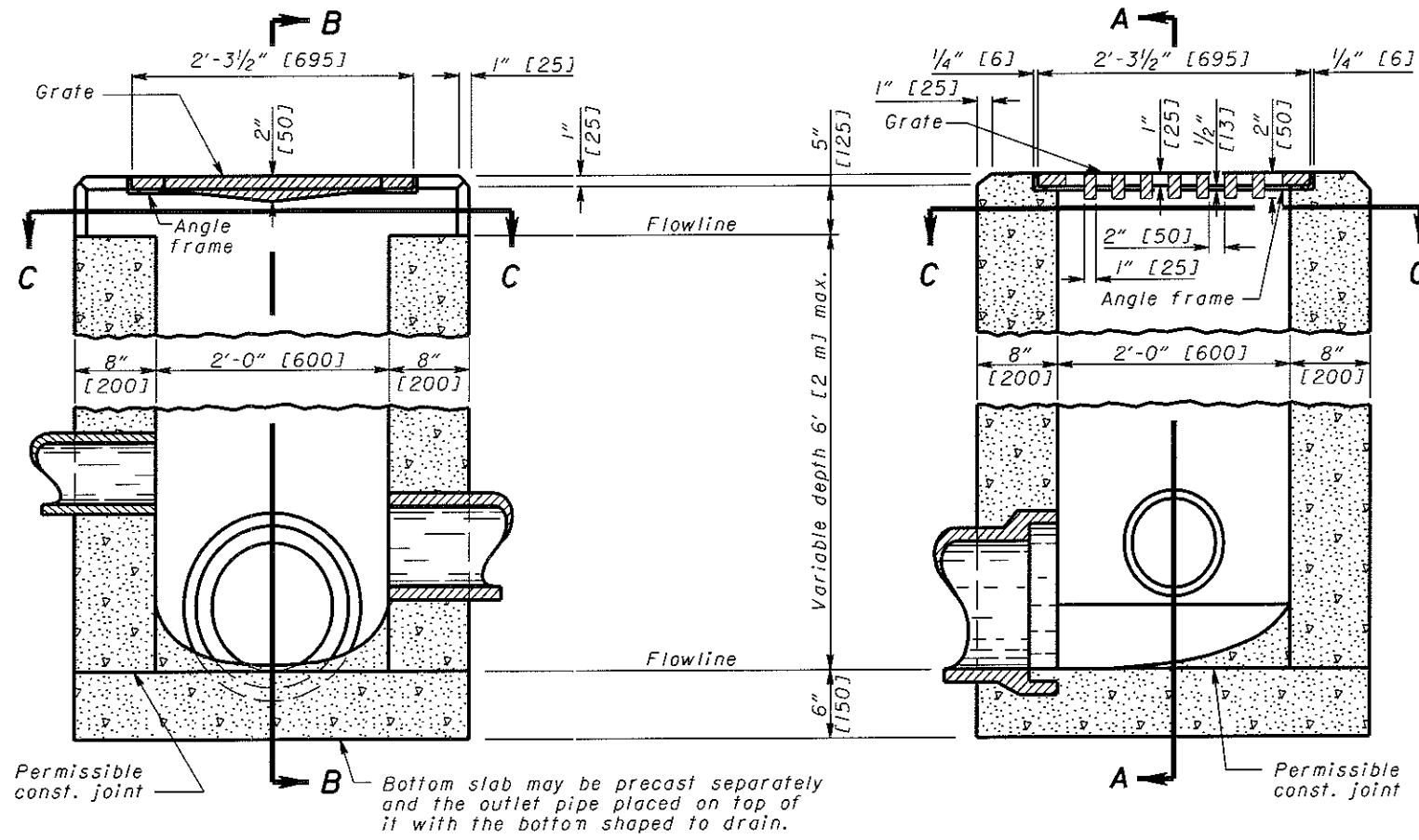
FL 664.36

CALCULATED
RDA
CHECKED
TES

MISCELLANEOUS DETAILS & QUANTITIES

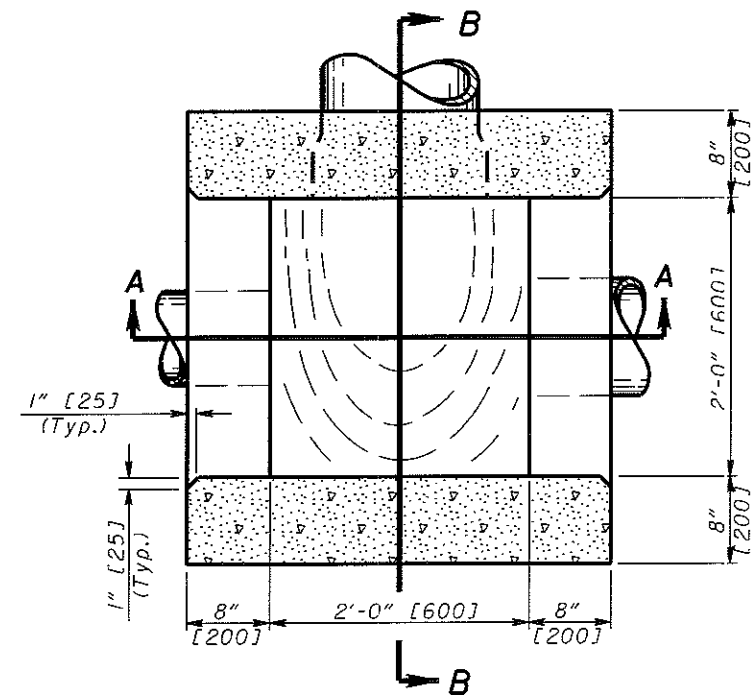
BEL-149-2.40

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5



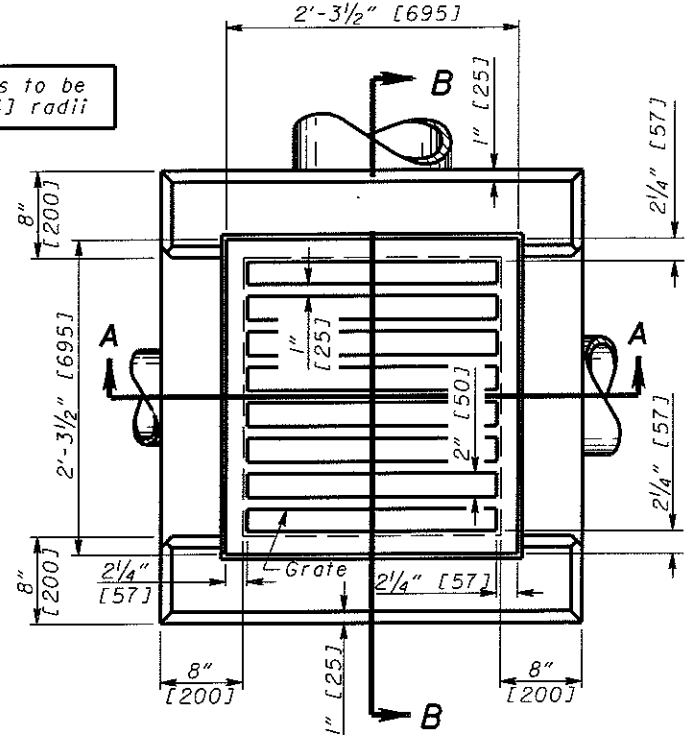
SECTION A-A

SECTION B-B



SECTION C-C

All grate edges to be rounded 1/4" [6] radii



PLAN

CATCH BASIN No. 2-2A

NOTES

GENERAL: Catch Basins 2-2A and 2-2B are not intended for traffic bearing applications.

CATCH BASINS 2-2A & B: This sheet depicts Catch Basin 2-2A. See Sheet 2 of 2 for Catch Basin 2-2B.

GRATE AND FRAME: The design shall be essentially the same and equally as strong as the one shown (see Construction Information table), or meet the requirements of CMS 711.14. Grate openings and dimensions shall not differ from those shown here unless otherwise shown in the plans.

As of January 1, 2003, the following text shall be cast into the top of the grate:

"DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of 1/2". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Brick or cast-in-place walls have a nominal thickness of 8" [200]. Precast walls shall have a minimum thickness of 6" [150] and be reinforced sufficiently to permit shipping and handling without damage. Brick shall not be used above the flow line of the side opening for Type 2-2A.

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 and marked with the catch basin number.

PRECAST BASE: If a precast base is used, it shall be set deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Layers of brick shall not be used to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, location is the top center of the grate and the elevation is the flow line of the side inlet.

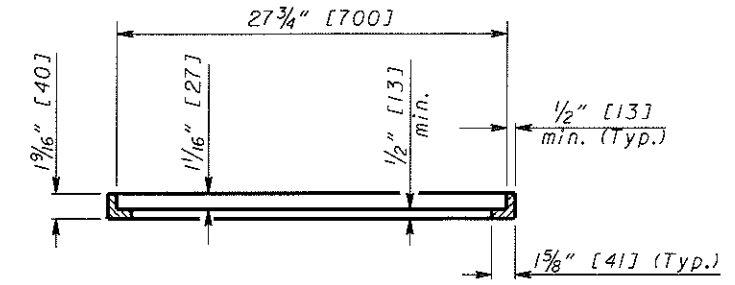
MINIMUM DEPTH: The minimum depth of CB No. 2-2A shall be the outside diameter (O.D.) of the outlet pipe plus 7" [175].

OPENINGS: Pipe openings shall be the O.D. of the pipe being supplied plus 2" [50] when fabricated or field cut. The interstitial space shall be filled with grout per CMS 601.

2-2A SIDE INLETS: Inlets shall be provided on both sides of the No. 2-2A catch basin in sags and on upstream side only where the ditch has a continuous down grade past the catch basin. CB 2-2A's shall not be used within the Clear Zone. The flow line should be 4" to 6" [100 to 150] below normal ditch returning to normal 10' to 15' [3 m to 5 m] each side of the inlet.

PAYMENT: All materials and labor, including excavation and backfilling, shall be paid for under **Item 604 - Catch Basin, No. 2-2A.**

CONSTRUCTION INFORMATION	
Minimum weight [mass] of grate,	120 lbs. [54 kg]
Minimum weight [mass] of frame,	40 lbs. [18 kg]



SECTION THRU ANGLE FRAME FOR STANDARD No. 2-2A CATCH BASIN

OHIO DEPARTMENT OF TRANSPORTATION
 ENGINEER OF BRIDGES
 DATE
 7-20-01
 7-19-02
 HYDRAULIC ENGINEER
 D. GRUVER
 All metric dimensions (in brackets []) are in millimeters unless otherwise noted.
 OFFICE OF STRUCTURAL ENGINEERING
 STANDARD HYDRAULIC-CONSTRUCTION DRAWING
 CATCH BASINS No's 2-2A & B
 NUMBER
 CB-1/1
 1/2

NOTES

CATCH BASINS 2-2A & B: This sheet depicts Catch Basin 2-2B. See Sheet 1 of 2 for Catch Basin 2-2A.

GRATE: The design shall be essentially the same and equally as strong as the one shown (see construction information table), or meet the requirements of CMS 711.14. Grate openings and dimensions shall not differ from those shown unless otherwise shown in the plans.

If necessary, bicycle safe grates shall be specified in the plans. Bicycle safe grates shall be Neenah No. R-4859-C or East Jordan No. 5110 Type M3 or approved equals.

As of January 1, 2003, the following text shall be cast into the top of the grate:

"DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of 1/2". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Brick or cast-in-place walls have a nominal thickness of 8" [200]. Precast walls shall have a minimum thickness of 6" [150] and be reinforced sufficiently to permit shipping and handling without damage.

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 and be marked with the catch basin number.

PRECAST BASE: If a precast base is used, it shall be set deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Layers of brick shall not be used to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, location and elevation are at the top center of the grate. When side openings are provided, the elevation shall be at the flow line of the side inlet.

MINIMUM DEPTH: The minimum depth for CB No. 2-2B shall be the O.D. of the outlet pipe plus 4" [100].

2-2B GRATE ELEVATION: Grate elevation is to be placed 4" to 6" [100 to 150] below normal ditch returning to normal 10' to 15' [3 m to 5 m] each side of inlet.

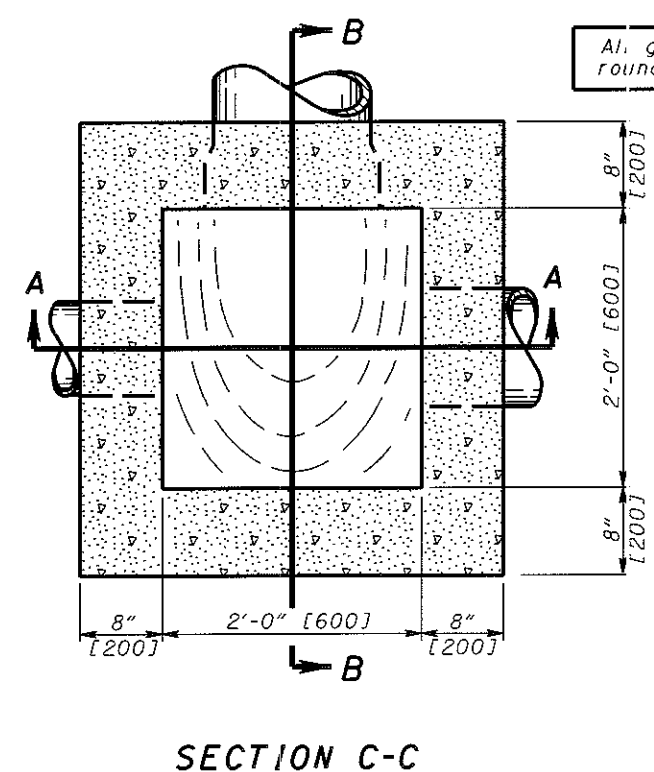
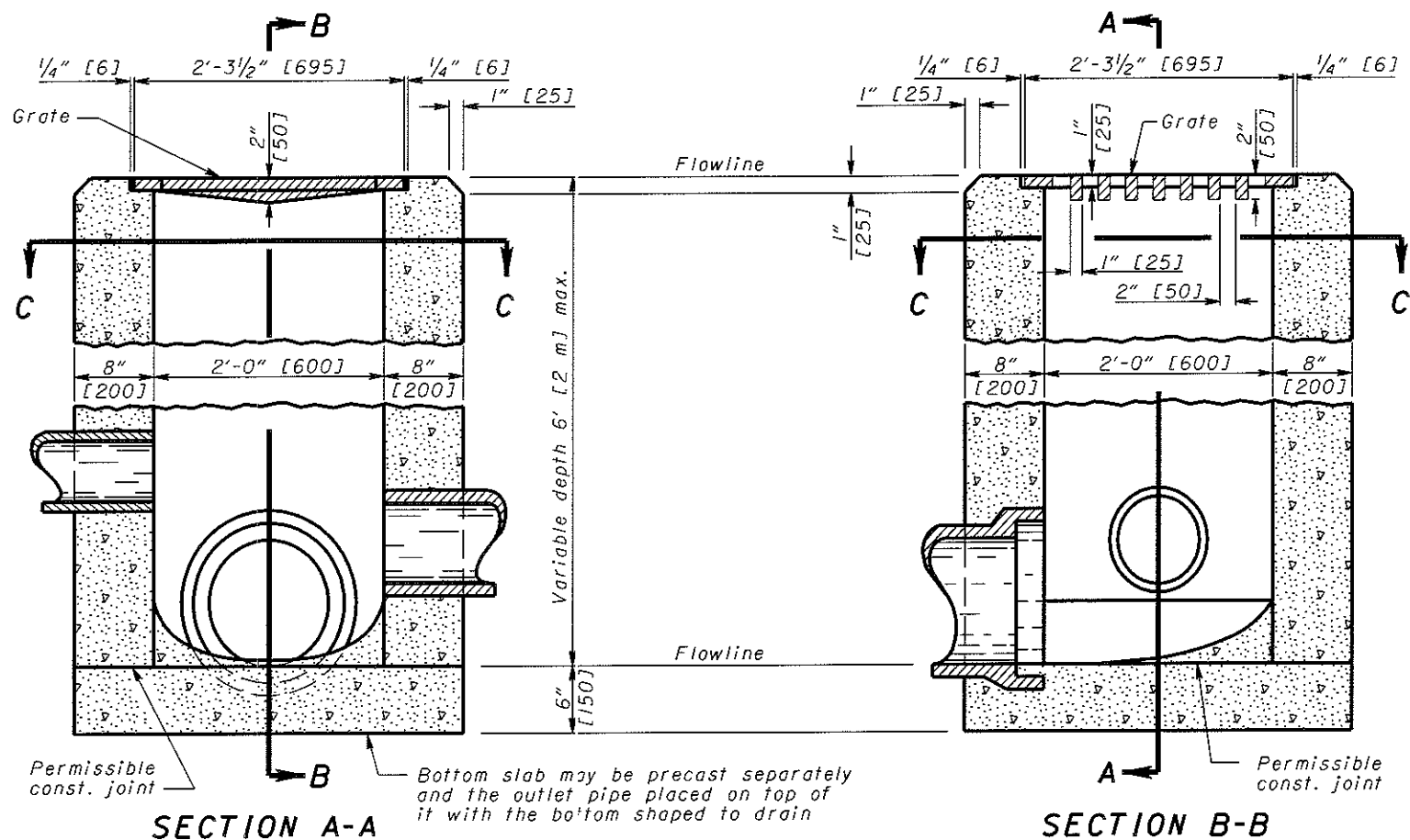
OPENINGS: Pipe openings shall be the O.D. of the pipe being supplied plus 2" [50] when fabricated or field cut. The interstitial space shall be filled with grout per CMS 601.

