



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
NASHVILLE, TENNESSEE 37243-0350

INSTRUCTIONAL BULLETIN No. 05-16

Regarding Erosion and Landscaping Drawings To Be Printed With The Plans

Effective for the June 3, 2005 letting, the various erosion control drawings attached to this instructional bulletin are to be printed with the plans. They shall be identified on the lower left hand corner of the index sheet – **“To be printed with the plans”**.

Copies of these drawings are attached to this bulletin.

EROSION CONTROL AND LANDSCAPING

<u>Drawing Number</u>	<u>Current Revision Date</u>	<u>Drawing Title</u>
EC STR-3A ECM-STR-3A	7-29-04	TEMPORARY FILTER BARRIER
EC-STR-3B ECM-STR-3B	7-29-04	TEMPORARY SILT FENCE
EC-STR-3C ECM-STR-3C	7-29-04	TEMPORARY SILT FENCE WITH BACKING
EC-STR-3D ECM-STR-3D	7-29-04	TEMPORARY ENHANCED SILT FENCE
EC-STR-5 ECM-STR-5	1-19-05	STRAW OR HAY BALE OR FABRIC TEMPORARY EROSION CHECKS
EC-STR-7 ECM-STR-7	7-29-04	TEMPORARY SEDIMENT TRAP WITH TEMPORARY SILT SCREEN CHECK DAM
EC-STR-34 ECM-STR-34	1-19-05	INSTALLATION DETAIL FOR EROSION CONTROL BLANKETS

EC-STR-55
ECM-STR-55

GABION CHECK DAM

EC-STR-56
ECM-STR-56

GABION CHECK DAM DESIGN TABLES

EC-STR-57
ECM-STR-57

GABION ASSEMBLY DETAILS

EC-STR-58
ECM-STR-58

GABION ASSEMBLY DETAILS

EC-STR-59
ECM-STR-59

GABION CHECK DAM GENERAL NOTES
AND COMPONENT PROPERTIES

EC-STR-60
ECM-STR-60

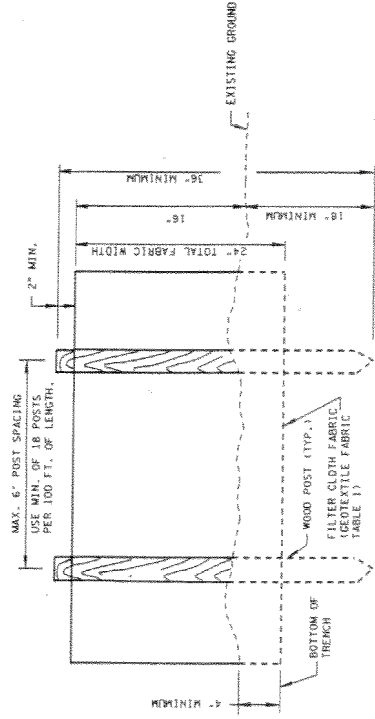
TEMPORARY SEDIMENT TRAP WITH
TEMPORARY GABION CHECK DAM



Jeff C. Jones, C.E. Director
Design Division

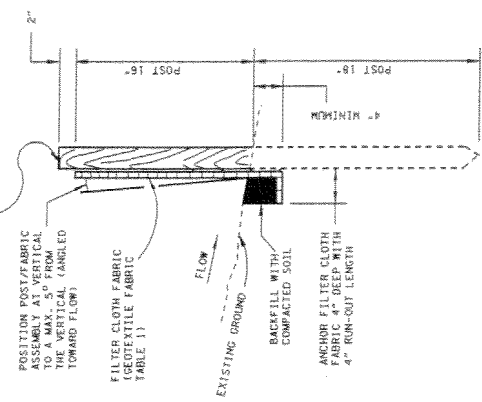
JCJ:mbd
Attachment
March 3, 2005

TEMPORARY FILTER BARRIER
(ITEM NO. 209-08-01)



ELEVATION VIEW

MIN. 1.5" (NOMINAL) X 1.5" (ACTUAL) X 1.25" (ACTUAL) POSTS (OAK OR HICKORY) - LENGTH 36"



SECTIONAL VIEW

ANCHOR STAKE TIEBACK DETAIL
(THIS DETAIL IS TO BE INCLUDED IN THE PLANS OR USED IN THE PLANS FOR TEMPORARY FILTER BARRIER)
COST TO BE INCLUDED IN THE ITEMS FOR TEMPORARY FILTER BARRIER)

TABLE 1
TEMPORARY SILT FENCE FABRIC SPECIFICATIONS

FABRIC TYPE	REQUIRED PHYSICAL PROPERTIES (MARY VALUES OF TEST DATA)
FABRIC TYPE	WOVEN SILT FILM
APPEARANT OPENING SIZE (ASTM D4751)	30 TO 40 STANDARD SIEVE
PERCENT OPEN AREA (FOA)	1 X TO 10 X
WATER FLOW (ASTM D4891)	2.4 GPM/FT ²
TENSILE STRENGTH (ASTM D4632)	2 120 LB. (WARP DIRECTION) X 100 LB. (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	2 70X
ELONGATION (ASTM D4632)	5, 20% (MAX)
BURST STRENGTH (ASTM D3786)	3, 250 PSI
PUNCTURE STRENGTH (ASTM D4833)	2, 60 LB.
TRAPEZOIDAL TEAR (ASTM D4933)	2, 50 LB. (WARP DIRECTION) X 40 LB. (FILL DIRECTION)

TEMPORARY FILTER BARRIER GENERAL NOTES

- (A) ALL LABOR AND MATERIALS SHOWN ON THE ELEVATION AND SECTIONAL VIEWS USED TO CONSTRUCT TEMPORARY FILTER BARRIERS ARE TO BE INCLUDED IN THE PRICE B10 FOR ITEM 209-08-01 TEMPORARY FILTER BARRIER PER LINEAR FOOT.
- (B) FILTER BARRIERS ARE USED TO INTERCEPT SMALL AMOUNTS OF SEDIMENT AND REDUCE VELOCITY FROM SHEET FLOW IN COMMERCIAL AND RESIDENTIAL AREAS ONLY.
- (C) THE MAXIMUM DRAINAGE AREA SIZE FOR A CONTINUOUS BARRIER SHALL BE 1/2 ACRE PER 100 LINEAR FEET OF BARRIER LENGTH. MAXIMUM SLOPE LENGTH BEHIND FENCE ON UPSLOPE SIDE SHALL BE 100 FEET (AS MEASURED ALONG THE GROUND SURFACE).
- (D) WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING EC-S1R-3E.
- (E) MAINTENANCE SHALL BE PERFORMED AS NEEDED: CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE FILTER BARRIER AND/OR OTHER EVIDENCE OF FILTER CLOGGING IS OBSERVED.
- (F) THE FILTER FABRIC SHALL BE STAPLED TO THE WOODEN STAKES, HEAVY DUTY WIRE STAPLES WITH 1/2 INCH LEG LENGTH SHALL BE USED AND EVENLY SPACED WITH THREE PER POST FOR FILTER BARRIERS. FILTER MATERIAL SHALL NOT BE STAPLED TO TREES.
- (G) FILTER BARRIERS SHOULD BE PLACED ALONG OR NEAR THE GROUND CONTOUR. THE BOTTOM OF BARRIER AT GROUNDLINE SHOULD BE ON A ZERO PERCENT (0%) GRADE, PLUS OR MINUS FIVE TENTHS OF ONE PERCENT (40-50%).
- (H) A PREASSEMBLED FILTER BARRIER MEETING THE REQUIREMENTS OF THIS DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED FILTER BARRIER.
- (I) STATIC SLICING IS THE PREFERRED METHOD OF FILTER BARRIER INSTALLATION. STATIC SLICING INVOLVES THE INSERTION OF A NARROW CUTTING BLADE, PLACED AT THE SPECIFIED ANGLE AND POSITION SHOWN ON THE APPLICABLE DETAIL, AND SIMULTANEOUSLY PULLING THE FENCE FABRIC INTO THE TRENCH AS THE TRENCH IS BEING EXCAVATED. ALTERNATE TRENCH-BASED METHODS ARE ALSO ACCEPTABLE. FOR TRENCH-BASED INSTALLATIONS, FILTER BARRIER SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:
 - EXCAVATE TRENCH A MAXIMUM OF 4 INCHES WIDE AND AT THE SPECIFIED DEPTH AS SHOWN ON THE APPLICABLE DETAIL. THE TRENCH SHALL BE HAND-DIGGED (NO EXCAVATION TO REMOVE BULKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH).
 - INSTALL FABRIC IN TRENCH.
 - BACKFILL TRENCH (OVER-FILL) WITH SOIL PLACED AROUND FABRIC.
 - COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).
 - DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL. OR PRE-ASSEMBLED FILTER BARRIER, DRIVE SUPPORT POSTS INTO GROUND FIRST, FOLLOWED BY FABRIC PLACEMENT IN TRENCH.
 - ATTACH FABRIC TO THE POSTS USING WIRE TIES OR STAPLES. SPACING AND DENSITY OF TIES OR STAPLES SHALL BE INSTALLED AS GIVEN ON THE APPLICABLE DETAIL.

REV. 12-18-02, MODIFIED TABLE 1 AND GENERAL NOTE (C)
REV. 7-29-04, CHANGED VALUES IN TABLE 1 FROM MEAN TO MARY VALUES.



28-FB-2005 10-9
SCALE
DATE
BY
11

REV. 12-18-02, UNIFIED TABLE 2
AND GENERAL NOTES
BEG. 7-26-04, CHANGED VALUE IN
TABLE 2 FROM MEAN TO MAX. VALUES.

**TABLE 2
TEMPORARY SILT FENCE WITH BACKING
FABRIC SPECIFICATIONS**

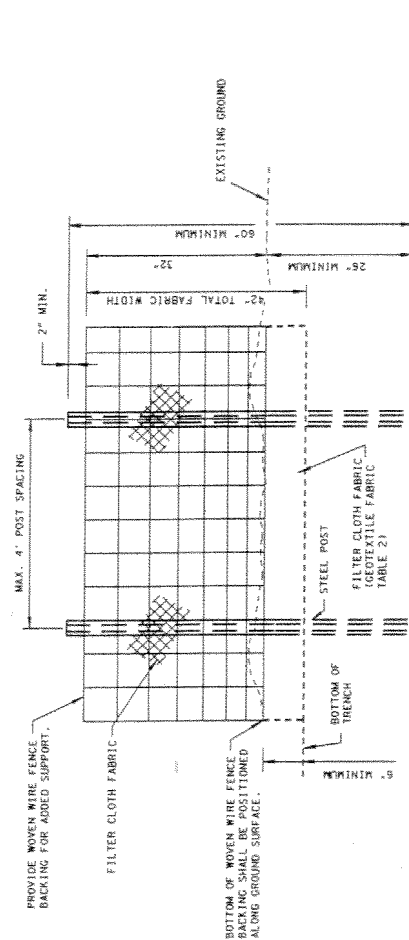
FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MAX. VALUES OF TEST DATA)
FABRIC TYPE	WOVEN MONOPILAMENT
APPERT OPENING SIZE (ASTM D4751)	• TO # 100 STANDARD SIEVE
WATER FLUX (ASTM D4981)	1 X TO 10 X
TENSILE STRENGTH (ASTM D4632)	≥ 18 GPM/FT ²
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	≥ 310 LB. (WARP DIRECTION) X 200 LB. (FILL DIRECTION)
BURST STRENGTH (ASTM D5786)	≥ 90Z
PUNCTURE STRENGTH (ASTM D4633)	≥ 400 PSI
TRAPEZOIDAL TEAR (ASTM D4633)	≥ 100 LB. (WARP DIRECTION) X 60 LB. (FILL DIRECTION)

TEMPORARY SILT FENCE WITH BACKING GENERAL NOTES

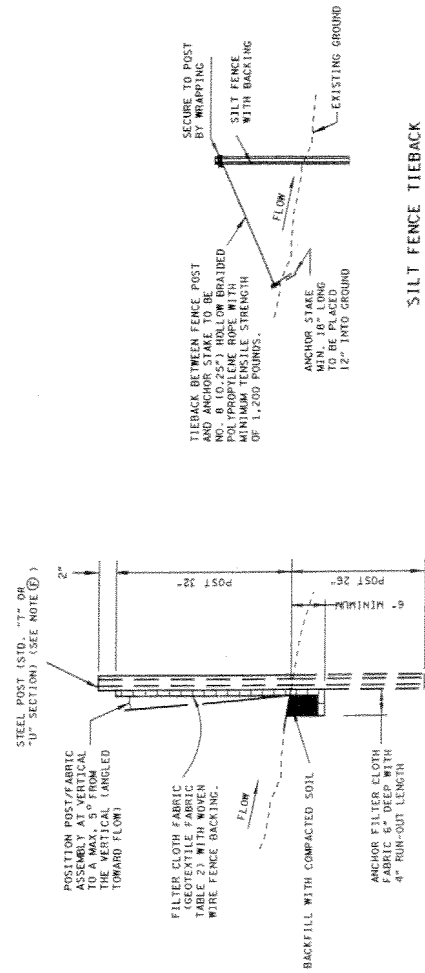
- A SILT FENCES WITH BACKING ARE USED TO INTERCEPT SMALL AMOUNTS OF SEDIMENT AND REDUCE VELOCITY FROM THE FENCE TO USE DOWNSTREAM SILT FENCES WITH BACKING UPGRADIENT OF AND ADJACENT TO WETLANDS, STREAMS, AND OTHER SENSITIVE WATER RESOURCES.
- B THE MAXIMUM DRAINAGE AREA SIZE FOR A CONTINUOUS SILT FENCE WITH BACKING SHALL BE 1 ACRE PER 150 LINEAR FEET ALONG A SLOPE LENGTH BEHIND FENCE ON UPSLOPE SIDE SHALL BE 300 FEET (AS MEASURED ALONG THE GROUND SURFACE).
- C WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING EC-STR-3E.
- D MAINTENANCE SHALL BE PERFORMED AS NEEDED; CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND/OR WHEN EVIDENCE OF FILTER CLOGGING IS OBSERVED.
- E STEEL POSTS SHALL BE 1.33 LB./FT. POLED FROM HIGH CARBON STEEL AND SHALL BE GALVANIZED OR HOT-DIPPED IN FLUX. POSTS SHALL BE 1/2" DIA. WITH 1/4" DIA. HOLES FOR 1/4" DIA. GALVANIZED OR HOT-DIPPED IN FLUX STUBS, EMBOSSED, OR PUNCHED TO AID IN THE ATTACHMENT OF WIRE.
- F STEEL POSTS SHALL HAVE A PROJECTION FOR FASTENING WIRE TO THEM. WOVEN WIRE FENCE BACKING TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE. WIRE SHALL BE 1/8" DIA. GALVANIZED OR HOT-DIPPED IN FLUX. FENCE BACKING WITH THE TIES SPACED EVERY 24 INCHES ALONG TOP AND MIDSECTION. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST SIX PER POST.
- G WOVEN WIRE FENCE BACKING SHALL MEET THE REQUIREMENTS FOR ASTM A-116 FOR NO. 11 FARM, DESIGN NO. 832-9-11, CLASS 3 COATING.
- H SILT FENCES SHOULD BE PLACED ALONG OR NEAR THE GROUND CONTOUR. THE BOTTOM OF FENCE AT GROUNDLINE SHOULD BE ON A ZERO PERCENT (0%) GRADE, PLUS OR MINUS FIVE TENTHS OF ONE PERCENT (±0.5%).
- I STATIC SLICING IS THE PREFERRED METHOD OF FENCE INSTALLATION. STATIC SLICING INVOLVES THE INSERTION OF A SHARP CUTTING BLADE PLACED AT THE SPECIFIED ANCHOR DEPTH FOR THE GIVEN FABRIC AS SHOWN ON THE APPLICABLE DETAIL. ALTERNATE TRENCH-BASED METHODS ARE ALSO ACCEPTABLE FOR TRENCH-BASED INSTALLATIONS. FENCING SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:
 - EXCAVATE TRENCH A MAXIMUM OF 4 INCHES WIDE AND AT THE SPECIFIED DEPTH AS SHOWN ON THE APPLICABLE DETAIL. THE TRENCH SHALL BE HAND-CLEANED FOLLOWING EXCAVATION TO REMOVE BULKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
 - INSTALL FABRIC IN TRENCH.
 - BACKFILL TRENCH COVER-FILL WITH SOIL PLACED AROUND FABRIC.
 - COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).
 - DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL.
 - ATTACH FABRIC TO THE POSTS USING WIRE TIES. SPACING AND DENSITY OF TIES SHALL BE INSTALLED AS GIVEN ON THE APPLICABLE DETAIL.

