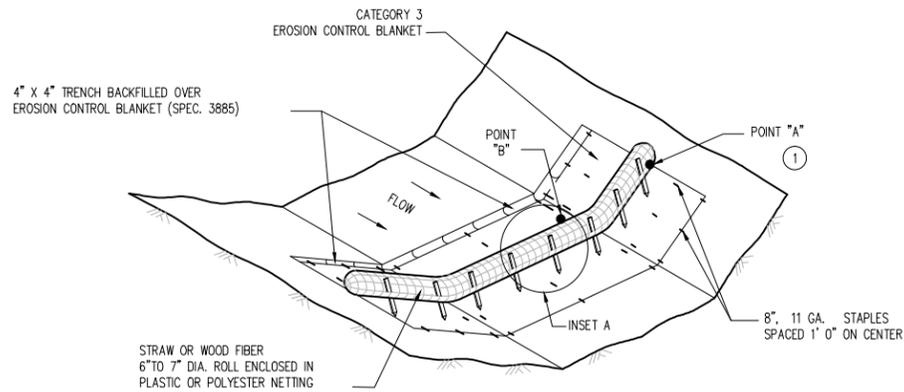
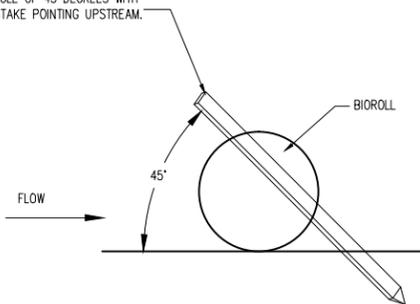


TYPE 2: BIOROLL DITCH CHECK
USE ON ROUGH GRADED AREAS



TYPE 3: BIOROLL BLANKET SYSTEM DITCH CHECK

0.5" X 2" X 16" LONG WOODEN STAKES AT 1' 0" SPACING MAXIMUM. STAKES SHALL BE DRIVEN THROUGH THE BACK HALF OF THE BIOROLL AT AN ANGLE OF 45 DEGREES WITH THE TOP OF THE STAKE POINTING UPSTREAM.



BIOROLL STAKING DETAIL

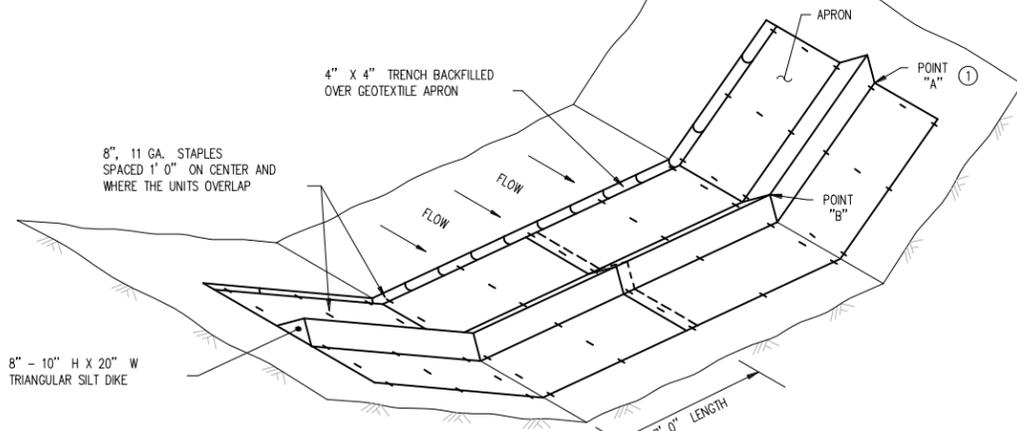
NOTES:

SEE SPECS. 2573, 3885, 3886 & 3889.

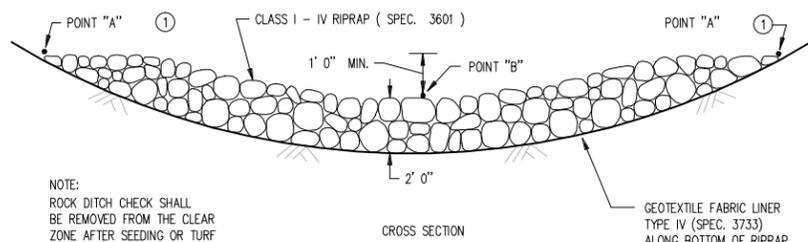
SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM SPACING FORMULA:

$$\text{SPACING OF DITCH CHECKS (FT.)} = \frac{\text{DITCH CHECK HEIGHT (FT)}}{\% \text{ CHANNEL SLOPE}} \times 100$$

- ① POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
- ② CLASS I - IV RIPRAP (SPEC. 3601) WITH GEOTEXTILE FABRIC LINER, TYPE IV (SPEC. 3733).
- ③ THE ROCK WEEPER FILTERS SEDIMENT OUT OF THE WATER BETTER THAN THE OTHER DITCH CHECKS. THE ROCK WEEPER COULD BE USED AS A PERMANENT WATER FILTERING FEATURE.

