LEE COUNTY COURTHOUSE

GIDDINGS, TEXAS

REPAIRS TO ADDRESS WATER INFILTRATION DURING HURRICANE HARVEY



SCOPE DEFINITION DOCUMENTS
PREPARED BY ACTON PARTNERS, LLC

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SCOPE OF REPAIRS - WATER INFILTRATION AND RELATED DAMAGES

The intent of the repairs is to address water leakage to the building interior through the exterior masonry walls, wood-framed windows, and roofing. Repairs to address damaged interior finishes are not included in this scope of work.

GENERAL OVERVIEW:

Water infiltration to the interior of Lee County Courthouse was experienced in many areas as a result of the Hurricane Harvey event in late August 2017. This infiltration primarily affected the north and east elevations, although related damages were also noted on the south and west elevations. Water penetrated through the multi-wythe exterior masonry walls, wood-framed windows, and roof-level components and caused extensive damage to interior plaster, wood, decorative trim, and floor finishes.

- 1. The overall scope of this project includes repair of brick and stone masonry, repointing of mortar joints, repair of wood-framed windows, replacement of failed window seals, and replacement of metal roof valleys, roof-to-wall flashings, roof edge transitions, and gutters.
- 2. Remediation was previously performed by an independent contractor hired by Lee County. Remnants of remediation efforts, including applied moisture-inhibiting coatings and removed interior plaster finishes, are present on many interior wall surfaces.
- 3. This scope excludes work that was in scope of the previous Critical Architectural and Structural Repairs project administered by Wiss, Janney, Elstner Associates, Inc. and constructed by ATC Contractors, Inc.
- 4. The general scope of repairs is outlined below. Reference the details and technical specifications for further information.

BRICK AND STONE MASONRY REPAIRS:

- 1. Repoint mortar joints in exterior brick and stone masonry, where indicated on elevations. Mortar composition and color to match existing.
- 2. Patch repair or replace discrete areas of damaged brick or stone masonry units, where indicated. Color and surface texture to match existing, historic materials.
- 3. Apply PMMA coating, colored to match masonry, over skyward-facing surfaces of roof-level stone masonry, where indicated.
- 4. Clean extents of roof-level masonry surfaces.

WOOD-FRAMED WINDOW REPAIRS:

- 1. Remove and replace sealant joints and backing materials at window perimeters, where scheduled.
- 2. Replace damaged frame components, where scheduled. Repaint entirety of window units, where work is performed, to match existing color and sheen.
- 3. Install sealant at joints between wood frame components, where scheduled.
- 4. Re-glaze windows, where scheduled, by removing glass, cleaning the glazing pocket, installing setting blocks, and setting glass in new glazing putty.

ROOF REPAIRS:

Existing metal roof tiles generally to remain. Carefully remove or lift existing metal roof tiles as needed to access flashings for repairs as noted below.

ROOF REPAIRS, CONTINUED:

- 1. Remove, clean, and store existing metal valley flashings, crickets, and similar transition flashings, where indicated. Replace roof sheathing, where damaged. Install high-temperature, self-adhered underlayment at valleys, integrated with existing underlayment material and secured with a termination bar and compatible sealant. Apply restoration coating over metal and reinstall.
- 2. Remove and replace existing metal step-flashings at dormers, chimneys, tower, and similar rise walls. Install high-temperature, self-adhered underlayment between roof sheathing and wall surfaces; secure with a termination bar and integrate with existing underlayment material. Terminate new coated metal counterflashings in a sealed reglet, routed into existing mortar joints.
- 3. Prepare surfaces and apply PMMA coating to line entirety of gutters and to cover metal flashing terminations, where indicated. Re-cleat gutter over metal fascia and seal termination. PMMA color to match existing material, subject to approval by THC.
- 4. Carefully remove decorative metal ridges. Install new underlayment over top of ridge, integrated with existing material. Repair solder at ridge laps, apply restoration coating, and reinstall.
- 5. Remove and replace roof-level sealants at metal laps and transitions, including at joints between fascia components. Provide new cleats and seal joins between components.
- 6. Install new downspouts, where indicated and approved by THC. Connect into gutters to create weathertight seal.

PAGES

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- R0.2 Technical Notes and Specifications
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- R3.0 Masonry Repairs
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LOCATION

Project Address: 200 South Main Street Giddings, Texas 78942



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TECHNICAL NOTES

ADMINISTRATIVE REQUIREMENTS:

- 1. Comply with Contract requirements as agreed upon with Lee County.
- 2. Submit schedule, written repair plan, site protection, and access plan for review by all parties prior to proceeding with Work.

QUALITY REQUIREMENTS:

- 1. All materials listed herein will require additional review and approval by the Texas Historical Commission (THC). Mock-ups of all exposed materials and assemblies should be constructed for review by all parties prior to project-wide procurement and installation.
- 2. Prior to removal of any historic material, ensure documentation has been performed and removal follows the written repair plan. Carefully remove materials so as not to damage adjacent components to remain.
- 3. Installation of all components and materials to be in accordance with the manufacturer's installation instructions and industry best practices.
- 4. Perform plumbing test at downspout-to-gutter transitions after completion of each connection to verify watertightness.

REPAIR MATERIALS:

Repointing Mortar

- 1. Repointing mortar Type N ASTM C150 portland cement, hydrated lime, and mortar sand.
- 2. Pigment additives Provide samples of pigmented mortar for evaluation and selection by THC and Engineer prior to approval.

Brick Units

- 1. Face brick ASTM C216, Grade SW, Type FBS. Match size and color of existing installed units; provide custom manufactured brick as required. Unit shall not have coatings, stains, or clear water repellents of any kind.
- 2. Helical ties Type 304 stainless steel spiral rods designed to anchor to backup construction and reinforce existing bed joints. CTP Stitch-Tie 4.5-8mm or approved equal. Use setting tool provided by anchor manufacturer.
- 3. Masonry cleaner Prosoco SureKlean Limestone and Masonry Afterwash or approved equal. Do not use products containing any amount of hydrochloric acid (muriatic), hydrofluoric acid, or ammonium bifluoride. Apply cleaner with soft-bristled brush as recommended by manufacturer. Only use low-pressure water.

Patching Mortar

1. Repair mortar - For patching spalls and cracks in stone or brick masonry. Jahn M70 Restoration Mortar or approved equivalent. Colored to match existing historic material. Provide samples for evaluation by THC and Engineer prior to approval.

Rough Carpentry

1. Plywood - For use as roof sheathing and to provide continuous support of underlayment. Provide non-preservative-treated plywood in thickness as required to match existing roof deck, minimum 5/8".

- 2. Miscellaneous blocking For repair and replacement of existing framing and support elements. Provide non-preservative-treated lumber, sizes to match existing members and as needed for infill.
- 3. Fasteners Provide galvanized or stainless steel screws, nails, and similar anchors of type and size required to securely attach components and engage substrate a minimum of 1 inch. All exposed fasteners to be stainless and coated to match secured material.

