**PERVIOUS INSTALLATION**

**ADJACENT ROLLS SHALL BE TIGHTLY ABUT**

**STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE. LEAVING 3'-4" INCHES OF THE STAKE PROTRUSING ABOVE THE WATTLE.** A HEAVY SEGMENT LOAD WILL TEND TO PULL THE STAKES UP AND COULD PULL IT OFF THE STAKES IF THEY ARE DRIVEN TOO LOW. IT MAY BE NECESSARY TO MAKE A HOLE IN THE WATTLE WITH A HAMMER FOR YOUR HARNESS IN ORDER TO GET THE STAKES IN PLACE.

**FOR PRECAST COMPONENTS AND CAST IN-PLACE CONCRETE OR FOR IN-GROUND APPLICATIONS, DRIVE THE STAKES STRAIGHT DOWN. WHEN INSTALLING WATTLES ON SLOPES, DRIVE THE STAKES PERPENDICULAR TO THE SLOPE.**

**KNOTS AT END OF STAKE**

**WHITE STAKES TIGHTLY ABUT**

**10'-20'**

**XX X XX**

**A. 25 FOOT WATTLE USES 6 STAKES**

**B. 30 FOOT WATTLE USES 8 STAKES**

**C. 12 FOOT WATTLE USES 4 STAKES**

**Wattle Installation Notes:**

1. The location and length of wattle is dependent on the conditions of each site.
2. Wattles shall be installed prior to any land disturbing activities.
3. Wattles shall consist of straw, compost, excelsior, or coconut fiber.
4. Not for use in concentrated flow areas.
5. The wattle shall be backfilled with a minimum of two (2) inches of topsoil.
6. Prior to implementing wattle installation, a geotechnical survey shall be completed.
7. On slopes, wattle should be installed on contour with a slight downward angle at the end of the row in order to prevent pooling at the toe section.
8. Running lengths of wattle should be abutted firmly to ensure no leakage at the abutments.
9. Spacing: Sufficient spacing for slope installations should be determined by site conditions. Slope gradient and soil type are the main factors. A good rule of thumb is:
   - 1:1 slopes: 10 feet apart
   - 1:2 slopes: 20 feet apart
   - 1:3 slopes: 30 feet apart
   - 1:4 slopes: 40 feet apart

However, adjustments may be made for the soil type; for soft, loamy soils, adjust the rows closer together. For hard, rocky soils, adjust the rows further apart. A secondary wattle placed behind the abutment of two wattles is encouraged on steep slopes or where joints have failed in the past.

10. Staking: The city recommends using wood stakes to secure the wattles. 1/2" to 3/4" rebar is also acceptable. Be sure the rebar is a stake that is long enough to provide stability and reduces the risk of failure. Hard, rocky soil, and soft loamy soil, use a 24" stake.

**IMPERVIOUS INSTALLATION**

**CURB INLET WATTLE PROTECTION SETUP**

**WATTLE INSTALLATION NOTES:**

1. The contractor shall inspect wattles every two weeks and after any significant storm event and make repairs or remove wattle. Wattle shall be removed when the segment has accumulated to one half the diameter of the wattle.
2. Wattles shall remain in place until the upstream disturbed area is stabilized and is accepted by the city.

**WATTLE INSTALLATION**

**CURB INLET WATTLE PROTECTION SETUP**

**CITY OF LOVELAND PUBLIC WORKS DEPT. STORMWATER CONSTRUCTION DRAWINGS**

**APPROVED: KG**

**DATE: 4/23/09**

**DRAWN BY: TBK**

**DRAWING SW-13**