

#59

Late Backup
SPARKS ENGINEERING, INC.
STRUCTURAL EVALUATION, DESIGN AND TESTING

July 28, 2014

Historic Landmark Commission
c/o Steve Sadowsky
City Historic Preservation Officer
P.O. Box 1088
Austin, Texas 78767

**SUBJECT: Initial Structural Assessment
3805 Red River**

Dear Mr. Sadowsky, Chair Limbacher, and members of the Historic Landmark Commission,

At your request, and that of Ms. Limbacher, I visited the subject property last week to evaluate the structural integrity of the house. I was accompanied by Tere O'Connell with Volz O'Connell Hutson Architects. We were given access to the property by Dr. Karen Browning, one of the owners.



Figure 1 House at 3805 Red River.

The exterior walls of the house are constructed of concrete block with stucco finish. The 2nd floor, roof, overhangs, architectural 'fins' and interior walls are conventional wood-framed. The projecting overhangs are also wood framed, as are the vertical fins. The load-bearing structural walls of the house are founded independently of the interior first-floor slab. Although the first-floor slab is severely cracked and deformed by shrink-swell of the clay soil, it is not supporting the exterior walls of the house and therefore the slab can be straightforwardly removed and replaced without compromising the structure. I found a few minor cracks in the load-bearing walls. Only one at the corner of the garage needs repair, and it is not structurally significant. The site has areas of poor drainage and some large trees too close to the house, which can cause soil movement. These conditions should be addressed.



Figure 2 Distress at bottom of decorative fin is caused by rotting of the wood framing. The fins are not structural.

The vertical fins are decorative and are not required for the support of the building. There are obviously some areas of localized decay, notably in the projecting overhangs and in the beam supporting the garage roof, but these conditions can be repaired by conventional wood-framing methods. New roofing is required to protect the building from further deterioration.



Figure 3 North elevation view of the house. There are no structurally significant cracks in the exterior load-bearing walls.

In my opinion, the structural foundation is not damaged, nor is the house unsafe as asserted in the report by Mirza Tahir Baig, P.E. of Professional StruCIVIL Engineers, Inc. dated May 19, 2014. Contrary to Mr. Baig's conclusions, the house is structurally stable. The exterior walls do not need to be underpinned. The interior floor slab can be replaced without disturbing the load-bearing exterior walls.

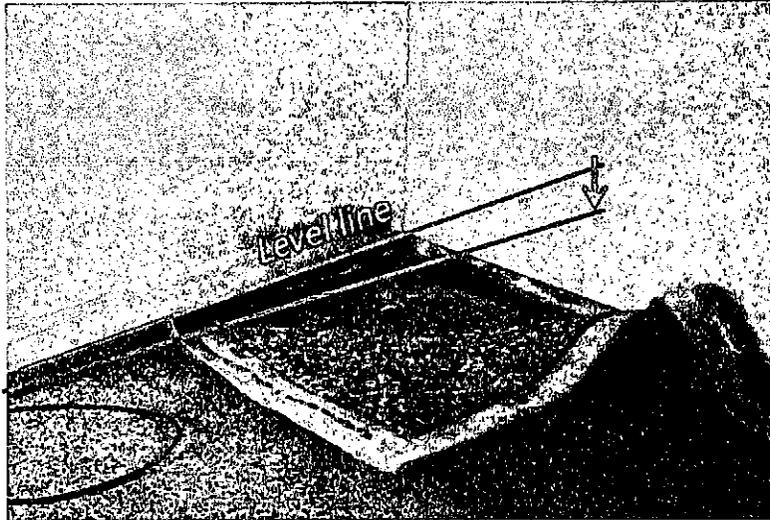


Figure 4 The interior floor slab is not supporting the exterior load-bearing walls, as seen here where the floor slab has settled independent of the walls.

Rehabilitation of the house is feasible, and there is no structural reason that the house should be demolished. The required structural repairs are primarily associated with the wood framing and the first-floor slab, not the foundation or the load-bearing walls. I recommend further investigation by a qualified architect/engineer team in order to develop an accurate scope of all repairs and an associated opinion of construction costs.

Please contact me with any questions regarding this report.

Sincerely,

SPARKS ENGINEERING, L.L.C.
TEXAS REGISTERED ENGINEERING FIRM #00513



S. Patrick Sparks, P.E.
Principal Engineer

July 28, 2014

#59

VOH

Renewing Traditions of American Architecture

July 25, 2014

Historic Landmark Commission
c/o Steve Sadowsky
City Historic Preservation Officer
P.O. Box 1088
Austin, Texas 78767
via email: steve.sadowsky@austintexas.gov
tori.haase@austintexas.gov

RE: 3805 Red River; Case C14H-2014-0007

Dear Chair Limbacher and Commission Members,

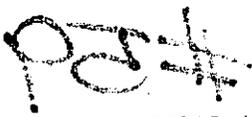
Dr. Karen Browning, the owner's representative of 3805 Red River, provided access to the property and the opportunity for me to independently review its condition with structural engineer Patrick Sparks on July 22, 2014. Mr. Sparks' findings regarding the structural condition of the buildings will be provided to you separately. I am volunteering this information to the Commission based upon my experience as an architect in working with older and historic properties.

