STORM WATER POLLUTION PREVENTION PLAN

SEEDING AND MULCHING SHALL BE IN ACCORDANCE WITH THE CURRENT "RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, SECOND EDITION 1996".

TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE CURRENT "RAINWATER AND LAND DEVELOPMENT, OHIO'STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, SECOND EDITION 1996".

THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMETER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING AND GRUBBING AND/OR GRADING OPERATIONS.

ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHOULD BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES.

ADDITIONAL QUANTITIES OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL ITEMS ARE GIVEN IN THE GENERAL NOTES.

GENERAL NOTES - EROSION AND SEDIMENT CONTROL

1. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PROPER SOIL EROSION MEASURES FOR PROTECTION OF ALL ADJOINING ROADS, LANDS AND STREAMS. REFER TO OHIO DEPARTMENT OF NATURAL RESOURCES MANUAL TITLED, "RAINWATER AND LAND DEVELOPMENT, SECOND EDITION 1996".

2. THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT ALL POINTS WHERE STORM WATER LEAVES THE LIMITS OF THE PROJECT, ALL POINTS WHERE STORM WATER ENTERS A STREAM THAT TRAVERSES THE PROJECT AND ALL POINTS WHERE STORM WATER ENTERS PORTIONS OF COMPLETED UNDERGROUND PIPING.

3. ALL DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR 45 DAYS OR MORE SHALL BE SEEDED. OTHER SEDIMENT CONTROLS WHICH ARE INSTALLED SHALL BE MAINTAINED UNTIL THE VEGETATION GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT CONTROL DEVICES AT THE CONCLUSION OF CONSTRUCTION ONCE PERMANENT GROUND COVER HAS BEEN ESTABLISHED.

4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.

5. ALL STORM SEWER, SANITARY SEWER AND WATER MAINS SHALL BE MULCHED AND SEEDED WITHIN 21 DAYS AFTER BACK FILL. NO MORE THAN 500 FEET OF TRENCH WILL BE OPEN AT ANY ONE TIME.

6. ELECTRIC POWER, TELEPHONE, CATV AND GAS SUPPLY TRENCHES SHALL BE COMPACTED, SEEDED AND MULCHED WITHIN 14 DAYS AFTER BACK FILL.

7. ALL TEMPORARY EARTH BERMS, DIVERSIONS, SEDIMENT TRAP EMBANKMENTS AND EARTH STOCKPILES SHALL BE SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER WITHIN 21 DAYS AFTER GRADING. STRAW OR HAY MULCH OR EQUIVALENT IS REQUIRED.

8. ALL STORM SEWER INLETS SHALL BE PROTECTED BY SEDIMENT TRAPS WHICH WILL BE MAINTAINED AND MODIFIED AS REQUIRED AS CONSTRUCTION PROGRESSES.

9. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL OR WHEN THE LEVEL OF DEPOSIT REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

10. ANY DISTURBED AREA NOT STABILIZED WITH SEEDING, SODDING, PAVING OR BUILT UPON BY NOVEMBER 1ST, OR AREAS DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED BY APRIL 15TH.

11. AT THE COMPLETION OF CONSTRUCTION, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. SEDIMENT DEPOSITS SHALL BE REGRADED AND SEEDED.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN OHIO EPA PERMIT FOR TEMPORARY EROSION AND SEDIMENT CONTROL ON THE CONSTRUCTION SITE. THE DESIGN OF EROSION AND SEDIMENT CONTROL SYSTEMS SHALL FOLLOW THE REQUIREMENTS OF OHIO EPA, ITEM 207 OF O.D.O.T. STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF THE LOCAL JURISDICTION.

13. DRAINAGE SWALES AND STORM WATER MANAGEMENT BASINS ARE TO BE PERMANENTLY SEEDED WITHIN 7 DAYS OF INSTALLATION, SILT FENCE INSTALLED ALONG TOP OF BASINS, AND SWALES AND ORANGE CONSTRUCTION FENCE PLACED AROUND ENTIRE PERIMETER OF BASINS AND SWALES.

14. OTHER EROSION CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH MOVING ACTIVITY. PERSONNEL FROM FRANKLIN SOIL AND WATER CONSERVATION DISTRICT WILL MAKE PERIODIC SITE INSPECTIONS TO ASSURE COMPLIANCE WITH THE EROSION CONTROL PLAN.

MAINTENANCE NOTES

CONSTRUCTION ENTRANCE:

INSPECT THE MEASUREMENTS ON A REGULAR BASIS AND AFTER THERE HAS BEEN A HIGH VOLUME OF TRAFFIC OR A STORM EVENT. APPLY ADDITIONAL STONE PERIODICALLY AND WHEN REPAIR IS REQUIRED. IMMEDIATELY REMOVE SEDIMENT OR OTHER MATERIALS TRACKED ONTO THE PUBLIC ROADWAY. ENSURE THAT ASSOCIATED SEDIMENT CONTROL MEASURES ARE IN GOOD WORKING ORDER.

