

## Project Background

At the beginning of the year, the Pabst Mansion Foundation commissioned a facility condition assessment to look at the overall condition of the building and its plumbing, mechanical, and electrical systems. This permitted the assessment team to observe the house under freeze/thaw conditions and observe instances of water infiltration exacerbated by the harsh late winter. The study has just been completed and will be presented to the broader Pabst Foundation board shortly.

During the study a limited series of conditions were identified as candidates for “emergency repairs.” These repairs primarily focus on hands on assessment and repointing areas believed to be the cause of the observed water infiltration this past winter. Information gained during this process will also help to inform future broader range restoration campaign.

In preparation for the emergency repairs, the Pabst Mansion Foundation has engaged Marion Restoration of Chicago to obtain original samples and for US Heritage, Inc. to perform a petrographic study of original mortars used in the construction of the Mansion. Mortars studied included mortar used on the limestone foundation, brick masonry superstructure, and the terra cotta ornamentation and copings. As a result of the analyses, US Heritage is able to provide recommendations for repointing mortar that matches the original in strength, color, aggregate grain size, and vapor porosity.

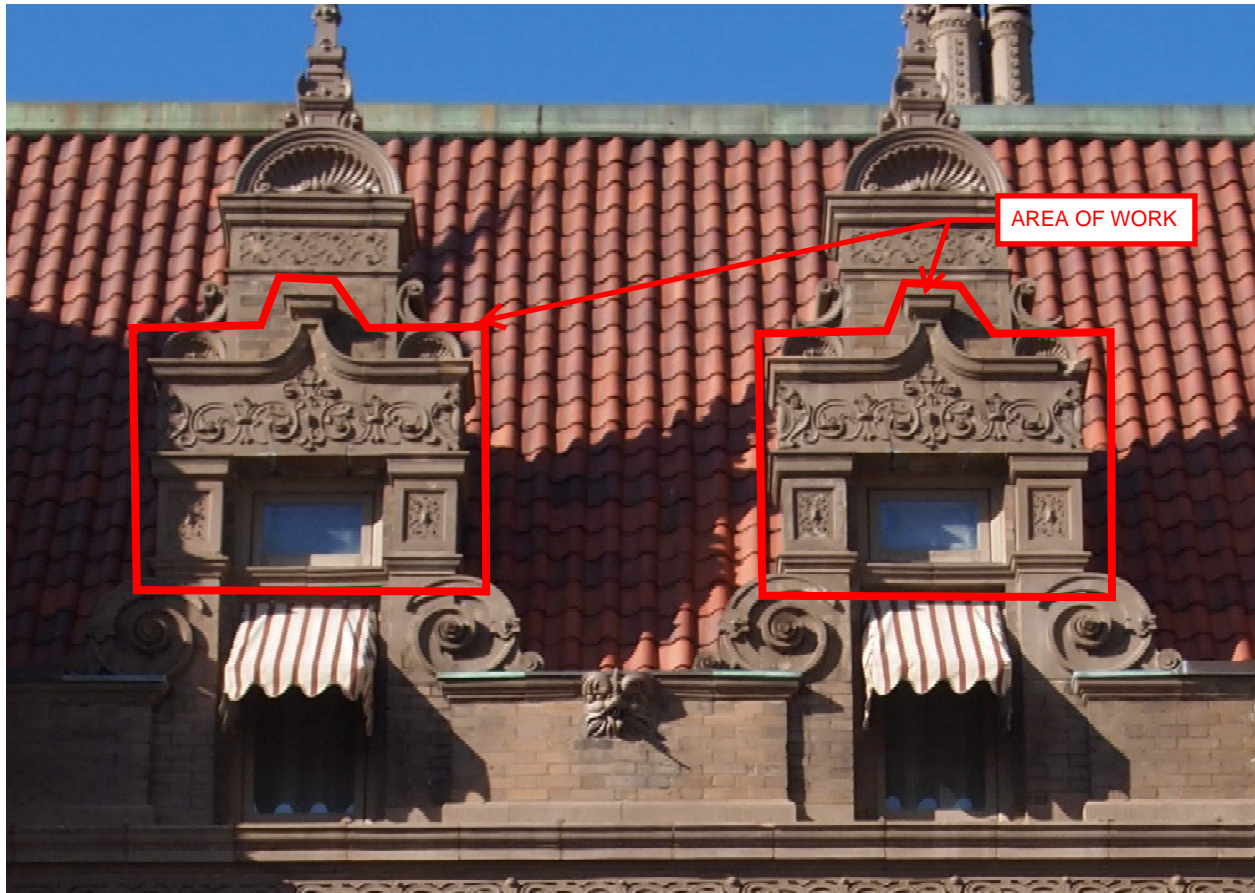
## Emergency Repair Projects South Elevation, West Gable