TEMPORARY SILT FENCE WITH BACKING

(ITEM NO. 209-08-02)



ELEVATION VIEW



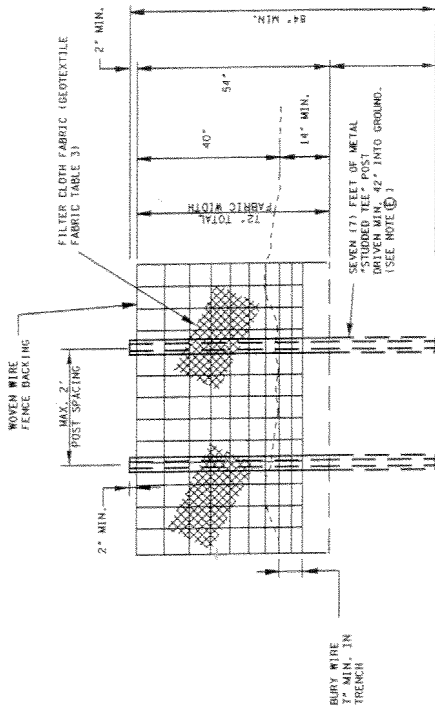
SECTIONAL VIEW

WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS, COST TO BE INCLUDED IN THE ITEMS FOR TEMPORARY SILT FENCE (WITH BACKING)

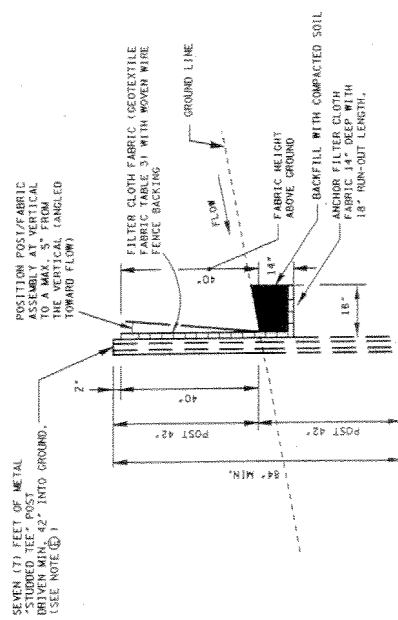
28-FEB-2005 10:00
12/18/02
12/18/02

ENHANCED SILT FENCE

ITEM NO. 209-08-041



ELEVATION VIEW



SECTIONAL VIEW

ENHANCED SILT FENCE SPECIFICATIONS	
FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MINIMUM VALUES OF TEST DATA)
FABRIC TYPE	WOVEN MONOFILAMENT
APPEARANT OPENING SIZE (ASTM D4751)	# 30 TO # 80 STANDARD SIEVE
WATER FLUX (ASTM D4981)	2-110 GPM/FT ²
TENSILE STRENGTH (ASTM D4632)	2-270 LBS. (WARP DIRECTION) X 230 LBS (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	2-80X
BURST STRENGTH (ASTM D3786)	2-470 PSI
PUNCTURE STRENGTH (ASTM D4633)	2-110 LB.
TRAPEZOIDAL TEAR (ASTM D4533)	2-115 LB. (WARP DIRECTION) X 75 LB. (FILL DIRECTION)
PERMEABILITY (ASTM D4811)	2-0.02 INCHES/SEC
THICKNESS (ASTM D5199)	5-35 MILLS

ENHANCED SILT FENCE GENERAL NOTES

- (A) ALL LABOR AND MATERIALS SHOWN ON THE ELEVATION AND SECTIONAL VIEWS USED TO CONSTRUCT ENHANCED SILT FENCE ARE TO BE INCLUDED IN THE PRICE BID FOR ITEM NO. 209-08-04 TEMPORARY ENHANCED SILT FENCE PER LINEAR FOOT.
- (B) ENHANCED SILT FENCE IS TO BE USED WHERE INTERCEPTION OF CONCENTRATED FLOW IS REQUIRED. THE FLOW CHARACTERISTICS OF FLOW APPLICATIONS FOR USE OF ENHANCED SILT FENCE ARE GIVEN IN TABLE 4 AND TABLE 5 ON STANDARD DRAWINGS EC-STR-4 AND EC-STR-4A, RESPECTIVELY.
- (C) WHEN TWO SECTIONS OF ENHANCED SILT FABRIC ADJOIN EACH OTHER THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING EC-STR-3E.
- (D) MAINTENANCE SHALL BE PERFORMED AS NEEDED; CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND/OR WHEN EVIDENCE OF FILTER BLINDING IS NOTED.
- (E) STEEL POSTS SHALL BE 1.33 LB./FT., ROLLED FROM HIGH CARBON STEEL AND SHALL BE GALVANIZED OR HOT-DIPPED AND PAINTED WITH ONE OR MORE COATS OF AN INERT, DURABLE PAINT. THE PAINT SHALL BE APPLIED TO THE ENTIRE SURFACE, UNLESS, OR PUNCHED TO AID IN THE ATTACHMENT OF WIRE.
- (F) STEEL POSTS SHALL BE A MINIMUM OF 1/2" DIAMETER. THE WIRE SHALL BE WOVEN FABRIC BACKING TO BE FASTENED SECURELY TO THE POSTS WITH WIRE TIES. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST SIX PER POST.
- (G) WIRE FABRIC SHALL MEET THE REQUIREMENTS FOR ASTM A-116 FOR NO. 11 FABRICATION, 10MT-6-11, CLASS 3 COATING.
- (H) FILTER FABRIC SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE BACKING WITH TIES SPACED EVERY 24 INCHES ALONG TOP AND MID SECTION.
- (I) FOLLOWING STEPS AND IN THE FOLLOWING ORDER:
 - EXCAVATE TRENCH A MAXIMUM OF 18 INCHES WIDE AND AT THE SPECIFIED DEPTH AS SHOWN. EXCAVATION SHALL BE CLEANED AND THE TRENCH SHALL BE HAND-CLEANED TO REMOVE ALL DEBRIS, ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
 - INSTALL FABRIC IN TRENCH.
 - BACKFILL TRENCH (OVER-FILL) WITH SOIL PLACED AROUND FABRIC.
 - COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).
 - DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL.
 - ATTACH WOVEN WIRE FENCE BACKING TO POSTS AND FABRIC TO THE WIRE BACKING USING WIRE TIES. SPACING AND DENSITY OF TIES SHALL BE INSTALLED AS GIVEN ON THE APPLICABLE DETAIL.

REV. 12-14-05, REPLACED TABLE 4 AND 5 WITH REVISED VALUES IN TABLE 3 FROM MEAN TO MANY VALUES.

REV. 12-14-05, CHANGED VALUES IN TABLE 3 FROM MEAN TO MANY VALUES.

MINOR REVISION -- FINAL APPROVAL NOT REQUIRED.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

TEMPORARY ENHANCED SILT FENCE

12-18-02 EC-STR-30

EROSION CONTROL PLAN LEGEND: * ESF * ESF * ESF * ESF * (ENHANCED SILT FENCE)

DATE: 12/14/05
 DRAWN BY: J196208/MSK/STV/eng/ham/act/r/3d/03p
 12/14/05



- REV. 12-18-25, CHANGED DRIZING NO. FROM EC-STR-5 TO EC-STR-5.
- REV. 8-27-04, CHANGED ITEM NO. 209-06 TO 209-00-03.
- REV. 10-26-03, REVISED DETAILS FOR TYPE EC 10, TYPE EC 1C, AND TYPE EC 1D.
- REV. 12-18-02, CHANGED ALL REFERENCES TO SILT FENCE AND FILTER BARRIER TO ENHANCED SILT FENCE.
- REV. 10-26-03, DELETED DETAIL FOR TYPE EC 7 FILTER BARRIER.
- REV. 1-19-04, DELETED DETAIL FOR GENERAL NOTE 1 AND 2, CHANGED GENERAL NOTE 3 TO GENERAL NOTE 4.

**GENERAL NOTES FOR
BALED HAY OR STRAW USED AS EROSION CHECKS**

(A) THE DRAINAGE AREA FOR THE FILTER FABRIC, BALED HAY OR STRAW EROSION CHECKS SHALL BE 2 ACRES OR LESS. THEY SHALL BE UTILIZED TO DECREASE FLOW VELOCITY AND TO RETAIN SMALL AMOUNTS OF SEDIMENT.

(B) HAY OR STRAW BALES SHALL BE A MINIMUM OF 5 CUBIC FEET IN VOLUME WITH A MINIMUM DIMENSION OF 36" X 18" X 14" (LENGTH X WIDTH X HEIGHT).

(C) ALL BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED AND THE BALES SHALL BE PLACED IN POSITION TO MAINTAIN THE BINDING IN A HORIZONTAL POSITION.

(D) ALL BALES SHALL BE BURIED A MINIMUM OF 4 INCHES.

(E) BALED HAY OR STRAW USED FOR EROSION CHECKS ON FILL IS TO BE PAID FOR UNDER ITEM NO. 209-06, BALED HAY OR STRAW EROSION CHECKS PER BALE.

MINOR REVISION - PINK APPROVAL NOT REQUIRED.

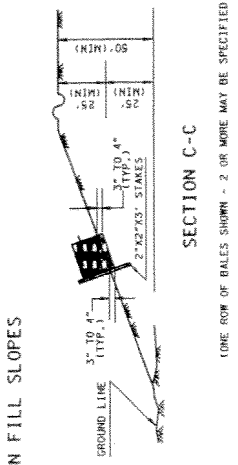
STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION

STRAW OR HAY BALE OR FABRIC TEMPORARY EROSION CHECKS

10-26-03 EC-STR-5

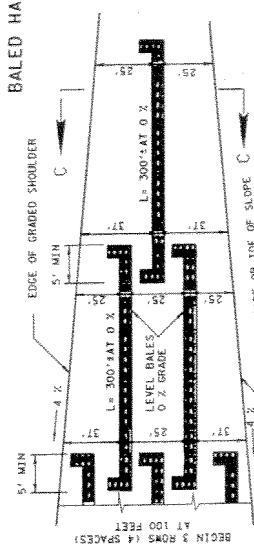
TYPE EC VI

BALED HAY OR STRAW ON FILL SLOPES



SECTION C-C

(ONE ROW OF BALES SHOWN - 2 OR MORE MAY BE SPECIFIED)

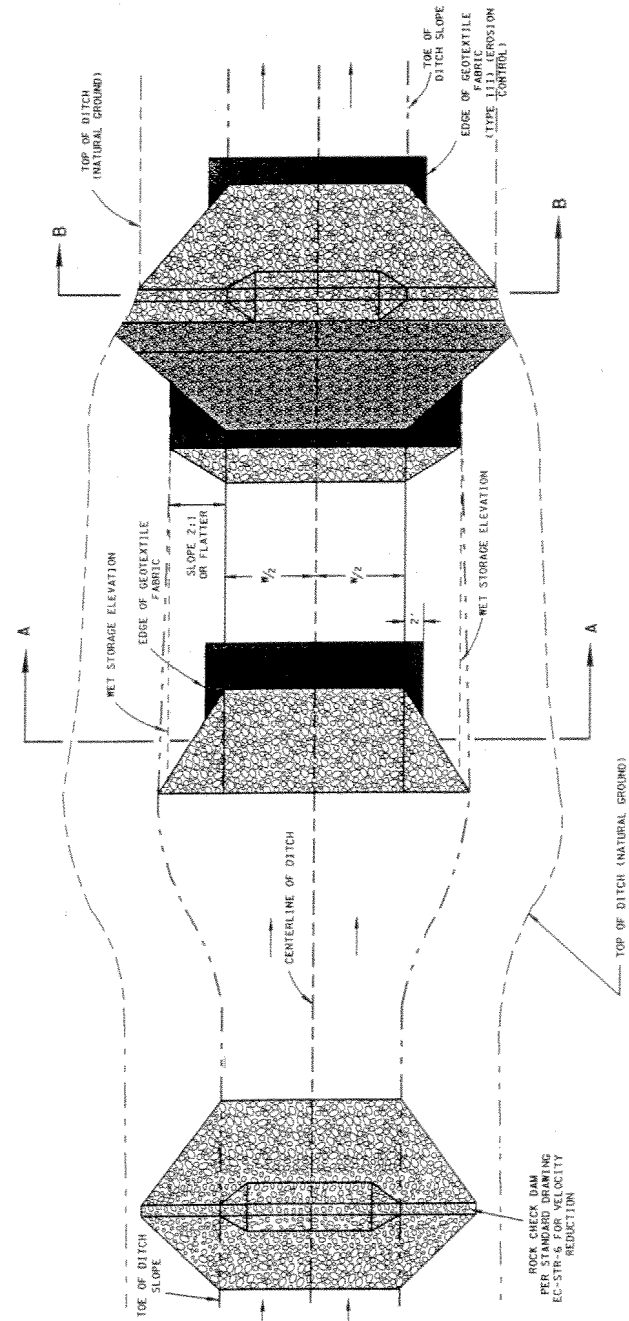


TYPICAL LONGITUDINAL VIEW (EXAMPLE)

