

MARKER No. 03: JANE HALL (d. 1866) wife of Robert Hall

EXISTING CONDITIONS

- Marble headstone broken into two (2) fragments with displaced fragment lying on the ground, partially buried in the horizontal position. Lower headstone fragment remains in its slotted base, however, loose and unstable.
- Headstone retains remnants of previous repair attempt at the current fracture line: epoxy, mortar, and copper wire fit into slots cut into the outer edge of the stone.
- The headstone is stained and contains biological growth.
- Other than the fracture, the marble itself is in sound condition.
- The sandstone slotted base is in good condition with slight staining and biological growth. The base is displaced from the ground and leaning.



Before (July 2008)



After (May 2009)

TREATMENT SUMMARY

- A. Excavation/Fragment Recovery
 1. Excavate partially buried marble headstone and lift sandstone base.
- B. Cleaning
 1. For removal of biological growth and general soiling, the marble headstone and sandstone base were cleaned with D/2 Architectural Antimicrobial.
 - a. Clean water at low pressure (max 300 psi) and hand-pump sprayer.
 - b. Natural or nylon bristle brushes (varying stiffness and sizes).
 - c. Avoid dissolution or erosion of the stone.
 - ▶ stones were successfully cleaned, however, slight biological staining and discoloration remain, which cannot be removed without harsh methods.
- C. Re-attachment and Repair
 1. Remove remnants from previous repair attempts, including mortar, epoxy and copper wire.
 - a. Use fine hand tools including detail rotary equipment (Dremel).
 - ▶ bits of epoxy still remain around old repair
 2. Re-attach two marble headstone fragments using two-part stone epoxy and threaded brass rods.
 3. Patch resultant slots and voids with Type O mortar that is custom mixed to match adjacent marble.
 4. Point and infill where necessary around attachment seam.
 - ▶ fragment re-attachment clamped in place for 12 hrs.
 - ▶ resultant seam and minor losses pointed with custom mixed Type O mortar (lime-based, with marble dust).
- D. Reset and Level
 1. Reset and level sandstone base upon compacted gravel.
 2. Reset and plumb marble headstone into slotted sandstone base with a Type O mortar mix.
 - ▶ binder-rich mortar (slurry) placed in bottom of slot and joint pointed with Type O mortar.
- E. Site Preparation and Repair
 1. Place pea gravel around base