Goal: Stop water infiltration through masonry and wood brickmold over and around windows.

Tasks: Repoint terra cotta and brick at all exposed faces within indicated zone. Replace all damaged and failing sealant at brick mold around transom windows and at head of window below.

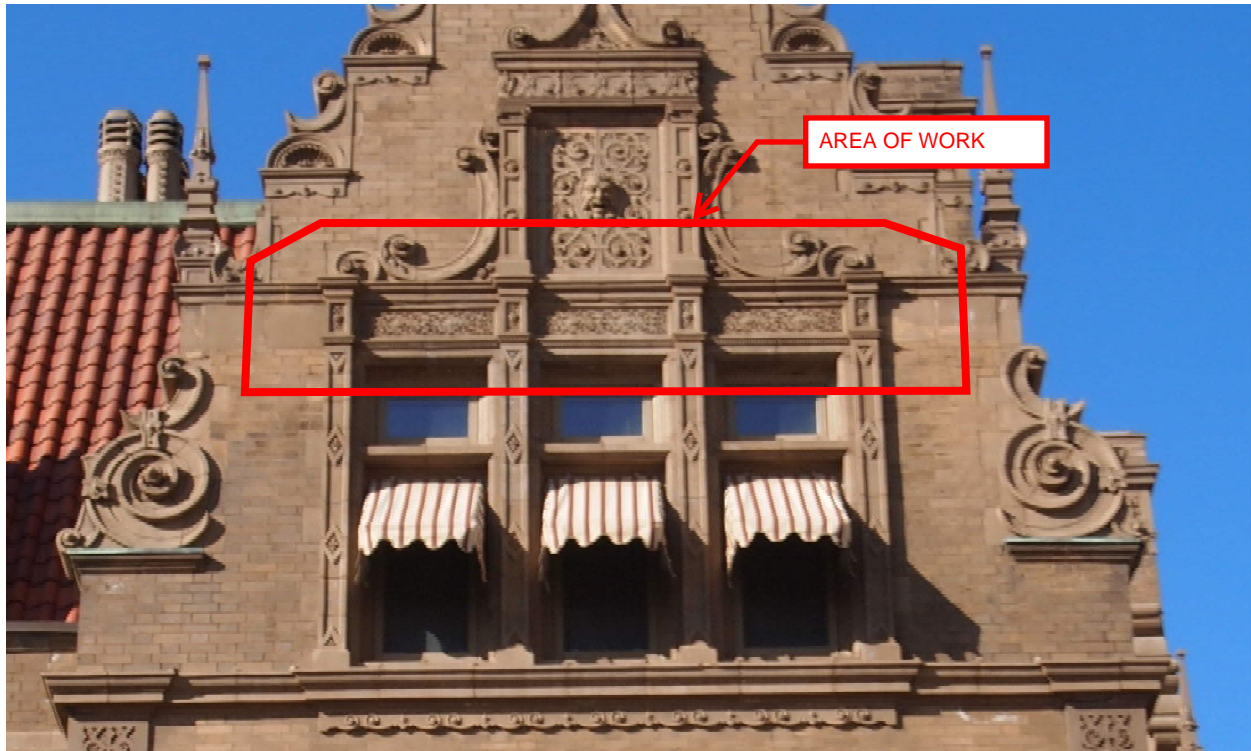
**South Elevation, Central Bay Dormers**



Goal: Stop water infiltration through masonry and wood brickmold over and around windows.

