**CONCRETE CHANNEL LINING**

**WEEP HOLE DETAIL**

- Minimum 18" toe wall to be constructed at beginning & end of concrete ditch channel & rip-rap sections.
- #3 bars @ 12" O.C.E.W.
- 3" when H4" or more

**THICKNESS AS DESIGNATED ON PLANS**

- 208-12" galv. hwd. cloth 1/4" mesh with granular material
- 12\"12" galv. hwd. cloth 1/4" mesh with granular material
- 1/2" H4" or more

**MATCH E ELEV**

**HEIGHT VARIES**

- 1/2" H4" or more

**LENGTH VARIES**

- 208-12" galv. hwd. cloth 1/4" mesh with granular material

**28-DAY CONCRETE STRENGTH = 3000 psi**

---

**CONCRETE RIP-RAP**

**WEEP HOLE DETAIL**

- Minimum 18" toe wall to be constructed at beginning & end of concrete ditch channel & rip-rap sections.
- #3 bars @ 18" O.C.E.W.
- 2" H4" or more

**THICKNESS AS DESIGNATED ON PLANS**

- 12\"12" galv. hwd. cloth 1/4" mesh with granular material

**MATCH E ELEV**

**HEIGHT VARIES**

- 1/2" H4" or more

**LENGTH VARIES**

- 208-12" galv. hwd. cloth 1/4" mesh with granular material

**28-DAY CONCRETE STRENGTH = 3000 psi**

---

**CONCRETE SIDE SLOPE PROTECTION**

- Minimum 18" toe wall to be constructed at beginning & end of concrete ditch channel & rip-rap sections.
- #3 bars @ 15" O.C.E.W.

**THICKNESS AS DESIGNATED ON PLANS**

- 1/2" H4" or more

**MATCH E ELEV**

**HEIGHT VARIES**

- 1/2" H4" or more

**LENGTH VARIES**

- 1/2" H4" or more

**28-DAY CONCRETE STRENGTH = 3000 psi**

---

**STANDARD CHANNEL SECTION**

- 1/2" minimum width drainage easement
- 5" minimum

**MAXIMUM SLOPE**

- 6" minimum

**TYPICAL LINED CHANNEL SECTION**

- Black 500 ft. dura mat or woodchips-mulch

**STANDARD FLUME SECTION**

- 39-day concrete strength = 3000 psi

**THICKNESS AS DESIGNATED ON PLANS**

- 1/4" toe down (also at flume ends)

**MATCH E ELEV**

**HEIGHT VARIES**

- 1/4" toe down (also at flume ends)

**LENGTH VARIES**

- 208-12" galv. hwd. cloth 1/4" mesh with granular material

**EXPANSION JOINTS AT 60" O.C.**

**208-12" galv. hwd. cloth 1/4" mesh with granular material**

**NOTE:**

- Minimum 18" toe wall to be constructed at beginning & end of concrete ditch channel & rip-rap sections.
GENERAL NOTES:
1. BASE THICKNESS AND FOUNDATION SHALL BE AS FOLLOWS:
   INLET DEPTH (ft.)   BASE
   0 - 12.................. 8”
   12 AND OVER........... 12”
2. DEEPER DEPTHS THAN 12” WILL REQUIRE 2 MATS OF
   REINFORCING STEEL IN THE BASE.
3. ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER
   HAVE BEEN REMOVED BY CONSTRUCTION SHALL BE ADEQUATELY
   BLOCK SOILED OR HYDROMULCHED AND WATERED UNTIL
   GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS
   IS PRESENT, BLOCK SOIL WILL BE REQUIRED.
4. APPLIED EROSION CONTROL MEASURES MUST BE INSTALLED
   DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY
   CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE
   VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS
   COMPLETE AND THEN REMOVED BY CONTRACTOR.

NOTE:
STORM SEWER LIDS TO BE USED FOR PUBLIC STORM
SEWER SYSTEMS ONLY.
NOT TO BE USED ON PRIVATE
STORM SEWER SYSTEMS.

STANDARD MANHOLE RING AND COVER
32” DIA. DUCTILE IRON V-1342-3

STANDARD MANHOLE RING AND COVER
24” DIA. DUCTILE IRON V-1342-A