

CHURCHILL SQUARE ASSOCIATION, INC.

Handrail Specification

Full Replacement Handrails: All handrail replacements *must match the original community design and be constructed from solid or tubular steel*. All handrail replacements require submission of an *Architectural Improvement Request Form*. Other construction details are:

- A. Replacement handrails **must** include the ornamental top rail shown in the following cross section schematic (Figure 1) to match the original community design. The ornamental top rails **must** have the same curled end treatment as the original community design (Figure 2).

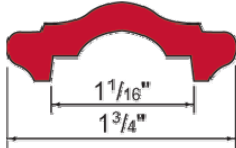


Figure 1 – Top Rail

- B. All posts **must** be 1” square
- C. All pickets **must** be ½” square.
- D. All “U” channels **must** be 1”x½”.
- E. All installed handrails **must** be 42” high **after installation**.
- F. Ends of the railing system **must** be securely attached to the masonry wall of the home with end clips/tabs.
- G. Posts **must** be secured with anchoring grout such as Rockite or BSAF MasterFlow 110AN. **Do not use concrete.**
- H. Base caps on posts, usually plastic, are optional.
- I. All handrail details (i.e., picket spacing, rail height above stairs as measured from the tread nose, continuous grasp top rail, etc.) must comply with Fairfax County code requirements at the time of installation.
- J. All handrails **must** be painted “**high-gloss black**” oil-based metal paint.



Figure 2 – Similar Handrail to Churchill Square

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Repairing Rusted & Broken Posts: The most common issue with handrails in Churchill Square is simply a rusted and broken post. These can usually be repaired easily by a qualified welding company. Simple handrail repairs following the procedure below ***do not*** require submission of an ***Architectural Improvement Request Form***. The typical steps involved with this type of repair are:

1. **Detach Handrail** – The handrail is detached from the house for ease of repair.
2. **Remove Rusted Section** – Rusted sections from the bottom of the post(s) is(are) removed with a band saw.
3. **Repair Post** – Post extensions are welded on shortened post to repair the damage and allow proper reinstallation.
4. **Core Drill Stoop/Stair Tread** – The part of the original post that is embedded in the stoop or stair tread is removed with a core drill. This allows the new post extensions to be reinstalled in the original locations.
5. **Position, Reattach & Grout Posts** – The repaired handrails with the new extensions are positioned in the holes from step 4 and reattached to the house. With the handrails held in place with temporary bracing, a quick setting anchoring grout is poured in the cavities around the new post extensions to lock them in place.

Rust Remediation & Painting: The “best practices” for remediating rust and painting an existing handrail are shown below. Simple handrail painting with the required “***high-gloss black***” paint ***does not*** require submission of an ***Architectural Improvement Request Form***. The steps are:

1. **Remove Old Paint & Rust** – To remove loose paint, thoroughly brush all metal surfaces with a wire wheel or wire hand brush. For rusted areas, use a coarse file, a scrapper or sandpaper to get down to bare metal.
2. **Neutralize** – Wipe these bare metal areas with mineral spirits and spray with Ospho® (phosphoric acid) to convert any remaining rust in hard to get areas to iron phosphate. Wait overnight for the Ospho to fully react with any rust and then brush away any loose flakes before priming.
3. **Prime** – Thoroughly apply a base coat of oil-based metal primer.
4. **Paint** – After the primer dries, paint with “***high-gloss black***” oil-based metal paint.

Welding Companies: *Several companies have been employed by either homeowners or Churchill Square Association in the past for various handrail repairs or replacement. Churchill Square Association is **not endorsing** any of the listed companies, only providing their names as ones that have been known to perform these service in our community in the past. They are:*

- a) **Ivey Welding** 3436 Lee Highway, #3, Arlington, VA 22207 (703) 524-4322
- b) **Reliable Rails** 9401 Centreville Road, #202, Manassas, VA 20110 (703) 257-1321