The house, carport and garage were constructed in 1947 in the Streamline Moderne style, a style that is not well represented in Austin. It has all of the characteristic elements one might expect: asymmetrical plan, smooth stucco exterior, flat roof, very prominent horizontal banding and railings, cantilevered overhangs, steel casement windows, glass block accents, and vertical fins with circular openings within them. It is sited prominently at a very public intersection, at the southeast corner of 38th and Lamar. The very distinctive character and prominent siting of this property makes it recognizable and valuable to most Austinites. At the interior, the house shows many very attractive and character-defining features including a streamlined cove transition from walls to ceiling, period bathroom tile and fixtures are intact, and the banding at the stair handrail. The house has 1015 SF at the first floor, 943 SF at the second floor, a two car garage and generous original carport. The buildings retain an exceptionally high level of integrity.

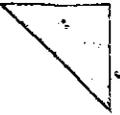
The load-bearing solid masonry exterior walls are in relatively good condition, showing normal signs of wear for a house of this age with minor cracking at windows and doors. The horizontal banding and vertical fins are constructed of wood framing, much of which is deteriorated from water infiltration. The steel casement windows are in relatively good condition, but some do not seal correctly. The most significant concern is the first floor slab, which operates independent of the building foundation. It has failed and requires replacement. Interior walls, the second floor and the roof are framed in wood. Sidewalks and driveways are unreinforced concrete, under-designed, and require replacement.

Although the conditions noted above are of concern, they do not preclude a viable rehabilitation of this historic property. The unique and prominent location and distinctive architectural character of this property makes it an extremely attractive candidate for preservation and repair. Given the responses we've witnessed in social media and elsewhere, there are many people who may be interested in taking on a project like this. The owner may want to consider selling the property or entering in to a long-term lease if preservation seems untenable. A sound preservation program would include the following work:

1. Repair or replace deteriorated wood framing at the horizontal bands and vertical fins, and replace related stucco finishes and metal copings. Repair or replace deteriorating framing above the living room fireplace where water damage is evident.



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2. Replace the roof with a new modified bitumen roof with a minimum 20 year warranty, white-coated for thermal performance. Include installation of new tapered insulation to improve drainage and thermal performance of the assembly. This work can be undetectable from the ground (the roof will still appear "flat"), but will extend the life and performance of the roof.
3. Repair the steel casement windows and install interior storm windows for improved thermal and acoustic performance. Consider installation of clear, heat-rejecting window film as well.
4. Replace all first floor concrete slabs, sidewalks and drives with engineered concrete.
5. Replace the wood treads, risers, and bent plywood cap at the exterior stairs to the second floor in the back yard – this is a standard maintenance item. More durable alternative materials could be considered for this work without significantly compromising the architectural integrity of the property.
6. Patch and repair all stucco, plaster, and gypsum board finishes throughout.
7. Repaint the interior and exterior.
8. Replace floor finishes (not including the distinctive bathrooms).
9. Replacement of the first floor slab will allow new electrical conduit and plumbing, where needed, to be laid in the floor before it is poured. Electrical outlets in the exterior walls of the first floor can be readily serviced from the new conduit by channeling and filling the walls where necessary. All other conduit can be easily installed in the wood framed walls and ceilings.
10. The use of a Variable Refrigerant System (VRF) air conditioning would work well in this house because it does not require ductwork that would negatively impact the distinctive coved ceilings. Other options include fan coil units similar to those that have been installed in two rooms of the house.
11. The lot is fairly large, with room for a building addition in the back yard that would not need to detract from the original design.
12. Repair the structural framing of the garage and carport as recommended by the structural engineer, including replacing the central support beam, pouring a new slab, and replace the roof.
13. The family corporation or subsequent owner might also have a conversation with the Hancock Neighborhood and city about changing the zoning on this property from SF-3 to NO or LO. Higher rents are likely attainable with office use in such a distinctive space. The 10-year-old Central Austin Combined neighborhood plan states that this area should remain single family, but subsequent city policy and design standards show 38th Street as a core transit corridor terminating at this property. Other plans related to the new medical school and light rail call for Red River to become a light rail transit corridor. Small businesses now exist near this area of Red River. These pressures make office use more viable in this location.

These recommendations are offered as a rebuttal to statements made by others that this building is unsalvageable and should be demolished. These improvements will correct years of deterioration and damage, improve building performance and dramatically extend the life of this valuable historic resource. The property has great potential to garner high rental income and very beneficial recognition as a preserved Austin Landmark property

This project exemplifies one of the primary reasons why the historic landmark tax abatement program was created – to preserve, protect, and maintain the treasured landmarks of our city. In addition, new 25% tax



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credit will be available for projects like this starting January 1, 2015, and should be strongly considered as a viable part of project financing.

This information is offered with all due respect to the family who has owned this property for so long, and is intended to illustrate that this building can be preserved to the benefit of the owners and the city at large. If you have any questions or concerns about these recommendations, please do not hesitate to contact me.

Best Regards,



Tere O'Connell, AIA, LEED AP
Principal/Architect

Cc: Kathleen Browning, Ph.D.
Kathleen Matthews, Ph.D.