

**907 – 909 – 911 CONGRESS AVENUE
AUSTIN, TEXAS
FAÇADE DECONSTRUCTION / RECONSTRUCTION
SCOPE OF WORK / OUTLINE TO COMPLETE**

A. OVERALL PROJECT ORGANIZATION (OVERVIEW – SEE BELOW FOR DETAIL)

- a. Research and documentation search on existing construction
- b. Visual and non-destructive evaluation (NDE) and testing
- c. Confirmation of structural integrity and ability to withstand documentation and deconstruction as planned.
- d. **Deliverable 1** – Abstract and Bibliography of information used to inform reconstruction (photographs), summary of mortar, brick composition and condition testing
- e. Review of deconstruction Scope of Work based on Information gathered in a, b & C above
- f. Finalized Scope of Work and sequence of implementation.
- g. **Deliverable 2** – Safety plan for documentation and deconstruction including pedestrian protection, neighboring building and selective access for design and deconstruction team.
- h. Preparation of specifications, drawings and other elements required for contract/bid documents for deconstruction work
- i. **Deliverable 3** – Final drawings and documentation of existing conditions.
- j. **Deliverable 4** – Deconstruction Phase: Confirm document accuracy based on profiles, details and other site collected information.
- k. Document, number and record materials pallets as part of deconstruction.
- l. On-site observation of work in progress
- m. Final Documentation of deconstruction, material inventory and proper storage
- n. **Deliverable 5** – Reconstruction documents and coordination with redevelopment design team
- o. On-site observation of work in progress
- p. Final documentation of historic materials in place

B. DOCUMENTATION

- a. Review of existing photographic documentation to inform deconstruction and reconstruction plan preparation.
- b. Review all building inspection reports.
- c. Review all environmental documents and incorporate any outstanding items into final Scope of Work.
- d. Photograph current conditions prior to any additional demolition.
- e. Document stone construction to same extent as brick construction for archives. Due to safety concerns and current protections, documentation scans cannot be completed until the bracing required for deconstruction is in place.
- f. ~~Recommendation:~~ Laser scanning of the existing construction. Provide point cloud to be used in documentation and to assist in the deconstruction and reconstruction activities.
- g. Coordinate with Austin History Center and City Preservation Officer on existing documents that may be available to use as resources for the reconstruction or representation of unknown elements.

Coordinate with Austin History Center to determine final document-preparation and retention requirements for archival purposes.

C, D & E ARE DONE SIMULTANEOUSLY

C. THE NON – DESTRUCTIVE EVALUATION (NDE) PROGRAM

- a. Determine logistics, fieldwork and site requirements. Work with contractor to determine scaffolding plan, safety procedures and building exposure strategies
- b. Confirm areas that are stable and can support further investigation. Perform preliminary laser scans and material testing based on access availability. Adjust scanning, geolocating, testing and evaluation based on new information, access and time.
- c. Prior to and during deconstruction, expose representative areas of the structures for additional documentation. Ensure all representative masonry patterns and types will be exposed in this controlled fashion. AE to be present to look for ghosting patterns that may indicate construction sequence or technique, additional materials that may not be present, missing non masonry materials, paint colors and construction sequences, etc.
- d. Develop detailed strategy for salvage of masonry and materials required for reconstruction.
- e. Document location for all testing and investigations.
- f. Confirm Sequence and schedule of work
- g. Field observation of the material evaluation tests

D. DAMAGE ASSESSMENT, PROBES AND SAMPLING

- a. Determine types of material deterioration – moisture, mortar failure, compression failure and/or structural failure
- b. Brick and stone mortar samples
- c. Stone samples
- d. Brick samples for composition and color
- e. Other building materials as found and identified
- f. Documentation of construction detail - in situ
- g. Structural sequencing for the deconstruction

E. STRUCTURAL EVALUATION

- a. Review known Information on structural integrity, covers and previous Interventions/damages
- b. Visual assessments
- c. Non-Destructive Evaluations (NDE)
- d. Analytical program to determine tolerable stresses during deconstruction
- e. Evaluation of information from the NDE and Analytical Programs
- f. Final determination on viability of in-situ restoration of 909 Congress.
- g. Final structural review and approval of support, scaffolding, protections, separation of buildings and properties under separate ownership as required for safe deconstruction of facades, bracing of areas to be deconstructed/demolished, bracing of adjacent properties, storage conditions, and reconstruction plans