PAYMENT: All materials and labor, including excavation and backfilling, shall be paid for under **Item 604 - Catch Basin, No. 2-2B.**

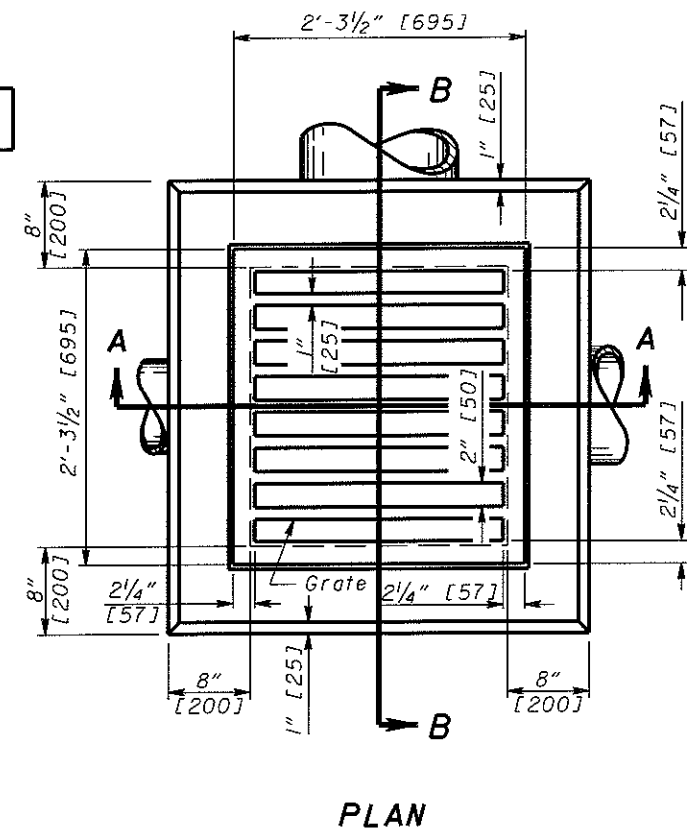
CONSTRUCTION INFORMATION

Minimum weight [mass] of grate, 120 lbs. [54 kg]

CATCH BASIN	OUTLET PIPE SIZE
2-2A	12" to 21" [300 to 525]
2-2B	12" to 21" [300 to 525]

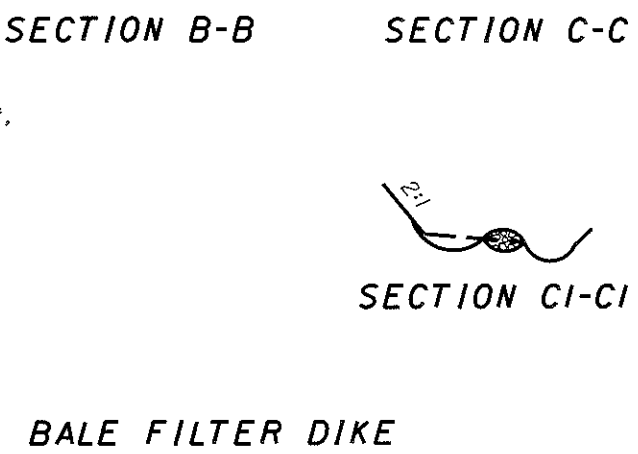
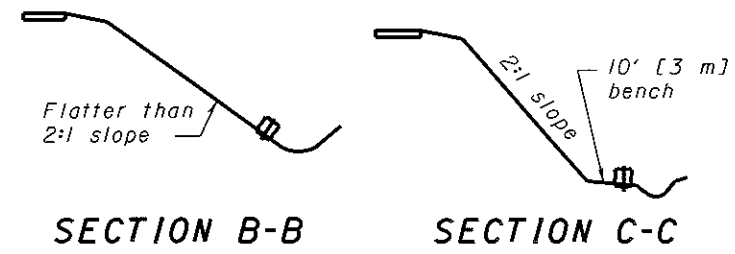
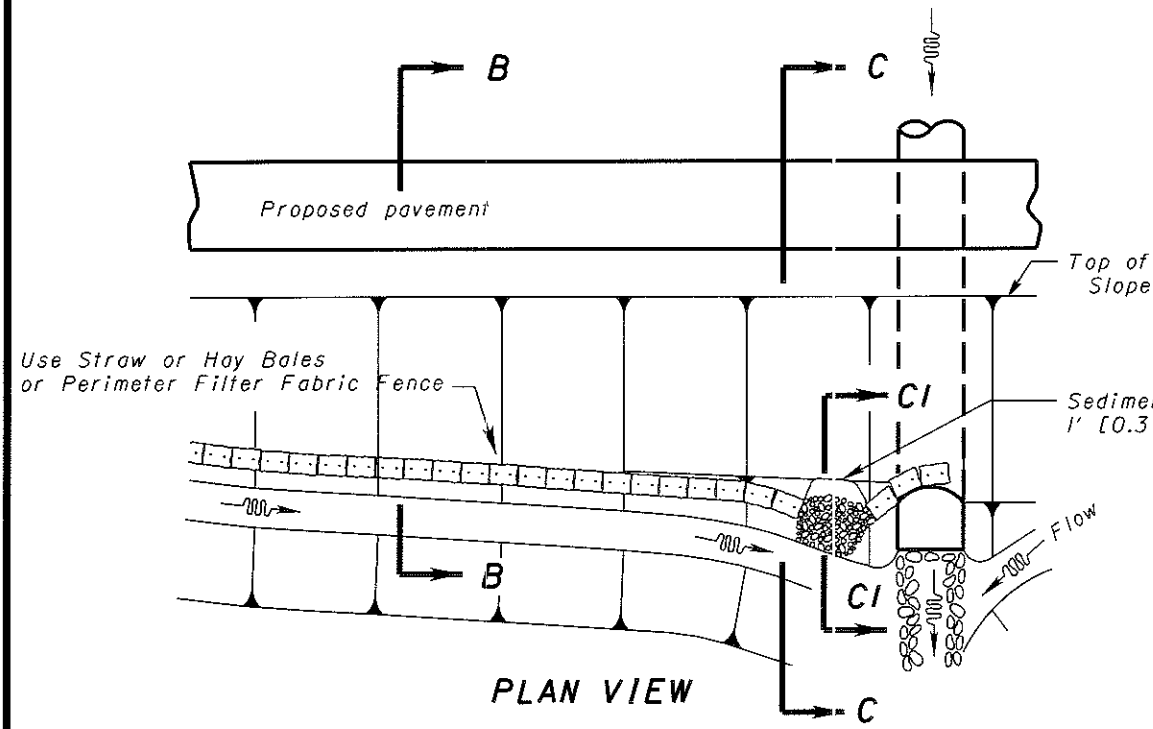


All grate edges to be rounded 1/4" [6] radii



CATCH BASIN No. 2-2B

OHIO DEPARTMENT OF TRANSPORTATION
 ENGINEER OF BRIDGES
 DATE 7-20-01
 7-19-02
 HYDRAULIC ENGINEER
 D. Gruver
 All metric dimensions (in brackets []) are in millimeters unless otherwise noted.
 OFFICE OF STRUCTURAL ENGINEERING
 STANDARD HYDRAULIC CONSTRUCTION DRAWING
 CATCH BASINS No's 2-2A & B
 NUMBER CB-1.1
 2/2



NOTES

MATERIAL: Furnish straw or hay bales. Use 30" [0.8 m] long 2"x2" [50x50] wooden stakes, reinforcing bars or fence posts to stake the bales in place. The use of filter fabric fence in lieu of straw or hay bales will be allowed. Furnish 30" [0.8 m] wide filter fabric with sound wood supports with maximum on-center spacing of 10' [3.0m]. Use filter fabric conforming to 712.09 Type C.

Use sand and gravel for the sediment pit filter material.

CONSTRUCTION: Trench the filter fabric fence as detailed for perimeter filter fabric fence. (see DM-4.4)

When straw or hay bales are used conform to the following: Tightly place each bale adjacent to one another. Entrench 2" [50] to 3" [75] into the ground prior to staking. Firmly stake each bale with at least two stakes. Use loose hay or straw to fill the voids under and between the bales.

Construct a 3'x3'x1' [1 m x 1 m x 0.3 m] pit for the sediment pit filter material. Fill with filter material 1' [0.3 m] above ground level.

PAYMENT: The Department will pay for the accepted quantities at the contract prices in feet [meters] as follows: **Item 207 - Bale Filter Dike.**

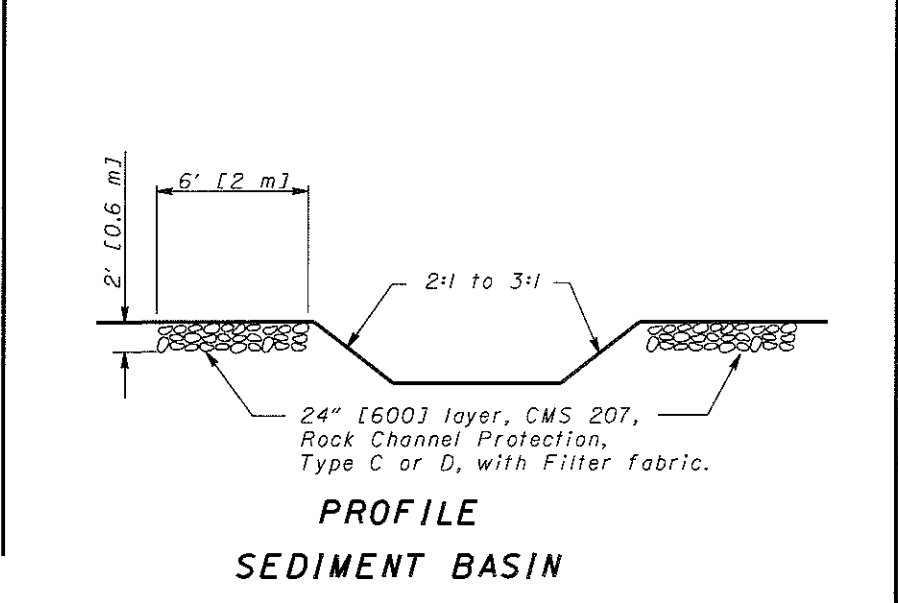
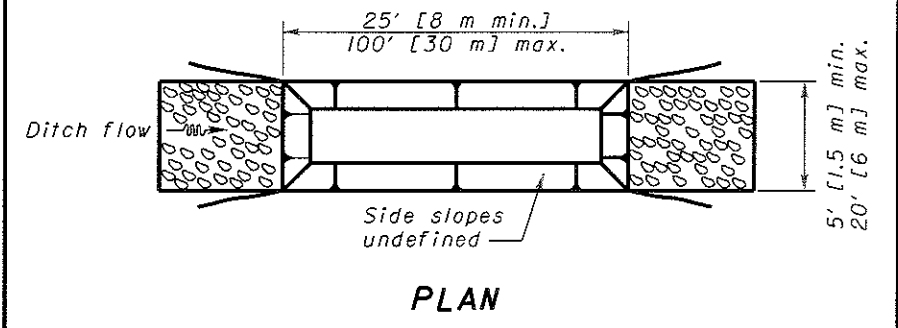
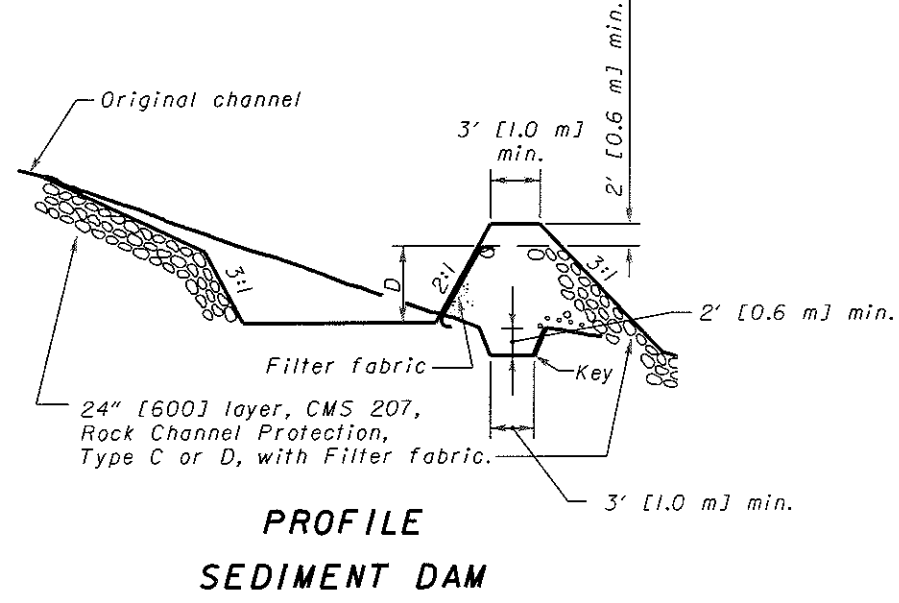
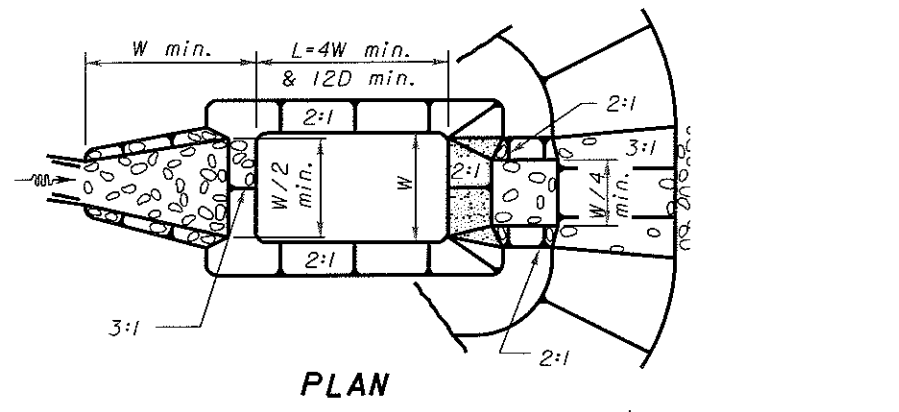
NOTES

MATERIAL: Furnish materials conforming to Item 203 Embankment and Item 601 Rock Channel Protection, Type C or D with filter. Furnish construction fence consisting of 4'-0" [1.3 m] high plastic fence with 6' [2 m] long metal fence posts.

CONSTRUCTION: Construct the Basin and Dams as detailed. Construct the construction fence in urban areas or in high pedestrian traffic areas. Construct the fence to completely surround the sediment basin or dam. Place the fence post on 8' [2.6 m] centers 2' [0.6 m] deep. Securely attach the plastic construction fence to the fence post.

