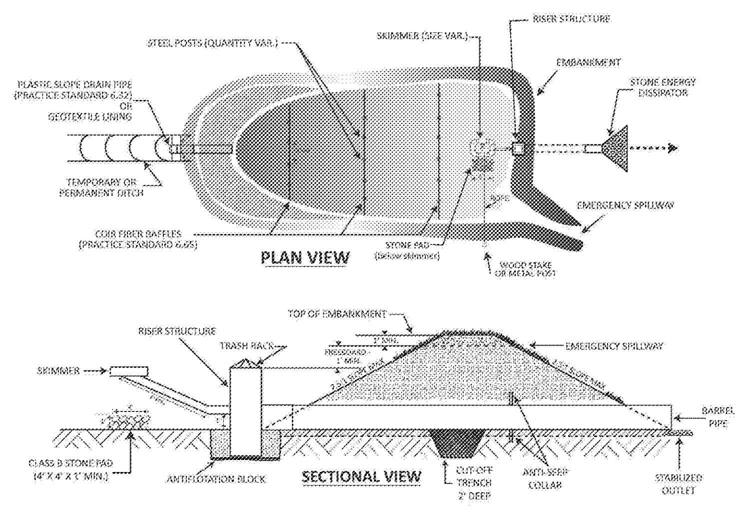


NOTES
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. INSTALL A MINIMUM OF 3 COIR FIBER BAFFLES IN ACCORDANCE WITH PRACTICE STANDARD 6.65.
3. INSTALL SKIMMER AND COUPLING TO RISER STRUCTURE OR DIRECTLY INTO EMBANKMENT 1 FT. FROM BOTTOM OF BASIN.
4. THE ARM PIPE SHALL HAVE A MINIMUM LENGTH OF 6 FT. BETWEEN THE SKIMMER AND COUPLING.

NOT TO SCALE

Figure 6.61d Sediment Basin (with Riser Barrel Pipe)

SEDIMENT BASIN

(NCDEQ 6.61)
SEE NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL FOR COMPLETE SPECIFICATIONS.