INLET PROTECTION:

THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE STRUCTURE RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/4 THE DESIGN DEPTH OF THE STRUCTURE, REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SILT FENCE:

SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SHOULD THE FABRIC OF A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE.

EROSION AND SEDIMENTATION CONTROL SPECS.

1. REMOVE AND STOCKPILE TOPSOIL IMMEDIATELY PRIOR TO BEGINNING OPERATIONS.

2. IMMEDIATELY AFTER FINAL GRADING IS COMPLETED, SPREAD TOPSOIL FROM THE STOCKPILES OVER THE EXPOSED AREAS AND GRADE AS REQUIRED TO PREPARE THE SITE FOR PERMANENT SEEDING AND SODDING.

3. THE PERMANENT SEEDING AND MULCHING OF THE EXPOSED AREAS SHALL BE IN ACCORDANCE WITH THE "RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STROMWATER MANAGEMENT LAND DEVELOPMETN AND URBAN STREAM PROTECTION, SECOND EDITION 1996".

4. IF CONSTRUCTION TAKES PLACE FROM OCTOBER 1 TO MARCH 1, ALL EXPOSED AREAS SHALL BE TEMPORARILY MULCHED UNTIL MARCH 1 AND THEN PERMANENTLY SEEDED OR SODDED AS SPECIFIED ABOVE. MULCHING SHALL BE IN ACCORDANCE WITH THE "RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARD FOR STROMWATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, SECOND EDITION 1996".

5. FOR ROUGH-GRADE AREAS OR OTHER AREAS WHERE ADDITIONAL WORK IS NOT SCHEDULED FOR A PERIOD OF 3 WEEKS OR LONGER, AND IN AREAS WHERE UNANTICIPATED DELAYS ARE ENCOUNTERED, TEMPORARY SEEDING SHALL BE APPLIED IN THE SAME MANNER AS THE PERMANENT SEEDING USING RYE OR WHEAT SEED AT THE RATE OF 40#/ACRE. TEMPORARY SEEDING IS APPLICABLE ONLY FROM MARCH 1 TO OCTOBER 1. AT OTHER TIMES, USE TEMPORARY MULCHING AS SPECIFIED ABOVE.

SILT FENCE

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MA CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT HIGHER ELEVATION.
4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED , IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 IN. DEEP. THE TRENCH CUT A SHALL BE CUT WITH TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOXTILE AND SO THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN.-DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
9. SEAMS BETWEEN SECTION OF THE SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
10. MAINTENANCE-SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPRPRIATE:

10.1. THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED,
10.2. ACCUMULATED SEDIMENT SHALL BE REMOVED, OR
10.3. OTHER PRACTICES SHALL BE INSTALLED. CRITERIA FOR SILT FENCE MATERIALS
10.3.1. FENCE POSTS-THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2-BY-2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
10.3.2. SILT FENCE FABRIC SHALL BE ODOT TYPE C GEOTEXTILE FABRIC OR AS DESCRIBED BY THE CHART BELOW:

FABRIC PROPERTIES	
MINIMUM TENSILE STRENGTH	120 LBS
MAXIMUM ELONGATION AT 60 LBS	50 %
MINIMUM PUNCTURE STRENGTH	50 LBS
MINIMUM TEAR STRENGTH	40 LBS
MINIMUM BURST STRENGTH	200 PSI
APPARENT OPENING SIZE	< 0.84 MM
MINIMUM PERMITTIVITY	$1X10^{-1}$ SEC.$^{-1}$
ULTRAVIOLET EXPOSURE STRENGTH RETENSION	70 %

SOIL PROTECTION CHART — ALL SEEDING ITEMS ARE COVERED UNDER "RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, SECOND EDITION 1996"

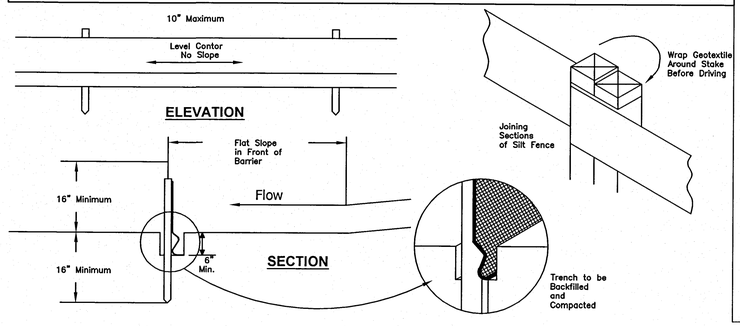
STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING (A)			●	→								
DORMANT SEEDING (B)	●	→										→
TEMPORARY SEEDING (C)			●	→								
SODDING (D)			●	→								
MULCHING (E)	●	→										→

A. KENTUCKY BLUEGRASS - 90#/ACRE MIXED W/ PERENNIAL RYEGRASS - 30#/ACRE
B. KENTUCKY BLUEGRASS - 135#/ACRE MIXED W/ PERENNIAL RYEGRASS - 45#/ACRE
C. SPRING OATS - 100#/ACRE
D. WHEAT OR CEREAL RYE - 150#/ACRE
E. SOD
F. STRAW MULCH - 2 TON/ACRE

THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO ACCOMPLISH BOTH THE TEMPORARY AND PERMANENT SEEDING.