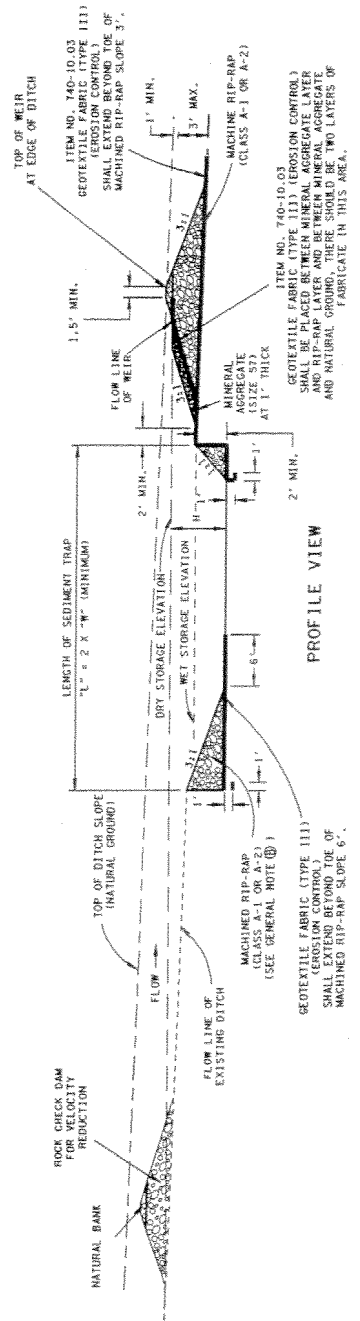
(DIMENSIONS ARE MEASURED VERTICALLY)
WHEN DITCH TOE OF SLOPE OR SHOULDER GRADE CHANGES, "L" WILL CHANGE ACCORDINGLY

TEMPORARY SEDIMENT TRAP WITH TEMPORARY SILT SCREEN CHECK DAM

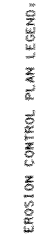
(ITEM NOS. 209-05, 209-10-20 & 740-10-03)



PLAN VIEW



PROFILE VIEW

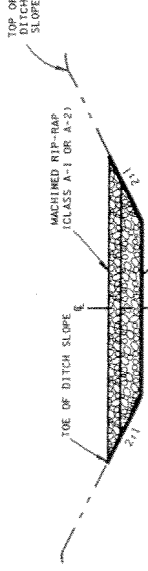


TEMPORARY SEDIMENT TRAP WITH TEMPORARY SILT SCREEN CHECK DAM

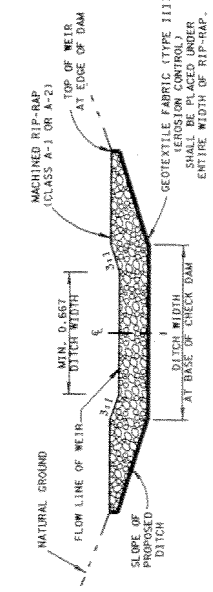
- REV. 1-22-01, CORRECTED GENERAL NOTE (A), ADDED ADDITIONAL GEOTEXTILE FABRIC TO PROFILE VIEW.
- REV. 5-27-01, CHANGED ITEM NOS. 209-10-01 THROUGH 209-10-19 TO 209-10-20.
- REV. 9-5-01, CORRECTED NOTE REGARDING GEOTEXTILE FABRIC IN SECTION A-A AND SECTION B-B. NOTE (B).
- REV. 12-18-02, CHANGED GENERAL NOTE (B).

GENERAL NOTES

- (A) THE DRAINAGE AREA FOR THE TEMPORARY SEDIMENT TRAP SHALL BE 3 ACRES OR LESS.
- (B) THE BELOW GROUND TEMPORARY SEDIMENT TRAP IS LOCATED IN A DITCH LINE AND WILL REQUIRE DUMPED ROCK AT BOTH ENDS.
- (C) THE CENTER OF THE ROCK SILT SCREEN MUST BE AT LEAST ONE (1) FOOT LOWER THAN THE OUTER EDGES. THIS WILL ELIMINATE THE ROCK - SOIL FAILURE POINT WHERE THE ROCK SILT SCREEN AND NATURAL GROUND MEET.
- (D) GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES ASHSTO DESIGNATION M-280, EROSION CONTROL.
- (E) TEMPORARY SEDIMENT TRAPS AND THEIR ATTACHED TEMPORARY ROCK SILT SCREENS SHALL BE PAID FOR UNDER ITEM NO. 209-10-20 TEMPORARY SEDIMENT TRAP PER CUBIC YARD, MAINTENANCE OF TEMPORARY SEDIMENT TRAP.
- (F) SEDIMENT SHALL BE REMOVED FROM TEMPORARY SEDIMENT TRAPS WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NO. 209-05, SEDIMENT REMOVAL PER CUBIC YARD.



SECTION A - A



SECTION B - B

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TEMPORARY
SEDIMENT TRAP WITH
TEMPORARY SILT
SCREEN CHECK DAM

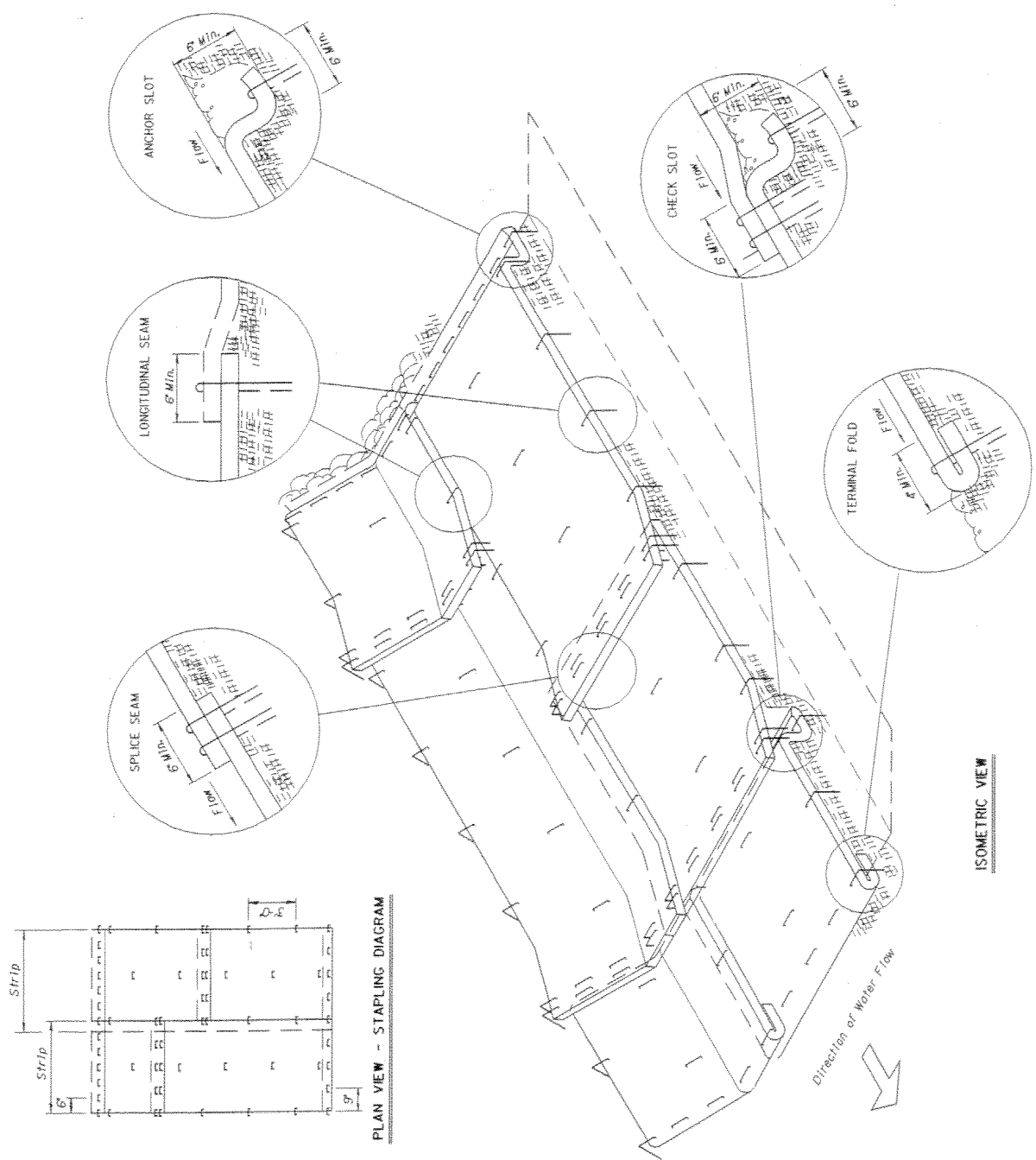
10-26-92 EC-STR-7

DRAWN BY: J. W. BROWN
APPROVAL: NOT PRESENTED

- REV. 12-18-91, CHANGED DRAWING NO. FROM ESC-518-34 TO EC-STR-34.
- REV. 1-22-03, LAPPED LONGITUDINAL SEAM TO LONGITUDINAL SEAM AND WOOD STAPLES TO STAPLES. TYPE I BLANKETS ARE NO LONGER USED.
- REV. 1-19-05, CHANGED GENERAL NOTE TO CHANGED PLAN VIEW AND LONGITUDINAL SEAM VIEW.

GENERAL NOTES FOR INSTALLATION DETAILS

- EROSION CONTROL BLANKETS SHALL BE LAID LOOSELY IN THE DIRECTION OF FLOW, WITH THE FIRST COURSE AT THE CENTERLINE OF THE CHANNEL, WHERE APPLICABLE. IN ORDER FOR THE BLANKET TO BE IN CONTACT WITH THE SOIL, LAY THE BLANKET LOOSELY, AVOIDING STRETCHING.
- A ANCHOR SLOTS: THE TOP OF THE BLANKET SHOULD BE "SLOTTED IN" AT THE TOP OF THE SLOPE AND STAPLED IN PLACE WITH STAPLES 6 INCHES APART. THE SLOTS SHOULD BE 6" WIDE X 6" DEEP WITH THE BLANKET STAPLED IN THE BOTTOM OF THE SLOT. THEN BACKFILLED, TAMPED AND SEEDED.
 - B LONGITUDINAL SEAMS: THE ADJACENT EDGES OF THE CHANNEL LINER SHOULD OVERLAP A MINIMUM OF 6 INCHES, WITH THE STAPLES CATCHING THE EDGES OF BOTH EROSION CONTROL BLANKETS.
 - C SPLICE SEAMS: WHEN SPLICES ARE NECESSARY, OVERLAP THE END A MINIMUM OF 6 INCHES IN THE DIRECTION OF WATER FLOW. STAGGER SPLICE SEAMS.
 - D CHECK SLOTS: ESTABLISH CHECK SLOTS TRANSVERSE TO SLOPE EVERY 35 FEET. THE SLOTS SHOULD BE 6" WIDE X 6" DEEP. THE BLANKET SHALL BE CUT TO A LENGTH 6" BEYOND THE SLOT. THE TOP OF THE DOWNSTREAM BLANKET SHALL BE SLOTTED IN, STAPLED AND BURIED. TAMPED AND SEEDED SIMILAR TO THE TOP ANCHOR SLOT. THE UPSTREAM BLANKET SHALL THEN COVER THE SLOT AND BE STAKED AS SHOWN.
 - E TERMINAL FOLD: THE BOTTOM EDGE OF THE BLANKET SHALL BE TURNED UNDER A MINIMUM OF 4 INCHES, THEN STAPLED IN PLACE WITH STAPLES 9 INCHES APART.
 - F TYPICAL STAPLES: STAPLES SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION FOR STAPLES, SECTION 910-19.
 - G PAYMENT FOR EROSION CONTROL BLANKETS WILL BE MADE UNDER THE FOLLOWING ITEMS:
 805-12.02, EROSION CONTROL BLANKET (TYPE III) PER SQUARE YARD.
 805-12.03, EROSION CONTROL BLANKET (TYPE III) PER SQUARE YARD.
 805-12.04, EROSION CONTROL BLANKET (TYPE IV) PER SQUARE YARD.