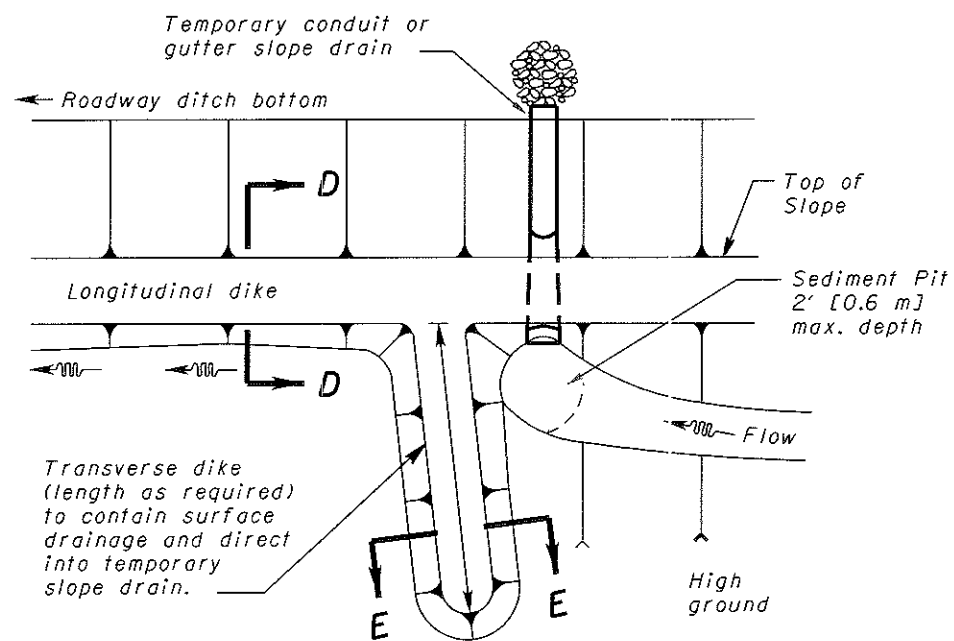
PAYMENT: The Department will pay for the accepted quantities at the contract prices as follows:

- Item 207 - Sediment Basins and Dams in cubic yards [cubic meters]
- Item 207 - Rock Channel Protection Type C or D with filter in cubic yards [cubic meters]
- Item 207 - Construction Fence per foot [meter]

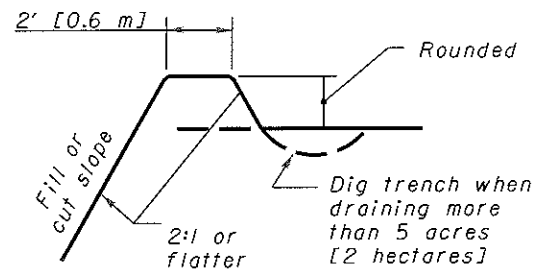


OHIO DEPARTMENT OF TRANSPORTATION
ENGINEER OF BRIDGES
DATE
4-29-99
7-19-02
HYDRAULIC ENGINEER
D. Gruver
All metric dimensions (in brackets []) are in millimeters unless otherwise noted.
OFFICE OF STRUCTURAL ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING
SEDIMENT AND EROSION CONTROLS
NUMBER
DM-4.3
1/2

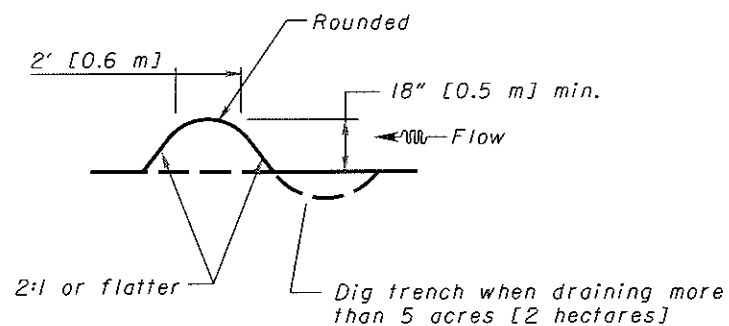
DIKES AND SLOPE PROTECTION



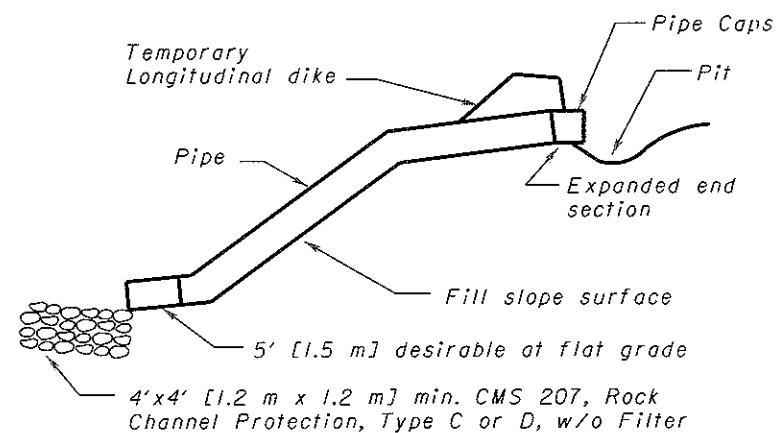
PLAN VIEW



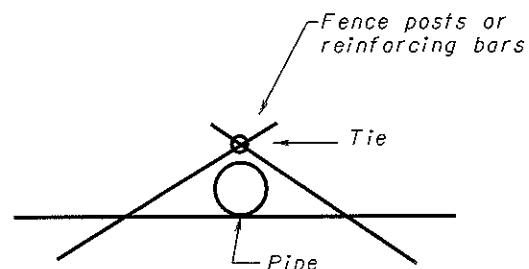
SECTION D-D



SECTION E-E



CONDUIT SLOPE DRAIN



TIE-DOWN SLOPE DRAIN

NOTES

MATERIAL: Furnish materials conforming to Item 203 Embankment and Item 601 Rock Channel Protection, Type C or D, without filter.

Furnish the following for the slope drains: corrugated steel pipe, corrugated or smooth plastic pipe, pipe caps with: holes that comprise at least 30 percent of the cross sectional area of the cap and specifically designed to connect to the pipe, reinforcing bars or fence posts and sand and gravel for the sediment pit filter material.

CONSTRUCTION: Construct as detailed. Compact the dike to 85% of the maximum density as determined by Supplement 1015.

Use reinforcing bars or fence posts to tie down the slope drains and to keep the pipe from moving.

Construct a 3'x3'x2' [1 m x 1 m x 0.6 m] pit for the sediment pit filter material. Fill with filter material to the ground level.

BASIS OF PAYMENT: The Department will pay for the accepted quantities at the contract prices as follows:

Item 207 - Dikes in cubic yards [cubic meters]

Item 207 - Slope Drains in feet [meters]

Item 207 - Rock Channel Protection Type C or D without filter in cubic yards [cubic meters]

TEMPORARY SLOPE DRAINS RECOMMENDED SIZES		
AREA in acres [hectares]	PIPE SIZES	
	Smooth	Corrugated
0-4 [0-1.6]	6" [150]	6" [150]
4-8 [1.6-3.2]	8" [200]	12" [300]
8-12 [3.2-4.9]	10" [250]	15" [375]

OHIO DEPARTMENT OF TRANSPORTATION
ENGINEER OF BRIDGES

DATE
4-29-99
7-19-02

HYDRAULIC ENGINEER
D. Gruver

All metric dimensions (in brackets []) are in millimeters unless otherwise noted.

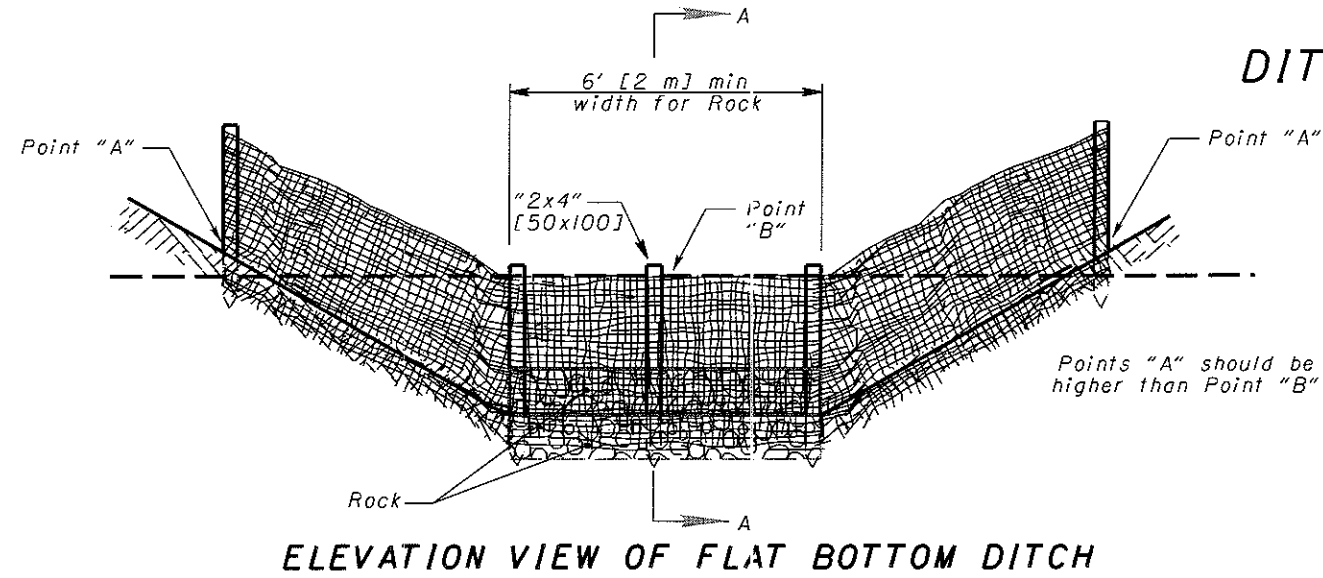
OFFICE OF STRUCTURAL ENGINEERING

STANDARD HYDRAULIC CONSTRUCTION DRAWING
SEDIMENT AND EROSION CONTROLS

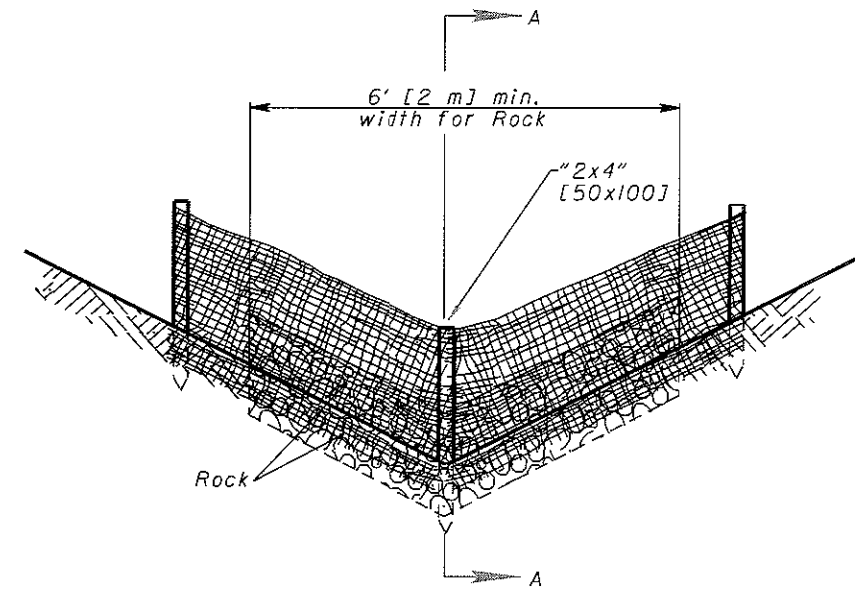
NUMBER
DM-4.3

2 / 2

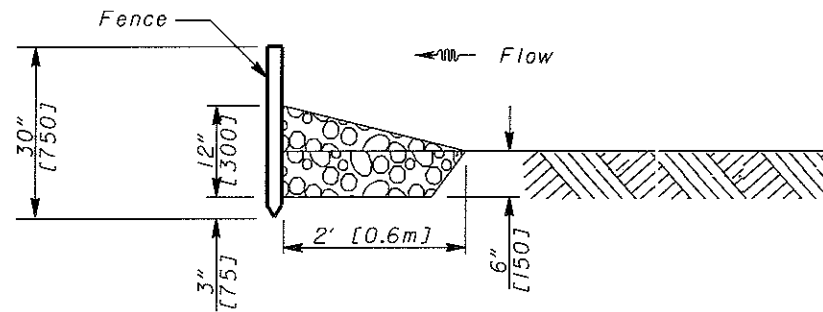
DITCH CHECKS



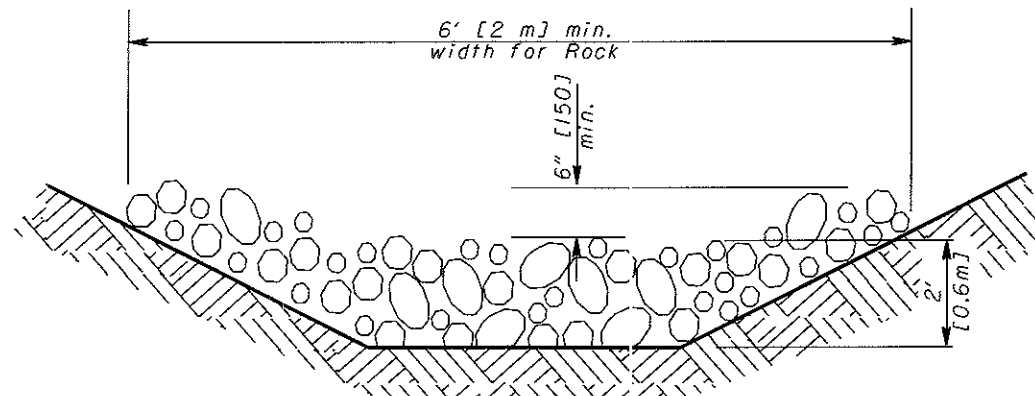
ELEVATION VIEW OF FLAT BOTTOM DITCH



ELEVATION VIEW OF "V" DITCH



SIDE VIEW OF FLAT BOTTOM AND V DITCH
SECTION A-A



Minimum dimensions: 2' [0.6 m] high x 6' [2 m] wide x 3' [0.9 m] long

ELEVATION VIEW
ROCK CHECK

NOTES

FILTER FABRIC DITCH CHECKS:

MATERIALS: Furnish filter fabric ditch checks consisting of the following materials:

- 30" [0.8 m] wide filter fabric with sound wood supports with maximum on-center spacing of 10' [3.0 m]. Use filter fabric conforming to 712.09 Type C.
- A vertically driven "2x4" [50x100] stake in the center of the ditch
- Gravel or limestone material conforming to one of the following gradations No. 1 through No. 4 on Table 703.01-1.

CONSTRUCTION: Trench the filter fabric fence as detailed for PERIMETER FILTER FABRIC FENCE. (see Sheet 2/2) Place a vertical "2x4" [50x100] stake in the center of the ditch with the top level to the top of the fence and at least 6" [150] below the bottom of the ditch. Excavate for and place the gravel or limestone on the upstream side of the ditch check.

PAYMENT: The Department will pay for the accepted quantities at the contract prices in feet [meters] as follows: **Item 207 - Filter Fabric Ditch Check.**

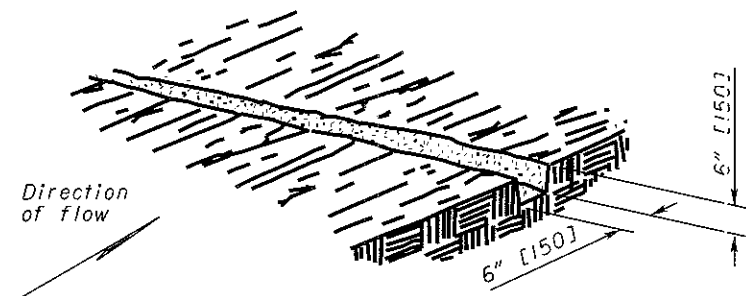
ROCK CHECKS:

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

CONSTRUCTION: Place the rock outside the traffic clear zone in the ditch.

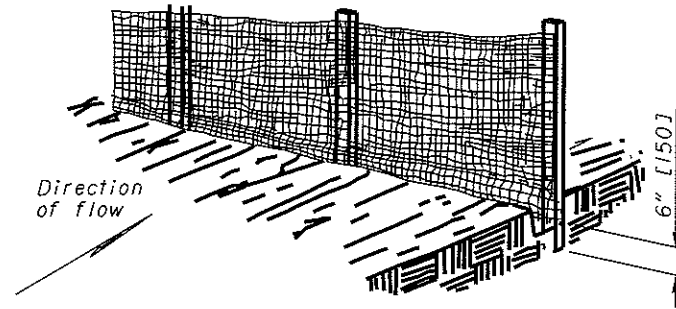
PAYMENT: The Department will pay for the accepted quantities at the contract prices in cubic yards [cubic meters] as follows: **Item 207 - Rock Channel Protection Type C or D without filter.**

PERIMETER FILTER FABRIC FENCE



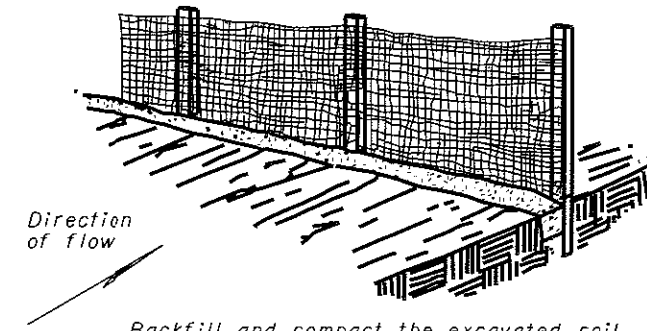
Excavate a 6"x6" [150x150] trench along the proposed fence line.