F. SPECIFICATIONS FOR DECONSTRUCTION

Division 1 – General Requirements

- Historic Treatments
- Photographic Documentation
- Submittal Procedures
- Mock-ups
- Temporary Facilities, Controls and Protections
- [Traffic Control](#)
- Construction Waste Management and Disposal
- Project Record Documents

Division 2 – Existing Conditions

- Structure Demolition
- Selective Demolition
- Historic Removal and Dismantling
- Pest Control

Division 4 - Masonry

- Brick Masonry Repair
- Historic Masonry Cleaning
- Historic Brick Unit Masonry Repair
- Historic Stone Masonry Repair
- Historic Stone Consolidation Treatment

Division 5 – Metals

- Historic Metal Cleaning
- Historic Metal Repair
- Steel Framing

Division 6 – Wood, Plastics and Composites

- Historic Wood repair
- Exterior Rough Carpentry
- Sheathing
- Wood Treatments

Division 7 – Thermal and Moisture Protection

- Sheet Metal Flashing and Trim
- Joint Sealants

Division 8 – Openings

- Historic Treatment of Wood Windows

Division 9 – Finishes

Historic Treatment of Plain Painting

Exterior Painting

Specialty Coatings

G. DECONSTRUCTION AND RECONSTRUCTION PHILOSOPHY AND APPROACH

- a. Use the Secretary of Interior (SOI) Standards for Reconstruction and Guidelines for Reconstructing Historic Buildings (2017). Although other properties of this era survive, the loss of this much of the block face would be detrimental to the experience, understanding and knowledge of the Congress Avenue Historic District. Although it is understood that Reconstruction is the historic treatment of last resort, façade reconstruction in this case, is not only warranted, but fundamental to the integrity and sense of place.
- b. All work done by statutorily defined disciplines shall meet SOI stated professional qualifications and standards. All professionals shall have the minimum education and experience level providing services on historical projects of this importance and complexity. Additionally minimum years of experience in comparable historic demolition, deconstruction and construction shall be demonstrated by those providing construction services associated with the project. These qualifications will be delineated and quantified in the technical specifications and the contract documents for all aspects of the project undertakings.
- c. At a minimum the following SOI Treatment Standards are to be met.
 1. Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture and such reconstruction is essential to the public understanding of the property.
 2. Reconstruction of a building, structure or object in its historic location will be preceded by thorough investigation to identify and evaluate those features and artifacts which are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken. *<This Statement of Work outlines our mitigation measures>*
 3. Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.
 4. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color and texture.
 5. ~~RA~~ Reconstruction will be clearly identified as a contemporary re-creation.
 6. Designs that were never executed historically will not be constructed.
- d. There are historic portions of the buildings that will not be rebuilt, including stone exterior walls. As part of the historical archive, accurate drawings and photographs of the current condition should be created to be archived at the Austin History Center.

- e. Although the general period of significance is assumed, a reconstruction date would be determined based on known, authenticated photographic evidence and may be different for each structure.
- f. Reconstruction details will be based on photographic and other evidentiary findings, not on speculation, conjecture or what is present on other buildings of the era.
- g. Careful delineation and mapping of the distinct types of reconstruction.
 - 1. Original materials, installed in original location;
 - 2. original materials installed in a different, but like location,
 - 3. original materials installed in a different and unlike location;
 - 4. replication based on documentation; and
 - 5. infill elements for which there is no documentation either to material, color, finish and /or profile.
- h. Develop documentation to assist the public in understanding the reconstruction – appreciating the value of the reconstruction yet recognizing that reconstruction is different from having the resource itself.
- i. It is understood the reconstruction of the historic façades will be part of a contemporary redevelopment of the site. Historic reconstruction documents pertaining to the design and reconstruction of the façades with materials and construction techniques unique to their materials and construction should be prepared and coordinated both aesthetically and structurally with the new development.
- j. As much historic material, in its original location will be re-used as possible. It is understood that some material is beyond repair and will have to be replicated. It is also understood that there are materials in walls to be demolished and not rebuilt, that may be used to rebuild the façades. The salvaged material should be used to the fullest extent possible.
- k. All salvaged materials shall be retained until construction of the entire redevelopment project is complete. No viable nonhazardous historic material should be disposed of without approval of the Historic Architect of Record.
- l. Without compromising building integrity, new materials should match historic materials in species, chemical and compositional makeup. New mortar mixes should be based on testing original mortars and structural requirements based on the capacities, strength and composition of the original brick. Any code required changes shall be clearly identifiable as modern interventions, and if at all possible not visible on the historic façade.
- m. At this time storefront evidence for the three buildings is lacking. Photographic evidence of the original wood arcades has been found and can be used should the Preservation Office agree the recreation of the arcades is desirable. Evidence of the storefronts contemporaneous with the original construction of the buildings has not been found.
- n. Photographic evidence of circa 1920s-1930s storefronts does exist. As does evidence for later more modern storefronts. CDA will work with the Preservation office to determine the desired reconstruction intent at the street level.