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

INSTALLATION
 DETAIL FOR EROSION
 CONTROL BLANKETS

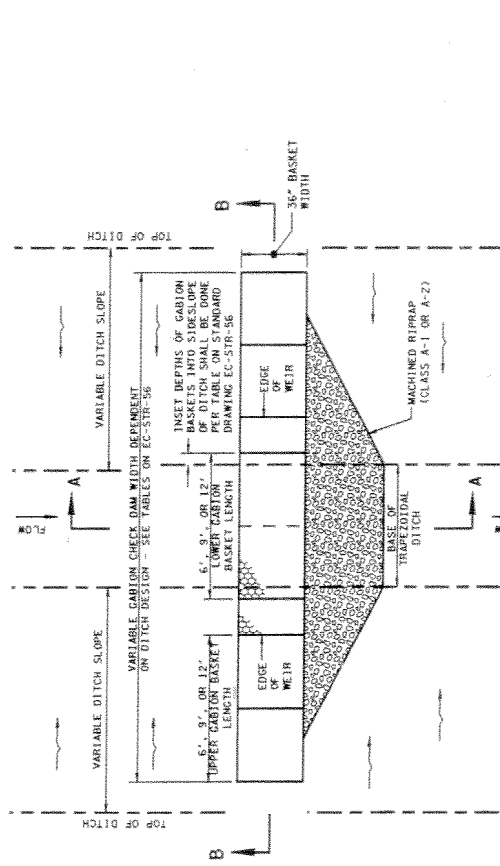
10-26-92 EC-STR-34

ISOMETRIC VIEW

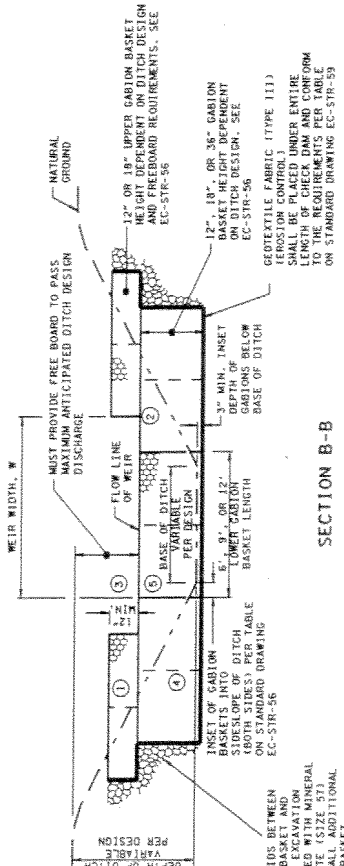


TEMPORARY OR PERMANENT GABION CHECK DAM

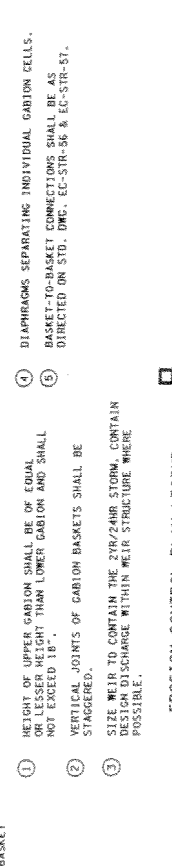
(ITEM NO. 209-09.25)



PLAN

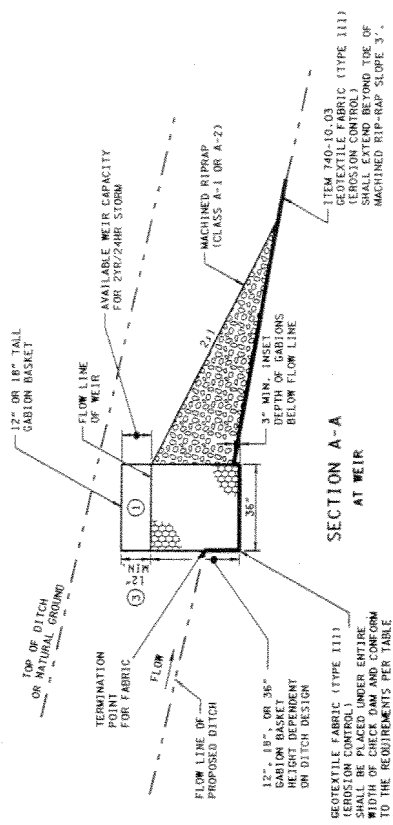


SECTION B-B

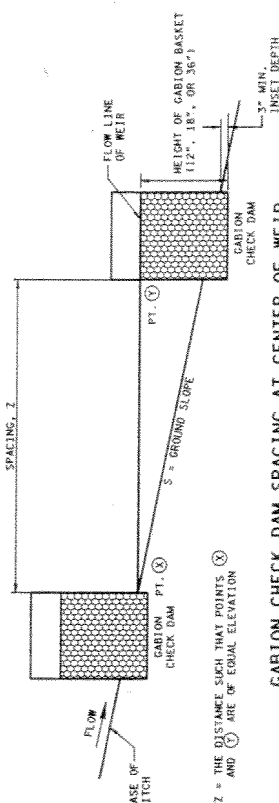


EROSION CONTROL PLAN LEGEND:

- ① HEIGHT OF UPPER GABION SHALL BE OF EQUAL OR LIGHTER THAN LOWER GABION AND SHALL NOT EXCEED 18".
- ② VERTICAL JOINTS OF GABION BASKETS SHALL BE STAGGERED.
- ③ SIZE WEIR TO CONTAIN THE 2 1/2 HR STORM, CONTAIN DESIGN DISCHARGE WITHIN WEIR STRUCTURE WHERE POSSIBLE.
- ④ DIAPHRAGMS SEPARATING INDIVIDUAL GABION CELLS, BASKET-TO-BASKET CONNECTIONS SHALL BE AS DIRECTED ON STD. DWG. EC-STR-56 & EC-STR-57.



SECTION A-A AT WEIR



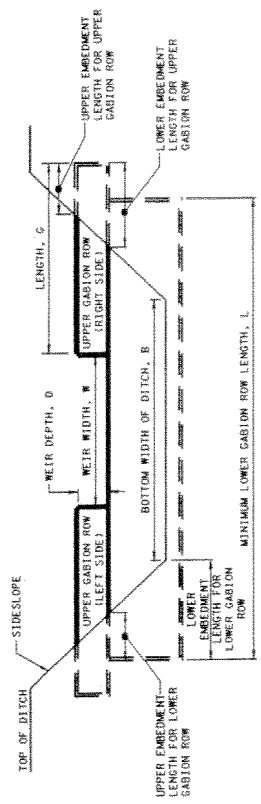
GABION CHECK DAM SPACING AT CENTER OF WEIR

GROUND SLOPE, S (FT/FT)	GABION CHECK DAM SPACING TABLE	
	MAXIMUM SPACING BETWEEN GABIONS, Z FOR 12-INCH BASKETS IN FEET	MAXIMUM SPACING BETWEEN GABIONS, Z FOR 36-INCH BASKETS IN FEET
0.010	72	272
0.015	47	181
0.020	35	135
0.030	22	89
0.040	16	66
0.050	12	52
0.060	10	43
0.070	*	37
0.080	*	32
0.090	*	28
0.100	**	25
0.110	**	22
0.120	**	20
0.130	**	19
0.140	**	17
0.150	**	16
0.200	**	11

* USE 18 OR 36 INCH GABIONS
** USE 36 INCH GABIONS

LENGTH AND EMBEDMENT FOR UPPER GABION ROW

BOTTOM WIDTH OF DITCH, B IN FEET	UPPER GABION ROW, 12-INCH GABION HEIGHT				UPPER GABION ROW, 18-INCH GABION HEIGHT			
	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR UPPER ROW, IN FEET	SIDE SLOPE	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR UPPER ROW, IN FEET	SIDE SLOPE
3	6	6	2.1	4.5	6	6	2.1	4.5
4	6	6	2.1	4.5	6	6	2.1	4.5
5	6	6	2.1	4.5	6	6	2.1	4.5
6	6	6	2.1	4.5	6	6	2.1	4.5
7	6	6	2.1	4.5	6	6	2.1	4.5
8	6	6	2.1	4.5	6	6	2.1	4.5
9	6	6	2.1	4.5	6	6	2.1	4.5
10	6	6	2.1	4.5	6	6	2.1	4.5
12	6	6	2.1	4.5	6	6	2.1	4.5
15	6	6	2.1	4.5	6	6	2.1	4.5



DEFINITION OF TERMS FOR GABION CHECK DAM IN TRAPEZOIDAL DITCH

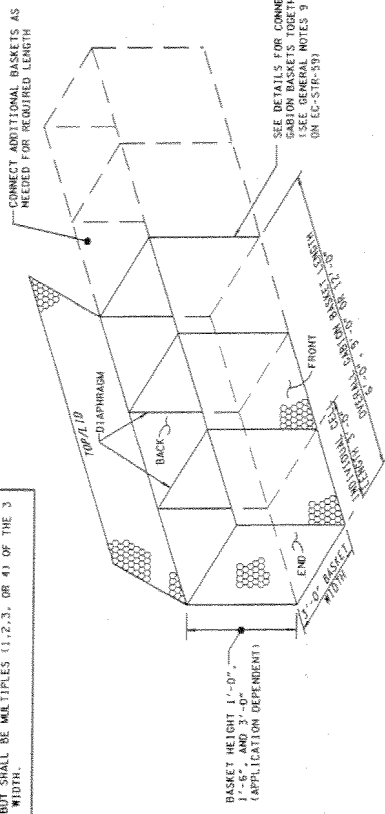
LENGTH AND EMBEDMENT FOR LOWER GABION ROW

BOTTOM WIDTH OF DITCH, B IN FEET	LOWER GABION ROW, 12-INCH GABION HEIGHT				LOWER GABION ROW, 18-INCH GABION HEIGHT				LOWER GABION ROW, 36-INCH GABION HEIGHT			
	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR LOWER ROW, IN FEET	SIDE SLOPE	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR LOWER ROW, IN FEET	SIDE SLOPE	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR LOWER ROW, IN FEET	SIDE SLOPE
3	9	9	3	4.5	12	12	3	4.5	15	15	3	4.5
4	9	9	3	4.5	12	12	3	4.5	15	15	3	4.5
5	9	9	3	4.5	12	12	3	4.5	15	15	3	4.5
6	12	12	3	4.5	15	15	3	4.5	18	18	3	4.5
7	12	12	3	4.5	15	15	3	4.5	18	18	3	4.5
8	12	12	3	4.5	15	15	3	4.5	18	18	3	4.5
9	12	12	3	4.5	15	15	3	4.5	18	18	3	4.5
10	15	15	3	4.5	18	18	3	4.5	21	21	3	4.5
12	18	18	3	4.5	21	21	3	4.5	24	24	3	4.5
15	21	21	3	4.5	24	24	3	4.5	27	27	3	4.5

WEIR PROPERTIES FOR VARIOUS GABION CHECK DAM DESIGNS

BOTTOM WIDTH OF DITCH, B IN FEET	UPPER GABION ROW, 12-INCH GABION HEIGHT				UPPER GABION ROW, 18-INCH GABION HEIGHT				UPPER GABION ROW, 36-INCH GABION HEIGHT			
	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR UPPER ROW, IN FEET	SIDE SLOPE	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR UPPER ROW, IN FEET	SIDE SLOPE	MINIMUM LENGTH OF GABIONS, L LOWER ROW, IN FEET	MINIMUM LENGTH OF GABIONS, L UPPER ROW, IN FEET	MINIMUM EMBEDMENT LENGTH FOR UPPER ROW, IN FEET	SIDE SLOPE
3	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
4	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
5	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
6	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
7	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
8	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
9	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
10	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
12	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5
15	6	6	2.1	4.5	6	6	2.1	4.5	6	6	2.1	4.5

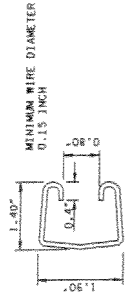
EXAMPLE BELOW SHOWS 3' CELLED, 3' FOOT LONG GABION BASKET WITH 1' CELLED, 3' FOOT LONG GABION BASKET. GABION LENGTHS WILL VARY, BUT SHALL BE MULTIPLES OF 1.25', OR 41 OF THE 3' FOOT BASKET WIDTH.



BASKET HEIGHT 1'-0" (APPLICATION DEPENDENT)
1'-6" AND 3'-0"

SEE DETAILS FOR CONNECTING GABION BASKETS TOGETHER (SEE GENERAL NOTES 9 AND 10 ON EC-STR-53)

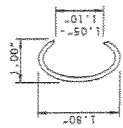
ISOMETRIC - TYPICAL GABION
N.T.S.



BEFORE CLOSURE



AFTER CLOSURE



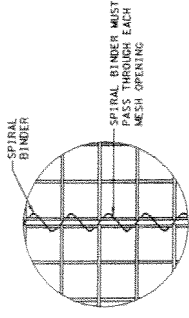
BEFORE CLOSURE



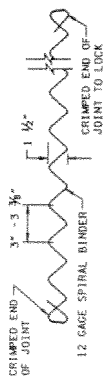
AFTER CLOSURE



WOVEN MESH GABION LACING DETAIL



WELDED MESH GABION SPIRAL BINDER LACING DETAIL



TYPE 1 FASTENER INTERLOCKING WIRE

TYPE 2 FASTENER OVERLAPPING RING

TYPE 3 FASTENER LACING WIRE

TYPE 4 FASTENER SPIRAL BINDER

NOTE: DIMENSIONS SHOWN ARE NOMINAL

INSTALL TYPE 1 OR TYPE 2 FASTENERS AT EACH MESH OPENING ALONG GABION BASKET EDGE.