STEP 1



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

STEP 2



Backfill and compact the excavated soil.

STEP 3

NOTES

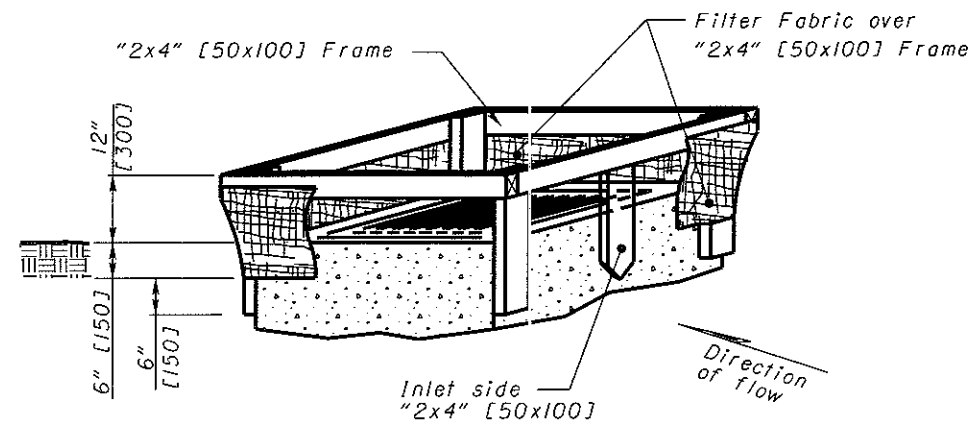
MATERIALS: Furnish 30" [0.8 m] wide filter fabric with sound wood supports with maximum on-center spacing of 10' [3.0 m]. Use filter fabric conforming to 712.09 Type C. The Contractor may elect to use straw or hay bales. Use 30" [750] long 2"x2" [50x50] wooden stakes, reinforcing bars or fence posts for the straw or hay bales.

CONSTRUCTION: Trench the filter fabric fence as detailed. The Contractor may elect to trench the fence detailed on steps 1 through 3 in one plowing operation.

When straw or hay bales are used conform to the following: Tightly place each bale adjacent to one another. Entrench 2" [50] to 3" [75] into the ground prior to staking. Firmly stake each bale with at least two stakes. Use loose hay or straw to fill the voids under or between the bales.

PAYMENT: The Department will pay for the accepted quantities at the contract prices in feet [meters] as follows: **Item 207 - Perimeter Filter Fabric Fence.**

INLET PROTECTION



INLET PROTECTION

NOTES

MATERIALS: Furnish inlet protection consisting of 18" [0.5 m] wide filter fabric fence with a securely nailed "2x4" [50x100] wood frame with a vertically driven "2x4" [50x100] on the inlet or flow side of the structure. Use filter fabric conforming to 712.09 Type C.

CONSTRUCTION: Construct an 18" [0.5 m] wide filter fabric fence supported around a storm drain inlet or catch basin with a securely nailed "2x4" [50x100] wood frame. Excavate a 6" [150] trench around the inlet, and drive support posts 6" [150] below the excavated trench bottom. Stretch the fabric around the frame. Secure it tightly ensuring that 6" [150] of fabric is in the trench. Overlap the fabric on one side of the inlet so that the fabric ends are not attached to the same post. Backfill and compact the excavated soil tightly onto the fabric. Place a vertical "2x4" [50x100] in the center of the inlet so that the top is at the top of the fence and the bottom is at least 6" [150] below the bottom of the ditch.

PAYMENT: The Department will pay for the accepted quantities at the contract prices in feet [meters] as follows: **Item 207 - Inlet Protection.**

OHIO DEPARTMENT OF TRANSPORTATION
ENGINEER OF BRIDGES

DATE
4-29-02
7-19-02

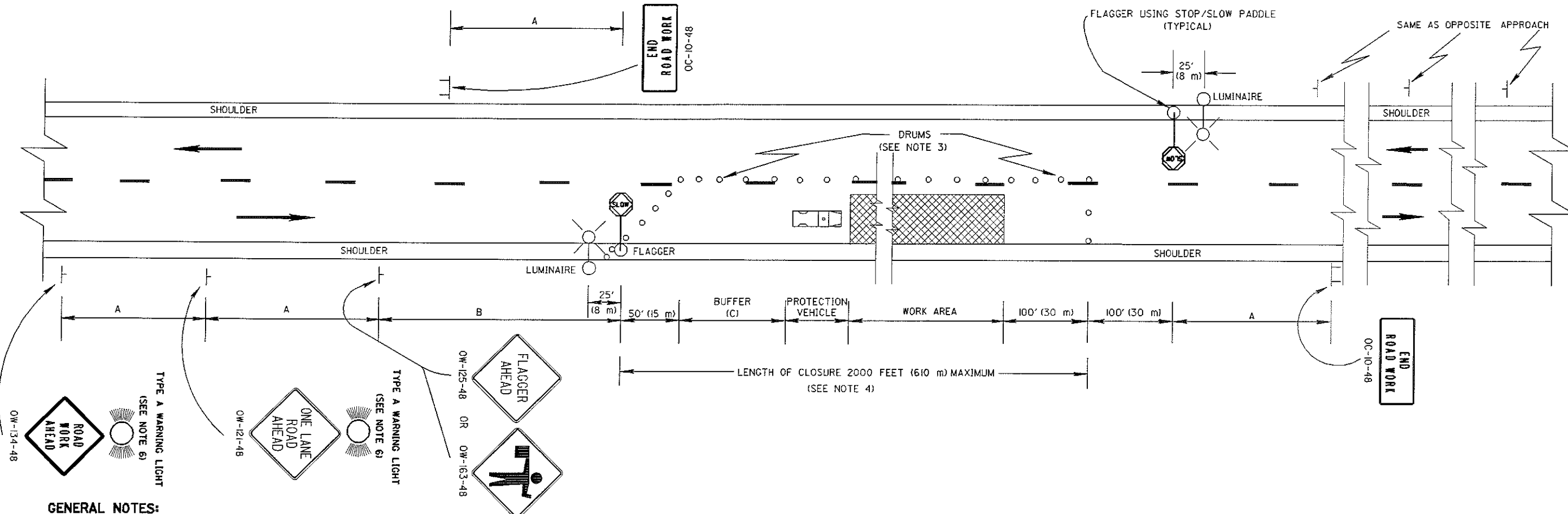
HYDRAULIC
ENGINEER
D. Gruver

All metric dimensions
(in brackets []) are
in millimeters unless
otherwise noted.

OFFICE OF
STRUCTURAL
ENGINEERING

STANDARD HYDRAULIC CONSTRUCTION DRAWING
CONSTRUCTION EROSION CONTROL

NUMBER
DM-4.4



GENERAL NOTES:

1. The location of the Advance Warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment. The distances shown are minimums.
2. Flaggers, one for each direction shall be used to control traffic continuously for as long as a one lane operation is in effect. The flaggers shall be able to communicate with each other at all times.
3. Drums shall be spaced at 50' (15 m) center to center along the closure. Drums on the advance taper shall be spaced at 10' (3 m) center to center. Cones having a minimum height of 28" (0.7 m) may be substituted for drums for daytime lane closures. Provisions shall be made to stabilize the cones to prevent them from blowing over.
4. Several small work areas close together shall be combined into one work zone. However, the closure shall not be more than 2000' (610 m) long unless approved by the Engineer. The minimum length between closures shall be 2000' (610 m). Only one side of the road shall be closed in any one work zone.
5. The protection vehicle shown at the beginning of the work area shall be in place and unoccupied whenever workers are in the work area. This protection vehicle shall be removed from the pavement when workers are not in the work area. Other protective devices such as truck mounted attenuator may be used. The vehicle shall be equipped with a 360° rotation or flashing amber beacon clearly visible a minimum of one quarter mile (400 m).
6. The Type A flashing warning lights shown on the OW-134 and the OW-121 signs are required whenever a night lane closure is necessary.
7. Adequate area illumination of each flagger station shall be provided at night by using 150 watt minimum high pressure sodium luminaires or 250 watt minimum mercury luminaires. Luminaires shall be located adjacent to one flagger station for each direction of traffic as shown above. The mounting height for luminaires shall be a minimum of 27' (8.2 m) above the pavement and mounted on a support of adequate strength to provide a satisfactory installation. The overhead conductor clearance shall be a minimum of 18' (5.5 m) above the pavement. The luminaire arm shall be of sufficient length to extend to the edge of the pavement. Poles shall be erected a minimum of 6'6" (2.1 m) behind face of guardrail where existing, or 12' (3.6 m) from the edge of pavement, where possible locate the luminaires behind ditch. Lighting material shall comply with specification 713.
8. Within the length of closure, provision shall be made to control traffic entering from intersecting streets and major drives as necessary to prevent wrong way movements and to keep vehicles off of new pavement not ready for traffic. The method of control shall be subject to the approval of the Engineer.
9. 36 inch (900 mm) warning sign sizes may be used when the legal speed limit is 40 mph or less.

MINIMUM DISTANCE FT (m)	A	B	C
URBAN (≤ 40 MPH)	200 (60)	200 (60)	170 (50)
URBAN (≥ 45 MPH)	350 (105)	350 (105)	335 (100)
RURAL	500 (150)	500 (150)	335 (100)

State of Ohio
 Department of Transportation
 Supplemental Specification 832
 Temporary Sediment and Erosion Control

April 17, 2004

- 832.01 Description
- 832.02 Definitions
- 832.03 Standard Construction Drawing References
- 832.04 Requirements
- 832.05 Provisions
- 832.06 EDA Requirements
- 832.07 TSEC BMP Materials
- 832.08 Furnish and Locate TSEC BMP
- 832.09 Stream and River Crossings (Causeways)
- 832.10 Causeway and Access Fills Construction and Payment.
- 832.11 Maintenance
- 832.12 Storm Water Pollution Prevention Plan
- 832.13 SWPPP Acceptance
- 832.14 Inspection
- 832.15 Compensation
- 832.16 Method of Measurement
- 832.17 Basis of Payment

832.01 Description This work consists of furnishing and locating TSEC (Temporary Sediment and Erosion Control) BMP (Best Management Practices) for both project and off project EDA (Earth Disturbing Activity) areas and developing a SWPPP (Storm Water Pollution Prevention Plan) as required and a Co-Permittee form as required. Furnish these TSEC BMP prior to any EDA. Furnish a SWPPP if required prior to any EDA. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, State, or local agencies, adhere to the more restrictive laws, rules, or regulations.

832.02 Definitions

- BMP** Best Management Practices
- CMS** Construction and Material Specifications of the Ohio Department of Transportation Dated as shown on the plans
- Co-Permittee** A requirement in SS833 Part VII. Definitions O
- Earth Disturbing Activity (EDA)** Any activity that exposes bare ground or an erodible material to storm water and anywhere CMS Item 659 Seeding, SS 870 Seeding, CMS Item 660 Sodding, or SS 870 Sodding is being furnished
- Contractor EDA** Any EDA that is NOT shown on the plans as part of the project be the EDA inside the project limits or not

- Project EDA** Any EDA that is shown on the plans as part of the project
- EPA** Environmental Protection Agency
- Isolated Wetland Permit** Ohio EPA permit allowing the discharge of fill material into an isolated wetland
- NOI** Notice of Intent
- NOT** Notice of Termination
- NPDES** National Pollutant Discharge Elimination System
- OEPA** Ohio EPA
- OES** Office of Environmental Services-ODOT
- OWPCA** Ohio Water Pollution Control Act
- OHWM** Ordinary High Water Mark; the USACE's jurisdictional limits involving streams; usually equivalent to a 2 year high water elevation.
- PCN** Pre-Construction Notification for 404 permit
- SCD** Standard Construction Drawing
- Supplemental Specification 833 (SS 833)** OEPA NPDES Construction Effluent Guidelines Permit
- SWPPP** Storm Water Pollution Prevention Plan
- TSEC** Temporary Sediment and Erosion Control
- USACE** United States Army Corps of Engineers
- 404 Permit** USACE permit authorizing discharge of fill material into Waters of the US, per Section 404 of the Clean Water Act
- 401 Water Quality Certification (401 WQC)** Ohio EPA permit authorizing discharge of fill material, per Section 401 of the Clean Water Act

832.03 Standard Construction Drawing References

Bale Filter Dike	SCD DM-4.3/4.4
Construction Fence	SCD DM-4.3
Dikes	SCD DM-4.3
Filter Fabric Ditch Check	SCD DM-4.4
Inlet Protection	SCD DM-4.4
Perimeter Filter Fabric Fence	SCD DM-4.4
Rock Channel Protection Type C or D with/without Filter	SCD DM-4.3/4.4
Sediment Basins and Dams	SCD DM-4.3
Slope Drains	SCD DM-4.3

832.04 Requirements. Furnish and locate TSEC BMP to represent and warrant compliance with the Clean Water Act, 33 USC Section 1251 et seq. and the OWPCA, ORC 6111.01 et seq., all conditions of 404 permit/401 WQC/Isolated Wetland Permit, and related rules, local government agency requirements, specifications, SCD, and permits. Furnish a SWPPP to represent and warrant compliance with SS 833, related rules, specifications, SCD, and permits. The Department will furnish the Contractor a copy of the NOI and the OEPA approval letter at or before the Pre-Construction meeting.

A Co-Permittee form is required when the project requires a SWPPP. Information about the Co-Permittee form can be found at “WWW.epa.state.oh/dsw/strom/stromform” For a copy of the Co-Permittee form see Appendix D.

Post Construction controls as described in SS 833 are not a part of this specification. All post construction controls are furnished in the project.

832.05 Provisions These provisions survive the completion and/or termination of the contract. The following provisions must be followed:

- A. Provision 1. If a governmental agency or a local governmental authority finds a violation of the above noted requirements, or that the TSEC BMP are incomplete, or that the SWPPP is incomplete or that the implementation of the SWPPP is not being performed correctly or completely, full responsibility will be borne by the Contractor to make all corrections.
- B. Provision 2. If a governmental agency or a local governmental authority furnishes an assessment, damage judgment or finding, fine, penalty, or expense for a violation of the above noted requirements, or that the TSEC BMP are incomplete, or that the SWPPP is incomplete or that the implementation of the SWPPP is not being performed correctly or completely, the Contractor will reimburse the Department within 10 Calendar Days of the amount for any of the above. The Department may withhold the amount of money requested for the above from the Contractor's next pay estimate and deliver that sum to the governmental agency or local governmental authority issuing the assessment, damage judgment or finding, fine, penalty or expense.
- C. Provision 3. The Contractor agrees to indemnify and hold harmless the Department, and will reimburse the Department for any assessments, damage judgment or finding, fine, penalty, or expense as a result of the failure of performing this portion of the Contract. The Department may withhold the amount of any assessments, damage judgment or finding, fine, penalty or expense from the Contractor's next pay estimate.
- D. Provision 4. If a governmental agency or a local governmental authority furnishes a stop work order for a violation of the above noted requirements, or that the TSEC BMP are incomplete, or that the SWPPP is incomplete or that the implementation of the SWPPP is not being performed correctly or completely the Department will find the Contractor in default.
- E. Provision 5. If the Department finds a violation of the above noted requirements, or that the TSEC BMP are incomplete, or that the SWPPP is incomplete or that the implementation of the SWPPP is not being performed correctly or completely, the Contractor will make all corrections. The Department may withhold and continue to withhold progress payments until such corrections are made.

832.06 EDA Requirements. Comply with CMS 105.16 when EDA (including borrow and waste areas) are involved, unless the areas in question have been cleared through prior environmental studies. Furnish TSEC BMP for any EDA. An encumbered amount is established in the proposal for TSEC BMP to be used for project EDA and possible Contractor EDA as outlined below.

- A. The project is identified as Maintenance on the plan title sheet. All TSEC BMP used for Contractor EDA will not be compensated.
If Contractor EDA < 1 acre: no SWPPP, NOI, NOT, or weekly inspections are required.
If Contractor EDA ≥ 1 acre: Furnish a SWPPP, NOI, and NOT for only this area. The SWPPP, NOI and NOT will not be compensated.

Clarification: Maintenance projects are permitted to have Project Only EDA of 5 acres or less without requiring an SWPPP, NOI, NOT. The Contractor will be compensated for all TSEC BMP for all Project EDA, however, no compensation will be made for TSEC BMP used for Contractor EDA. For Maintenance projects, the Contractor and Project EDA are considered independent of one another.