Tasks: Repoint terra cotta and brick at all exposed faces within indicated zone. Repoint open head joint at horizontal mullion providing elastomeric polyurethane with release tape backer to finish off repointed skyward joint. Replace all damaged and failing sealant at brick mold around transom windows and at head of window below.

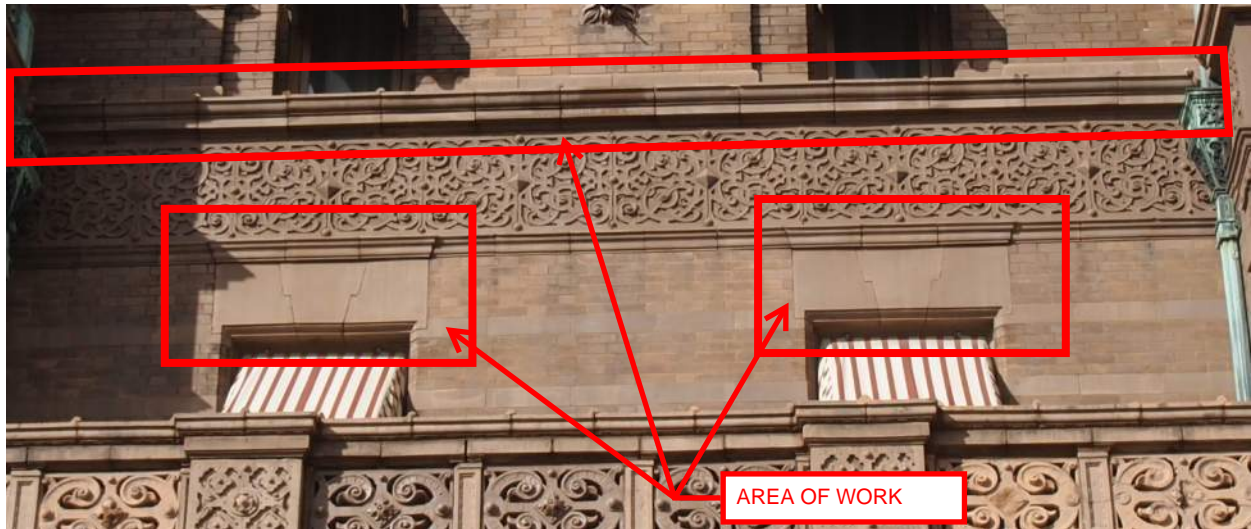
**South Elevation, East Gable**



Goal: Stop water infiltration through masonry and wood brickmold over and around windows.

Tasks: Repoint terra cotta and brick at all exposed faces within indicated zone, providing elastomeric polyurethane with release tape backer to finish off repointed skyward joints of belt course. Replace all damaged and failing sealant at brick mold at window heads.