Roof Underlayment

- 1. High-temperature self-adhered membrane underlayment For walls, valleys, and similar transitions. Carlisle WIP 300HT or approved equal. Provide primer, compatible mastic/sealant, and ancillary materials as required for complete installation.
- 2. No. 30 felt paper For ridges. Provide galvanized cap nails and ancillary materials as required for complete installation.

Flashings and Water-Conveyance Sheet Metal

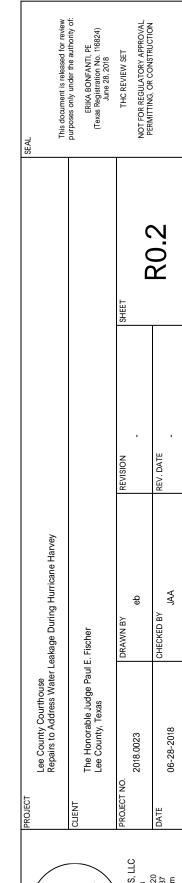
- 1. Galvanized sheet metal For valleys, crickets, counterflashings, downspouts, and similar components. Where exposed, 24-gauge prefinished Galvalume-coated steel coated on both sides with Kynar 500 finish, color to match existing removed components as approved by THC. Where embedded, 24-gauge G-90 galvanized sheet.
- 2. Cleats and attachment clips Minimum 22-gauge G-90 galvanized sheet, prefinished where exposed.

Fluid-Applied Flashing

1. Fluid-applied, reinforced flashing - Liquid-applied, polymethyl methacrylate (PMMA) flashing material with embedded fleece reinforcing. Johns Manville SeamFree PMMA Liquid Membrane or approved equal.

Joint Sealants

- 1. Silicone: Metal joints Single-component silicone sealant. Dow 795 or approved equal. Color as approved by THC to match sealed surfaces, varies by location.
- 2. Non-staining silicone: Adhered to porous substrates, including masonry at counterflashings and window perimeters Single-component silicone sealant. Dow 756 SMS or approved equal. Red color as approved by THC to match sealed surfaces and existing sealants.
- 3. Paintable polyurethane or latex: Internal window seals Single-component polyurethane or latex, acceptable for receiving paint coating to be applied to window frames.
- 4. Backer rod Closed-cell or hybrid, non-outgassing, per sealant manufacturer.



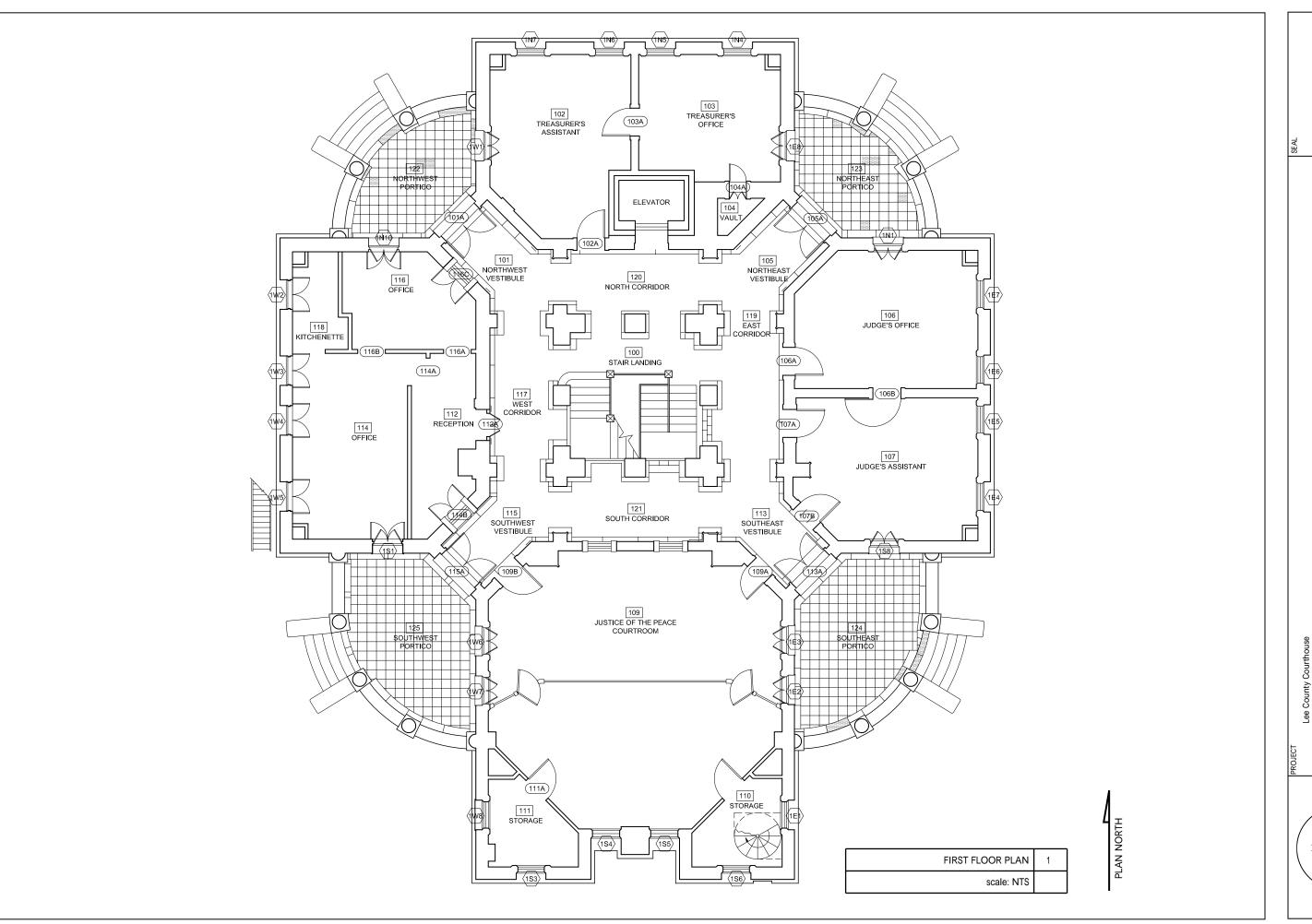
Window Repairs

- 1. Replacement frame components Old-growth Tidewater Red Cypress (Taxodium distichum) or another species approved prior to the start of work. Second-growth cypress is not acceptable.
- 2. Wood repair material Two-part epoxy-resin wood compound in knife-grade formulation. Primatrate with Flex-Tec HV by Advanced Repair Technology or approved equal. Includes provision of wood consolidant for hardening and sealing wood fibers prior to application of patching compound, as well as surface preparation and ancillary materials required for proper patching.
- 3. Glass Clear, annealed, single-lite, double strength float glass units to match existing size, thickness, and historic appearance.
- 4. Glazing putty For setting new glass units and repair of existing glazing putty material. Provide oil-based, non-staining, non-bleeding putty. Sarco Dual-Glaze or approved equal. Allow material to cure for time specified by manufacturer prior to application of primer for paint coating.
- 5. Glazier's push points and setting shims For alignment and temporary support of glass during cure of glazing putty. Zinc-plated steel, diamond point, size as needed for existing glazing rabbet. CR Lawrence Co., Inc. or approved equal. Use as directed by manufacturer and to avoid impingement of glass that could cause breakage.