Example: A culvert replacement project is labeled as Maintenance on the title sheet. All TSEC BMP used on the Project EDA will be compensated. The Contractor clears a storage site for the project that is 2 acres in size. The Contractor will need to file a NOI, and furnish a SWPPP, NOT, and weekly inspections for this work without any compensation.

- B. Project Identified EDA = 0, Contractor EDA = 0, Total EDA = 0 Acre: There are no requirements.
- C. Project Identified EDA = 0, Contractor EDA > 0, Total EDA < 1 Acre: Furnish TSEC BMP for the EDA areas. These TSEC BMP will not be compensated. No SWPPP, NOI, NOT, or, weekly inspections are required.
- D. Project Identified EDA = 0, Contractor EDA ≥ 1, Total EDA ≥ 1 Acre: Furnish a NOI, SWPPP with TSEC BMP, and a NOT for those EDA areas. The NOI, SWPPP and those TSEC BMP, and the NOT will not be compensated.
- E. Project Identified EDA < 1, Contractor EDA > 0, Total EDA < 1 Acre: Furnish TSEC BMP for the EDA areas. These TSEC BMP will be compensated. No NOI, SWPPP, NOT, or, weekly inspections are required. The Department will furnish a NOI and NOT.
- F. Project Identified EDA < 1, Contractor EDA > 0, Total EDA ≥ 1 Acre: Furnish a SWPPP with TSEC BMP for the EDA areas and a file a Co-Permittee form. The SWPPP, and these TSEC BMP will be compensated. The Department will furnish a NOI and NOT.
- G. Project Identified EDA ≥ 1, Contractor EDA ≥ 0, Total EDA ≥ 1 Acre: Furnish a SWPPP with TSEC BMP for the EDA areas and a file a Co-Permittee form. The SWPPP,

and these TSEC BMP will be compensated. The Department will furnish a NOI and NOT.

832.07 TSEC BMP Materials. Furnish commercial fertilizer, seed, and mulch materials conforming to CMS Item 659.

Furnish filter fabric ditch checks, rock checks, inlet protection, perimeter filter fabric fence, bale filter dikes, sediment basins and dams, dikes, slope drains, and rock channel protection materials as specified on the SCD. Furnish construction ditch and slope protection conforming to the requirements of CMS Item 670. The seeding and mulching of the mats are not required. The Department may accept other materials as BMP.

832.08 Furnish and Locate TSEC BMP. Furnish and locate the TSEC BMP as required or as outlined in the Ohio Department of Transportation Location Design Manual Volume II - Drainage Design, or as outlined in the SWPPP. Keep TSEC BMP functional until the areas are fully stabilized.

Construct items A, B, and D through G below according to the SCD.

A. **Perimeter Controls.** Use perimeter filter fabric fence to protect the project from sheet flow runoff from off Right-of-Way and off construction limit locations. Use perimeter filter fabric fence to protect the following project items from sheet flow runoff: water bodies, wetlands, or other significant items shown on the plans.

Use dikes to prevent sediment flow from coming onto the project and to non-vegetated barren areas on the project.

Install perimeter filter fabric fence and dikes before any clearing and grubbing operations.

Ensure that the ponding of water behind the perimeter filter fabric fence or dike will not damage property or risk the safety of life.

B. **Inlet Protection.** Construct the inlet protection for existing inlets at the beginning of construction and for new inlets immediately after completing the sump. Ensure that the ponding of water behind the inlet will not damage property or risk the safety of life.

C. **Construction Seeding and Mulching.** Apply seed and mulch materials according to CMS Item 659 as modified below. When straw mulch is used, apply at a rate of 2 tons per acre (0.5 metric ton/1000 m²). Seed and mulch during and after construction, and before or during winter shut down to stabilize EDA areas and as required. Fertilize construction seeding areas at one-half the application rate specified in CMS Item 659. If project conditions prevent fertilizing the soil and preparing the seed bed, then the fertilizing and preparation requirements of CMS Item 659 may be waived. Do not place construction seed on frozen ground. For areas defined below Construction Seeding and Mulching may be

applied by hand at the following rate mixture.

Area	Seed Mixture	Straw or Hay Bales
≤ 15,000 ft ² (0.14 ha) > 10,000 ft ² (0.1 ha)	Kentucky 31, 3 lb/1000 ft ² 14.67 kg/1000 m ² Annual Ryegrass 2 lb/1000ft ² 9.76 kg/1000 m ²	2 / 1000 ft ² (0.01 ha)
≤ 10,000 ft ² (.1 ha) > 5000 ft ² (0.05 ha)	Kentucky 31, 4 lb/1000 ft ² 19.28 kg/1000 m ² Annual Ryegrass 3 lb/1000ft ² 14.64 kg/1000 m ²	2 / 1000 ft ² (0.01 ha)
≤ 5000 ft ² (0.05 ha)	Kentucky 31, 5 lb/1000 ft ² 24.4 kg/1000 m ² Annual Ryegrass 4 lb/1000ft ² 19.28 kg/1000 m ²	2 / 1000 ft ² (0.01 ha)

For areas as defined above the material specifications are waived.

D. **Slope Protection.** Place dikes, install slope drains, and construct ditches to divert water from bare non-vegetated areas and to protect cut and fill slopes. Protect the side slopes from erosion by placing dikes at the top of fill slopes.

Before furnishing a cut slope, construct a ditch at the top of the cut slope to reduce runoff coming on the slope.

Furnish Construction Slope Protection at the required locations or at the locations shown on the SWPPP as the slopes are constructed. Furnish all permanent slope protection as shown in the construction plans when final grade is complete.

E. **Ditch Checks and Ditch Protection.** Place filter fabric ditch checks or rock checks across a ditch and perpendicular to the flow to protect the ditch from erosion and to filter sediment from the flowing water.

Place ditch checks as soon as the ditch is cut. If working on a ditch, replace the ditch checks by the end of the workday.

Install filter fabric ditch checks for drainage areas less than or equal to 2 acres (0.8 ha) as shown in the SCD. Install rock checks for drainage areas between 2 to 5 acres (0.8 to 2.0 ha) as shown in the SCD.

Install ditch checks in conjunction with sediment basins and dams.

Furnish Construction Ditch Protection at the required locations or at the locations shown on the SWPPP as the ditches are cut. Furnish all permanent ditch protection as shown in the construction plans when final grade is complete.

F. Bale Filter Dike. Install bale filter dike a few feet (meters) from the toe of a slope to filter and direct sediment to an appropriate control item before the runoff enters a water body on or off the Project limits.

Use the bale filter dike to collect sediment from:

1. Areas less than 1/4 acre (0.1 ha) for each sediment pit.
2. Slopes with a length of less than 100 feet (30 m) and having a maximum 2:1 slope.

Use a sediment pit every 100 feet (30 m) for a 2:1 slope for every 1/4 acre (0.1 ha). Use a greater spacing of the sediment basin for flatter slopes.

Begin constructing bale filter dikes within 7 days of commencing grubbing operations. Complete the construction of the bale filter dike before starting the grading operations.

G. Sediment Basins and Dams. Construct basins and dams at concentrated and critical flow locations to settle out sediment before the water leaves the EDA area. Use basins at the bottom of a ravine, at a culvert inlet, or outlet, along or at the end of a ditch and at any concentrated water exit point of the project. Construct the basins to retain 67 cubic yards (125 m³) of water for every acre (1.0 ha) of drainage area. Use a series of smaller basins or dams as a substitute for a larger basin or dam. No sediment basins will be constructed in a stream, a temporary channel or ditches that carry water of the United States.

Begin constructing sediment basins and dams within 7 days of commencing grubbing operations. Complete the construction of the sediment basins and dams before starting the grading operations.

When needed construct construction fence around the sediment basins or dams.

H. River, Stream, and Water Body Protection. Protect all streams or water bodies passing through or on the project using Perimeter Filter Fabric Fence or Bale Filter Dike to line the water edge. Divert project water flow using dikes and slope protection. The Contractor may use a combination of items listed.

I. Stream Relocation, Temporary Channels and Ditches that carry waters of the United States. Fully stabilize the above with Construction Slope Protection or 70 percent grass growth before diverting flow into the new channel.

J. Concrete washout areas TSC/E BMP. For the purpose of payment this BMP is part of the concrete work for payment.

K. Project access TSEC BMP locations. For the purpose of payment this BMP is part of the total project for payment.

L. Project fueling and refueling TSC/E BMP locations. For the purpose of payment this BMP is part of the total project for payment.

M. All other TSEC BMP. All other TSEC BMP that are required but not specifically referenced will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

832.09 Causeways and Access Fills (Stream and River Crossings and Fills) . Fording of streams and rivers is not allowed. Evaluate the 404/401 permits to determine whether or not a causeway and access fills has been permitted by the USACE/OEPA. If a causeway and access fills has been permitted, construct the causeway and access fills per the 404/401 permits, and the application submitted for those permits. Only the surface area (acreage) of temporary fill, and volume of temporary fill that was permitted and contained in the permit application will be allowed. This information surface area (acreage) of temporary fill, and volume of temporary fill maybe furnished in the construction plans. The construction plans may furnish additional information or restrictions for causeways or access fills. The project engineer will consult with the Office of Environmental Services (OES) for any technical questions regarding 404/401 permits.

If the Contractor wants a causeway and access fills and they have not been permitted through the 404/401 permit process, the Contractor must coordinate the request for the causeway and access fills with the project engineer and OES. The Department makes no guarantee to granting the request. The causeway and access fills request will be coordinated by OES with the USACE through the pre-construction notification (PCN) process for authorization under the 404 nationwide permit (NWP) program. Supply the project engineer/OES with the following information:

- A. a plan and profile drawing showing the causeway and access fills with OHWM elevation
- B. volume of temporary fill below the OHWM
- C. the surface area of temporary fill below the OHWM

- D. a restoration plan for the area affected by the causeway and access fills
- E. time frames for placement and removal of the causeway and access fills

The time frame allowed for the coordination of the causeway and access fills will be 60 days, at a minimum, and the causeway and access fills will not occur prior to the 404 NWP being authorized by the USACE. All coordination with the USACE and/or OEPA will be performed through OES.

832.10 Causeway and Access Fills Construction and Payment. Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with 404/401 permits or other environmental commitments that have been included in the construction plans. Access Fills in Streams or Rivers may include, but is not limited to, cofferdams, access pads, temporary bridges, etc.

Make every attempt to minimize disturbance to water bodies during construction, maintenance and removal of the causeway and access fills. Construct the causeway and access fills as narrow as practical and perpendicular to the stream banks. Make the causeway and access fills in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, bed, and approach sections. Construct the causeway and access fills as to not erode stream banks or allow sediment deposits in the channel.

Construct the causeway and access fills to a water elevation at least 1 foot (0.3 m) above the normal water elevation. If the causeway fills more than one-third the width of the stream, then use culvert pipes to allow the movement of aquatic life. Normal downstream flows will be maintained. Ensure that any ponding of water behind the causeway and access fills will not damage property or cause a human safety concern.

- A. The following minimum requirements apply to causeways where culverts are used.
 1. Furnish culverts on the existing stream bottom.
 2. Avoid a drop in water elevation at the downstream end of the culvert.
 3. Furnish culverts with a diameter at least two times the depth of normal stream flow measured at the causeway centerline or with a minimum diameter of 18 inches (0.5 m) whichever is greater
 4. Furnish a sufficient number of culverts normal to the flow to completely cross the channel from stream bank to stream bank with no more than 10 feet (3 m) between each culvert.

For all fill and surface material placed in the channel, around the culverts, or on the surface of the

causeway and access fills furnish clean, non-erodible, nontoxic dumped rock fill, Type B, C, or D, as specified in CMS 703.19.B. Extend rock fill up the slope from original stream bank for 50 feet (10 m) to catch and remove erodible material from equipment.

When the work requiring the causeway and access fills all portions of the causeway (including all rock and culverts) and access fills will be removed in its entirety. The material will not be disposed in other waters of the US or isolated wetland. The stream bottom affected by the causeway and access fills will be restored to its pre-construction elevations. The causeway and access fills will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

832.11 Maintenance. Properly maintain all TSEC BMP. Dispose of silt removed from TSEC BMP according to CMS 105.16. When the Contractor properly places the erosion control Items then the Department will pay for the cost to maintain or replace these items of work by the following:

If a recorded rain event is greater than 0.5 inches (13mm) the Department will pay to replace all TSEC BMP that have failed at the unit price for those Items and all of the sediment removed per the unit price for Item Sediment Removal. If a portion of a TSEC BMP is damaged and that portion is repaired but not replaced the Department will pay for that portion as if it was replaced. Example

.6 inch rain and 300 ft. of filter fabric fence was damaged out of a 900 ft. long run. The 300 ft. was stood back up and sediment was removed. How do we pay for the 300 ft of repair and sediment removed? Pay for 300 feet of new fence and Item Sediment Removal.

If a recorded rain event is less than or equal to 0.5 inches (13mm) the Department will pay to remove the sediment per the unit price for Item Sediment Removal. All properly installed TSEC BMP are furnished and located such that they are able to provide protection during a rain event that is less than or equal to 0.5 inches (13mm), therefore no other compensation is due.

If the sediment reaches a height of one-half the following TSEC BMP Perimeter Filter Fabric Fence, Filter Fabric Ditch Checks, Rock Checks, Inlet Protection, Dikes, and Bale Filter Dikes then remove trapped sediment per the unit price for Item Sediment Removal.

If the sediment reduces the initial volume of the sediment basin or dam by one-half remove deposited sediment per the unit price for Item Sediment Removal. Remove dams and basins after the up slope has been stabilized.

Remove all TSEC BMP before the project is accepted. Dispose of the removed materials including sediment according to CMS 105.16 and CMS 105.17. Maintain the TSEC BMP until the up-slope permanent grass coverage is 70 percent or better. At this stage, remove the TSEC BMP.

832.12 Storm Water Pollution Prevention Plan. If required, prepare the SWPPP as outlined in this specification and Supplemental Specification 833. Additional guidance can be found in the Ohio Department of Transportation Location and Design Manual Volume II - Drainage Design and the Ohio Department of Transportation Location and Design Manual Volume III- Highway Plans. Examples of some of the design and information requirements that must be shown on the SWPPP are as follows:

- A. A Professional Engineer qualified in TSEC BMP must design and sign the SWPPP.
- B. Locate the required TSEC BMP for both on and off project EDA areas.
- C. Furnish quantity totals for all TSEC BMP.
- D. Locate the following a minimum of 100 Ft. (30 m) from the water's edge of any stream, ephemeral stream, wetland, or body of water:
 - 1. Concrete or asphalt plant areas
 - 2. Material and equipment staging or storage areas
 - 3. Dewatering Areas
 - 4. Concrete truck wash out areas
 - 5. Construction access locations
 - 6. Vehicle fueling and refueling locations
- E. Furnish an implementation schedule for each construction sequence.
- F. For any additional requirements, See CMS 107.19
- G. Furnish the total EDA areas in acres.
- H. Locate all slopes that will be inactive for 21 calendar days or longer.
- I. Furnish the name of the individual on site who is in charge of the SWPPP and the TSEC BMP practices.
- J. Describe the type of construction activities that will be taking place.
- K. Furnish a quantity for Item 832 Sediment Removal for removing sediment from basins and dams, inlet protection, ditch checks, rock checks, perimeter filter fabric fence, bale filter dikes, and all other types of filter fabrics, straw or hay bales, or any other TSEC BMP.
- L. Furnish signatures of all contractors and subcontractors involved in TSEC practices (see App. B).

If there are plan sheets which meet any of the SS 833 requirements use that information. Design files may be furnished to the awarded Contractor in electronic form in the future.

832.13 SWPPP Acceptance. Furnish the initial SWPPP to the Department for acceptance. The Department will grant a start of work upon receiving the SWPPP that has a P.E. stamp. See Appendix C for a sample acceptance form. The Department may critique the following:

- A. The type and location of TSEC BMP with totals.
- B. The SWPPP is for this project.
- C. There is no language in the SWPPP about any TSEC BMP being directed for use by the Engineer .
- D. The TSEC BMP Items when priced out closely agree with the Each amount set up in the plans.

Revise the accepted SWPPP as needed. These revisions to the accepted SWPPP will be at no additional cost to the Department . Payment for Department caused revisions to the SWPPP will be included as part of the revised work.

832.14 Inspections. Perform SS 833 required inspections. The inspection reports are to be prepared for projects that have a SWPPP. Submit a copy of the inspection reports to the project. Use the report form furnished in Appendix A.

