



**TECHNICAL SPECIFICATIONS  
FOR HILFIKER's  
Spiralnail-Wiretruss Wall System**

**1.0 DESCRIPTION**

This work shall consist of Hilfiker Spiralnail constructed in accordance with these specifications and the lines, grades, design and dimensions shown on the plans or established by the Owner's Engineer.

**2.0 MATERIALS**

The Contractor shall make his/her own arrangements to purchase all **Spiralnail** materials, including wire mesh reinforcement mats, facing mats, and all necessary incidentals from Hilfiker Retaining Walls, 1902 Hilfiker Lane, Eureka, CA 95503-5711, Telephone 707/443-5093; [www.hilfiker.com](http://www.hilfiker.com); [info@hilfiker.com](mailto:info@hilfiker.com).

**2.1 Spiralnail**

Spiralnails shall be formed with a 90-degree twist at every foot. The Spiralnail shall be made from 2" schedule 80 pipe, Grade B (minimum tensile stress 60 ksi, minimum yield stress 35 ksi), conforming to the minimum requirements of ASTM A-53; or 2" tubing, Grade B with an average wall thickness of 0.218" (minimum tensile strength of 58 ksi, minimum yield strength of 46 ksi), conforming to the minimum requirements of ASTM A 500-03a.

<u>Description</u>	<u>Requirement</u>
2" Schedule 80 Pipe	ASTM A53
2" tubing, Grade B (average wall thickness of 0.218")	ASTM A500-03a

**2.2 Facing Mats**

Wire mesh for facing shall be formed by a series of 60-degree bends. The reinforcing mesh shall be shop fabricated of cold drawn steel wire and shall be welded into the finished mesh fabric conforming to the minimum requirements of ASTM A-1064 (AASHTO M-32 & M-55). Fabric for the **Spiralnail Wall System** shall be as per project specifications, and will conform to only one of the following coating treatments: (A) brite basic (non-galvanized), or (B) hot dip galvanized (2.0 oz./SF, ASTM A-123 [AASHTO M-111]; 605 g/m<sup>2</sup>). Any damage done to the mesh galvanization prior to installation shall be repaired in an acceptable manner and in a galvanized coating comparable to that provided. Hardware cloth shall meet the minimum requirements of ASTM A-740.

<u>Description</u>	<u>Requirement</u>
Welded Wire Fabric	ASTM A1064
Hardware Cloth	ASTM A740

**2.3 Truss Facing**

Where required, as shown in the plans, the truss backing shall be formed from 4" channel meeting ASTM A-36 and welded wire mesh meeting ASTM A-1064.

<u>Description</u>	<u>Requirement</u>
4" 5.4 lb. Channel	ASTM A36
¼" Spiral Binders – W5 wire, 6" pitch	ASTM A1064 / A641 (galv)





# HILFIKER RETAINING WALLS

Welded Wire Wall • Eureka Reinforced Soil  
Gabion Faced M.S.E. • Reinforced Soil Embankment  
ArtWeld Gabions • Spiralnail • Steepened Slope • Trinity Wall

### 3.0 ROCK (*when Hardware Cloth is not used*)

Rock for filling the truss system shall be as listed:

- 100% passing 6 inches, 0-5% passing 4 inches

• End of Section •

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This information is proprietary to Hilfiker Retaining Walls, 1902 Hilfiker Lane, Eureka, CA 95503-5711, Telephone: 707-443-5093, Email: [info@hilfiker.com](mailto:info@hilfiker.com).

**HILFIKER RETAINING WALLS ARE COVERED BY ONE OR MORE PATENTS.**

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