Coatings

- 1. Wood-framed window paint coating Interior surface color gray to match Benjamin Moore 2137-50 "Sea Haze." Exterior surface color red to match Benjamin Moore 2093-20 "Fresh Clay" and green to match Benjamin Moore HC134 "Tarrytown Green." Provide system below or approved equal:
 - Penetrating alkyd primer: Sherwin-Williams Exterior Oil-Based Wood Primer.
 - Intermediate coat: Sherwin-Williams Fast Drying Primer Interior/Exterior Oil-Based, applied after glazing.
 - Finish coats: Sherwin-Williams SuperPaint Exterior Latex Satin A89-100 Series, two coats.

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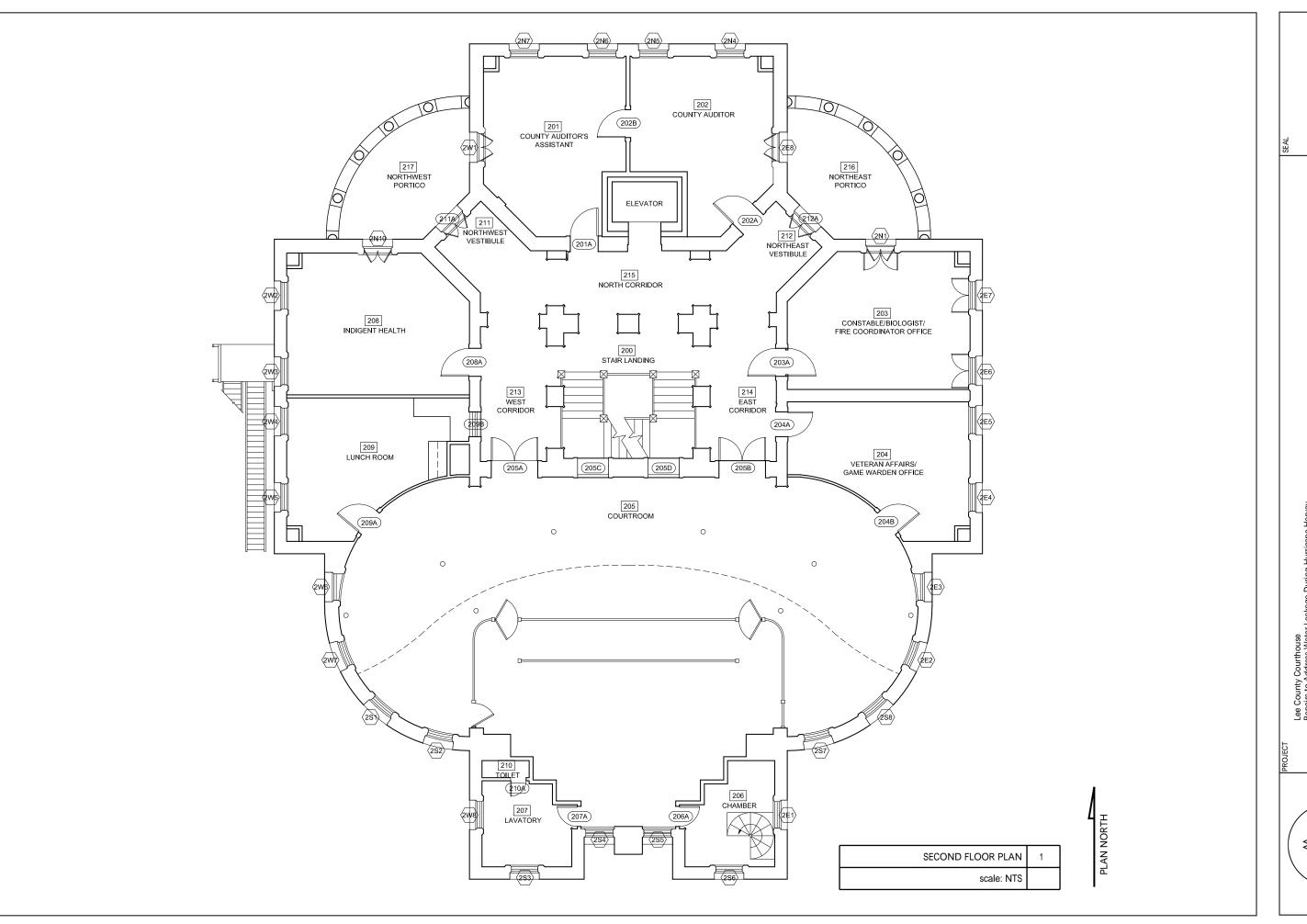