CONSTRUCTION SPECIFICATIONS

1. SITE PREPARATIONS- CLEAR, GRUB, AND STRIP TOPSOIL FROM AREAS UNDER THE EMBANKMENT TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. DELAY CLEARING THE POOL AREA UNTIL THE DAM IS COMPLETE AND THEN REMOVE BRUSH, TREES, AND OTHER OBJECTIONABLE MATERIALS TO FACILITATE SEDIMENT CLEANOUT. STOCKPILE ALL TOPSOIL OR SOIL CONTAINING ORGANIC MATTER FOR USE ON THE OUTER SHELL OF THE EMBANKMENT TO FACILITATE VEGETATIVE ESTABLISHMENT. PLACE TEMPORARY SEDIMENT CONTROL MEASURES BELOW THE BASIN AS NEEDED.
2. CUT-OFF TRENCH- EXCAVATE A CUT-OFF TRENCH ALONG THE CENTER LINE OF THE EARTH FILL EMBANKMENT. CUT THE TRENCH TO STABLE SOIL MATERIAL, BUT IN NO CASE MAKE IT LESS THAN 2 FEET DEEP. THE CUT-OFF TRENCH MUST EXTEND INTO BOTH ABUTMENTS TO AT LEAST THE ELEVATION OF THE RISER CREST. MAKE THE MINIMUM BOTTOM WIDTH WIDE ENOUGH TO PERMIT OPERATION OF EXCAVATION AND COMPACTION EQUIPMENT, BUT IN NO CASE LESS THAN 2 FEET. MAKE SIDE SLOPES OF THE TRENCH NO STEEPER THAN 1:1. COMPACTION REQUIREMENTS ARE THE SAME AS THOSE FOR THE EMBANKMENT. KEEP THE TRENCH DRY DURING BACKFILLING AND COMPACTION OPERATIONS.
3. EMBANKMENT- TAKE FILL MATERIAL FROM THE APPROVED AREAS SHOWN ON THE PLANS. IT SHOULD BE CLEAN MINERAL SOIL, FREE OF ROOTS, WOODY VEGETATION, ROCKS, AND OTHER OBJECTIONABLE MATERIAL. SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING FILL. THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 6 TO 8 INCH CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND COMPACT IT. COMPACTION MAY BE OBTAINED BY ROUTING THE CONSTRUCTION HAULING EQUIPMENT OVER THE FILL SO THAT THE ENTIRE SURFACE OF EACH LAYER IS TRAVERSED BY AT LEAST ONE WHEEL OR TREAD TRACK OF HEAVY EQUIPMENT, OR A COMPACTOR MAY BE USED. CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10 PERCENT HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING.
4. CONDUIT SPILLWAYS- SECURELY ATTACH THE RISER TO THE BARREL OR BARREL STUB TO MAKE A WATERTIGHT STRUCTURAL CONNECTION. SECURE ALL CONNECTIONS BETWEEN BARREL SECTIONS BY APPROVED WATERTIGHT ASSEMBLIES. PLACE THE BARREL AND RISER ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL. DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE AS BACKFILL AROUND THE PIPE OR ANTI-SEEP COLLARS. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS, AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES. PLACE A MINIMUM DEPTH OF 2 FEET OF COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. ANCHOR THE RISER IN PLACE BY CONCRETE OR OTHER SATISFACTORY MEANS TO PREVENT FLOTATION. IN NO CASE SHOULD THE PIPE CONDUIT BE INSTALLED BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS COMPLETE.
5. EMERGENCY SPILLWAY- INSTALL THE EMERGENCY SPILLWAY IN UNDISTURBED SOIL. THE ACHIEVEMENT OF PLANNED ELEVATIONS, GRADE, DESIGN WIDTH, AND ENTRANCE AND EXIT CHANNEL SLOPES ARE CRITICAL TO THE SUCCESSFUL OPERATION OF THE EMERGENCY SPILLWAY.
6. INLETS- DISCHARGE WATER INTO THE BASIN IN A MANNER TO PREVENT EROSION. USE DIVERSIONS WITH OUTLET PROTECTION TO DIVERT SEDIMENT-LADEN WATER TO THE UPPER END OF THE POOL AREA TO IMPROVE BASIN TRAP EFFICIENCY (REFERENCES: RUNOFF CONTROL MEASURES AND OUTLET PROTECTION).
7. EROSION CONTROL- CONSTRUCT THE STRUCTURE SO THAT THE DISTURBED AREA IS MINIMIZED. DIVERT SURFACE WATER AWAY FROM BARE AREAS. COMPLETE THE EMBANKMENT BEFORE THE AREA IS CLEARED. STABILIZE THE EMERGENCY SPILLWAY EMBANKMENT AND ALL OTHER DISTURBED AREAS ABOVE THE CREST OF THE PRINCIPAL SPILLWAY IMMEDIATELY AFTER CONSTRUCTION (REFERENCES: SURFACE STABILIZATION).
8. INSTALL POROUS BAFFLES AS SPECIFIED IN PRACTICE 6.65, POROUS BAFFLES.
9. SAFETY- SEDIMENT BASINS MAY ATTRACT CHILDREN AND CAN BE DANGEROUS. AVOID STEEP SIDE SLOPES, AND FENCE AND MARK BASINS WITH WARNING SIGNS IF TRESPASSING IS LIKELY. FOLLOW ALL STATE AND LOCAL REQUIREMENTS.

MAINTENANCE

INSPECT TEMPORARY SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.

DEFINITION
A SMALL TEMPORARY STONE DAM CONSTRUCTED ACROSS A DRAINAGE WAY.

PURPOSE
TO REDUCE EROSION IN A DRAINAGE CHANNEL BY REDUCING THE VELOCITY OF FLOW.

CONDITIONS WHERE PRACTICE APPLIES
THIS PRACTICE MAY BE USED AS A TEMPORARY MEASURE TO LIMIT EROSION BY REDUCING VELOCITY IN SMALL OPEN CHANNELS. WHEN NEEDED, THEY CAN BE USED IN CHANNELS, ROADSIDE DITCHES, AND TEMPORARY DIVERSIONS.
CHECK DAMS MAY BE USED TO:
- REDUCE VELOCITY IN SMALL TEMPORARY CHANNELS THAT ARE DEGRADING, BUT WHERE PERMANENT STABILIZATION IS IMPRACTICAL DUE TO THEIR SHORT PERIOD OF USEFULNESS;
- REDUCE VELOCITY IN SMALL ERODING CHANNELS WHERE CONSTRUCTION DELAYS OR WEATHER CONDITIONS PREVENT TIMELY INSTALLATION OF NONEROSIVE LINERS.

DO NOT USE CHECK DAMS IN INTERMITTENT OR PERENNIAL STREAMS.