H. STABILIZATION AND DECONSTRUCTION WORK PLAN

- a. Overall Plan: Deconstruct facades prior to demolition of 909 and 911. As safely as is practicable provide needle support and bracing for facade at 907 and start demolition of 907 to prepare site to brace the north wall of 905.

b. Provide city of Austin approved Traffic control Plan.

c. Construct pedestrian protection, shields and other demolition required facilities. Such protection should not rely on the historic buildings for structural or other support or stabilization.

d. Provide engineered drawings for needling and bracing of facades required to safely perform the deconstruction.

a. Provide engineered drawings for the bracing required for the stability of neighboring 905.

b.e. Deconstruct each building individually. If confirmed by structural analysis of current condition, start with 907, then 911 and finally determine the stability of 909. Final deconstruction sequence to be determined/ confirmed by licensed structural engineer.

f. Prior to deconstruction of the masonry ~~structure~~, all window frames, sashes and accoutrements shall be removed. All window parts shall be examined and with the final determination of any that can be restored and reinstalled. Those that cannot salvaged shall be retained to be used as templates/scribes for reconstruction of replacement windows. If any glazing (broken or whole) is still in the window, it should remain and be protected until it can be studied in more detail.

~~c.g.~~ Provide Temporary support for the openings as may be required to continue the measured deconstruction. If any glazing (broken or whole) is still in the window, it should remain and be protected until it can be studied in more detail.

~~d.h.~~ Window parts will be numbered and labeled both for their location in the façade and their place in the window assembly. In the case of 907, the wood species should be identified, profiles recorded, and glazing preserved, as these are some of the few remaining curved top windows and frames.

e.i. Each window opening will require extensive documentation to determine existing condition, any ghosting or clues about the original installation and finishes.

f.j. Based on the information revealed previously, the cornice sections will be removed to document not only their profile, but construction. Ghosts of masonry joints will be recorded to guide sizing of new materials that may be needed to complete the reconstructed profiles.

g.k. Brick and stone courses may not be level. Compression and mortar failure may render in-situ measurements inaccurate for reconstruction. Masonry courses may have changed size due to compression, tensile, structural failure, loss of mortar and/or damage by modern construction.

~~h.l.~~ As deconstruction progresses, record information that may have been hidden and protected to be used to inform reconstruction and added to the historical record for the structure. Using photography, scribes and other tracing tools make full size templates as required for repair, reconstruction or replication.

i.m. The site, itself will be treated much like an archeological site using hand tools and markers familiar to the trade. Stable plastic reference targets and 2 meter metal ranging rods will be used to ensure any salvage, reference materials and /or wooden guide sticks and references are properly calibrated.

j.n. Laser Scanning and digital referencing ~~is recommended~~ will be employed. With the help of a laser point cloud created by the scan, the existing façade will be mapped with a grid that will allow us to locate each brick and confirm its location as it is removed, evaluated, cleaned, numbered and prepared for transportation and storage. The use of laser scanning provides stable benchmarks from which all measurements can be made. The same points can be used for the reconstruction of the facades and be used to account for any structural deformities that may be present now.

~~k.o.~~ Should laser scanning not be possible for structural or other reasons, Initial laser scanning, and laser measurements taken during deconstruction will be used to create, a 3 point location grid will be established for recording the position of each course ~~and each intermediate bricks~~ and all openings.

These will be measured in relationship to each other as well as the structure as a whole, using the ranging rods and /or targets for accurate measure benchmarks. Each structure will be deconstructed from the north to the south. Wooden gauging strips will also be prepared, marked and kept as reference for each course and palletted with the masonry as it deconstructed. Masonry openings will also be marked in relation to the marked masonry units. The goal is to have the masons work to multiple intermediate data points so that the subtleties and imperfections of the original construction can be replicated.