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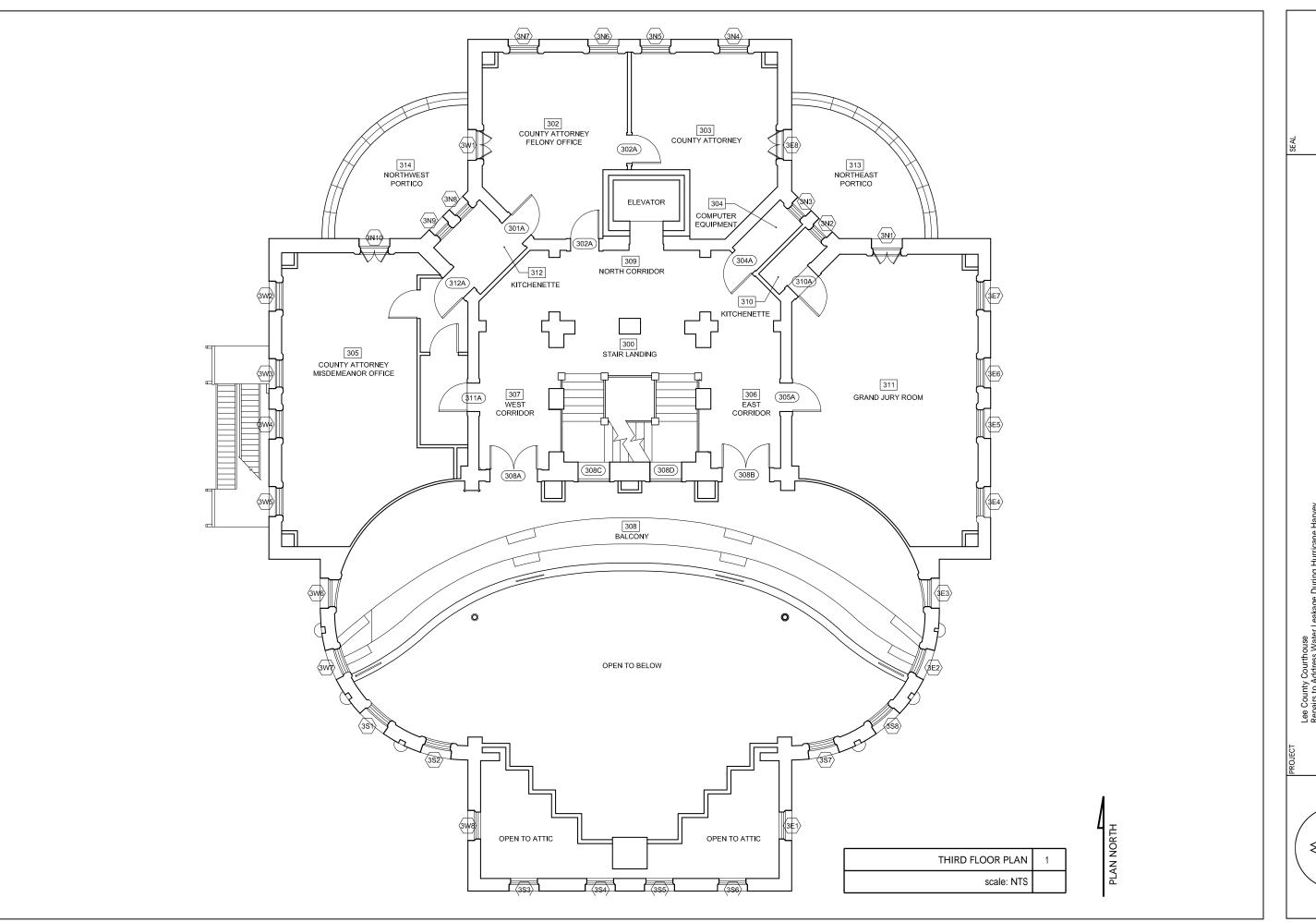
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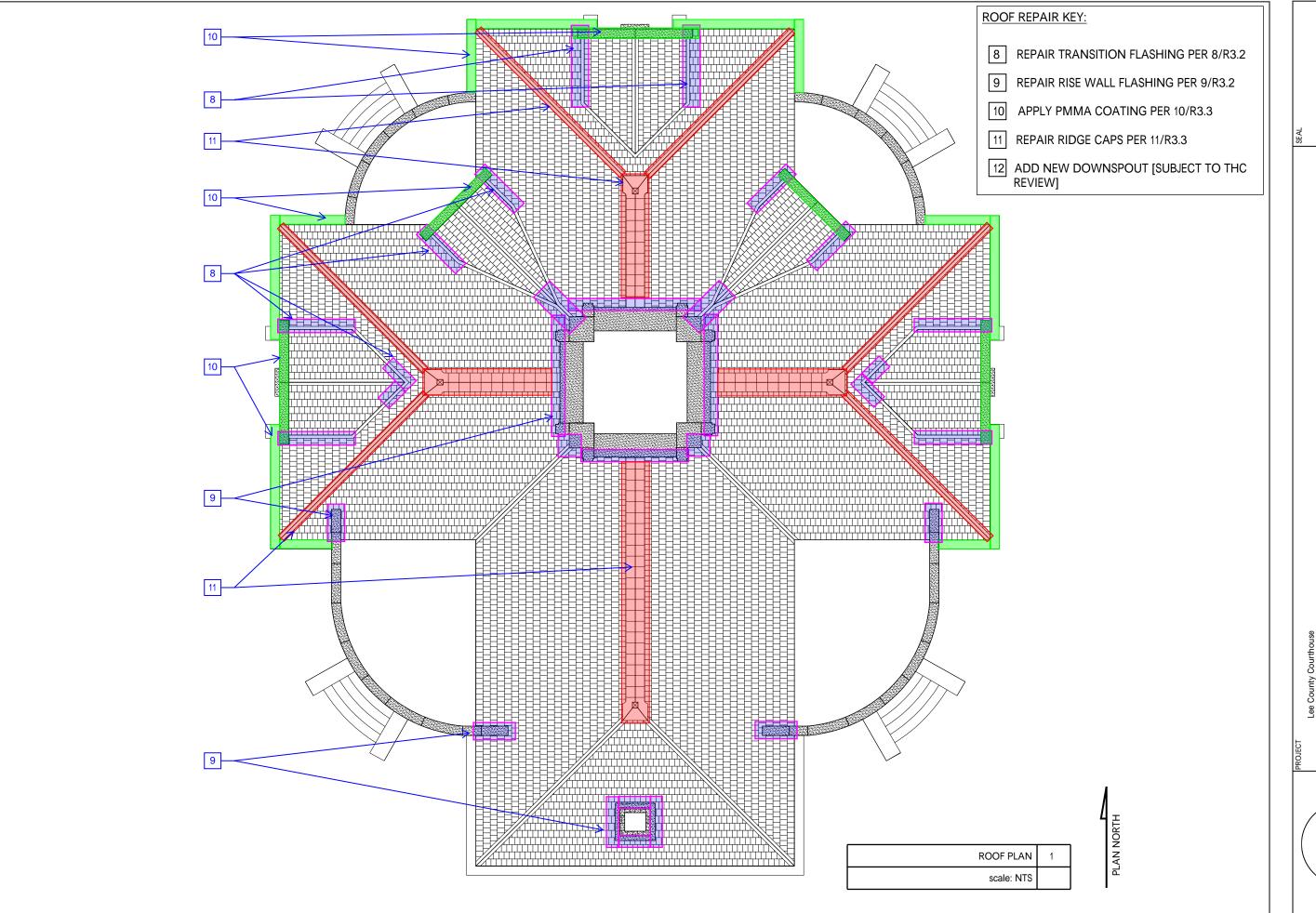
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