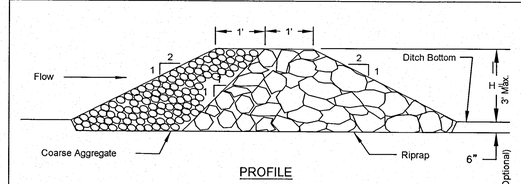
ALL DITCHES, RIGHT-OF-WAY AREAS AND OTHER AREAS DISTURBED DURING CONSTRUCTION ARE TO BE SEEDED AND MULCHED.

TOPSOIL STOCKPILES SHALL BE LOCATED AS SHOWN ON THE DRAWINGS AND PROTECTED FROM EROSION BY SEEDING AND SILT FENCE EXCESS EXCAVATION WILL HAVE TO BE TRUCKED FROM THE SITE.

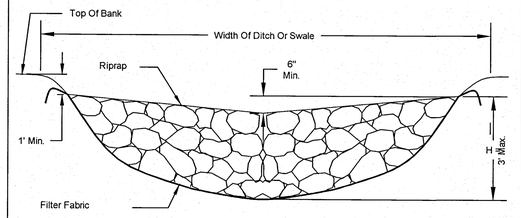


TEMP. ROCK CHECK DAM - RIPRAP

AT A MAXIMUM OF 500'-0" CENTER TO CENTER IN CUT SECTIONS - SEE SHEET C23



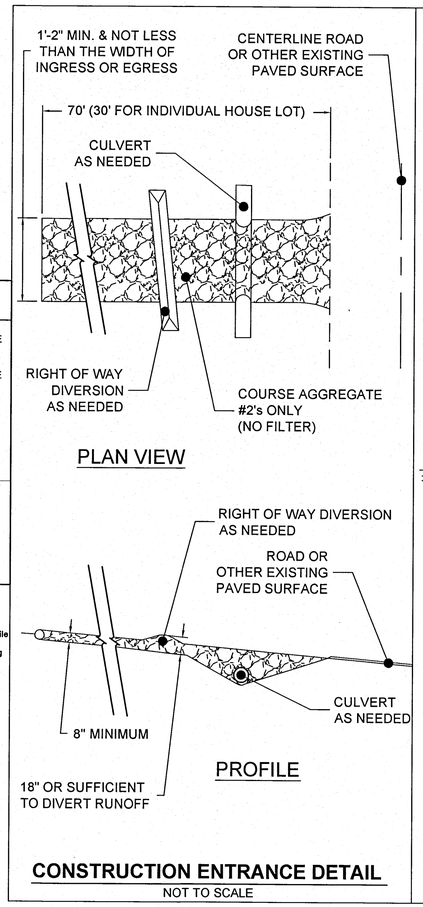
PROFILE



CROSS SECTION

CENTERLINE LOOKING DOWNSTREAM

NOTES;
For added stability, the base of the dam may be keyed 6 inches into the soil.
See plans for spacing of dams.

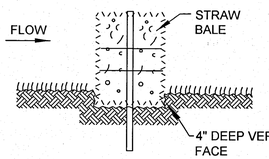


PLAN VIEW

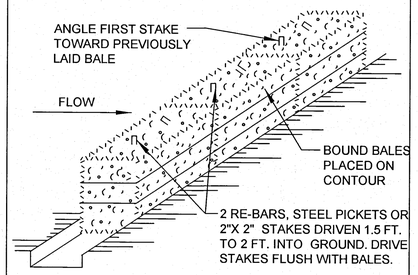
PROFILE

CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



BEDDING DETAIL



ANCHORING DETAIL

NOTES:

1. BALES SHALL BE PLACED AT THE TOP OF SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4", AND PLACED SO THAT BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE DETAIL

NOT TO SCALE

ADAMS BROS. ENGINEERING
ABE
ALWAYS BETTER ENGINEERING

Adams Bros. Engineering
Civil Engineering
1501 Woodlawn Avenue
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VOICE (740) 452-7566 FAX (740) 452-7567

EASTPOINTE ROAD IMPROVEMENTS
BATEMAN ROAD & FUTURE DRIVE
EROSION CONTROL NOTES

Horiz: NA

Vert: NA

JOB #: C0714

SEP 10th, 2007

SHEET #:

C22