I.— Remove bricks as directed by Engineer and observed by the Architect, course by course. Each viable masonry unit will be numbered with condition on the top surface and referenced to the grid. Non-viable masonry will also be numbered and referenced to the grid, and marked for reversal, repair, or replacement. This documentation will occur course by course including ties units, ornamentation and interstitial-Interior wythes.

m.p. All brick and masonry work will be done by hand to the extent possible. Should strong mortar be encountered, mallet and chisel will be used by tradesperson skilled in their use for removal of brick without damage to the brick or structure. Additional testing of masonry and mortar will be required.

m.q. Bricks will be preliminarily cleaned of mortar at this phase, properly marked and documented, and placed on a pallet fitted with 5/8" plywood. Pallets will be stacked by location and not higher than 12 units high. Pallets will be shrink wrapped, marked and hauled to a storage warehouse. Location in the warehouse by location on the building will also be documented. Stone components will be similarly treated. However, depending on their condition and their size, some crating of the units may be required for protection.

w.r. Window frames shall be removed in the largest pieces possible, including whole sashes. Do not clean at this phase. The opening, the sash and all wood parts and pockets will need to be inspected for remnants of hardware, original paints and or stains. The windows should be studied to prepare the templates for the replica windows.

p.s. At the time of deconstruction, the first estimate on the numbers of bricks that will be reinstalled, salvaged bricks that will be reused, and bricks that will have to be replaced will be made. At this time all bricks that can be salvaged will be salvaged to be used as field replacements, salvage poultrice and other construction needs. The goal is to use as much of the historic material in the reconstruction as possible.

e.t. In situ measurements will be taken, however, due to mortar deterioration and shear failures, these dimensions may not match the finished reconstruction and should be used to place the feature not to measure its final location.

f.u. Although there is much deterioration, there are still areas where original construction and materials have been protected. These areas should be analyzed for color, material, paint layers and construction techniques. This information can then be used to inform the reconstruction of the facades.

I. RECONSTRUCTION

- a. Prepare reconstruction documents and specifications. At the least the following specifications should be added to the previously prepared technical specifications.

Division 5 – Metals
Historic Metal Replication

Division 6 – Wood, Plastics and Composites
Exterior Architectural Woodwork
Exterior Stile and Rail Wood Paneling

Division 8 – Openings
Historic Treatment of Wood Doors
Stile and Rail Wood Doors
Wood Windows
Door Hardware
Glazing

- b. The reconstruction drawings will be reviewed and corrected based on the conditions, dimensions and information found during the deconstruction. All documents will be corrected and specifications will be added based on the as-found conditions.
- ~~b.c.~~ Historic Architect to coordinate the Owners of 905 to determine final IBC compliant fire wall required and final stabilization of exterior stone wall at 905. Demolition of 907 will effectively separate the properties. Any new construction on 907 will not depend on the existing historic wall for support or fire resistance required by code.
- ~~c.d.~~ Historic Architect to coordinate all work with new development Architect of Records. It is understood that the completed project should not appear like a new building with the historic façade pasted onto its elevation.
- ~~d.e.~~ Determine all new elements that will be required for the reconstruction. Provide construction detailing for new construction including wood profiles, stile and rail construction, and window sash and frame.
- ~~e.f.~~ Coordinate rebuilt facades with new construction. Reconfirm with engineer the type of construction that is needed for the reconstructed facades to work with the new construction.
- ~~f.g.~~ Final cleaning and acclimation of all masonry prior to reconstruction.
- ~~g.h.~~ Coordinate construction of on-site mock-ups using salvaged brick. Mock- up to review mortar, color matches (if required), brick repair (if required), brick turning, brick coursing and pattern. Prepare one mock up for each façade.
- ~~h.i.~~ Clearly record the location of original material in original locations, original materials, replications and areas with modern infill.
- ~~i.j.~~ All reconstruction will use materials that will not stress the original brick and stone. Mortar will be formulated based on mortar test performed on the historic mortars.
- ~~j.k.~~ Coordinate compilation of all final documentation including the archival information for the City.
- ~~k.l.~~ Coordinate interpretive signs for the reconstruction and the Historic District.