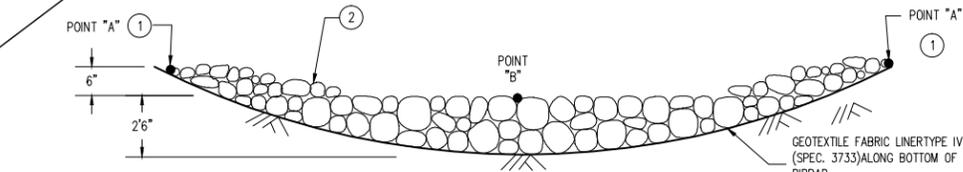
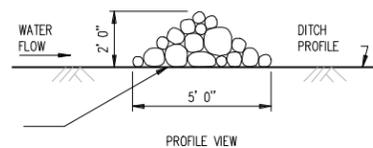


GEOTEXTILE TRIANGULAR DIKE
(TYPE 6 SPEC. 3889)

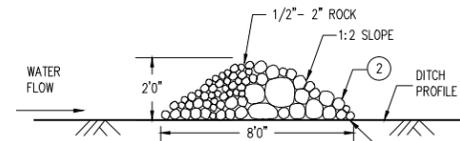


NOTE: ROCK DITCH CHECK SHALL BE REMOVED FROM THE CLEAR ZONE AFTER SEEDING OR TURF IS ESTABLISHED AND PRIOR TO FINAL ACCEPTANCE.

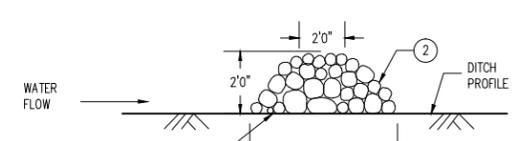
ROCK CHECK
(TYPE 7 SPEC. 3889)



CROSS SECTION (ROCK WEEPER AND ROCK CHECK)



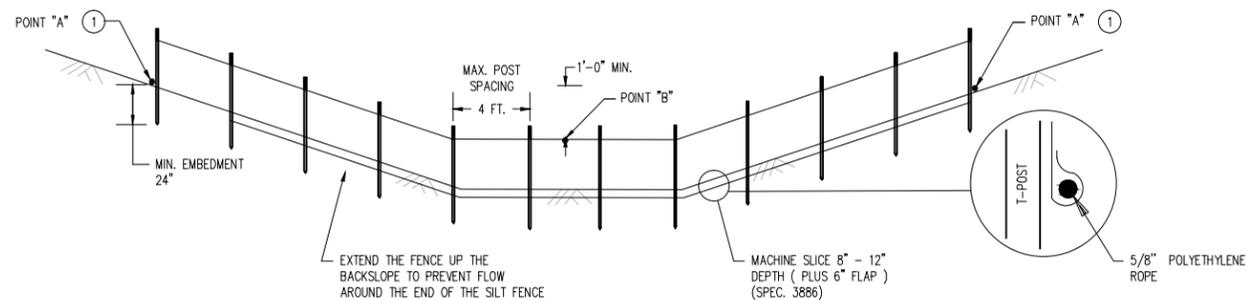
TYPE 5: ROCK WEEPER PROFILE VIEW



TYPE 7: ROCK CHECK PROFILE VIEW

ROCK WEEPER AND ROCK CHECK DITCH CHECKS

USE ON ROUGH GRADED AREAS



NOTE: WHEN SEDIMENT BUILD UP REACHES 8 INCHES OR 1/3 OF SILT FENCE HEIGHT, THE SILT FENCE MUST BE CLEANED OUT OR REPLACED.

MACHINE SLICED SILT FENCE
(TYPE 1 SPEC. 3889)

NOTES:

SEE MNDOT SPEC. 3889.

SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM SPACING FORMULA:
SPACING OF DITCH CHECKS (FT.) = $\frac{\text{HEIGHT OF DITCH CHECK (FT)} \times 100}{\text{DITCH GRADE IN PERCENT}}$

- ① POINT A MUST BE 1' 0" MIN. HIGHER THAN POINT B TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
- ② TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 10 IN. MINIMUM.

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NORTH BUSINESS DEVELOPMENT AREA

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: *Scott T. Stempihar*

Typed Name: SCOTT T. STEMPIHAR

Date: 08/18/09 Reg. No. 47565

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 08-18-2009

REVIEWED BY: PJM

DRAWN BY: SCA

DESIGNED BY: DJL

AEP PROJECT NUMBER

214-1882-093

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SHEET TITLE
EROSION, AND SEDIMENT CONTROL NOTES AND DETAILS
4 OF 7

SHEET NUMBER

C405

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