832.15 Compensation. The Department will furnish Item 832 Each Erosion Control with an amount in the proposal to pay for TSEC BMP work. This amount is an estimate by the Department of the total cost of TSEC BMP work. If the TSEC BMP work exceeds this amount the TSEC BMP work will still be paid at the pre-determined prices. The pre-determined prices are located in the Proposal. All TSEC BMP work will be paid at the proposal pre-determined unit price times the correctly installed TSEC BMP number of units. The payment due will be deducted from Item 832 Each Erosion Control.

The Department will only pay for one accepted SWPPP regardless of the number of Construction phases, revisions, or project redesigns.

832.16 Method of Measurement

- A. The Department will measure the SWPPP plan as each.
- B. The Department will measure Construction Seeding and Mulching by the number of square yards (square meters).
- C. The Department will measure Slope Drains by the number of feet (meters).

D. The Department will measure Sediment Basins and Dams by the number of cubic yards (cubic meters) of excavation and embankment.

E. The Department will measure Perimeter Filter Fabric Fence, Bale Filter Dike and Construction Fence by the number of feet (meters).

F. The Department will measure Filter Fabric Ditch Check by the number of feet (meters).

G. The Department will measure Inlet Protection by the number of feet (meters).

H. The Department will measure Dikes by the number of cubic yards (cubic meters) of excavation and embankment.

I. The Department will measure Construction Ditch Protection and Construction Slope Protection by the number of square yards (square meters).

J. The Department will measure Rock Channel Protection, Type C or D (with or without filter) by the number of cubic yards (cubic meters).

K. The Department will measure Sediment Removal by the number of cubic yards (cubic meters).

832.17 Basis of Payment

A. The Department will not pay if temporary erosion and sediment control Items are required due to the Contractor's negligence, carelessness, or failure to install permanent controls.

B. The Department will not pay for any causeway and access fills..

C. The Department will not pay to replace TSEC BMP that has failed due to lack of proper maintenance or installation.

D. The Department will not pay for concrete washout areas.

E. The Department will not pay for project access locations.

F. The Department will not pay for all other TSEC BMP that are required but not specifically referenced as a separate item but will be included by the Contractor as part of the total project cost.

G. The Department will pay for the following Erosion Control Items (TSEC BMP) that are properly placed at the pre-determined price in the proposal conforming to 832.13.

Item	Unit	Description
832	Square Yard (Square Meter)	Construction Seeding and Mulching
832	Foot (Meter)	Slope Drains
832	Cubic Yard (Cubic Meter)	Sediment Basins and Dams
832	Foot (Meter)	Perimeter Filter Fabric Fence
832	Foot (Meter)	Bale Filter Dike
832	Foot (Meter)	Filter Fabric Ditch Check
832	Foot (Meter)	Inlet Protection
832	Cubic Yard (Cubic Meter)	Dikes
832	Square Yard (Square Meter)	Construction Ditch Protection
832	Square Yard (Square Meter)	Construction Slope Protection
832	Cubic Yard (Cubic Meter)	Rock Channel Protection Type C or D with Filter
832	Cubic Yard (Cubic Meter)	Rock Channel Protection Type C or D without Filter
832	Cubic Yard (Cubic Meter)	Sediment Removal
832	Foot (Meter)	Construction Fence
H. The Department will pay the contract price for each SWPPP plan.		
Item	Unit	Description
832	Each	Storm Water Pollution Prevention Plan

Appendix A

Weekly and Rain Event Erosion Control Checklist

Contractor _____
 Project Number _____ Co.-Rt.-Sec. _____ Date _____

R=Replacement W=Working M=Maintenance I=Install D=Delete Rain Amt Inspection _____ Date _____

Station	To	Station	Side	Offset	Balloon Ref.	Perimeter control	Inlet Protection	Constr. Seed	Dikes Fill Slopes	Ditch Cut Slopes	Slope Drains	FF Ditch Checks	Rock Ditch Ch	Bale Filter Dike	Sediment Basins	Stream Relocate	Stream Crossing	Date Work Was Complete
	To																	
	To																	
	To																	
	To																	
	To																	
	To																	
	To																	
	To																	
	To																	
	To																	
	To																	

Notes:

Total Station-to-Station Inspected

Inspect By Signature _____ Title _____ Date Given To ODOT _____

Appendix B

Signature list

Signature	Printed Name	Title	Company	Date

The Department has received the SWPPP for Project : _____
CO.-RT.-Sec: _____
The Submittal is Dated : _____

The Department Accepts the Submittal.

Project Engineer, Project Supervisor Date



Co-Permittee Notice of Intent for Coverage Under Ohio EPA Storm Water Construction General Permit

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized by Ohio's NPDES general permit for storm water associated with construction activity. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. NOTE: All necessary information must be provided on this form. Read the accompanying instructions carefully before completing the form. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. There is no fee associated with submitting this form.

I. Applicant Information/Mailing Address

Company (Applicant) Name: _____
Mailing (Applicant) Address: _____
City: _____ State: _____ Zip Code: _____
Contact Person: _____ Phone: _____ Fax: _____
Contact E-Mail Address: _____

II. Facility/Site Location Information

Existing Ohio EPA Facility Permit Number: __ GC _____ * __ G or OHR1 _____
Initial Permittee Name: _____
Phone: _____
Facility/Site Name: _____
City: _____ Townships(s): _____
County(ies): _____ State: Ohio Zip Code: _____
Facility Contact Person: _____ Phone: _____ Fax: _____
Facility Contact E-Mail Address: _____

III. Certification

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

Applicant Name: _____ Title: _____
Applicant Signature: _____ Date: _____

Designer Note:

This supplemental specification will be provided with both supplemental specification 833 and proposal note 205.

State Of Ohio
Department of Transportation

Supplemental Specification 833
Ohio Environmental Protection Agency National Pollutant Discharge Elimination System
Construction Effluent Guidelines Permit
February 12, 2003

Ohio EPA Permit No.: OHC000002
Effective Date: April 21, 2003

Expiration Date: April 20, 2008

**OHIO ENVIRONMENTAL PROTECTION AGENCY
AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED
WITH CONSTRUCTION ACTIVITY UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the federal Water Pollution Control Act, as amended (33 U.S.C. Section 1251 et. seq. hereafter referred to as "the Act") and the Ohio Water Pollution Control Act [Ohio Revised Code ("ORC") Chapter 6111], dischargers of storm water from sites where construction activity is being conducted, as defined in Part I.B of this permit, are authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA," to discharge from the outfalls at the sites and to the receiving surface waters of the state identified in their Notice of Intent ("NOI") application form on file with Ohio EPA in accordance with the conditions specified in Parts I through VII of this permit.

This permit is conditioned upon payment of applicable fees, submittal of a complete NOI application form and written approval of coverage from the director of Ohio EPA in accordance with Ohio Administrative Code ("OAC") Rule 3745-38-06.

Original signed by Christopher Jones
Christopher Jones
Director

Page 2 of 36 Ohio EPA Permit No.: OHC000002

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PART VI. REOPENER CLAUSE**PART VII. DEFINITIONS****PART I. COVERAGE UNDER THIS PERMIT****A. Permit Area.**

This permit covers the entire State of Ohio.

B. Eligibility.

1. Construction activities covered. Except for storm water discharges identified under Part I.B.2, this permit may cover all new and existing discharges composed entirely of storm water discharges associated with construction activity that enter surface waters of the state or a storm drain leading to surface waters of the state.

For the purposes of this permit, construction activities include any clearing, grading, excavating, grubbing and/or filling activities that disturb the threshold acreage described in the next paragraph. Discharges from trench dewatering are also covered by this permit as long as the dewatering activity is carried out in accordance with the practices outlined in Part III.G.2.g.iv of this permit.

Prior to March 10, 2003, only construction activities disturbing five or more acres of total land were required to obtain NPDES construction storm water permit coverage. On and after March 10, 2003, construction activities disturbing one or more acres of total land will be eligible for coverage under this permit. The threshold acreage includes the entire area disturbed in the larger common plan of development or sale.

This permit also authorizes storm water discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:

- a. The support activity is directly related to a construction site that is required to have NPDES permit coverage for discharges of storm water associated with construction activity;
- b. The support activity is not a commercial operation serving multiple unrelated construction projects and does not operate beyond the completion of the construction activity at the site it supports;
- c. Appropriate controls and measures are identified in a storm water pollution prevention plan (SWP3) covering the discharges from the support activity; and
- d. The support activity is on or contiguous with the property defined in the NOI;

Part I.B

2. Limitations on coverage. The following storm water discharges associated with construction activity are not covered by this permit:

- a. Storm water discharges that originate from the site after construction activities have been completed, including any temporary support activity, and the site has achieved final stabilization. Industrial post-construction storm water discharges may need to be covered by an NPDES permit;
- b. Storm water discharges associated with construction activity that the director has shown to be or may reasonably expect to be contributing to a violation of a water quality standard; and
- c. Storm water discharges authorized by an individual NPDES permit or another NPDES general permit;

3. Waivers. After March 10, 2003, sites whose larger common plan of development or sale have at least one, but less than five acres of land disturbance, which would otherwise require permit coverage for storm water discharges associated with construction activities, may request that the director waive their permit requirement. Entities wishing to request such a waiver must certify in writing that the construction activity meets one of the two the waiver conditions:

- a. Rainfall erosivity waiver. For a construction site to qualify for the rainfall erosivity waiver, the cumulative rainfall erosivity over the project duration must be five or less and the site must be stabilized with at least a 70 percent vegetative cover or other permanent, non-erosive cover. The rainfall erosivity must be calculated according to the method in U.S. EPA Fact Sheet 3.1 Construction Rainfall Erosivity Waiver dated January 2001. If it is determined that a construction activity will take place during a time period where the rainfall erosivity factor is less than five, a written waiver certification must be submitted to Ohio EPA at least 21 days before construction activity is scheduled to begin. If the construction activity will extend beyond the dates specified in the waiver certification, the operator must either:
 - (a) recalculate the waiver using the original start date with the new ending date (if the R factor is still less than five, a new waiver certification must be submitted) or
 - (b) submit an NOI application form and fee for coverage under this general permit at least seven days prior to the end of the waiver period (see Attachment A); or

Part I.B.3

b. TMDL (Total Maximum Daily Load) waiver. Storm water controls are not needed based on a TMDL approved or established by U.S. EPA that addresses the pollutant(s) of concern or, for non-impaired waters that do not require TMDLs, an equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. The pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the director of Ohio EPA that the construction activity will take place, and storm water discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis. A written waiver certification must be submitted to Ohio EPA at least 21 days before the construction activity is scheduled to begin.

4. Prohibition on non-storm water discharges. All discharges covered by this permit must be composed entirely of storm water with the exception of the following: discharges from fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine external building washdown which does not use detergents; pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water from trench or well point dewatering and foundation or footing drains where flows are not contaminated with process materials such as solvents. Dewatering activities must be done in compliance with Part III.G.2.g.iv of this permit. Discharges of material other than storm water or the authorized non-storm water discharges listed above must comply with an individual NPDES permit or an alternative NPDES general permit issued for the discharge.

Except for flows from fire fighting activities, sources of non-storm water listed above that are combined with storm water discharges associated with construction activity must be identified in the SWP3. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

Part I.B

5. Spills and unintended releases (Releases in excess of Reportable Quantities). This permit does not relieve the permittee of the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302. In the event of a spill or other unintended release, the discharge of hazardous substances in the storm water discharge(s) from a construction site must be minimized in accordance with the applicable storm water pollution prevention plan for the construction activity and in no case, during any 24-hour period, may the discharge(s) contain a hazardous substance equal to or in excess of reportable quantities.

40 CFR Part 117 sets forth a determination of the reportable quantity for each substance designated as hazardous in 40 CFR Part 116. The regulation applies to quantities of designated substances equal to or greater than the reportable quantities, when discharged to surface waters of the state. 40 CFR Part 302 designates under section 102(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, those substances in the statutes referred to in section 101(14), identifies reportable quantities for these substances and sets forth the notification requirements for releases of these substances. This regulation also sets forth reportable quantities for hazardous substances designated under section 311(b)(2)(A) of the Clean Water Act (CWA).

C. Requiring an individual NPDES permit or an alternative NPDES general permit.

1. The director may require an alternative permit. The director may require any operator eligible for this permit to apply for and obtain either an individual NPDES permit or coverage under an alternative NPDES general permit in accordance with OAC Rule 3745-38-04. Any interested person may petition the director to take action under this paragraph.

The director will send written notification that an alternative NPDES permit is required. This notice shall include a brief statement of the reasons for this decision, an application form and a statement setting a deadline for the operator to file the application. If an operator fails to submit an application in a timely manner as required by the director under this paragraph, then coverage, if in effect, under this permit is automatically terminated at the end of the day specified for application submittal.

Part I.C

2. Operators may request an individual NPDES permit. Any owner or operator eligible for this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application with reasons supporting the request to the director in accordance with the requirements of 40 CFR 122.26. If the reasons adequately support the request, the director shall grant it by issuing an individual NPDES permit.

3. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be.

D. Permit requirements when portions of a site are sold.

If an operator obtains a permit for a development, and then the operator (permittee) sells off lots or parcels within that development, permit coverage must be continued on those lots until a Notice of Termination (NOT) in accordance with Part IV.B is submitted. For developments which require the use of centralized sediment and erosion controls (i.e., controls that address storm water runoff from one or more lots) for which the conveyance of permit coverage for a portion of the development will either prevent or impair the implementation of the controls and therefore jeopardize compliance with the terms and conditions of this permit, the permittee will be required to maintain responsibility for the implementation of those controls. For developments where this is not the case, it is the permittee's responsibility to temporarily stabilize all lots sold to individual lot owners unless an exception is approved in accordance with Part III.G.4. In cases where permit coverage for individual lot(s) will be conveyed, the permittee shall inform the individual lot owner of the obligations under this permit and ensure that the Individual Lot NOI application is submitted to Ohio EPA.

Part I**E. Authorization**

1. Obtaining authorization to discharge. Operators that discharge storm water associated with construction activity must submit an NOI application form in accordance with the requirements of Part II of this permit to obtain authorization to discharge under this general permit. As required under OAC Rule 3745-38-06(E), the director, in response to the NOI submission, shall notify the applicant in writing that he/she has been granted general permit coverage to discharge storm water associated with construction activity under the terms and conditions of this permit or that the applicant must apply for an individual NPDES permit or coverage under an alternate general NPDES permit as described in Part I.C.1.

2. No release from other requirements. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations. Other permit requirements commonly associated with construction activities include, but are not limited to, section 401 water quality certifications, isolated wetland permits, permits to install sanitary sewers or other devices that discharge or convey polluted water, permits to install drinking water lines, single lot sanitary system permits and disturbance of land which was used to operate a solid or hazardous waste facility (i.e., coverage under this NPDES general permit does not satisfy the requirements of OAC Rule 3745-27-13 or ORC Section 3734.02(H)). This permit does not relieve the permittee of other responsibilities associated with construction activities such as contacting the Ohio Department of Natural Resources, Division of Water, to ensure proper well installation and abandonment of wells.

Part II. NOTICE OF INTENT REQUIREMENTS**A. Deadlines for notification.**

Initial coverage: Operators who intend to obtain initial coverage for a storm water discharge associated with construction activity under this general permit must submit a complete and accurate NOI application form and appropriate fee at least 21 days prior to the commencement of construction activity. If more than one operator, as defined in Part VII of this general permit, will be engaged at a site, each operator shall seek coverage under this general permit. Where one operator has already submitted an NOI prior to other operator(s) being identified, the additional operator shall request modification of coverage to become a co-permittee. In such instances, the co-permittees shall be covered under the same facility permit number. No additional permit fee is required.

Part II.A

Individual lot transfer of coverage: Operators must each submit an individual lot notice of intent (Individual Lot NOI) application form (no fee required) to Ohio EPA at least seven days prior to the date that they intend to accept responsibility for permit requirements for their portion of the original permitted development from the previous permittee. The original permittee may submit an Individual Lot NOT at the time the Individual Lot NOI is submitted. Transfer of permit coverage is not granted until an approval letter from the director of Ohio EPA is received by the applicant.

B. Failure to notify.

Operators who fail to notify the director of their intent to be covered and who discharge pollutants to surface waters of the state without an NPDES permit are in violation of ORC Chapter 6111. In such instances, Ohio EPA may bring an enforcement action for any discharges of storm water associated with construction activity.

C. Where to submit an NOI.

Operators seeking coverage under this permit must submit a signed NOI form, provided by Ohio EPA, to the address found in the associated instructions.