DESIGN CRITERIA
THE FOLLOWING CRITERIA SHOULD BE USED WHEN DESIGNING A CHECK DAM:
- THE DRAINAGE AREA IS LIMITED TO ONE HALF ACRE.
- KEEP A MAXIMUM HEIGHT OF 2 FEET AT THE CENTER OF THE DAM
- KEEP THE CENTER OF THE CHECK DAM AT LEAST 9 INCHES LOWER THAN THE OUTER EDGE AT NATURAL GROUND ELEVATION.
- KEEP THE SIDE SLOPES OF THE DAM AT 2:1 OR FLATTER.
- ENSURE THAT THE MAXIMUM SPACING BETWEEN DAMS PLACES THE TOES OF THE UPSTREAM DAM AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM (FIGURE 6.83A)
- STABILIZE OUTFLOW AREAS ALONG THE CHANNEL TO RESIST EROSION
- USE NCDOT CLASS B STONE AND LINE THE UPSTREAM SIDE OF THE DAM WITH NCDOT #5 OR #57 STONE.
- KEY THE STONE INTO THE DITCH BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 1.5 FEET TO AVOID WASHOUTS FROM OVERFLOW AROUND THE DAM.

CONSTRUCTION SPECIFICATIONS
1. PLACE STONE TO THE LINES AND DIMENSIONS SHOW IN THE PLAN ON A FILTER FABRIC FOUNDATION.
2. KEEP THE CENTER STONE SECTION AT LEAST 9 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
3. EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK (FIGURE 6.83B) TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
4. SET SPACING BETWEEN DAMS TO ASSURE THAT THE ELEVATION AT THE TOP OF THE LOWER DAM IS THE SAME AS THE TOE ELEVATION OF THE UPPER DAM.
5. PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
6. MAKE SURE THAT THE CHANNEL REACH ABOVE THE MOST UPSTREAM DAM IS STABLE.
7. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS CULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

MAINTENANCE
INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL WHEN NEEDED.

ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADDITIONAL MEASURES CAN BE TAKEN SUCH AS, INSTALLING A PROTECTIVE RIPRAP LINER IN THAT PORTION OF THE CHANNEL.

REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

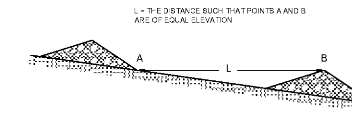
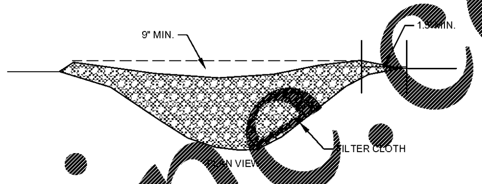


FIGURE 6.83A SPACE CHECK DAMS IN A CHANNEL SO THAT THE CREST OF DOWNSTREAM DAM IS AT ELEVATION OF THE TOE OF UPSTREAM DAM



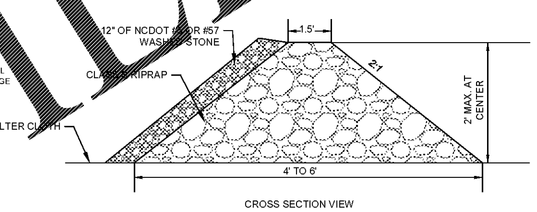
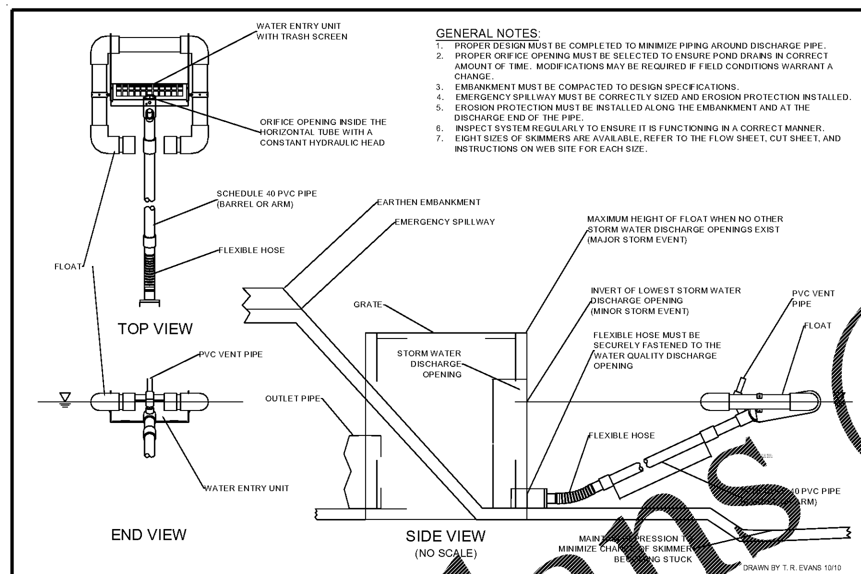