TO BE USED WITH WELDED MESH ONLY



GABION CHECK DAM GENERAL NOTES

- GABIONS SHALL BE APPLIED AS CHECK DAMS WHERE ALLOWABLE MAXIMUM SHEAR FORCES AND VELOCITIES FOR LOOSE RIP RAP ARE EXCEEDED.
- CHECK DAMS SHALL NOT BE USED IN LIVE-ACTIVE PERENNIAL STREAMS.
- CHECK DAMS ARE TO BE USED AS, PRIMARILY, AN EROSION CONTROL MEASURE DUE TO VELOCITY REDUCTION.
- CHECK DAMS MAY REMAIN IN PLACE AS PERMANENT CHECK DAMS, IF SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
- THE CENTER OF THE CHECK DAM MUST BE AT LEAST ONE (1) FOOT LOWER THAN THE OUTER EDGES. THIS WILL ELIMINATE THE BASKET-SOIL FAILURE POINT WHERE THE GABION CHECK DAM AND NATURAL GROUND MEET.
- WIRE MESH GABION ALTERNATES:
 - NON-RAVELING TRIPLE TWISTED HEXAGONAL WIRE MESH, CONSISTING OF THREE (3) WIRE STRANDS WOUND AROUND EACH OTHER IN A HELIX. AREA OF MESH OPENINGS SHALL NOT EXCEED 10 SQUARE INCHES. MINIMUM LINEAR DIMENSION OF A WOVEN MESH OPENING SHALL NOT EXCEED 4.5 INCHES.
 - WELDED MESH - WELDED WIRE MESH WITH A UNIFORM SQUARE OR RECTANGULAR PATTERN AND A MINIMUM SHEAR STRENGTH OF 70Z AND A MINIMUM SHEAR STRENGTH OF 80Z. THE SHEAR STRENGTH OF 70Z AND A MINIMUM SHEAR STRENGTH OF 80Z OF THE MINIMUM AVERAGE FORMING OF THE WELDED MESH.
- WIRE FOR FABRICATION AND ASSEMBLY SHALL BE HOT-DIPPED GALVANIZED. THE WIRE SHALL CONFORM TO ASTM A641, CLASS 3, SOFT-TEMP.
- TYPE 1, TYPE 2 AND TYPE 3 FASTENERS MUST PROVIDE A MINIMUM STRENGTH OF 1,400 POUNDS PER SQUARE INCH. TYPE 4 FASTENERS SHALL MEET ALL OF THE COATING REQUIREMENTS OF THE GABION MANUFACTURER IN ADDITION TO ANY REQUIREMENTS SPECIFIED IN THESE GENERAL NOTES.
- TYPE 1 AND TYPE 2 FASTENERS SHALL BE FORMED FROM WIRE MESH GABIONS SUCH AS TYPE 1 AND TYPE 2 FASTENERS. TYPE 3 AND TYPE 4 FASTENERS SHALL BE FORMED FROM WIRE MEETING THE SAME QUALITY AND COATING REQUIREMENTS AS SPECIFIED FOR THE GABIONS.
- FOUNDATION PREPARATION - SURFACE IRREGULARITIES, LOOSE MATERIAL, VEGETATION, AND ALL FOREIGN MATTER SHALL BE REMOVED FROM FOUNDATIONS.
- ASSEMBLY - ROTATE THE GABION PANELS INTO POSITION AND JOIN THE VERTICAL EDGES WITH TYPE 1 AND TYPE 2 FASTENERS. WHERE LACING WIRE IS USED, WRAP THE WIRE WITH TYPE 1 AND TYPE 2 FASTENERS. ALTERNATE FASTENERS FOR USE WITH WIRE MESH GABIONS SHALL BE FORMED FROM WIRE MEETING THE SAME QUALITY AND COATING REQUIREMENTS AS SPECIFIED FOR THE GABIONS.
- PLACEMENT - PLACE THE EMPTY GABIONS ON THE FOUNDATION AND INTERCONNECT THE ADJACENT GABIONS ALONG THE VERTICAL EDGES AND DOUBLE HALF-PIERCES LACING WIRE WITH TYPE 1 AND TYPE 2 FASTENERS. UNLESS OTHERWISE SPECIFIED, LACING WIRE WILL BE THE ONLY CONNECTION BETWEEN GABIONS. THE SPIRALS IN PLACE, WHERE RING TYPE ALTERNATE FASTENERS ARE USED FOR BASKET ASSEMBLY, INSTALL THE FASTENERS AT A MAXIMUM SPACING OF 6 INCHES. USE THE SAME TYPE AND SIZE OF FASTENERS FOR INTERIOR DIAPHRAGMS WHERE THEY ARE REQUIRED. INTERIOR DIAPHRAGMS WILL BE REQUIRED WHEN ANY INSIDE DIMENSION OF A GABION BASKET EXCEEDS 3 FEET.
- PLACEMENT - PLACE THE EMPTY GABIONS ON THE FOUNDATION AND INTERCONNECT THE ADJACENT GABIONS ALONG THE VERTICAL EDGES AND DOUBLE HALF-PIERCES LACING WIRE WITH TYPE 1 AND TYPE 2 FASTENERS. UNLESS OTHERWISE SPECIFIED, LACING WIRE WILL BE THE ONLY CONNECTION BETWEEN GABIONS. THE SPIRALS IN PLACE, WHERE RING TYPE ALTERNATE FASTENERS ARE USED FOR BASKET ASSEMBLY, INSTALL THE FASTENERS AT A MAXIMUM SPACING OF 6 INCHES. USE THE SAME TYPE AND SIZE OF FASTENERS FOR INTERIOR DIAPHRAGMS WHERE THEY ARE REQUIRED. INTERIOR DIAPHRAGMS WILL BE REQUIRED WHEN ANY INSIDE DIMENSION OF A GABION BASKET EXCEEDS 3 FEET.

GABION CHECK DAM GENERAL NOTES (CONT.)

- UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE VERTICAL JOINTS BETWEEN GABION BASKET UNITS OF ADJACENT LAYERS OR TIER, ALONG THE LENGTH OF THE CHECK DAM, SHALL BE STAGGERED BY A MINIMUM OF ONE CELL.
- FILLING OPERATION
 - FOR REINFORCEMENT, INTERNAL CONNECTING WIRES SHALL BE PLACED IN EACH UNRESTRAINED GABION CELL 18 INCHES OR GREATER IN HEIGHT, INCLUDING GABION CELLS LEFT TEMPORARILY OPEN. TWO INTERNAL CONNECTING WIRES SHALL BE PLACED TWO ACROSS THE WIDTH AND TWO ACROSS THE LENGTH OF EACH CELL. THE WIRE SHALL BE PLACED AT THE SPECIFIED DEPTH INTERVAL SHOWN ON STANDARD DRAWING EC-STR-58. IN WOVEN MESH, INTERNAL REINFORCING WIRES SHALL BE EVENLY SPACED ALONG THE FRONT FACE AND CONNECTING TO THE BACK FACE. ALL CONNECTING WIRES SHALL BE LAPPED AROUND TWO MESH OPENINGS AND EACH WIRE END SHALL BE SECURED BY A MINIMUM OF FIVE 180 DEGREE TWISTS AROUND ITSELF AFTER LOOPING.
 - IN WELDED MESH GABIONS, OPTIONAL CORNER STIFFENERS MAY BE USED IN LIEU OF INTERNAL CONNECTING WIRE REINFORCEMENT. WHEN USED, DIAGONAL STIFFENERS SHALL BE PLACED ACROSS THE GABION CELLS AT 12 INCHES FROM CORNERS AS DETAILED ON STANDARD DRAWING EC-STR-58. LACING WIRE ON PRE-CURVED HOOKING WIRE STIFFENERS MAY BE USED.
 - THE GABIONS SHALL BE CAREFULLY FILLED WITH ROCK, EITHER BY MACHINE OR HAND USING THE FOLLOWING CLIMBING, AVOIDING BULGES, AND PROVIDING A COMPACT MASS THAT MINIMIZES VOID SPACE. THE ROCK SHALL BE PLACED IN THE GABION CELLS WITH HAND WORK TO ENSURE THE DESIRED RESULTS. THE CELLS IN ANY ROW SHALL BE FILLED WITH ROCK TO THE DEPTH OF ROCK PLACED IN ANY ONE CELL DOES NOT EXCEED THE DEPTH OF ROCK IN ANY ADJACENT CELL BY MORE THAN 3 INCHES. ALONG THE EXPOSED FACES, THE OUTER LAYER OF ROCK SHALL BE WRAPPED WITH WIRE MESH. THE WIRE SHALL BE WRAPPED WITH ALTERNATING SINGLE AND DOUBLE HALF-PIERCES IN THE MESH OPENINGS.
 - CARE SHOULD BE TAKEN WHEN PLACING ROCK IN GABIONS TO INSURE THAT THE GABION BASKETS WILL NOT BE DAMAGED OR BROKEN.
 - ROCK OR STONE SIZE FOR USE IN GABION BASKETS SHALL BE BETWEEN 4 AND 8 INCHES WITH A D_{100} OF SPECIFIC GRAVITY OF FIELD STONE OR ROUGH UNWORN QUARRY STONE. THE SPECIFIC GRAVITY OF THE ROCK SHALL BE A MINIMUM OF 2.5. STONES SHALL BE OF A QUALITY THAT WILL NOT DISINTEGRATE WITH EXPOSURE TO WATER OR WEATHERING.
 - SEPARATION GEOTEXTILE FABRIC SHALL MEET OR EXCEED THE REQUIREMENTS PROVIDED IN THE TABLE ON THIS SHEET.
 - GABION CHECK DAMS SHALL BE BID FOR UNDER ITEM NO. 209-09-25, GABION CHECK DAMS PER CUBIC YARD. THE CONTRACT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, EXCAVATION, GEOTEXTILE AND LABOR NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF THE GABION CHECK DAMS.
 - SEDIMENT SHALL BE REMOVED FROM BEHIND THE GABION CHECK DAMS WHEN IT HAS ACCUMULATED TO A DEPTH OF 18 INCHES OR MORE. THE ORIGINAL HEIGHT OF THE DAM AND PAID FOR UNDER ITEM NO. 209-05, SEDIMENT REMOVAL PER CUBIC YARD.

GABION CHECK DAM COMPONENT PROPERTIES *				
TYPE OF WIRE	MESH SIZE (INCHES)	U.S. WIRE (GAGE)	GALVANIZED ZINC COATING (OZ/S.F.)	TOTAL DIAMETER CORE WIRE (THICKNES)
WOVEN (TWISTED) WIRE MESH	3.25 X 4.50	12	0.8	0.105
WELDED WIRE MESH	3.00 X 3.00	12	0.8	0.105
SELVEDGE	---	10	0.8	0.130
LACING WIRE	---	13.5	0.8	0.087
INTERNAL REINFORCING WIRE	---	13.5	0.8	0.087
SPIRAL BINDER	---	12	0.8	0.105

* ALL COMPONENTS SHALL BE HOT-DIPPED GALVANIZED STEEL (SEE NOTE 6B REGARDING WELDED MESH GABIONS).

SEPARATION GEOTEXTILE SPECIFICATIONS

FABRIC TYPE : NON-WOVEN, NEEDLE-PUNCHED GEOTEXTILE	
FABRIC PROPERTY	ASTM TEST METHOD
MINIMUM AVERAGE TENSILE STRENGTH	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE ELONGATION	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE BURST	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE PUNCTURE STRENGTH	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE TEAR	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE APPARENT OPENING SIZE (AOS)	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE PERMITTIVITY	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE WATER FLUX	MINIMUM 7.0Z/7D?
MINIMUM AVERAGE TENSILE UV RESISTANCE	MINIMUM 7.0Z/7D?

TEMPORARY SILT FENCE WITH BACKING

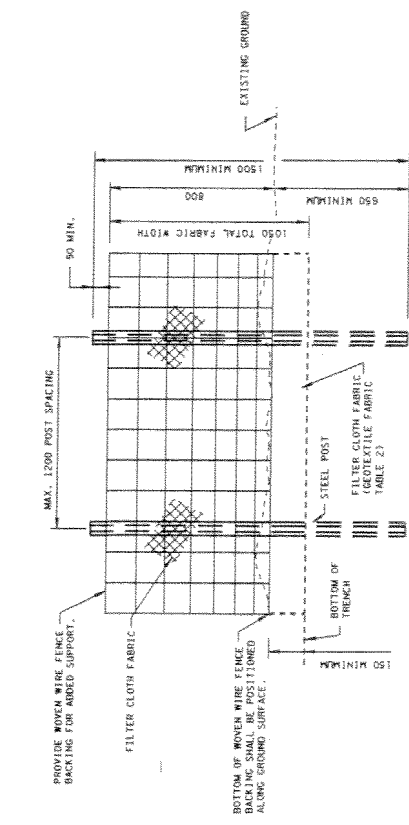
(ITEM NO. 209-08-02)

REV. 12-14-03, MODIFIED TABLE 2 AND GENERAL NOTE (A)
REV. 7-29-04, CHANGED VALUES IN TABLE 2 FROM MAX TO MIN VALUES.

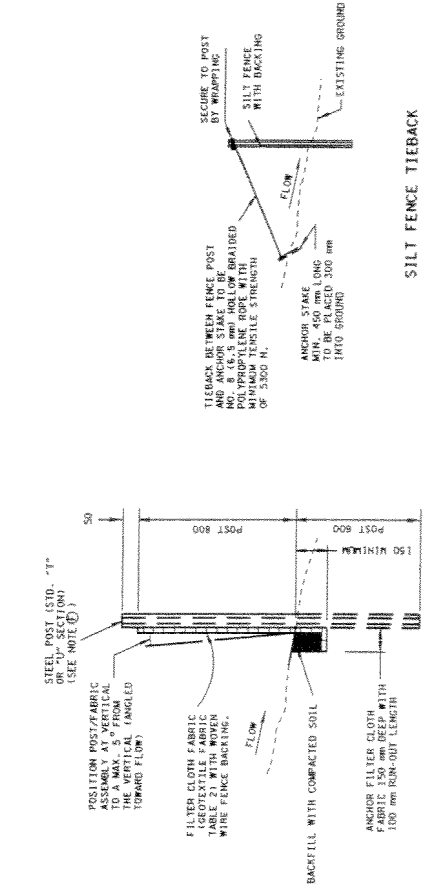
FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MARY VALUES OF TEST DATA)
FABRIC TYPE	WOVEN SILT FABRIC
APPEARANT OPENING SIZE (ASTM D4753)	750 TO 1000 STANDARD SIEVE
PERCENT OPEN AREA (D4801)	1.8 TO 10.2
WATER FLOW (ASTM D4801)	> 733 L/min/m ²
TENSILE STRENGTH (ASTM D4832)	2.1578 N (WARP DIRECTION) X 0.89 N (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	> 90%
ROBUST STRENGTH (ASTM D3786)	2.2758 kPa
ROBUST STRENGTH (ASTM D4833)	2.467 N
TORSIONAL TEAR (ASTM D4833)	2.644 N (WARP DIRECTION) X 266 N (FILL DIRECTION)

