

**NATURAL RESOURCES CONSERVATION SERVICE**  
**CONSERVATION PRACTICE SPECIFICATION**  
**STRUCTURE FOR WATER CONTROL**  
**CODE 587**

**SPECIFICATIONS - FLASHBOARD RISER**

**FOUNDATION PREPARATION**

The foundation of the channel and side slopes shall be cleared of all trees, stumps, roots, brush, sod, organic soil, and debris. After clearing is completed, the foundation (channel bottom and side slopes) shall be loosened thoroughly and rough graded with suitable equipment, before placement of the structure.

**DEWATERING**

It may be necessary to de-water the site during construction so earth fill and concrete can be installed. Concrete and earth fill shall not be placed in standing water.

**ANTI-SEEP COLLARS**

If an anti-seep collar is being installed, it will be necessary to excavate a trench across the channel large enough to perform installation and compaction prior to the placement of the water control structure.

**PLACEMENT OF EARTH FILL**

Earth fill shall be free of sod, roots, stones, and other objectionable materials. Materials used to backfill the structure shall be an SC material, unless otherwise approved by the technician. The top of the pipe should be weighted to prevent the structure from lifting during the backfill process.

Compaction shall be in layers not exceeding 4 inches in thickness. Hand type or power tamps shall be used to compact the earth fill around the structure. If power tamps are used, do not over tamp and cause the structure to rise up; this will cause a seepage line to develop under the pipe. Compaction in 4 inch layers shall continue until an elevation of 2 feet above the top of pipe is reached.

After this elevation, the fill can be installed in layers of 9 inches and compacted with several

passes of rubber tire equipment. Continue to raise the fill until it is crowned approximately 1 foot above low ground level at structure.

**PLACEMENT OF CONCRETE**

Excavate the area under and around the riser to place concrete. Insure that the concrete is placed in a method that will allow the concrete to bond to the riser. Use concrete with a minimum strength of 3000 psi in 28 days.

**HEADWALLS**

Sand cement bags, corrugated aluminum (custom manufactured), or rock riprap will be used for headwalls, if specified. The headwalls shall be keyed into the channel side slopes to prevent erosion from occurring around the end of the headwalls.

**MARKINGS**

When the design elevation of the top of the flashboards is lower than the top elevation of the riser, the structure shall be permanently scored with a file or awl at the design top elevation of the flashboards and be highly visible from the front of the riser. The marking may be highlighted with paint. Alternate methods of marking may be approved by the technician.

**VEGETATION**

Vegetation shall be established on all disturbed areas, except the areas that will be inundated, as soon as possible after construction. Necessary steps shall be taken to ensure that a good stand of vegetation is established in a reasonable amount of time. The seeding rates are:

\_\_\_\_\_ lbs. \_\_\_\_\_  
 \_\_\_\_\_ lbs. \_\_\_\_\_  
 \_\_\_\_\_ lbs. 10-10-10  
 \_\_\_\_\_ tons lime  
 \_\_\_\_\_ tons small grain straw