FIGURE 6.83B STONE CHECK DAM STONE SHOULD BE PLACED OVER THE CHANNEL BANKS TO KEEP WATER FROM CUTTING AROUND THE DAM.

CHECK DAM
(NCDEQ 6.83)
N.T.S.



GENERAL NOTES:
1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

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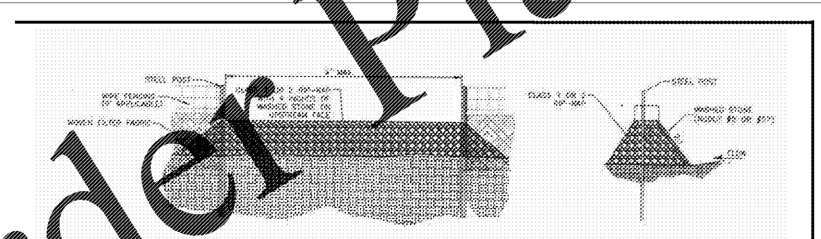

GENERAL NOTES:
1. [illegible] OUTLET SHALL BE 16 INCHES HIGH [illegible] THAN 18 INCHES.
2. CLASS 1 OR 2 RIP-RAP SHALL BE USED AND COVERED WITH 6 INCHES OF NCDOT #5 OR #57 WASHED STONE ON THE UPSLOPE SIDE.
3. POSTS SHALL BE NO MORE THAN 4 FEET APART.
4. SITE OUTLETS AT ANY POINT SMALL CONCENTRATED FLOWS ARE ANTICIPATED AND AT THE DIRECTION OF THE INSPECTOR.
5. ONE ACRE MAXIMUM DRAINAGE AREA PER OUTLET.

MAINTENANCE NOTES:
1. FILTER OUTLETS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. THE STONE SHALL BE REPLACED PROMPTLY AFTER ANY EVENT THAT HAS CLOGGED OR REMOVED IT.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OUTLET IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

SILT FENCE OUTLET
N.T.S.

BAFFLES

(NCDEQ 6.65)
N.T.S.

DEFINITION
POROUS BARRIERS INSTALLED INSIDE A TEMPORARY SEDIMENT TRAP, ROCK DAM, SKIMMER BASIN, OR SEDIMENT BASIN TO REDUCE THE VELOCITY AND TURBULENCE OF THE WATER FLOWING THROUGH THE MEASURE, AND FACILITATE THE SETTLING OF SEDIMENT FROM THE WATER BEFORE DISCHARGE.

PURPOSE
SEDIMENT TRAPS AND BASINS ARE DESIGNED TO TEMPORARILY POOL RUNOFF WATER TO ALLOW SEDIMENT TO SETTLE BEFORE THE WATER IS DISCHARGED. UNFORTUNATELY, THEY ARE USUALLY NOT VERY EFFECTIVE DUE TO HIGH TURBULENCE AND "SHORT-CIRCUITING" FLOWS WHICH TAKE RUNOFF QUICKLY TO THE OUTLET WITH LITTLE INTERACTION WITH MOST OF THE BASIN. BAFFLES IMPROVE THE RATE OF THE SEDIMENT RETENTION BY DISTRIBUTING THE FLOW AND REDUCING TURBULENCE. THIS PROCESS CAN IMPROVE SEDIMENT RETENTION.

CONDITIONS WHERE PRACTICE APPLIES
THIS PRACTICE SHOULD BE USED IN ANY TEMPORARY SEDIMENT TRAP, ROCK DAM, SKIMMER BASIN OR TEMPORARY SEDIMENT BASIN.