TEMPORARY SILT FENCE WITH BACKING GENERAL NOTES

- ALL LABOR AND MATERIALS SHOWN ON THE ELEVATION AND SECTIONAL VIEWS USED TO CONSTRUCT SILT FENCE WITH BACKING SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 209-08-02 TEMPORARY SILT FENCE (WITH BACKING) PER METER.
- SILT FENCES WITH BACKING ARE USED TO INTERCEPT SMALL AMOUNTS OF SEDIMENT AND REDUCE VELOCITY FROM SHEET FLOW ONLY. USE TEMPORARY SILT FENCES WITH BACKING UPGRADIENT OF AND ADJACENT TO WETLANDS, STREAMS, AND OTHER SENSITIVE WATER RESOURCES.
- THE MAXIMUM DRAINAGE AREA SIZE FOR A CONTINUOUS BARRIER SHALL BE 0.4 ha per 45 m of BARRIER LENGTH. MAXIMUM SLOPE LENGTH BEHIND FENCE ON UPSLOPE SIDE SHALL BE 90 m (AS MEASURED ALONG THE GROUND SURFACE).
- TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE JOINED ACCORDING TO THE DETAILS SHOWN.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED. CAPTURED SOIL MATERIAL SHALL BE REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND/OR OTHERWISE OBSERVED. CLEANING IS OBSERVED.
- STEEL POSTS SHALL BE 2.0 kg/m² ROLLED FROM HIGH CARBON STEEL. ALL POSTS SHALL BE GALVANNEAL PAINTED WITH ONE OR MORE COATS OF HIGH-GRADE WEATHER RESISTANT STEEL PAINT. POSTS SHALL BE STUBBED, EMBOSSED, OR ROUNDED TO AID IN THE ATTACHMENT OF WIRE.
- STEEL POSTS SHALL HAVE A PROJECTION FOR FASTENING WIRE TO THEM. WOVEN WIRE FENCE BACKING TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FABRIC SHALL BE FASTENED SECURELY TO WOVEN WIRE POSTS WITH WIRE TIES. WIRE TIES SHALL BE PLACED ALONG TOP AND MIDSECTION. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST SIX PER POST.
- WOVEN WIRE FENCE BACKING SHALL MEET THE REQUIREMENTS FOR ASTM A-116 FOR NO. 11 FARM DESIGN NO. 8-2 (11 CLASS 1 COATING).
- SILT FENCES SHALL BE PLACED ALONG OR NEAR THE GROUND CONTOUR. THE BOTTOM OF FENCE AT GROUNDLINE SHOULD BE ON A ZERO PERCENT (0%) GRADE. PLUS ON WINDS FIVE PERCENT (5%) (A0.3%).
- IF THE PREFERRED METHOD OF FENCE INSTALLATION, STATIC SLICING INVOLVES THE INSERTION OF A MANDREL INTO THE TRENCH, THE MANDREL SHALL BE MADE OF STEEL OR WOOD. THE MANDREL SHALL BE BEING EXCAVATED. ALTERNATE TRENCH-BASED METHODS ARE ALSO ACCEPTABLE. FOR TRENCH-BASED INSTALLATIONS, FENCING SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:
 - EXCAVATE TRENCH A MAXIMUM OF 100 mm WIDE AND AT THE SPECIFIED DEPTH AS SHOWN ON THE APPLICABLE STICKS, AND SOIL CLOSURE FROM THE TRENCH.
 - INSTALL FABRIC IN TRENCH.
 - BACKFILL TRENCH (COVER-FILL) WITH SOIL PLACED AROUND FABRIC.
 - COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).
 - DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL.
 - ATTACH FABRIC TO THE POSTS USING WIRE TIES. SPACING AND DENSITY OF TIES SHALL BE INSTALLED AS GIVEN ON THE APPLICABLE DETAIL.



ELEVATION VIEW



SECTIONAL VIEW

WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLAN, POST TO BE INCLUDED IN THE ITEMS FOR TEMPORARY SILT FENCE (WITH BACKING)

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION

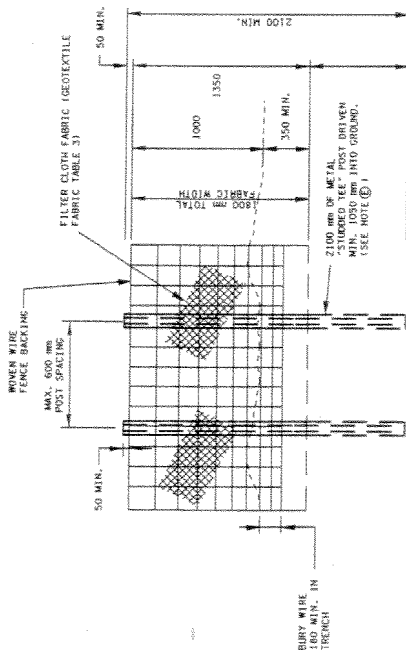
TEMPORARY SILT FENCE WITH BACKING
ECM-STR-3C
12-19-02

NO REVISION -- FIRM APPROVAL NOT REQUIRED.
ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

EROSION CONTROL PLAN LEGEND: * SFB * SFB * (TEMPORARY SILT FENCE WITH BACKING)

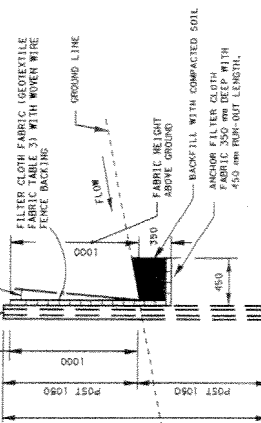
ENHANCED SILT FENCE

(ITEM NO. 200M03.04)



ELEVATION VIEW

2100 mm OF METAL POST DRIVEN TO A MAX. 5° FROM THE VERTICAL (ANGLED TOWARD FLOW).
 POSITION POST TO BE DRIVEN TO A MAX. 5° FROM THE VERTICAL (ANGLED TOWARD FLOW).



SECTIONAL VIEW

EROSION CONTROL PLAN LEGEND: * ESF * ESF * ESF * (ENHANCED SILT FENCE)

TABLE 3 ENHANCED SILT FABRIC SPECIFICATIONS	
FABRIC PROPERTY AND TEST METHODS	REQUIRED PHYSICAL PROPERTIES (MINIMUM VALUES OF TEST DATA)
FABRIC TYPE	WOVEN MONOFILAMENT
APPERT OPENING SIZE (ASTM D4751)	≥ 50 TO #80 STANDARD SIEVE
WATER FLUX (ASTM D4931)	≥ 4471 L/MIN/M ²
TENSILE STRENGTH (ASTM D4632)	≥ 1645 N (WARP DIRECTION) X 1023 N (FILL DIRECTION)
ULTRAVIOLET STABILITY (AFTER 500 HRS PER ASTM D4355)	≥ 90%
BURST STRENGTH (ASTM D3786)	≥ 3240 kPa
PUNCTURE STRENGTH (ASTM D4833)	≥ 489 N
TRAPEZOIDAL TEAR (ASTM D4633)	≥ 511 N (WARP DIRECTION) X 333 N (FILL DIRECTION)
PERMEABILITY (ASTM D4811)	≥ 0.05 CM/SEC
THICKNESS (ASTM D5159)	≤ 25 MILS

- ### ENHANCED SILT FENCE GENERAL NOTES
- ALL LABOR AND MATERIALS SHOWN ON THE ELEVATION AND SECTIONAL VIEWS ARE TO BE INSTALLED AS SHOWN. ITEMS NOT INCLUDED IN THE PRICE LIST FOR ITEM NO. 200M03.04 TEMPORARY ENHANCED SILT FENCE PER METRIC.
 - ENHANCED SILT FENCE IS TO BE USED WHERE INTERCEPTION OF CONCENTRATED FLOW IS REQUIRED. IT IS NOT TO BE USED WHERE THERE ARE EXCESSIVE LIMITS OF FLOW APPLICATIONS FOR USE OF ENHANCED SILT FENCE ARE GIVEN IN TABLE 4 AND TABLE 5 ON STANDARD DRAWINGS ECM-STR-4 AND ECM-STR-4A, RESPECTIVELY.
 - WHEN TWO SECTIONS OF ENHANCED SILT FABRIC ADJOIN EACH OTHER THEY SHALL BE JOINED ACCORDING TO THE DETAILS ON STANDARD DRAWING ECM-STR-3E.
 - WHEN ENHANCED SILT FABRIC IS TO BE USED TO CAPTURE SOIL MATERIAL SHALL BE REMOVED WHENEVER THERE IS A SIGNIFICANT AMOUNT OF SOIL MATERIAL ON THE SURFACE OF THE SILT FENCE AND/OR WHEN EVIDENCE OF FILTER BLINDING IS NOTED.
 - STEEL POSTS SHALL BE 2.0 kg/m ROLLED FROM HIGH CARBON STEEL AND SHALL BE GALVANIZED OR HOT-DIPPED AND PAINTED WITH ONE OR MORE COATS OF HIGH-GRADE WEATHER RESISTANT STEEL PAINT. POSTS SHALL BE STUDDED, EMBOSSED, OR OTHERWISE IDENTIFIED TO PREVENT REMOVAL BY OTHERS.
 - STEEL POSTS SHALL BE FASTENED TO THE ENHANCED SILT FABRIC USING WOVEN WIRE FENCE BACKING TO BE FASTENED TO THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST SIX PER POST.
 - WIRE FENCE FABRIC SHALL MEET THE REQUIREMENTS FOR ASTM A-116 FOR NO. 11 FABR. DESIGN NO. 1097-6-11, CLASS 3 COATING.
 - FILTER FABRIC SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE BACKING WITH TIES SPACED EVERY 600 mm ALONG TOP AND MID SECTION.
 - FOR TRENCH-BASED INSTALLATIONS, FENCING SHALL BE INSTALLED PER THE FOLLOWING STEPS AND IN THE FOLLOWING ORDER:
 - EXCAVATE TRENCH A MINIMUM OF 450 mm WIDE AND AT THE SPECIFIED DEPTH.
 - INSTALL WOVEN WIRE FENCE BACKING TO THE TRENCH SHALL BE HAND-CLEANED FOLLOWING EXCAVATION TO REMOVE SLACKY DEBRIS SUCH AS ROCKS, STICKS, AND SOIL CLODS FROM THE TRENCH.
 - INSTALL FABRIC IN TRENCH.
 - BACKFILL TRENCH (OVER-FILL) WITH SOIL PLACED AROUND FABRIC.
 - COMPACT SOIL BACKFILL WITH MECHANICAL EQUIPMENT. DO NOT DAMAGE THE FABRIC DURING COMPACTION (DAMAGED FABRIC SHALL BE REPLACED).
 - DRIVE AND SET SUPPORT POSTS PER SPACING REQUIREMENTS GIVEN ON THE APPLICABLE FENCE DETAIL.
 - ATTACH WOVEN WIRE FENCE BACKING TO POSTS AND FABRIC TO THE WIRE BACKING SHALL BE INSTALLED AS SHOWN ON THE APPLICABLE DETAIL.

REV. 12-14-03, REPLACED TABLE 3 AND MODIFIED GENERAL NOTES (A) AND (D)
 REV. 1-29-04, CHANGED VALUES IN TABLE 3 FROM METRIC TO SI UNITS.



MINOR REVISION - PER APPROVAL NOT REQUIRED.

ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

STATE OF TEXAS

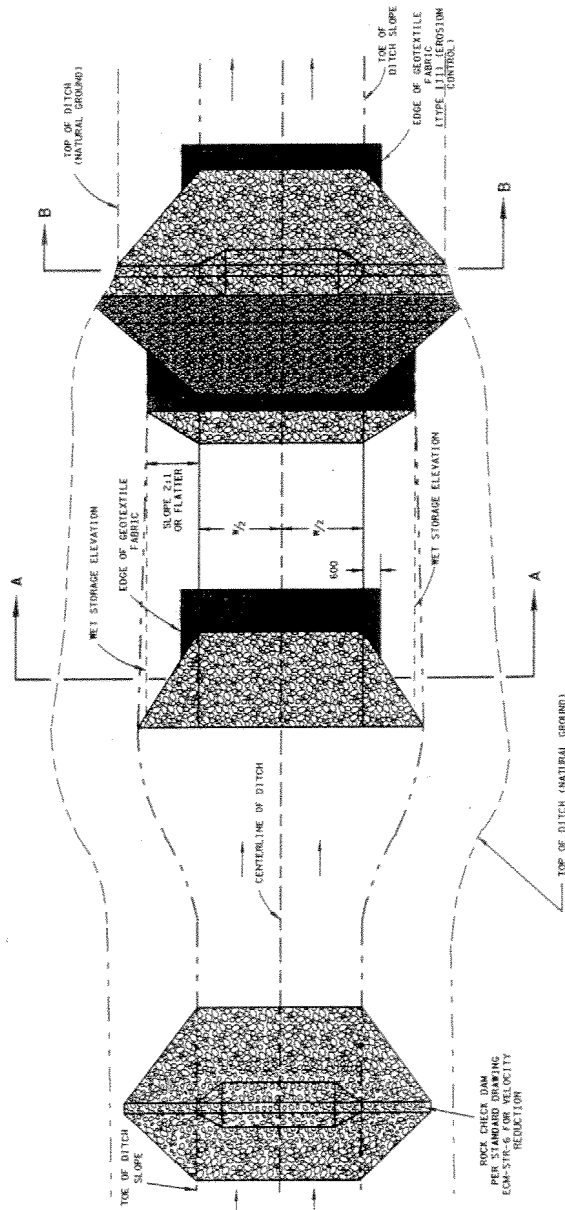
DEPARTMENT OF TRANSPORTATION

TEMPORARY ENHANCED SILT FENCE

12-16-02 ECM-STR-3D

TEMPORARY SEDIMENT TRAP WITH TEMPORARY SILT SCREEN CHECK DAM

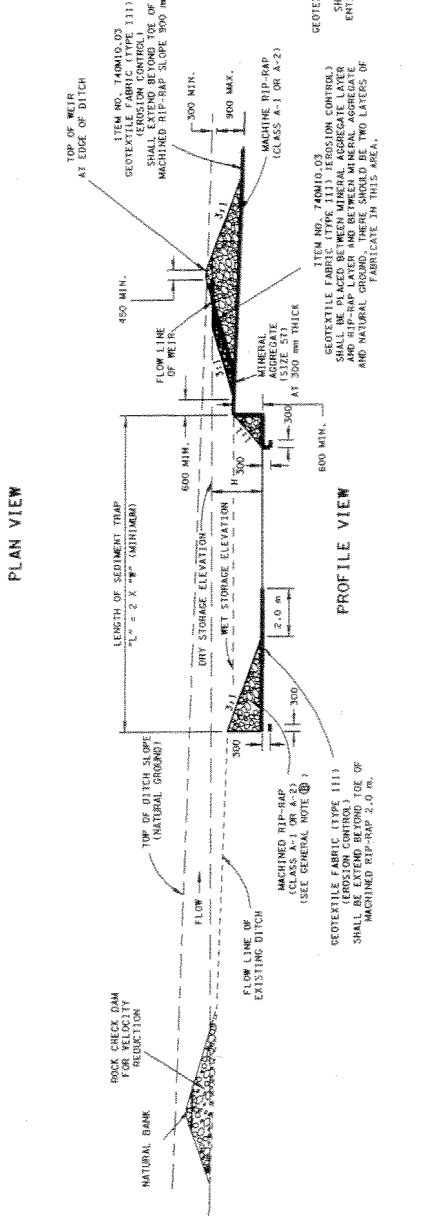
(ITEM NOS. 209405 & 209410.20 TO 240410.03)



GENERAL NOTES

- A THE DRAINAGE AREA FOR THE TEMPORARY SEDIMENT TRAP SHALL BE 1.2 ha OR LESS.
- B THE CENTER OF THE ROCK SILT SCREEN MUST BE AT LEAST 200 mm LOWER THAN THE OUTER EDGES. THIS WILL ELIMINATE THE ROCK - SOIL FAILURE POINT WHERE THE ROCK SILT SCREEN AND NATURAL GROUND MEET.
- C GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES ASHIO DESIGNATION M-208 - EROSION CONTROL.
- D TEMPORARY SEDIMENT TRAPS AND THEIR ATTACHED TEMPORARY ROCK SILT SCREENS SHALL BE REMOVED FROM THE PROJECT AREA WITHIN 30 DAYS OF THE PROJECT COMPLETION. MAINTENANCE SHALL INCLUDE ALL MATERIAL AND LABOR NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF TEMPORARY SEDIMENT TRAP.
- E SEDIMENT SHALL BE REMOVED FROM TEMPORARY SEDIMENT TRAPS WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NO. 209405. SEDIMENT REMOVAL PER CUBIC METER.