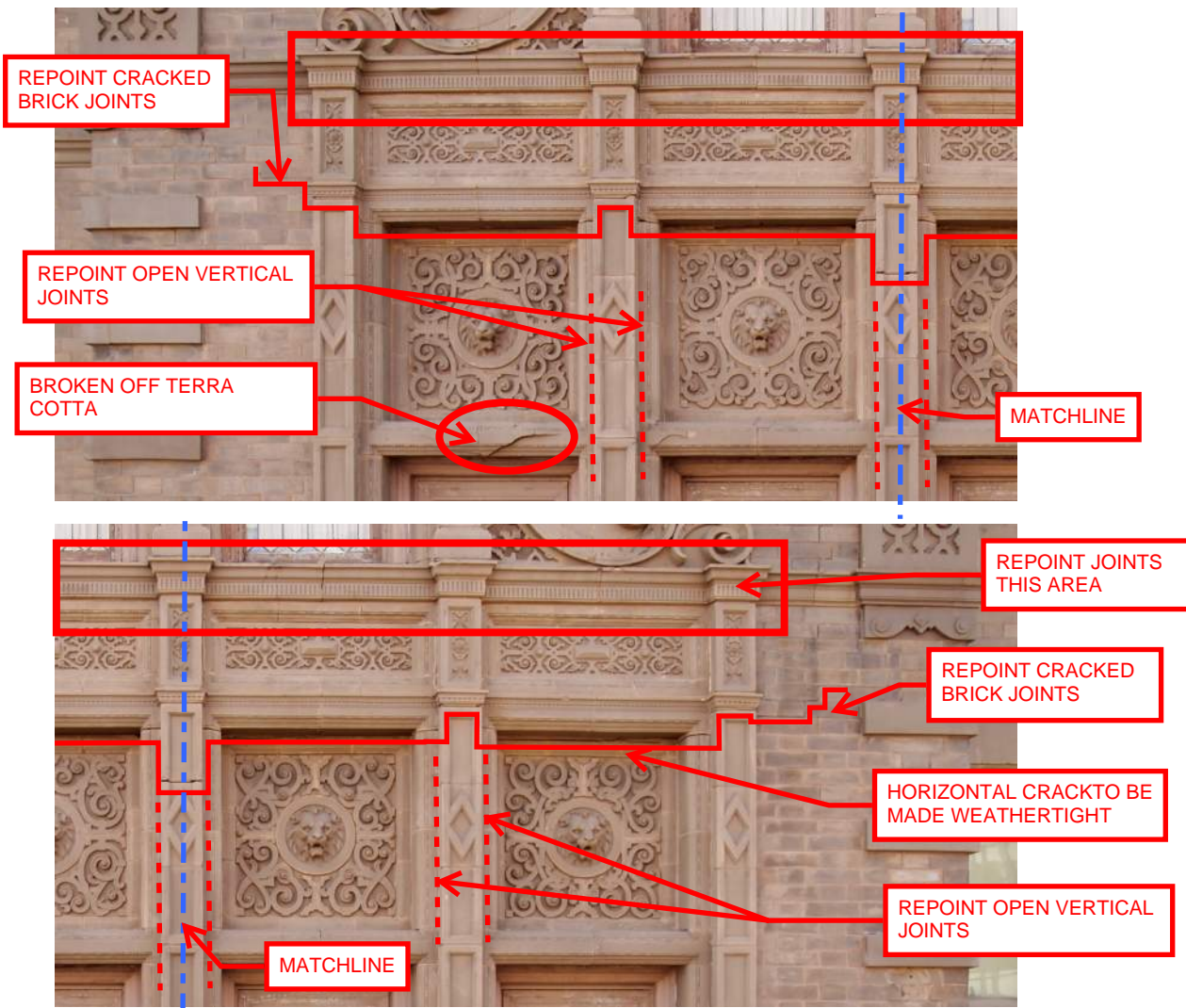
**South Elevation, Second Floor Center Bay Windows**



Goal: Stop water infiltration through masonry and wood brickmold over and around windows.

Tasks: Repoint terra cotta and brick at all exposed faces within indicated zone, providing elastomeric polyurethane with release tape backer to finish off repointed skyward joints of belt course. Replace all damaged and failing sealant at brick mold around single hung window heads and upper jambs.

**West Elevation, Center Bay, Second & Third Floor**



Goal: Temporarily protect exposed steel and interior wall construction from elements, temporarily secure broken off terra cotta face at horizontal mullion in a manner to protect the exposed interior construction from weather and repointing open joints in terra cotta belt/sill course.