PLANNING CONSIDERATION
POROUS BAFFLES EFFECTIVELY SPREAD THE FLOW ACROSS THE ENTIRE WIDTH OF A SEDIMENT BASIN OR TRAP. WATER FLOWS THROUGH THE BAFFLE MATERIAL, BUT IS SLOWED SUFFICIENTLY TO BACK UP THE FLOW, CAUSING IT TO SPREAD ACROSS THE ENTIRE WIDTH OF THE BAFFLE (FIGURE 6.65A)

SPREADING THE FLOW IN THIS MANNER UTILIZES THE FULL CROSS SECTION OF THE BASIN, WHICH IN TURN REDUCES FLOW RATES OR VELOCITY AS MUCH AS POSSIBLE. IN ADDITION, THE TURBULENCE IS ALSO GREATLY REDUCED. THE COMBINATION INCREASES SEDIMENT DEPOSITION AND RETENTION AND ALSO DECREASES THE PARTICLE SIZE OF SEDIMENT CAPTURED.

THE INSTALLATION SHOULD BE SIMILAR TO A SEDIMENT FENCE (FIGURE 6.65B). MATERIALS SUCH AS 700 G/M² COIR EROSION BLANKET (FIGURE 6.65D), COIR MESH, OR TREE PROTECTION FENCE FOLDED OVER TO REDUCE PORE SIZE HAVE BEEN USED SUCCESSFULLY. OTHER SIMILAR MATERIALS COULD WORK AS WELL. A SUPPORT WIRE OR ROPE ACROSS THE TOP WILL HELP PREVENT EXCESSIVE SAGGING IF THE MATERIAL IS ATTACHED TO IT WITH APPROPRIATE TIES. ANOTHER OPTION IS TO USE A SAWHORSE TYPE OF SUPPORT WITH THE LEGS STABILIZED WITH REBAR INSERTED INTO THE BASIN FLOOR. THESE STRUCTURES WORK WELL AND CAN BE PREFABRICATED OFF SITE AND QUICKLY INSTALLED. ANOTHER BAFFLE SYSTEM INVOLVES PLACING SILT FENCE FABRIC IN FRONT OF A WIRE FENCE (HOG WIRE) BACKING, AND SLITTING THE FABRIC IN ALTERNATING SQUARES (FIGURE 6.65B). THIS PERMITS FLOW THROUGH THE SILT FENCE SIMILAR TO MORE POROUS MATERIALS.

DESIGN CRITERIA
THE TEMPORARY SEDIMENT TRAP, ROCK DAM, OR TEMPORARY SEDIMENT BASIN SHOULD BE SIZED USING THE APPROPRIATE DESIGN CRITERIA.

THE PERCENT OF SURFACE AREA FOR EACH SECTION OF THE BAFFLE ARE AS FOLLOWS:
- INLET ZONE: 35%
- FIRST CELL: 25%
- SECOND CELL: 25%
- OUTLET ZONE: 15%
- BASINS LESS THAN 20 FEET IN LENGTH MAY USE 2 BAFFLES THAT DIVIDE THE BASIN IN THIRDS.

BE SURE TO CONSTRUCT BAFFLES UP THE SIDE OF THE TRAP OR BASIN BANKS SO WATER DOES NOT FLOW AROUND THE STRUCTURES. MOST OF THE SEDIMENT WILL BE CAPTURED IN THE INLET ZONE. SMALLER PARTICLE SIZE SEDIMENTS ARE CAPTURED IN THE LATTER CELLS. BE SURE TO MAINTAIN ACCESS TO THE TRAP FOR MAINTENANCE AND SEDIMENT REMOVAL.

THE DESIGN LIFE OF THE FABRIC IS 6-12 MONTHS, BUT MAY NEED TO BE REPLACE MORE OFTEN IF DAMAGED OR CLOGGED.