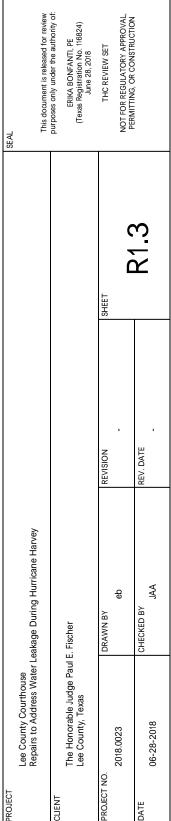
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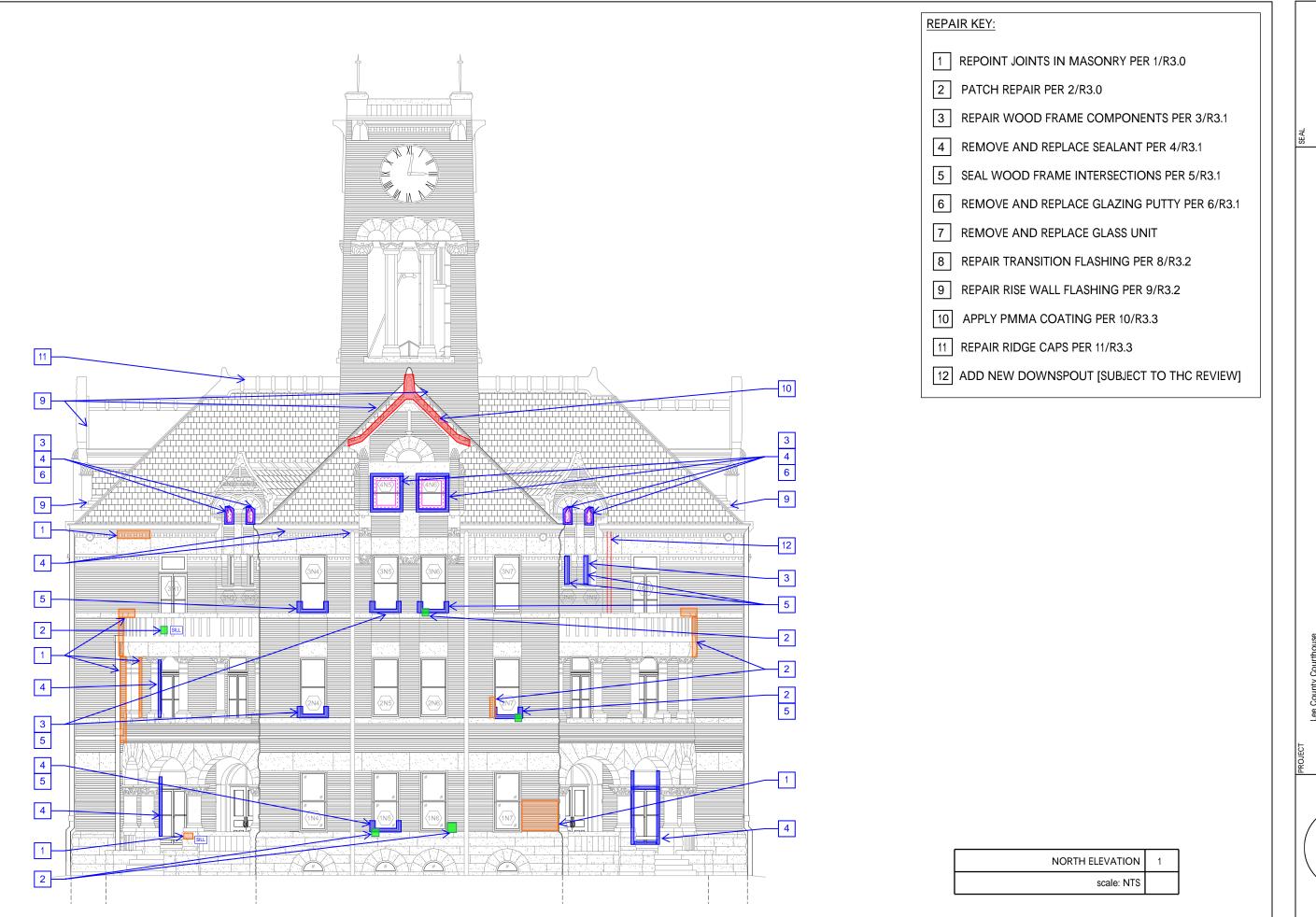
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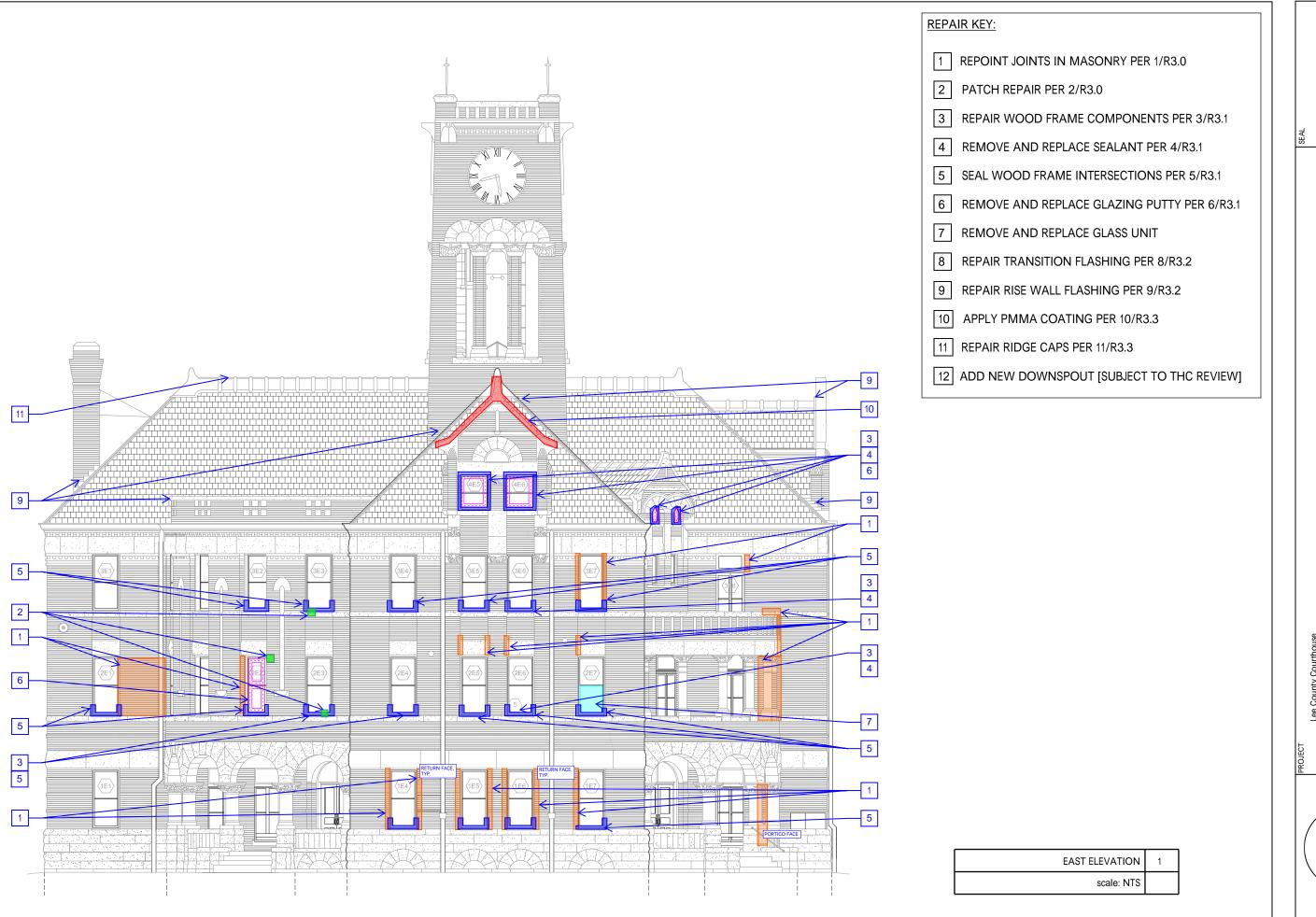




