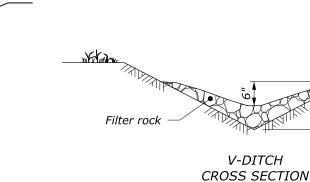
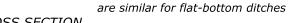
# NOTE:

- 1. Construct check dams from fiber rolls, filter rock, or gravel bags as approved, to meet the functional requirements of the check dam device.
- 2. Repair all rills or gullies and properly compact prior to installation.
- 3. Install check dams in ditches perpendicular to the flowline.
- 4. Stake fiber rolls in place with  $1\frac{1}{8}$ -inch x  $1\frac{1}{8}$ -inch wood stakes. Drive stakes at each end of the fiber roll and at 2-foot maximum spacing.
- 5. Drive stakes into undisturbed soil of trench bottom. Expose stakes 2-inches minimum above top of fiber roll.
- 6. Provide sufficient length to prevent water from flowing around the ends of the fiber roll.
- 7. Adjust check dam spacing based on site-specific conditions.





V-ditch design shown.

Check dam installation details

### CROSS SECTION

Fiber roll 9" Ø min.

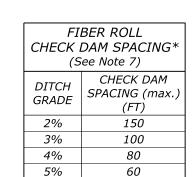
Flow line

Trench 2" min.

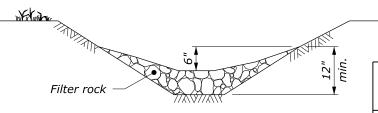
FIBER ROLL CHECK DAM

See Note 5

FIBER ROLL STAKING DETAIL



\* Spacing calculated based on 9" Ø minimum fiber roll. Do not use fiber roll check dams on ditch grades steeper than 5%.

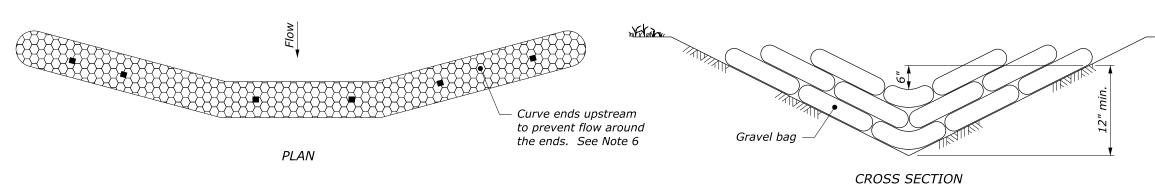


V-DITCH

FLAT-BOTTOM DTICH CROSS SECTION

| FILTER ROCK<br>CHECK DAM SPACING<br>(See Note 7) |                                     |  |
|--|-------------------------------------|--|
| DITCH<br>GRADE                                   | CHECK DAM<br>SPACING (max.)<br>(FT) |  |
| 2%   | 150                                 |  |
| 3%   | 100                                 |  |
| 4%   | 80                                  |  |
| 5%   | 60                                  |  |
| 6%   | 50                                  |  |
|  |                                     |  |

# FILTER ROCK CHECK DAM



GRAVEL BAG CHECK DAM

|   | , ,, |    | l |
|---|------|----|---|
|   | 5%   | 60 |   |
|   | 6%   | 50 |   |
| ** Do not use gravel bag check<br>dams on ditch grades steepe |      |    |   |

GRAVEL BAG

(See Note 7)

CHECK DAM

SPACING (max.)

(FT)

150

100

CHECK DAM SPACING\*\*

DITCH

GRADE

2%

3%

4%

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY

**CHECK DAM MODERATE GRADES** 

WFL STANDARD W157-15 SPECIFICATION FP-24, FP-14 APPROVED FOR USE 7/2016

NO SCALE

Trench 2" min.

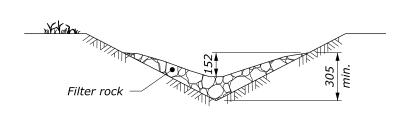
Place excavated

trench material on

uphill side of fiber roll

# NOTE:

- 1. Construct check dams from fiber rolls, filter rock, or gravel bags as approved, to meet the functional requirements of the check dam device.
- 2. Repair all rills or gullies and properly compact prior to installation.
- 3. Install check dams in ditches perpendicular to the flowline.
- 4. Stake fiber rolls in place with 29 mm x 29 mm wood stakes. Drive stakes at each end of the fiber roll and at 610 mm maximum spacing.
- 5. Drive stakes into undisturbed soil of trench bottom. Expose stakes 51 mm minimum above top of fiber roll.
- 6. Provide sufficient length to prevent water from flowing around the ends of the fiber roll.
- 7. Adjust check dam spacing based on site-specific conditions.



V-DITCH

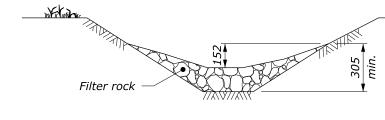
CROSS SECTION

Check dam installation details are similar for flat-bottom ditches

V-ditch design shown.

#### CROSS SECTION

FIBER ROLL CHECK DAM



FLAT-BOTTOM DTICH CROSS SECTION

| FILTER ROCK<br>CHECK DAM SPACING<br>(See Note 7) |                                    |  |
|--|------------------------------------|--|
| DITCH<br>GRADE                                   | CHECK DAM<br>SPACING (max.)<br>(m) |  |
| 2%   | 46                                 |  |
| 3%   | 30                                 |  |
| 4%   | 24                                 |  |
| 5%   | 18                                 |  |
| 6%   | 15                                 |  |

# 

Trench 51 min.

FIBER ROLL STAKING DETAIL

| FIBER ROLL<br>CHECK DAM SPACING*<br>(See Note 7) |                                    |  |
|--|------------------------------------|--|
| DITCH<br>GRADE                                   | CHECK DAM<br>SPACING (max.)<br>(m) |  |
| 2%   | 46                                 |  |
| 3%   | 30                                 |  |
| 4%   | 24                                 |  |
| 5%   | 18                                 |  |

\* Spacing calculated based on 229 mm Ø minimum fiber roll. Do not use fiber roll check dams on ditch grades steeper than 5%.

# FILTER ROCK CHECK DAM

| FIO W | W. Mandre                                   |            |
|-------|---|------------|
|       | Curve ends upstream                         | 5 min.     |
| PLAN  | to prevent flow around the ends. See Note 6 | Gravel bag |

CROSS SECTION

# GRAVEL BAG CHECK DAM

|     | CHECK E        | AVEL BAG<br>DAM SPACING**<br>ee Note 7) |
|-----|----------------|---|
| - 1 | DITCH<br>GRADE | CHECK DAM<br>SPACING (max.)<br>(m)      |
|     | 2%             | 46                                      |
|     | 3%             | 30                                      |
|     | 4%             | 24                                      |
|     | 5%             | 18                                      |
|     | 6%             | 15                                      |

\*\* Do not use gravel bag check dams on ditch grades steeper than 6%.

\_\_\_\_

This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY

CHECK DAM

MODERATE GRADES

March 2025 7:28 AM

NO SCALE

APPROVED FOR USE 7/2016

WFL STANDARD