Tasks: Provide temporary repointing or closed cell backer rod supported elastomeric sealant joint at horizontal crack in terra cotta, color to be selected from manufacturer's standard colors; repoint adjacent cracked brick joints; repoint deteriorated and cracked joints at stacked terra cotta mullion pieces below crack; repoint deteriorated joints at terra cotta belt/sill course above crack, providing elastomeric polyurethane pointing with release tape backer to finish off repointed skyward head joints.

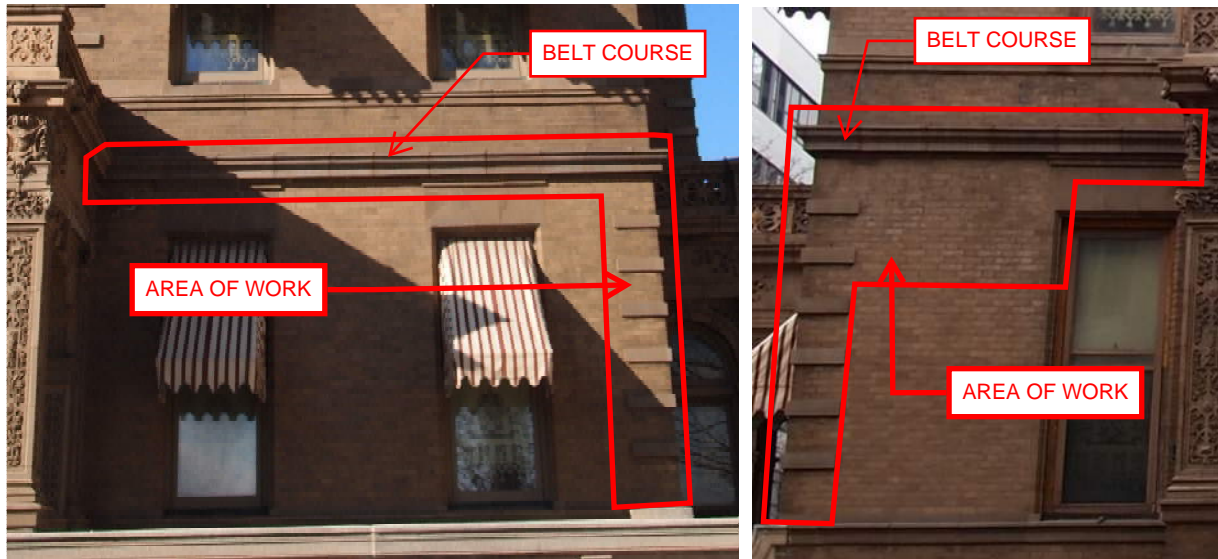
**North Elevation, Airing Porches, Second & Third Floor**



**Goal:** Stop water infiltration through brick masonry and terra cotta at second floor Ironing Porch.

**Tasks:** At areas indicated, repoint all terra cotta and brick joints, providing elastomeric polyurethane with release tape backer at skyward joints. Inspect cracked brick between porch lintel and 3<sup>rd</sup> floor window sill belt course and determine appropriate action to either replace cracked brick (from owner's supply) or repair cracks with mortar or closed cell backer rod and elastomeric polyurethane sealant with color selected from manufacturer's standard colors and proceed with action following owner review. At east (left) end of 3-piece terra cotta lintel, inspect cracked terra cotta unit and determine appropriate crack repair for unit and proceed with action following owner review.

**Southeast Corner, Balustrade Up Thru Belt Course**



Goal: Stop water infiltration through wall of Music Room where embossed wallcovering is peeling.

Tasks: At areas indicated, inspect terra cottas and brick joints within area indicated and repoint cracked or deteriorated joints as required. Provide elastomeric polyurethane with release tape backer at all skyward joints at the belt course within the area indicated.



**Emergency Hands-on Safety Assessment**



West Elevation Chimney



West Elevation Chimney Closeup



East Elevation Chimney



East Elevation Chimney Closeup