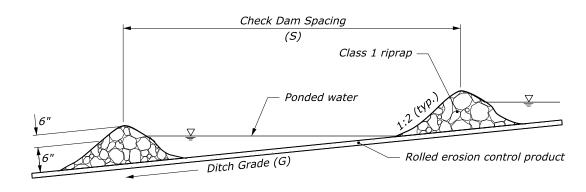
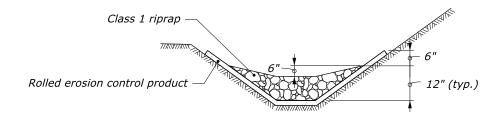
V-DITCH



PROFILE VIEW



CROSS SECTION FLAT-BOTTOM DITCH

RIPRAP CHECK DAM SPACING (See Note 3)	
DITCH GRADE (G)	CHECK DAM SPACING (S) max. (ft)
7%	40
8% and 9%	30
≥10%	20

RIPRAP CHECK DAM
WITH ROLLED EROSION CONTROL PRODUCT

NOTE:

- 1. Repair all rills or gullies and properly compact prior to installation.
- 2. Install check dams in ditches perpendicular to the flowline.
- 3. Adjust check dam spacing based on site-specific conditions.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL

**CHECK DAM** WITH ROLLED EROSION **CONTROL PRODUCT** 

DETAIL APPROVED FOR USE 01/2011 C157-54

NO SCALE

REVISED: 08/2014



## NOTES TO THE DESIGNER

Last Updated: August 2014

### **General Information**

- 1. **Appropriate Applications**. Check dams reduce scour in a channel or ditch and provide runoff treatment by reducing flow velocity and encouraging sediment deposition. Appropriate applications include:
  - Use riprap check dams in conjunction with RECP lining in ditches steeper than 5% or 6%
  - Steep channels where storm water runoff velocities exceed 3 ft/s
  - During the establishment of grass linings in ditches

#### 2. Limitations.

- Not used in live streams
- Drainage areas 10 acres or less

#### 3. Layout Guidance.

- Install the first check dam about 15 ft from the outfall and at regular intervals based on slope gradient and soil type (steeper slopes and more erosive soils (e.g. loose sand or silt) will require shorter spacing between check dams).
- When installing a series of check dams in a channel, install outlet stabilization measures below the final dam, such as riprap or geotextile, to minimize erosion potential.
- The type of RECP to use is site-specific. Coordinate with Hydraulics to select the type of RECP.

## **Applicable SCRs**

None

# Typical Pay Item Used

- 15706-0200 Soil erosion control, check dam [EA]
- 62901-[0100 through 1400] Rolled erosion control product, type xx [SQYD] or 62901-[0100 through 1400] Rolled erosion control product, type xx [ACRE]

## **Updates**

January 2011

- Updated FLH Standard drawing by adding RECP under check dams August 2014
  - Updated border