CONSTRUCTION SPECIFICATIONS
1. GRADE THE BASIN SO THAT THE BOTTOM IS LEVEL FRONT TO BACK AND SIDE TO SIDE.
2. INSTALL POSTS OR SAWHORSES ACROSS THE WIDTH OF THE SEDIMENT TRAP.
3. STEEL POSTS SHOULD BE DRIVEN TO A DEPTH OF 24 INCHES, SPACED A MAXIMUM OF 4 FEET APART, AND INSTALLED UP THE SIDES OF THE BASIN AS WELL. THE TOP OF THE FABRIC SHOULD BE 6 INCHES HIGHER THAN THE INVERT OF THE SPILLWAY. TOPS OF BAFFLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERMS.
4. INSTALL AT LEAST THREE ROWS OF BAFFLES BETWEEN THE INLET AND THE OUTLET DISCHARGE POINT. BASINS LESS THAN 20 FEET IN LENGTH MAY USE 2 BAFFLES.
5. WHEN USING POSTS, ADD A SUPPORT WIRE OR ROPE ACROSS THE TOP OF THE MEASURE TO PREVENT SAGGING.
6. WRAP POROUS MATERIAL, LIKE JUTE BACKED BY COIR MATERIAL, OVER A SAWHORSE OR THE TOP WIRE. HAMMER REBAR INTO THE SAWHORSE LEGS FOR ANCHORING. THE FABRIC SHOULD HAVE FIVE TO TEN PERCENT OPENINGS IN THE WEAVE. ATTACH FABRIC TO A ROPE AND A SUPPORT STRUCTURE WITH ZIP TIES, WIRE, OR STAPLES.
7. THE BOTTOM AND SIDES OF THE FABRIC SHOULD BE ANCHORED IN A TRENCH OR PINNED WITH 8-INCH EROSION CONTROL MATTING STAPLES.
8. DO NOT SPLICE THE FABRIC, BUT USE A CONTINUOUS PIECE ACROSS THE BASIN.

MAINTENANCE
INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OR A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

REMOVE SEDIMENT DEPOSITS WHEN IT REACHED HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.

AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.

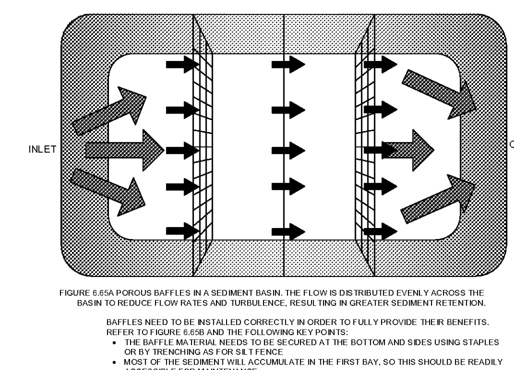

FIGURE 6.65A POROUS BAFFLES IN A SEDIMENT BASIN. THE FLOW IS DISTRIBUTED EVENLY ACROSS THE BASIN TO REDUCE FLOW RATES AND TURBULENCE, RESULTING IN GREATER SEDIMENT RETENTION.

BAFFLES NEED TO BE INSTALLED CORRECTLY IN ORDER TO FULLY PROVIDE THEIR BENEFITS. REFER TO FIGURE 6.65B AND THE FOLLOWING KEY POINTS:
- THE BAFFLE MATERIAL NEEDS TO BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR SILT FENCE
- MOST OF THE SEDIMENT WILL ACCUMULATE IN THE FIRST BAY, SO THIS SHOULD BE READILY ACCESSIBLE FOR MAINTENANCE.

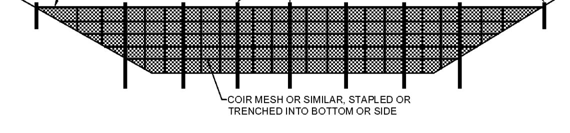

FIGURE 6.65B CROSS-SECTION OF A POROUS BAFFLE IN A SEDIMENT BASIN. NOTE THAT THERE IS NO WEIR BECAUSE THE WATER FLOWS THROUGH THE BAFFLE MATERIAL.

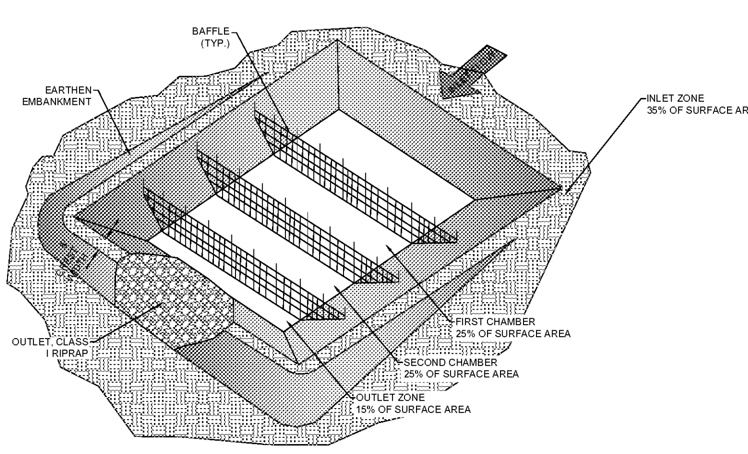

FIGURE 6.65C EXAMPLE OF POROUS BAFFLES USING COIR MESH.

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