D. Additional notification.

The permittee shall make NOIs and SWP3s available upon request of the director of Ohio EPA, local agencies approving sediment and erosion control plans, grading plans or storm water management plans, local governmental officials, or operators of municipal separate storm sewer systems (MS4s) receiving drainage from the permitted site. Each operator that discharges to an NPDES permitted MS4 shall provide a copy of its Ohio EPA NOI submission to the MS4 in accordance with the MS4's requirements, if applicable.

E. Renotification.

Upon renewal of this general permit, the permittee is required to notify the director of his intent to be covered by the general permit renewal. Permittees covered under the previous NPDES general permit for storm water discharges associated with construction activity (NPDES permit number OHR100000) shall have continuing coverage under this permit. The permittees covered under OHR100000 shall submit a letter within 90 days of receipt of written notification by Ohio EPA expressing their intent that coverage be continued. There is no fee associated with these letters of intent for continued coverage. Permit coverage will be terminated after the 90-day period if the letter is not received by Ohio EPA. Ohio EPA will provide instructions on the contents of the letter and where it is to be sent within the notification letter.

PART III. STORM WATER POLLUTION PREVENTION PLAN (SWP3)**A. Storm Water Pollution Prevention Plans.**

A SWP3 shall be developed for each site covered by this permit. For a multi-phase construction project, a separate NOI shall be submitted when a separate SWP3 will be prepared for subsequent phases. SWP3s shall be prepared in accordance with sound engineering and/or conservation practices by a professional experienced in the design and implementation of standard erosion and sediment controls and storm water management practices addressing all phases of construction. The SWP3 shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction activities. In addition, the SWP3 shall describe and ensure the implementation of best management practices (BMPs) that reduce the pollutants in storm water discharges during construction and pollutants associated with post-construction activities to ensure compliance with ORC Section 6111.04, OAC Chapter 3745-1 and the terms and conditions of this permit.

B. Timing

A SWP3 shall be completed prior to the timely submittal of an NOI and updated in accordance with Part III.D. Upon request and good cause shown, the director may waive the requirement to have a SWP3 completed at the time of NOI submission. If a waiver has been granted, the SWP3 must be completed prior to the initiation of construction activities. The SWP3 must be implemented upon initiation of construction activities.

Permittees continuing coverage from the previous generation of this permit (OHR100000) that have initiated construction activity prior to the receipt of written notification from Ohio EPA to submit a letter of intent to continue coverage, as required in Part II.E, are not required to update their SWP3 as a result of this renewal (OHC000002). All permittees developing sites with coverage under OHR100000 that seek continuation of coverage do not need to update the post-construction section of their SWP3 as required in Part III.G.2.e of this permit.

C. SWP3 Signature and Review.

1. Plan Signature and Retention On Site. The SWP3 shall be signed in accordance with Part V.G. and retained on site during working hours.

2. Plan Availability

a. On-site: The plan shall be made available immediately upon request of the director or his authorized representative during working hours. A copy of the NOI and letter granting permit coverage under this general permit also shall be made available at the site.

Part III.C.2

b. By written request: The permittee must provide a copy of the SWP3 within 10 days upon written request of any of the following:

i. The director or the director's authorized representative;

ii. A local agency approving sediment and erosion plans, grading plans or storm water management plans; or

iii. In the case of a storm water discharge associated with construction activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the operator of the system.

c. To the public: All NOIs, general permit approval for coverage letters, and SWP3s are considered reports that shall be available to the public in accordance with the Ohio Public Records law. The permittee shall make documents available to the public upon request or provide a copy at public expense, at cost, in a timely manner. However, the permittee may claim to Ohio EPA any portion of an SWP3 as confidential in accordance with Ohio law.

3. Plan Revision. The director or authorized representative, may notify the permittee at any time that the SWP3 does not meet one or more of the minimum requirements of this part. Within 10 days after such notification from the director, (or as otherwise provided in the notification) or authorized representative, the permittee shall make the required changes to the SWP3 and, if requested, shall submit to Ohio EPA the revised SWP3 or a written certification that the requested changes have been made.

D. Amendments

The permittee shall amend the SWP3 whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the potential for the discharge of pollutants to surface waters of the state or if the SWP3 proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity. Amendments to the SWP3 may be reviewed by Ohio EPA in the same manner as Part III.C.

Part III**E. Duty to inform contractors and subcontractors.**

The permittee shall inform all contractors and subcontractors not otherwise defined as "operators" in Part VII of this general permit, who will be involved in the implementation of the SWP3, of the terms and conditions of this general permit. The permittee shall maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging that they reviewed and understand the conditions and responsibilities of the SWP3. The written document shall be created and signatures shall be obtained prior to commencement of work on the construction site.

F. Total Maximum Daily Load (TMDL) allocations

If a TMDL is approved for any waterbody into which the permittee's site discharges and requires specific BMPs for construction sites, the director may require the permittee to revise his/her SWP3.

G. SWP3 Requirements

Operations that discharge storm water from construction activities are subject to the following requirements and the SWP3 shall include the following items:

1. Site description. Each SWP3 shall provide:
 - a. A description of the nature and type of the construction activity (e.g., low density residential, shopping mall, highway, etc.);
 - b. Total area of the site and the area of the site that is expected to be disturbed (i.e., grubbing, clearing, excavation, filling or grading, including off-site borrow areas);
 - c. A calculation of the runoff coefficients for both the pre-construction and post construction site conditions;
 - d. An estimate of the impervious area and percent imperviousness created by the construction activity;
 - e. Existing data describing the soil and, if available, the quality of any discharge from the site;
 - f. A description of prior land uses at the site;

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- g. An implementation schedule which describes the sequence of major construction operations (i.e., grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of erosion, sediment and storm water management practices or facilities to be employed during each operation of the sequence;
- h. The name and/or location of the immediate receiving stream or surface water(s) and the first subsequent named receiving water(s) and the areal extent and description of wetlands or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project;
- i. For subdivided developments where the SWP3 does not call for a centralized sediment control capable of controlling multiple individual lots, a detail drawing of a typical individual lot showing standard individual lot erosion and sediment control practices. This does not remove the responsibility to designate specific erosion and sediment control practices in the SWP3 for critical areas such as steep slopes, stream banks, drainage ways and riparian zones.
- j. Location and description of any storm water discharges associated with dedicated asphalt and dedicated concrete plants covered by this permit and the best management practices to address pollutants in these storm water discharges;
- k. A copy of the permit requirements (attaching a copy of this permit is acceptable);
- l. Site map showing:
 - i. Limits of earth-disturbing activity of the site including associated off-site borrow or spoil areas that are not addressed by a separate NOI and associated SWP3;
 - ii. Soils types should be depicted for all areas of the site, including locations of unstable or highly erodible soils;
 - iii. Existing and proposed contours. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres;

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- iv. Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate for which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA;
- v. Existing and planned locations of buildings, roads, parking facilities and utilities;
- vi. The location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during the course of site development;
- vii. Sediment and storm water management basins noting their sediment settling volume and contributing drainage area;
- viii. Permanent storm water management practices to be used to control pollutants in storm water after construction operations have been completed;
- ix. Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for cement truck washout, and vehicle fueling;
- x. The location of designated construction entrances where the vehicles will access the construction site;
- xi. The location of any in-stream activities including stream crossings.

2. Controls. The SWP3 must contain a description of the controls appropriate for each construction operation covered by this permit and the operator(s) must implement such controls. The SWP3 must clearly describe for each major construction activity identified in Part III.G.1.g: (a) appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented; and (b) which contractor is responsible for implementation (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization). Ohio EPA recommends that the erosion, sediment, and storm water management practices used to satisfy the conditions of this permit, should meet the standards and specifications in the current edition of Ohio's Rainwater and Land Development (see definitions) manual or other standards acceptable to Ohio EPA. The controls shall include the following minimum components:

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- a. Non-Structural Preservation Methods. The SWP3 must make use of practices which preserve the existing natural condition as much as feasible. Such practices may include: preserving riparian areas adjacent to surface waters of the state, preserving existing vegetation and vegetative buffer strips, phasing of construction operations in order to minimize the amount of disturbed land at any one time and designation of tree preservation areas or other protective clearing or grubbing practices. The recommended buffer that operators should leave undisturbed along a surface water of the state is 25 feet as measured from the ordinary high water mark of the surface water.
- b. Erosion Control Practices. The SWP3 must make use of erosion controls that are capable of providing cover over disturbed soils unless an exception is approved in accordance with Part III.G.4. A description of control practices designed to restabilize disturbed areas after grading or construction shall be included in the SWP3. The SWP3 must provide specifications for stabilization of all disturbed areas of the site and provide guidance as to which method of stabilization will be employed for any time of the year. Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing of construction operations, use of construction entrances and the use of alternative ground cover.
- i. Stabilization. Disturbed areas must be stabilized as specified in the following tables below. Permanent and temporary stabilization are defined in Part VII.

Table 1: Permanent Stabilization

Area requiring permanent stabilization	Time frame to apply erosion controls
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a stream and at final grade	Within two days of reaching final grade
Any other areas at final grade	Within seven days of reaching final grade within that area

Part III.G.2.b.i

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 50 feet of a stream and not at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 21 days
For all construction activities, any disturbed areas that will be dormant for more than 21 days but less than one year, and not within 50 feet of a stream	Within seven days of the most recent disturbance within the area For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter	Prior to the onset of winter weather
Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed.	

ii. Permanent stabilization of conveyance channels. Operators shall undertake special measures to stabilize channels and outfalls and prevent erosive flows. Measures may include seeding, dormant seeding (as defined in the 1996 edition of the Rainwater and Land Development manual), mulching, erosion control matting, sodding, riprap, natural channel design with bioengineering techniques or rock check dams.

c. Runoff Control Practices. The SWP3 shall incorporate measures which control the flow of runoff from disturbed areas so as to prevent erosion from occurring. Such practices may include rock check dams, pipe slope drains, diversions to direct flow away from exposed soils and protective grading practices. These practices shall divert runoff away from disturbed areas and steep slopes where practicable.

d. Sediment Control Practices. The plan shall include a description of structural practices that shall store runoff allowing sediments to settle and/or divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices shall be used to control erosion and trap sediment from a site remaining disturbed for more than 14 days. Such practices may include, among others: sediment settling ponds, silt fences, earth diversion dikes or channels which direct runoff to a sediment settling pond and storm drain inlet protection. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered a sediment control practice unless those are used in conjunction with a sediment settling pond.

Part III.G.2.d

The SWP3 must contain detail drawings for all structural practices.

i. Timing. Sediment control structures shall be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven days from the start of grubbing. They shall continue to function until the up slope development area is restabilized. As construction progresses and the topography is altered, appropriate controls must be constructed or existing controls altered to address the changing drainage patterns.

ii. Sediment settling ponds. Concentrated storm water runoff and runoff from drainage areas, which exceed the design capacity of silt fence or inlet protection, shall pass through a sediment settling pond. For common drainage locations that serve an area with 10 or more acres disturbed at one time, a temporary (or permanent) sediment settling pond must be provided until final stabilization of the site. The permittee may request approval from Ohio EPA to use alternative controls if it can demonstrate the alternative controls are equivalent in effectiveness to a sediment settling pond. It is recommended for drainage locations serving less than 10 acres, smaller sediment basins and/or sediment traps should be used.

The sediment settling pond shall be sized to provide at least 67 cubic yards of storage per acre of total contributing drainage area. When determining the total contributing drainage area, off-site areas and areas which remain undisturbed by construction activity must be included unless runoff from these areas is diverted away from the sediment settling pond and is not co-mingled with sediment-laden runoff. The depth of the sediment settling pond must be less than or equal to five feet. The configuration between inlets and the outlet of the basin must provide at least two units of length for each one unit of width (> 2:1 length:width ratio). Sediment must be removed from the sediment settling pond when the design capacity has been reduced by 40 percent (This is typically reached when sediment occupies one-half of the basin depth). When designing sediment settling ponds, the permittee must consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls must be used where site limitations would preclude a safe design. The use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal is encouraged.

Part III.G.2.d

iii. Silt Fence and Diversions. Sheet flow runoff from denuded areas shall be intercepted by silt fence or diversions to protect adjacent properties and water resources from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour. This permit does not preclude the use of other sediment barriers designed to control sheet flow runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in the table below.

Maximum drainage area (in acres) to 100 linear feet of silt fence	Range of slope for a particular drainage area (in percent)
0.5	< 2%
0.25	≥ 2% but < 20%
0.125	≥ 20% but < 50%

Storm water diversion practices shall be used to keep runoff away from disturbed areas and steep slopes where practicable. Such devices, which include swales, dikes or berms, may receive storm water runoff from areas up to 10 acres.

iv. Inlet Protection. Other erosion and sediment control practices shall minimize sediment laden water entering active storm drain systems, unless the storm drain system drains to a sediment settling pond.

v. Stream Protection. If construction activities disturb areas adjacent to streams, structural practices shall be designed and implemented on site to protect all adjacent streams from the impacts of sediment runoff. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond in-stream) shall be used in a stream. For all construction activities immediately adjacent to surface waters of the state, it is recommended that a setback of at least 25-feet, as measured from the ordinary high water mark of the surface water, be maintained in its natural state as a permanent buffer. Where impacts within this setback area are unavoidable due to the nature of the construction activity (e.g., stream crossings for roads or utilities), the project shall be designed such that the number of stream crossings and the width of the disturbance within the setback area are minimized.

vi. Modifying Controls. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee must replace or modify the control for site conditions.

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e. Post-Construction Storm Water Management Requirements. So that receiving stream's physical, chemical, and biological characteristics are protected and stream functions are maintained, post-construction storm water practices shall provide perpetual management of runoff quality and quantity. To meet the post-construction requirements of this permit, the SWP3 must contain a description of the post-construction BMPs that will be installed during construction for the site and the rationale for their selection. The rationale must address the anticipated impacts on the channel and floodplain morphology, hydrology, and water quality.

Detail drawings and maintenance plans must be provided for all post - construction BMPs. Maintenance plans shall be provided by the permittee to the post-construction operator of the site (including homeowner associations) upon completion of construction activities (prior to termination of permit coverage). For sites located within a community with a regulated municipal separate storm sewer system (MS4), the permittee, land owner, or other entity with legal control of the property may be required to develop and implement a maintenance plan to comply with the requirements of the MS4. Maintenance plans must ensure that pollutants collected within structural post-construction practices, be disposed of in accordance with local, state, and federal regulations. Permittees, except for those regulated under the small MS4 program, are not responsible under this permit for operation and maintenance of post-construction practices once coverage under this permit is terminated.

This permit does not preclude the use of innovation or experimental post-construction storm water management technologies. However, the director may require discharges from such structures to be monitored to ensure compliance with Part III.G.2.e of this permit. The installation of structural controls in certain scenarios may also require a separate permit under section 404 of the CWA. Permittees are only responsible for the installation and maintenance of storm water management measures prior to final stabilization of the site and are not responsible for maintenance after storm water discharges associated with construction activity have been eliminated from the site. However, post-construction storm water BMPs that discharge pollutants from point sources once construction is completed, may in themselves, need authorization under a separate NPDES permit.

Linear construction projects, (e.g., pipeline or utility line installation), which do not result in the installation of impervious surface, are not required to comply with the conditions of Part III.G.2.e of this permit. However, linear construction projects must be designed to minimize the number of stream crossings and the width of disturbance.

Part III.G.2.e

Large Construction Activities. For all large construction activities (involving the disturbance of five or more acres of land or will disturb less than five acres, but is a part of a larger common plan of development or sale which will disturb five or more acres of land), the post construction BMP(s) chosen must be able to detain storm water runoff for protection of the stream channels, stream erosion control, and improved water quality. Structural (designed) post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the site. The BMP(s) chosen must be sized to treat the water quality volume (WQ_v) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1. The WQ_v shall be equivalent to the volume of runoff from a 0.75-inch rainfall and shall be determined according to one of the two following methods:

- i. Through a site hydrologic study approved by the local municipal permitting authority that uses continuous hydrologic simulation and local long-term hourly precipitation records or
- ii. Using the following equation: $WQ_v = C * P * A / 12$
 where:
 WQ_v = water quality volume in acre-feet
 C = Runoff Coefficient appropriate for storms less than 1 inch (see Table 1)
 P = 0.75 inch precipitation depth
 A = area draining into the BMP in acres

**Table 1
Runoff Coefficients Based on the Type of Land Use**

Land Use	Runoff Coefficient
Industrial & Commercial	0.8
High Density Residential (>8 dwellings/acre)	0.5
Medium Density Residential (4 to 8 dwellings/acre)	0.4
Low Density Residential (<4 dwellings/acre)	0.3
Open Space and Recreational Areas	0.2

Where the land use will be mixed, the runoff coefficient should be calculated using a weighted average. For example, if 60% of the contributing drainage area to the storm water treatment structure is Low Density Residential, 30% is High Density Residential, and 10% is Open Space, the runoff coefficient is calculated as follows $(0.6)(0.3) + (0.3)(0.5) + (0.1)(0.2) = 0.35$.