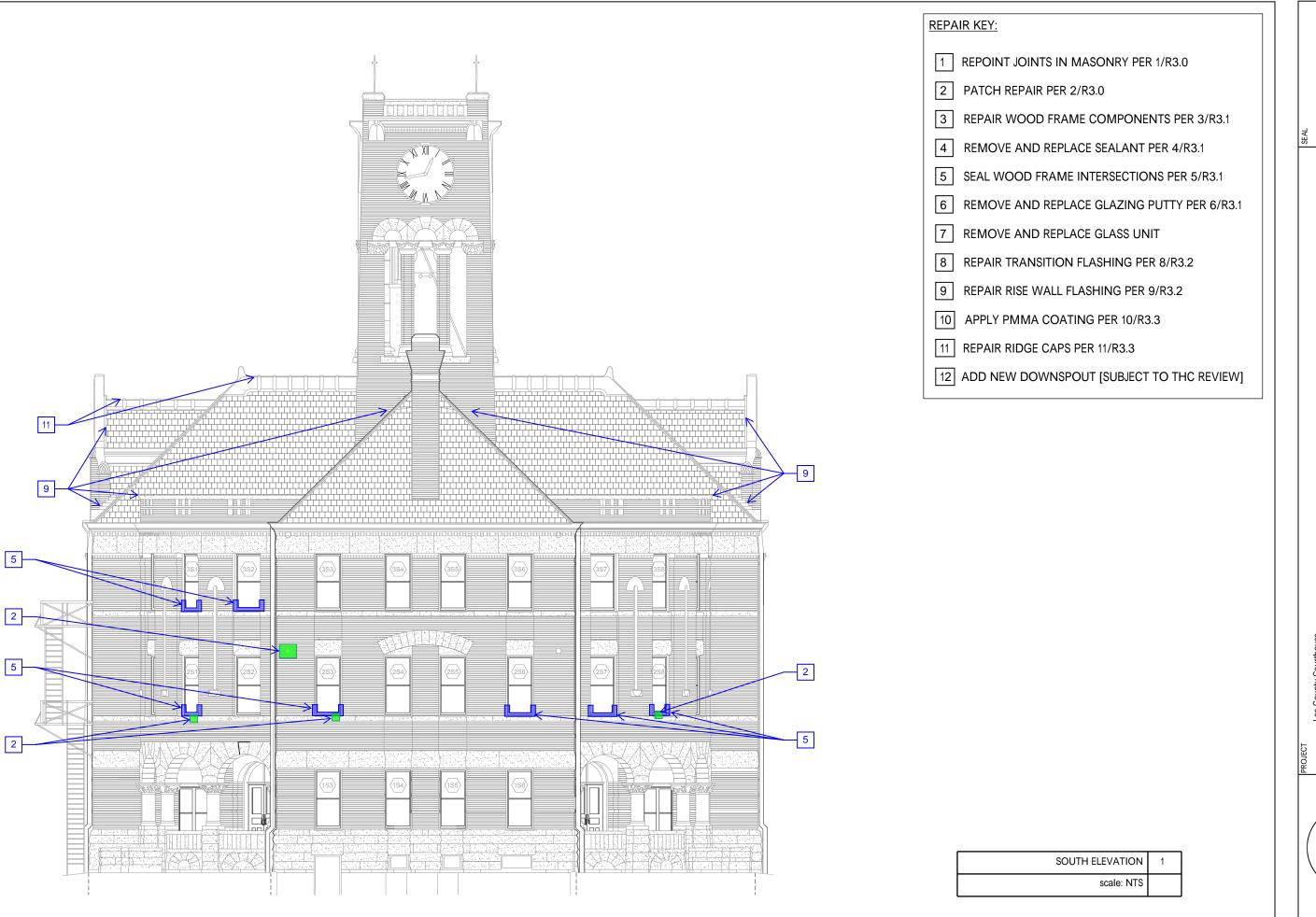




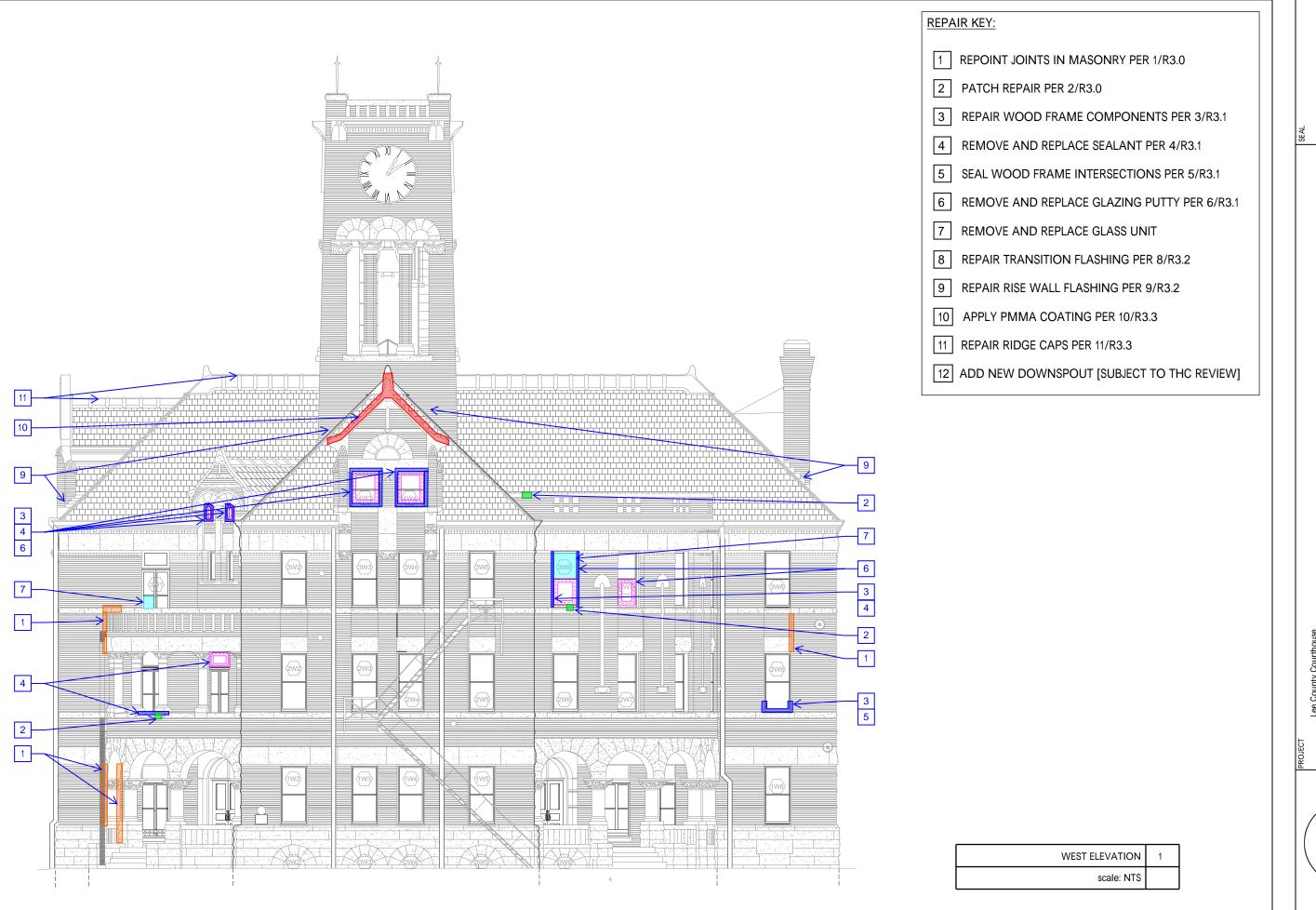
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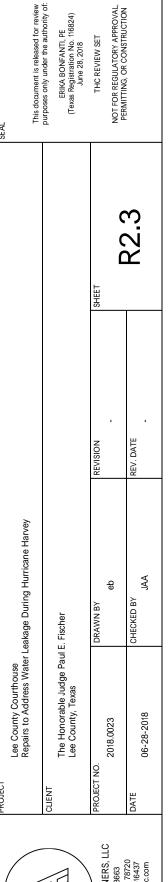