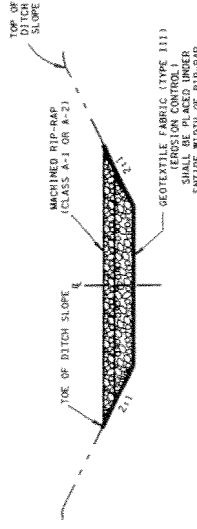
PLAN VIEW



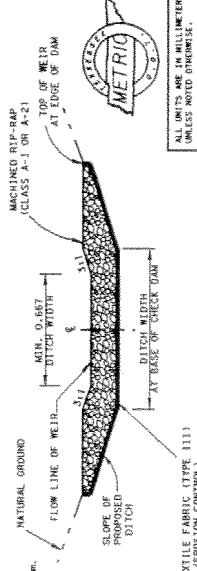
PROFILE VIEW

- REV. 11-1-95: CHANGED TO METRIC.
- REV. 5-27-01: CHANGED ITEM NOS. THROUGH 209410.19 TO 209410.20.
- REV. 8-5-01: CORRECTED NOTE REGARDING GEOTEXTILE FABRIC IN SECTION B-B.
- REV. 12-18-02: CHANGED GENERAL NOTE @.
- REV. 12-23-03: CORRECTED GENERAL NOTE REGARDING GEOTEXTILE FABRIC TO PROFILE VIEW.
- REV. 7-29-04: ADDED ROCK CHECK DAM TO PLAN AND PROFILE VIEWS. CHANGED GENERAL NOTE @.

SECTION A - A



SECTION B - B



ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

VIEW REVISIONS - FROM ORIGINAL AND REVISIONS

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SEDIMENT TRAP WITH TEMPORARY SILT SCREEN CHECK DAM

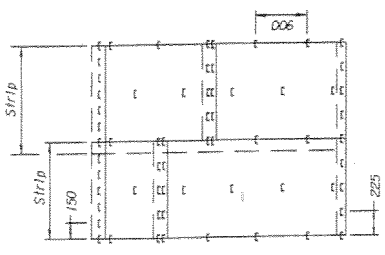
11-1-95 EGM-STR-7

EROSION CONTROL PLAN LEGEND: [Symbol] TEMPORARY SEDIMENT TRAP WITH TEMPORARY SILT SCREEN CHECK DAM

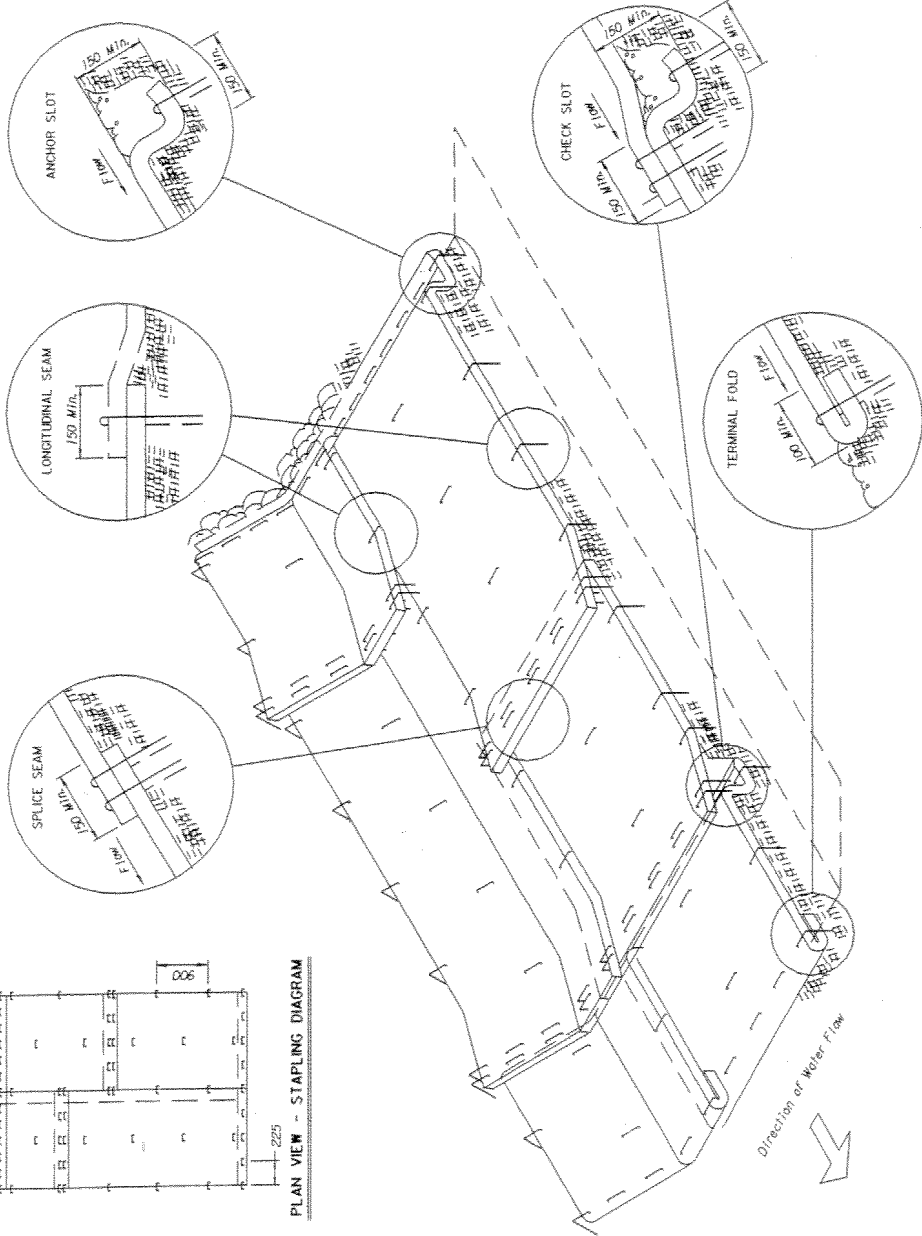
- REV. 11-1-95 CHANGED TO METRIC.
- REV. 12-18-85 CHANGED MARKING NO. FROM EEC-STR-34 TO EC-STR-34.
- REV. 1-22-03 LAPPED LONGITUDINAL SEAM IN ISOMETRIC VIEW REMOVED AND STAPLED SEAM TYPE 1 BLANKETS ARE NO LONGER USED.
- REV. 1-28-05 CHANGED GENERAL NOTE TO CORRECT PLAN VIEW AND LONGITUDINAL SEAM VIEW.

GENERAL NOTES FOR INSTALLATION DETAILS

- EROSION CONTROL BLANKETS SHALL BE LAID LOOSELY IN THE DIRECTION OF FLOW, WITH THE FIRST COURSE AT THE CENTERLINE OF THE CHANNEL. WHERE APPLICABLE, IN ORDER FOR THE BLANKET TO BE IN CONTACT WITH THE SOIL, LAY THE BLANKET LOOSELY, AVOIDING STRETCHING.
- A ANCHOR SLOTS: THE TOP OF THE BLANKET SHOULD BE "SLOTTED IN" AT THE TOP OF THE SLOPE AND STAPLED IN PLACE WITH STAPLES 150 mm APART. THE SLOTS SHOULD BE 150 mm WIDE X 150 mm DEEP WITH THE BLANKET STAPLED IN THE BOTTOM OF THE SLOT, THEN BACKFILLED, TAMPED AND SEEDED.
 - B LONGITUDINAL SEAMS: THE ADJACENT EDGES OF THE CHANNEL LINER SHOULD OVERLAP A MINIMUM OF 150 mm, WITH THE STAPLES CATCHING THE EDGES OF BOTH EROSION CONTROL BLANKETS.
 - C SPLICE SEAM: WHEN SPLICES ARE NECESSARY, OVERLAP THE END A MINIMUM OF 150 mm IN THE DIRECTION OF WATER FLOW. STAGGER SPLICE SEAMS.
 - D CHECK SLOTS: ESTABLISH CHECK SLOTS TRANSVERSE TO SLOPE EVERY 10.7 m. THE SLOTS SHOULD BE 150 mm WIDE X 150 mm DEEP. THE BLANKET SHALL BE CUT TO A LENGTH 190 mm BEYOND THE SLOT. THE TOP OF THE DOWNSTREAM BLANKET SHALL BE SLOTTED IN, STAPLED AND BURIED. TAMPED AND SEEDED SIMILAR TO THE TOP ANCHOR SLOT. THE UPSTREAM BLANKET SHALL THEN COVER THE SLOT AND BE STAKED AS SHOWN.
 - E TERMINAL FOLD: THE BOTTOM EDGE OF THE BLANKET SHALL BE TURNED UNDER A MINIMUM OF 100 mm, THEN STAPLED IN PLACE WITH STAPLES 225 mm APART.
 - F TYPICAL STAPLES: STAPLES SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION FOR STAPLES, SECTION 918.19.
 - G PAYMENT FOR EROSION CONTROL BLANKETS WILL BE MADE UNDER THE FOLLOWING ITEMS:
 EROSION CONTROL BLANKET (TYPE J1) PER SQUARE METER, R09M12.02,
 EROSION CONTROL BLANKET (TYPE J11) PER SQUARE METER, R09M12.03,
 EROSION CONTROL BLANKET (TYPE J1) PER SQUARE METER, R09M12.04.



PLAN VIEW - STAPLING DIAGRAM



ISOMETRIC VIEW



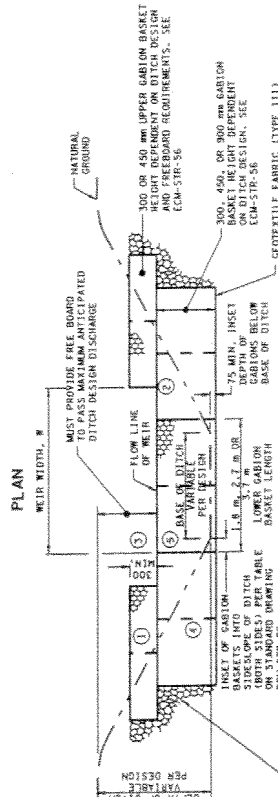
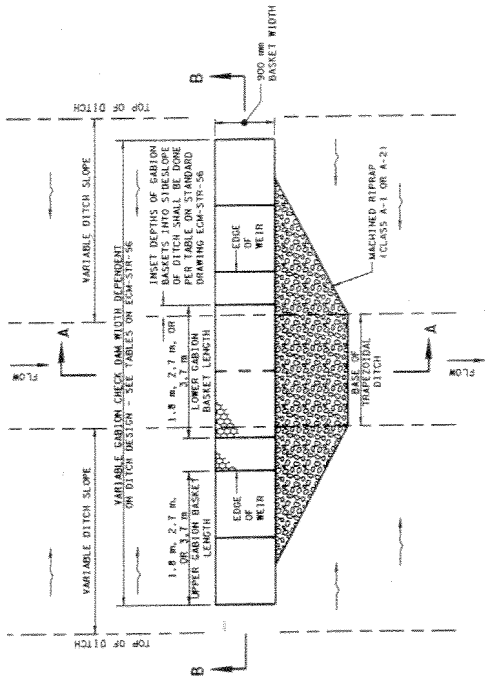
ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 MINOR REVISION -- FIMA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 INSTALLATION
 DETAIL FOR EROSION
 CONTROL BLANKETS
 11-1-95 ECM-STR-34

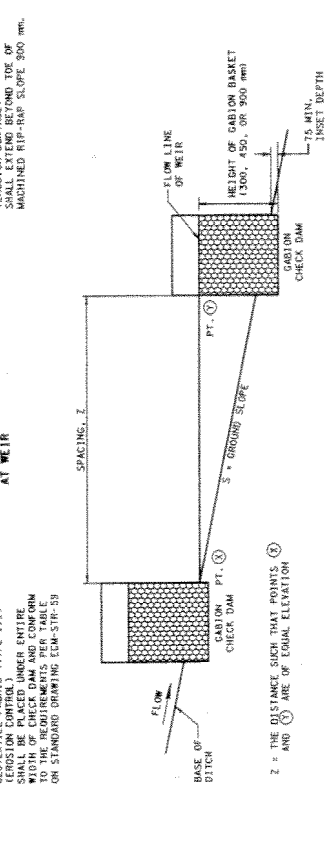
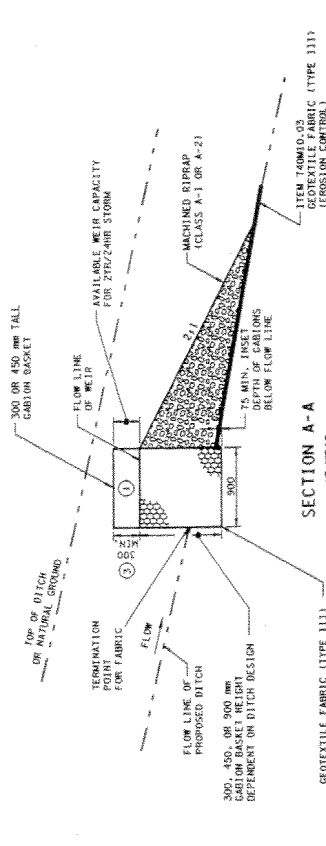


TEMPORARY OR PERMANENT GABION CHECK DAM

(ITEM NO. 20909.25)



- SECTION B-B**
- HEIGHT OF UPPER GABION SHALL BE EQUAL OR LESSER HEIGHT THAN LOWER GABION AND SHALL NOT EXCEED 450 mm.
 - VERTICAL JOINTS OF GABION BASKETS SHALL BE STAGGERED.
 - SIZE WEIR TO CONTAIN THE 27R/2HR STORM, CONTAIN DESIGN DISCHARGE WITHIN WEIR STRUCTURE WHERE POSSIBLE.
 - DIAPHRAGMS SEPARATING INDIVIDUAL GABION CELLS.
 - BASKET-TO-BASKET CONNECTIONS SHALL BE AS DIRECTED ON STD. DNG. ECM-STR-56 & ECM-STR-57.