Part III.G.2.e

An additional volume equal to 20 percent of the WQ_v shall be incorporated into the BMP for sediment storage and/or reduced infiltration capacity. Ohio EPA recommends that BMPs be designed according to the methodology included in the Rainwater and Land Development manual or in another design manual acceptable for use by Ohio EPA. BMPs shall be designed such that the drain time is long enough to provide treatment, but short enough to provide storage available for successive rainfall events as described in Table 2 below.

**Table 2
Target Draw Down (Drain) Times for Structural
Post-Construction Treatment Control Practices**

Best Management Practice	Drain Time of WQ _v
Infiltration	24 - 48 hours
Vegetated Swale and Filter Strip	24 hours
Extended Detention Basin (Dry Basins)	48 hours
Retention Basins (Wet Basins)*	24 hours
Constructed Wetlands (above permanent pool)	24 hours
Media Filtration, Bioretention	40 hours

* Provide both a permanent pool and an extended detention volume above the permanent pool, each sized at 0.75 * WQ_v

The permittee may request approval from Ohio EPA to use alternative structural post-construction BMPs if the permittee can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 2 above. Construction activities shall be exempt from this condition if it can be demonstrated that the WQ_v is provided within an existing structural post-construction BMP that is part of a larger common plan of development or if structural post-construction BMPs are addressed in a regional or local storm water management plan. Public entities (i.e., the state, counties, townships, cities, or villages) shall comply with the post-construction storm water management requirements of Part III.G.2.e for roadway construction projects initiated after March 10, 2006 and where practicable for projects initiated as of the effective date of this permit and thereafter. For redevelopment projects (i.e., developments on previously developed property), post-construction practices shall either ensure a 20 percent net reduction of the site impervious area, provide for treatment of at least 20 percent of the WQ_v, or a combination of the two.

Part III.G.2.e

Small Construction Activities. For all small land disturbance activities (which disturb one or more, but less than five acres of land and is not a part of a larger common plan of development or sale which will disturb five or more acres of land), a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed must be included in the SWP3. Structural measures should be placed on upland soils to the degree attainable.

i. Such practices may include, but are not limited to: storm water detention structures (including wet basins); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The SWP3 shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels.

ii. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., no significant changes in the hydrological regime of the receiving water).

f. Surface Water Protection. If the project site contains any streams, rivers, lakes, wetlands or other surface waters, certain construction activities at the site may be regulated under the CWA and/or state isolated wetland permit requirements. Sections 404 and 401 of the Act regulate the discharge of dredged or fill material into surface waters and the impacts of such activities on water quality, respectively. Construction activities in surface waters which may be subject to CWA regulation and/or state isolated wetland permit requirements include, but are not limited to: sewer line crossings, grading, backfilling or culverting streams, filling wetlands, road and utility line construction, bridge installation and installation of flow control structures. If the project contains streams, rivers, lakes or wetlands or possible wetlands, the permittee must contact the appropriate U.S. Army Corps of Engineers District Office. (CAUTION: Any area of seasonally wet hydric soil is a potential wetland - please consult the Soil Survey and list of hydric soils for your County, available at your county's Soil and Water Conservation District. If you have any questions about Section 401 water quality certification, please contact the Ohio Environmental Protection Agency, Section 401 Coordinator.)

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U.S. Army Corps of Engineers (Section 404 regulation): Huntington, WV District (304) 529-5210 (Muskingum, Hocking and Scioto River Basin)
Buffalo, NY District (716) 879-4329 (Lake Erie Basin)
Pittsburgh, PA District (412) 395-7152 (Mahoning River Basin)
Louisville, KY District (502) 315-6678 (Little & Great Miami River Basin)
Ohio Environmental Protection Agency (Section 401 regulation):
Columbus, OH (614) 644-2001 (all of Ohio)

g. Other controls.

i. Non-Sediment Pollutant Controls. No solid (other than sediment) or liquid waste, including building materials, shall be discharged in storm water runoff. The permittee must implement all necessary BMPs to prevent the discharge of non-sediment pollutants to the drainage system of the site or surface waters of the state. Under no circumstance shall concrete trucks wash out directly into a drainage channel, storm sewer or surface waters of the state. No exposure of storm water to waste materials is recommended.

ii. Off-site traffic. Off-site vehicle tracking of sediments and dust generation shall be minimized.

iii. Compliance with other requirements. The SWP3 shall be consistent with applicable State and/or local waste disposal, sanitary sewer or septic system regulations, including provisions prohibiting waste disposal by open burning and shall provide for the proper disposal of contaminated soils to the extent these are located within the permitted area.

iv. Trench and ground water control. There shall be no turbid discharges to surface waters of the state resulting from dewatering activities. If trench or ground water contains sediment, it must pass through a sediment settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag or comparable practice. Ground water dewatering which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging ground water to ensure that it does not become pollutant laden by traversing over disturbed soils or other pollutant sources.

Part III.G.2

h. Maintenance. All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices must be maintained in a functional condition until all up slope areas they control are permanently stabilized. The SWP3 shall be designed to minimize maintenance requirements. The applicant shall provide a description of maintenance procedures needed to ensure the continued performance of control practices.

i. Inspections. At a minimum, procedures in an SWP3 shall provide that all controls on the site are inspected at least once every seven calendar days and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period. The permittee shall assign qualified inspection personnel (those with knowledge and experience in the installation and maintenance of sediment and erosion controls) to conduct these inspections to ensure that the control practices are functional and to evaluate whether the SWP3 is adequate and properly implemented in accordance with the schedule proposed in Part III.G.1.g of this permit or whether additional control measures are required. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWP3 shall be observed to ensure that those are operating correctly. Discharge locations shall be inspected to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.

The permittee shall maintain for three years following the submittal of a notice of termination form, a record summarizing the results of the inspection, names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWP3 and a certification as to whether the facility is in compliance with the SWP3 and the permit and identify any incidents of non-compliance. The record and certification shall be signed in accordance with Part V.G. of this permit.

i. When practices require repair or maintenance. If the inspection reveals that a control practice is in need of repair or maintenance, with the exception of a sediment settling pond, it must be repaired or maintained within three days of the inspection. Sediment settling ponds must be repaired or maintained within 10 days of the inspection.

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ii. When practices fail to provide their intended function. If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the SWP3 must be amended and the new control practice must be installed within 10 days of the inspection.

iii. When practices depicted on the SWP3 are not installed. If the inspection reveals that a control practice has not been implemented in accordance with the schedule contained in Part III.G.1.g of this permit, the control practice must be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record must contain a statement of explanation as to why the control practice is not needed.

3. Approved State or local plans. All dischargers regulated under this general permit must comply, except those exempted under state law, with the lawful requirements of municipalities, counties and other local agencies regarding discharges of storm water from construction activities. All erosion and sediment control plans and storm water management plans approved by local officials shall be retained with the SWP3 prepared in accordance with this permit. Applicable requirements for erosion and sediment control and storm water management approved by local officials are, upon submittal of a NOI form, incorporated by reference and enforceable under this permit even if they are not specifically included in an SWP3 required under this permit. When the project is located within the jurisdiction of a regulated municipal separate storm sewer system (MS4), the permittee must certify that the SWP3 complies with the requirements of the storm water management program of the MS4 operator.

4. Exceptions. If specific site conditions prohibit the implementation of any of the erosion and sediment control practices contained in this permit or site specific conditions are such that implementation of any erosion and sediment control practices contained in this permit will result in no environmental benefit, then the permittee shall provide justification for rejecting each practice based on site conditions. Exceptions from implementing the erosion and sediment control standards contained in this permit will be approved or denied on a case-by-case basis.

PART IV. NOTICE OF TERMINATION REQUIREMENTS**A. Failure to notify.**

The terms and conditions of this permit shall remain in effect until a signed Notice of Termination (NOT) form is submitted. Failure to submit an NOT constitutes a violation of this permit and may affect the ability of the permittee to obtain general permit coverage in the future.

B. When to submit a NOT

1. Permittees wishing to terminate coverage under this permit must submit an NOT form in accordance with Part V.G. of this permit. Compliance with this permit is required until an NOT form is submitted. The permittee's authorization to discharge under this permit terminates at midnight of the day the NOT form is submitted.

2. All permittees must submit an NOT form within 45 days of completing all permitted land disturbance activities. Enforcement actions may be taken if a permittee submits an NOT form without meeting one or more of the following conditions:

- a. Final stabilization (see definition in Part VII) has been achieved on all portions of the site for which the permittee is responsible (including, if applicable, returning agricultural land to its pre-construction agricultural use);
- b. Another operator(s) has assumed control over all areas of the site that have not been finally stabilized;
- c. For residential construction only, temporary stabilization has been completed and the lot, which includes a home, has been transferred to the homeowner. (Note: individual lots without housing which are sold by the developer must undergo final stabilization prior to termination of permit coverage.); or
- d. An exception has been granted under Part III.G.4.

C. How to submit a NOT

Permittees must use Ohio EPA's approved NOT form. The form must be completed and mailed according to the instructions and signed in accordance with Part V.G of this permit.

PART V. STANDARD PERMIT CONDITIONS.**A. Duty to comply.**

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of ORC Chapter 6111, and is grounds for enforcement action.

2. Ohio law imposes penalties and fines for persons who knowingly make false statements or knowingly swear or affirm the truth of a false statement previously made.

B. Continuation of an expired general permit.

An expired general permit continues in force and effect until a new general permit is issued.

C. Need to halt or reduce activity not a defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Duty to provide information.

The permittee shall furnish to the director, within 10 days of written request, any information which the director may request to determine compliance with this permit. The permittee shall also furnish to the director upon request copies of records required to be kept by this permit.

F. Other information.

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI, SWP3, NOT or in any other report to the director, he or she shall promptly submit such facts or information.

Part V**G. Signatory requirements.**

All NOIs, NOTs, SWP3s, reports, certifications or information either submitted to the director or that this permit requires to be maintained by the permittee, shall be signed.

1. These items shall be signed as follows:

a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

i. A president, secretary, treasurer or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation; or

ii. The manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).

2. All reports required by the permits and other information requested by the director shall be signed by a person described in Part V.G.1 of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

Part V.G.2

a. The authorization is made in writing by a person described in Part V.G.1 of this permit and submitted to the director;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator of a well or well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

c. The written authorization is submitted to the director.

3. Changes to authorization. If an authorization under Part V.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.G.2 of this permit must be submitted to the director prior to or together with any reports, information or applications to be signed by an authorized representative.

H. Certification.

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

I. Oil and hazardous substance liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the CWA or 40 CFR Part 112. 40 CFR Part 112 establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable surface waters of the State or adjoining shorelines.

Part V**J. Property rights.**

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

K. Severability.

The provisions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

L. Transfers.

Ohio NPDES general permit coverage is transferable. Ohio EPA must be notified in writing sixty days prior to any proposed transfer of coverage under an Ohio NPDES general permit. The transferee must inform Ohio EPA it will assume the responsibilities of the original permittee transferor.

M. Environmental laws.

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

N. Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWP3s. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

O. Inspection and entry.

The permittee shall allow the director or an authorized representative of Ohio EPA, upon the presentation of credentials and other documents as may be required by law, to:

Part V.O

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

PART VI. REOPENER CLAUSE

A. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with construction activity covered by this permit, the permittee of such discharge may be required to obtain coverage under an individual permit or an alternative general permit in accordance with Part I.C of this permit or the permit may be modified to include different limitations and/or requirements.

B. Permit modification or revocation will be conducted according to ORC Chapter 6111.

PART VII. DEFINITIONS

A. "Act" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92- 500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117 and Pub. L. 100-4, 33 U.S.C. 1251 et. seq.

B. "Best management practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the state. BMP's also include treatment requirements, operating procedures and practices to control plant and/or construction site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.

C. "Commencement of construction" means the initial disturbance of soils associated with clearing, grubbing, grading, placement of fill or excavating activities or other construction activities.

D. "Concentrated storm water runoff" means any storm water runoff which flows through a drainage pipe, ditch, diversion or other discrete conveyance channel.

E. "Director" means the director of the Ohio Environmental Protection Agency.

Part VII

F. "Discharge" means the addition of any pollutant to the surface waters of the state from a point source.

G. "Disturbance" means any clearing, grading, excavating, filling, or other alteration of land surface where natural or man-made cover is destroyed in a manner that exposes the underlying soils.

H. "Final stabilization" means that either:

1. All soil disturbing activities at the site are complete and a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least 70 percent cover for the area has been established on all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures (such as the use of mulches, rip-rap, gabions or geotextiles) have been employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion; or

2. For individual lots in residential construction by either:

a. The homebuilder completing final stabilization as specified above or

b. The homebuilder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for and benefits of, final stabilization. (Homeowners typically have an incentive to put in the landscaping functionally equivalent to final stabilization as quick as possible to keep mud out of their homes and off sidewalks and driveways.); or

3. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were previously used for agricultural activities, such as buffer strips immediately adjacent to surface waters of the state and which are not being returned to their pre-construction agricultural use, must meet the final stabilization criteria in (1) or (2) above.

I. "Individual Lot NOI" means a Notice of Intent for an individual lot to be covered by this permit (see parts I and II of this permit).

J. "Larger common plan of development or sale"- means a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.

Part VII

K. "MS4" means municipal separate storm sewer system which means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) that are:

1. Owned or operated by the federal government, state, municipality, township, county, district(s) or other public body (created by or pursuant to state or federal law) including special district under state law such as a sewer district, flood control district or drainage districts or similar entity or a designated and approved management agency under section 208 of the act that discharges into surface waters of the state; and
2. Designed or used for collecting or conveying solely storm water,
3. Which is not a combined sewer and,
4. Which is not a part of a publicly owned treatment works.

L. "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and enforcing pretreatment requirements, under sections 307, 402, 318 and 405 of the CWA. The term includes an "approved program."

M. "NOI" means notice of intent to be covered by this permit.

N. "NOT" means notice of termination.

O. "Operator" means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with an SWP3 for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

As set forth in Part II.A, there can be more than one operator at a site and under these circumstances, the operators shall be co-permittees.

P. "Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Part VII

Q. "Permanent stabilization" means the establishment of permanent vegetation, decorative landscape mulching, matting, sod, rip rap and landscaping techniques to provide permanent erosion control on areas where construction operations are complete or where no further disturbance is expected for at least one year.

R. "Percent imperviousness" means the impervious area created divided by the total area of the project site.

S. "Point source" means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or the floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

T. "Rainwater and Land Development" is a manual describing construction and post-construction best management practices and associated specifications. A copy of the manual may be obtained by contacting the Ohio Department of Natural Resources, Division of Soil & Water Conservation.

U. "Riparian area" means the transition area between flowing water and terrestrial (land) ecosystems composed of trees, shrubs and surrounding vegetation which serve to stabilize erodible soil, improve both surface and ground water quality, increase stream shading and enhance wildlife habitat.

V. "Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

W. "Sediment settling pond" means a sediment trap, sediment basin or permanent basin that has been temporarily modified for sediment control, as described in the latest edition of the Rainwater and Land Development manual.

X. "State isolated wetland permit requirements" means the requirements set forth in Sections 6111.02 through 6111.029 of the ORC.

Y. "Storm water" means storm water runoff, snow melt and surface runoff and drainage.

Z. "Surface waters of the state" or "water bodies" means all streams, lakes, reservoirs, ponds, marshes, wetlands or other waterways which are situated wholly or partially within the boundaries of the state, except those private waters which do not combine or effect a junction with natural surface or underground waters. Waters defined as sewerage systems, treatment works or disposal systems in Section 6111.01 of the ORC are not included.

Part VII

AA. "SWP3" means storm water pollution prevention plan.

BB. "Temporary stabilization" means the establishment of temporary vegetation, mulching, geotextiles, sod, preservation of existing vegetation and other techniques capable of quickly establishing cover over disturbed areas to provide erosion control between construction operations.

CC. "Water Quality Volume (WQ_v)" means the volume of storm water runoff which must be captured and treated prior to discharge from the developed site after construction is complete. WQ_v is based on the expected runoff generated by the mean storm precipitation volume from post-construction site conditions at which rapidly diminishing returns in the number of runoff events captured begins to occur.

Designer Note:

This is ODOT's general permit issued by Ohio Environmental Protection Agency.

This supplemental specification will be provided with both supplemental specification 832 and proposal note 205.