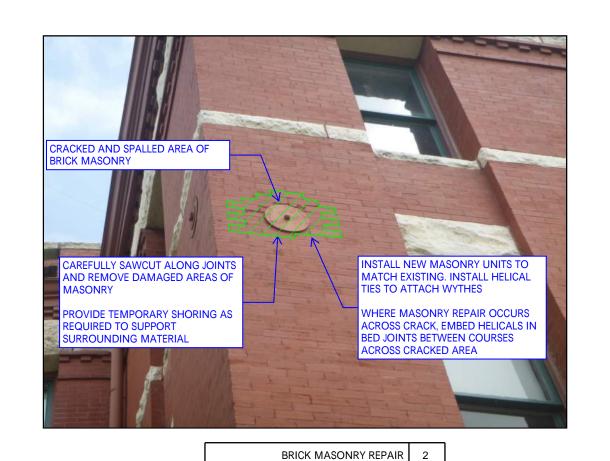
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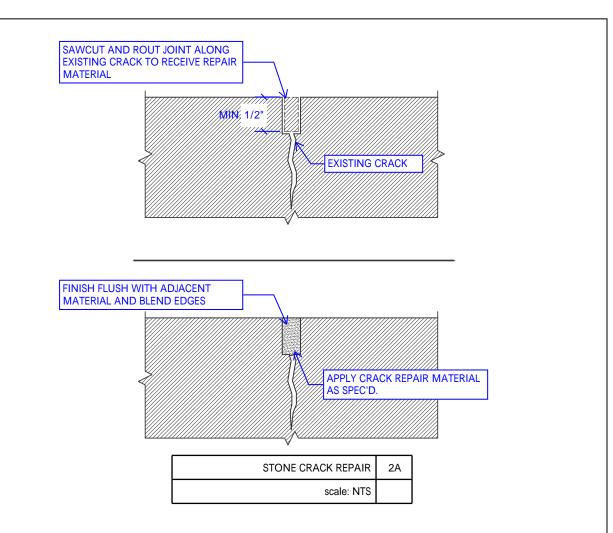
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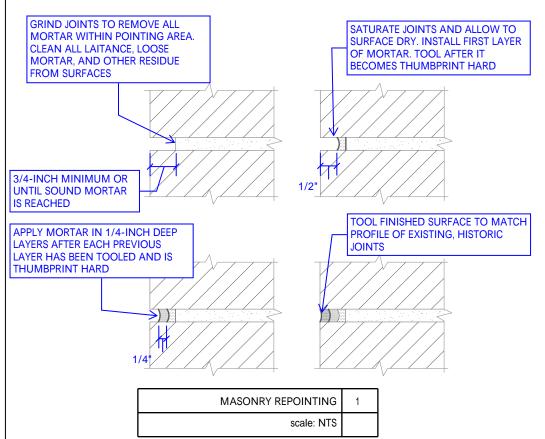


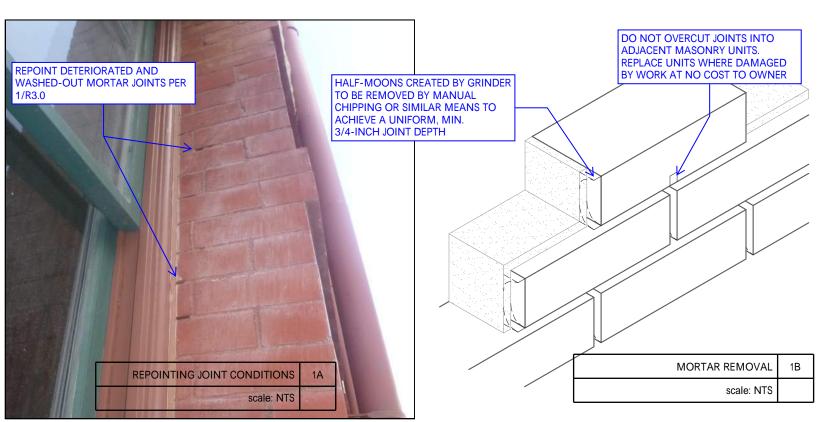


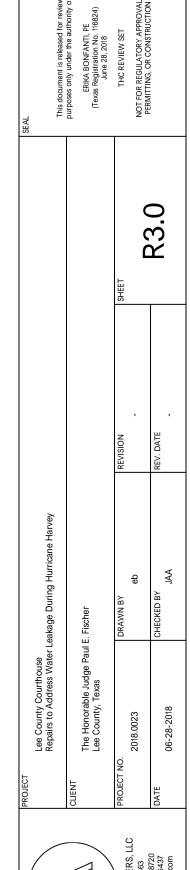


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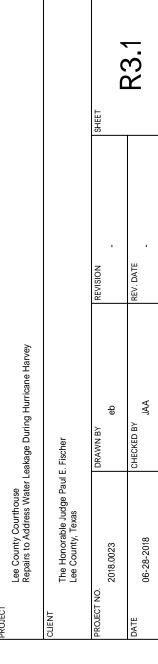