GABION CHECK DAM SPACING AT CENTER OF WEIR

GROUND SLOPE, S (m/m)	GABION CHECK DAM SPACING TABLE	
	MAXIMUM SPACING BETWEEN GABIONS, BASKETS IN METERS	MAXIMUM SPACING BETWEEN GABIONS, BASKETS IN FEET
0.010	11.3	37.2
0.015	14.3	47.1
0.020	16.3	53.4
0.025	17.3	56.9
0.030	17.8	58.2
0.040	19.3	63.0
0.050	20.3	67.0
0.060	21.3	70.0
0.070	22.3	73.1
0.080	23.3	76.6
0.090	24.3	79.5
0.100	25.3	82.8
0.110	26.3	86.3
0.120	27.3	89.3
0.130	28.3	92.8
0.140	29.3	96.3
0.150	30.3	99.3
0.200	34.3	112.3

* USE 450 OR 900 MILLIMETER GABIONS
 ** USE 300 MILLIMETER GABIONS



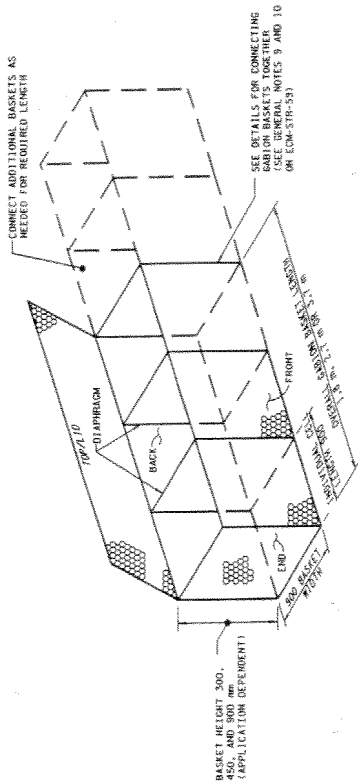
STATE OF TEXAS
 DEPARTMENT OF TRANSPORTATION

GABION CHECK DAM

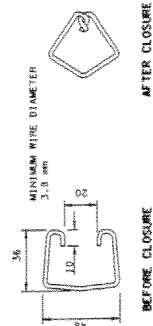
7-29-04 ECM-STR-55

EROSION CONTROL PLAN LEGEND: GABION CHECK DAM

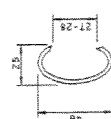
EXAMPLE BELOW SHOWS 3-CELLED, 2.7 METER LONG GABION BASKET WITH ATTACHED 1.8 METER LONG GABION. ACTUAL GABION LENGTHS WILL VARY, BUT SHALL BE MULTIPLES (1, 2, 3, OR 4) OF THE 0.9 METER BASKET WIDTH.



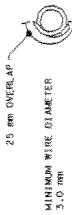
ISOMETRIC - TYPICAL GABION
N.T.S.



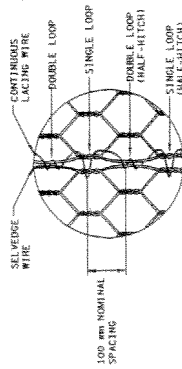
TYPE 1 FASTENER INTERLOCKING WIRE



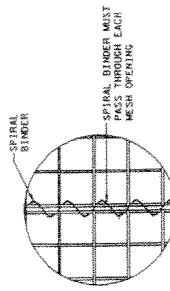
TYPE 2 FASTENER OVERLAPPING RING



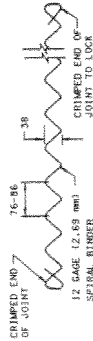
TYPE 3 FASTENER LACING WIRE



WOVEN MESH GABION LACING DETAIL



WELDED MESH GABION SPIRAL BINDER LACING DETAIL



TYPE 4 FASTENER SPIRAL BINDER

TO BE USED WITH WELDED MESH ONLY



ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

GABION
ASSEMBLY
DETAILS

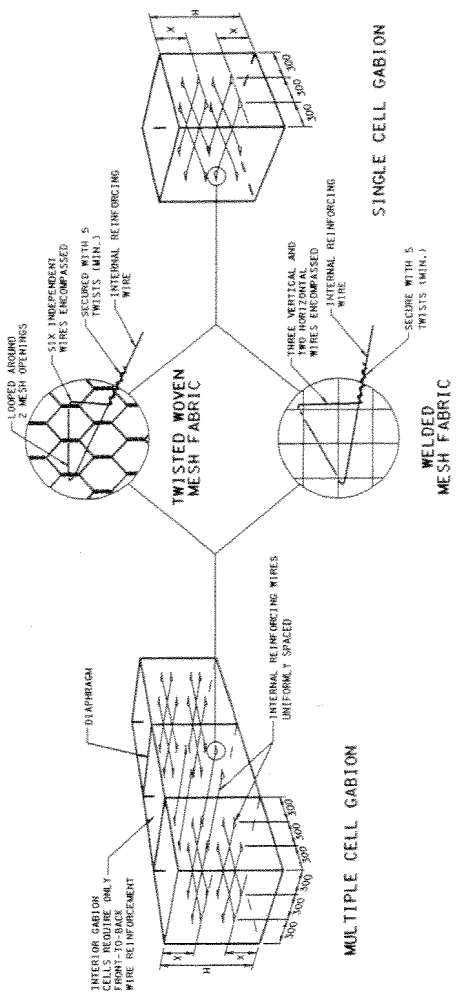
7-29-04 ECM-STR-57



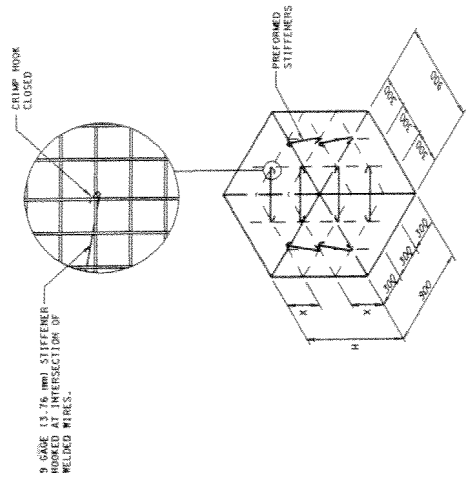


ALL UNITS ARE IN MILLIMETERS
UNLESS NOTED OTHERWISE.

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION
GABION
ASSEMBLY
DETAILS
T-29-04
ECM-STR-58



CELL HEIGHT H (mm)	TIE WIRE SPACING, X
900	1/2H & 2/3H
450	1/2H
300	NONE



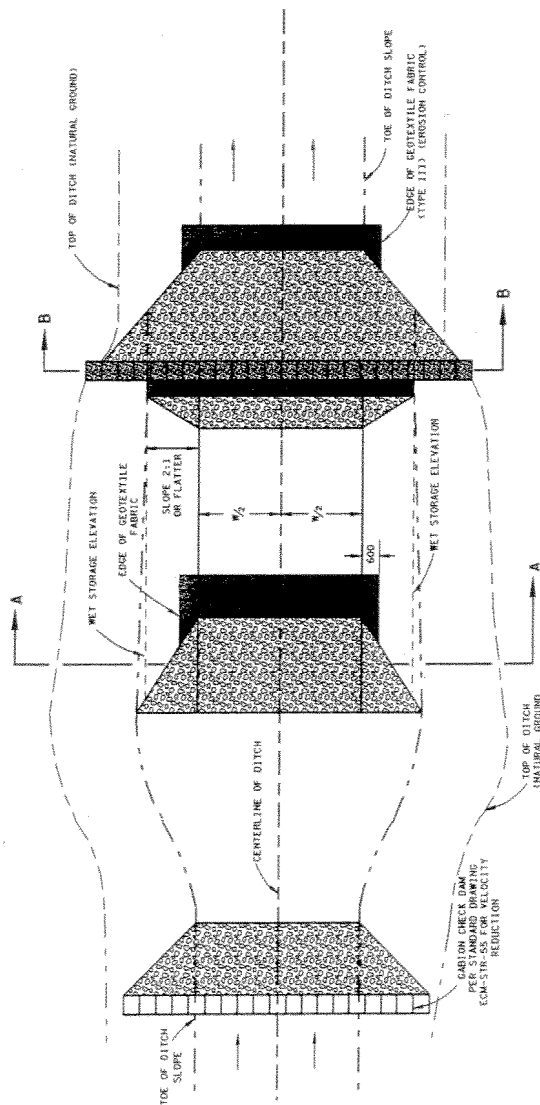
CELL HEIGHT H (mm)	DIAGONAL STIFFENER SPACING, X
900	1/2H & 2/3H
450	1/2H
300	NONE

PLACEMENT OF INTERNAL CONNECTING WIRE REINFORCEMENT
N.T.S.

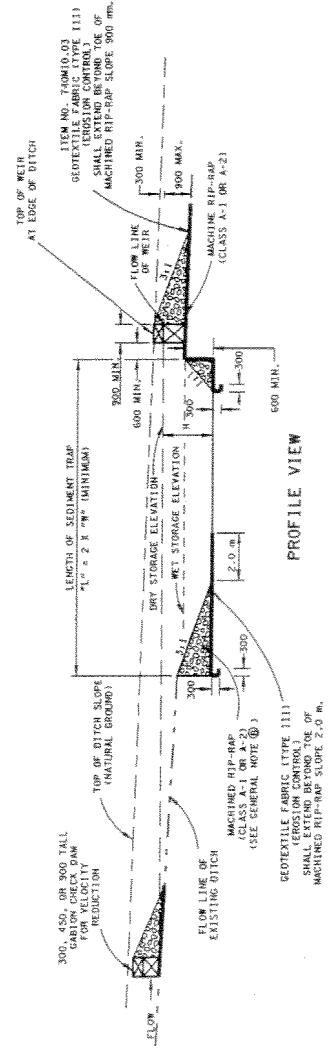
OPTIONAL DIAGONAL CORNER STIFFENERS FOR WELDED WIRE GABION BASKETS ONLY

TEMPORARY SEDIMENT TRAP WITH TEMPORARY GABION CHECK DAM

(ITEM NOS. 209M05, 209M09-25 & T40N10-03)

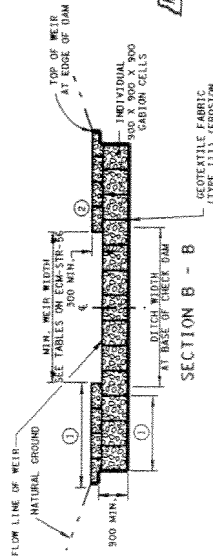
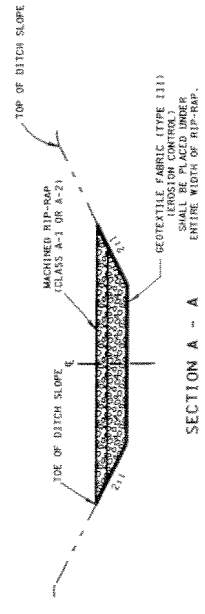


PLAN VIEW



PROFILE VIEW

- ### GENERAL NOTES
- (A) THE DRAINAGE AREA FOR THE TEMPORARY SEDIMENT TRAP SHALL BE 1-2 MG OR LESS.
 - (B) THE BELOW GROUND TEMPORARY SEDIMENT TRAP IS LOCATED IN A DITCH LINE AND WILL REQUIRE DUMPED ROCK AT BOTH ENDS.
 - (C) THE CENTER OF THE GABION WEIR MUST BE AT LEAST 300 MM LOWER THAN THE OUTER EDGES. THIS WILL ELIMINATE THE BASKET - SOIL FAILURE POINT WHERE THE GABION CHECK DAM AND NATURAL GROUND MEET.
 - (D) GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES ASHIO DESIGNATION M-286, EROSION CONTROL.
 - (E) TEMPORARY SEDIMENT TRAPS AND THEIR ATTACHED TEMPORARY GABION CHECK DAMS SHALL BE PAID FOR UNDER ITEM NO. 209M10-20 TEMPORARY SEDIMENT TRAP PER CUBIC METER. TEMPORARY SEDIMENT TRAP SHALL BE PAID FOR UNDER ITEM NO. 209M05 PER CUBIC METER. MAINTENANCE OF TEMPORARY SEDIMENT TRAP.
 - (F) SEDIMENT SHALL BE REMOVED FROM TEMPORARY SEDIMENT TRAPS WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT TO BE STORED AND PAID FOR UNDER ITEM NO. 209M05, SEDIMENT REMOVAL PER CUBIC METER.
 - (G) GABION CHECK DAMS SHALL BE BID FOR UNDER ITEM NO. 209M09-25. GABION CHECK DAMS PER CUBIC METER. PAYMENT SHALL INCLUDE ALL MATERIALS, EQUIPMENT, EXCAVATION, GEOTEXTILE AND LABOR NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF THE GABION CHECK DAMS.



- NOTES:
- (1) OVERALL GABION BASKET LENGTHS SHALL BE 1.8 m, 2.7 m, OR 3.7 m
 - (2) SEE EGM-STR-56 AND EGM-STR-57 FOR GABION ASSEMBLY DETAILS



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION
TEMPORARY SEDIMENT TRAP WITH GABION CHECK DAM
7-29-04 EGM-STR-60

EROSION CONTROL PLAN LEGEND: [Symbol] TEMPORARY SEDIMENT TRAP WITH TEMPORARY GABION CHECK DAM