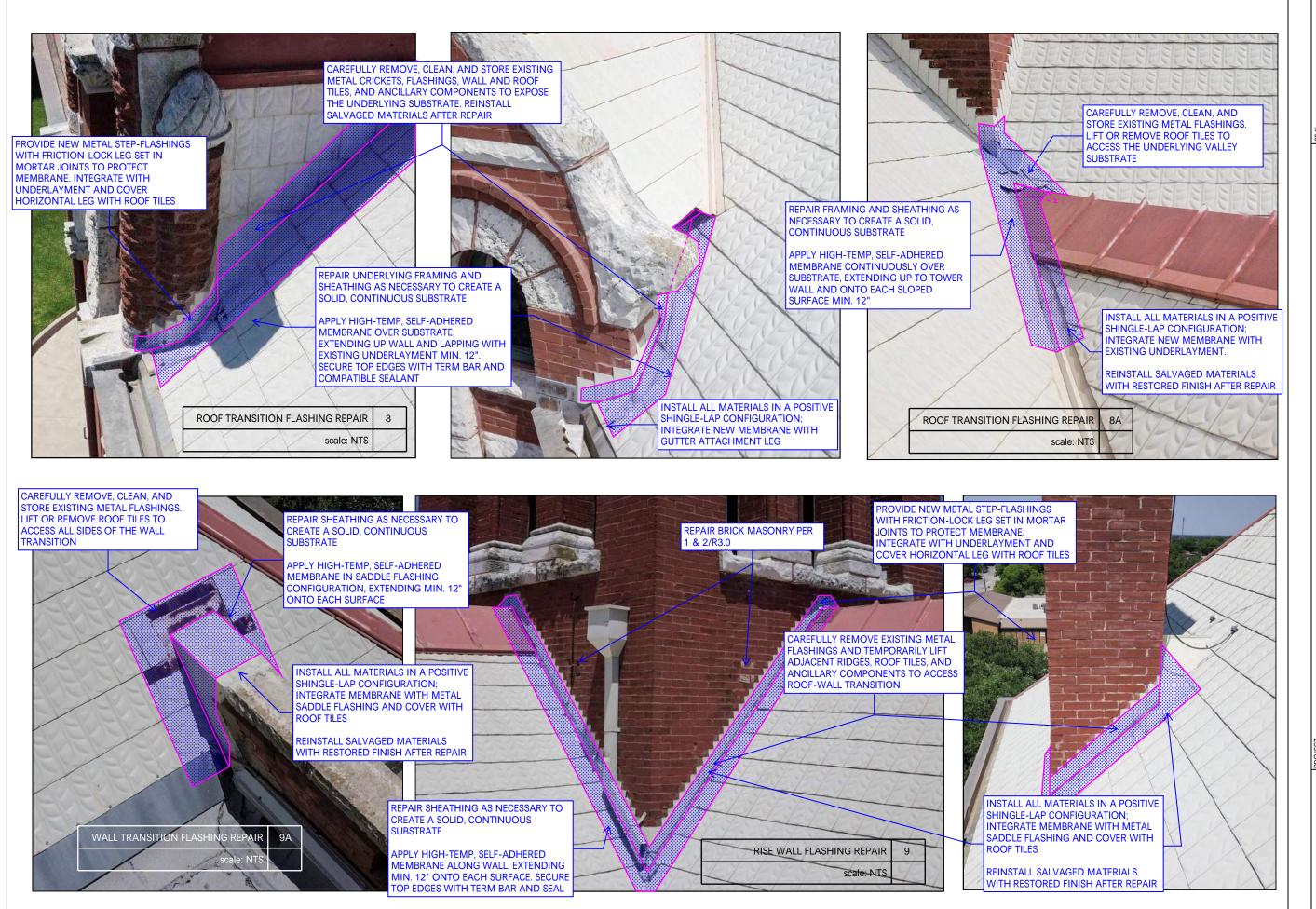


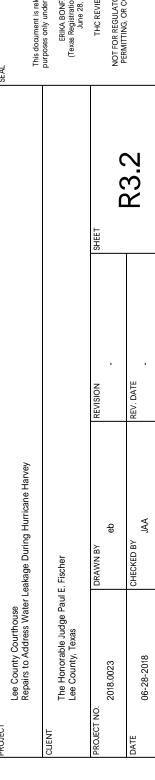




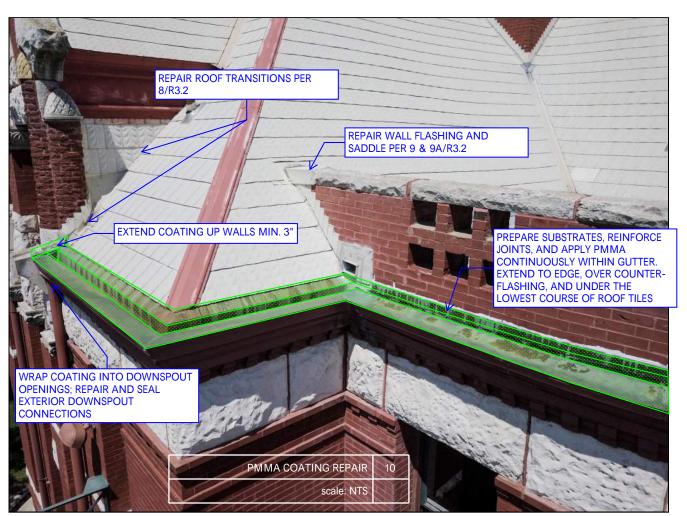


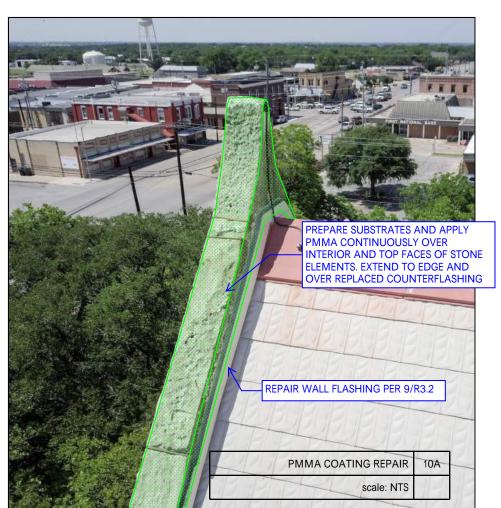


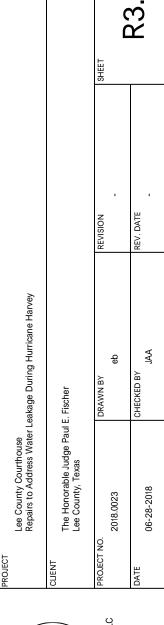












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