

Dr. Cornelius & Elizabeth Harper Residence
308 North Carroll Street

June 10, 2019

Dear Variance Committee Members,

We are respectfully requesting a code variance to use a six and one-half foot wide spiral staircase as the second means of egress at 308 N Carroll Street. This is a continuation of our petition for variance presented on May 21, 2019.

It is our intent to restore this home to maintain the pattern of broad social history in Madison. This federal historic registry residence was built in 1898 by Dr. Cornelius and Elizabeth Harper. Many years of being used as a boarding house, and later a three flat rental have contributed to numerous deferred maintenance items interiorly and exteriorly to this home.

It has been our challenge to prioritize the items of deferred maintenance, within our budget after paying \$720,000 for this property in February of 2017. Using the net proceeds from the sale of our primary residence, we are hoping to complete many of these deferred maintenance items, structurally and visually improving the front, side and rear facades of this building. The restoration of this home will take the rest of our lives, the rental income is necessary for us to help finance this goal.

The combination of our short term and long term plans for this residence will allow us to celebrate and help preserve one of the places that represent our collective histories. Our labor (current and future long term) along with hired contract labor for renovations will help this historic preservation to create a residence, that more than just our family will treasure. Since there are three flats to this residence, our family will live only on the first flat and continue to rent out the second and third floors increasing the utilization of this history for traditionally underrepresented economic groups. Our family and many others could not afford to live in this residence alone; therefore our successful implementation of these short and long term rehabilitation goals will benefit others beyond ourselves.

Respectfully submitted,



Scott, Michele, Tanner, Hayden, & Kamryn Wee Pratt

IBC Code 1011.2 Stairway Width & Capacity

Code Requirements:

IF number of people using <51, THEN stairway minimum width 36".

IF number of people using <6 & SF <251; THEN stairway minimum width 26".

There will be 4 people living on the third floor, and 4 people living on the second floor. We are asking to use a 6' 6" wide spiral staircase behind house. This size spiral will provide a 36.75" wide staircase. This spiral staircase is 1.5' larger than the spiral staircase presented on 5/21/19.

Spiral Staircase Meets These Code Requirements:

Per Dan Montgomery at Iron Shop, 6.5' width spiral staircase Actual Tread Width is 36 3/4". Please see attached PDF with width detail.

IBC Code 1011.10 Spiral Stairways

Code Requirements:

a- 7.5" minimum clear tread depth at a point 12" from narrow edge.

b- Risers provide minimum headroom of 78".

c- Riser height is not more than 9.5".

d- Minimum stairway clear width at and below handrail is 26".

Spiral Staircase Meets These Code Requirements:

a-Dan Montgomery Iron Shop, Yes that will be the tread depth, attached please find a detail of the treads showing this. You will see that when we use a 22 1/2 degree tread, we put an extra inside handrail that wraps around the center pole. This means that the 12" measurement starts from the inside edge of that extra handrail, and gives you the 7 1/2" of required tread depth at that point. I am also attaching a picture of what that looks like on an actual staircase.

b.-Yes, The minimum headroom according to the Iron Shop quote is 102".

c.-Yes, The riser height will be less than 9.5". According to the Iron Shop plans, the riser height from the Ground to Floor 2 will be 8 3/4" and the riser height from Floor 2 to Floor 3 will be 9 1/4".

d.-Yes, The minimum stairway clear width will be approx. 35.5"

Proposed Safety Equivalencies:

1- Install wireless interconnected smoke alarms throughout building.

2-Grated metal spiral staircase treads will be used to avoid snow and ice accumulation. Wooden treads would need constant maintenance to provide same level of safety.

3-Install motion detector lighting in back of home to assist emergency exit.

Reasons for Spiral Staircase:

1-Financial Impact Spiral staircase is best financial solution. Materials on staircase are galvanized metal providing low maintenance, longer term, and better aesthetic historical solution than wooden stair alternative. The likelihood of wooden staircase pillars being damaged by residential parking is very high. The cost and safety issues presented to continually repair and replace these beams will be a continued financial impact, as well as the maintenance of the wood itself. Three story wooden staircases would need to be shoveled and salted daily during winter, further deteriorating the wood.

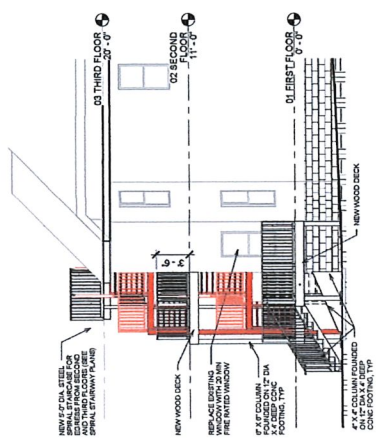
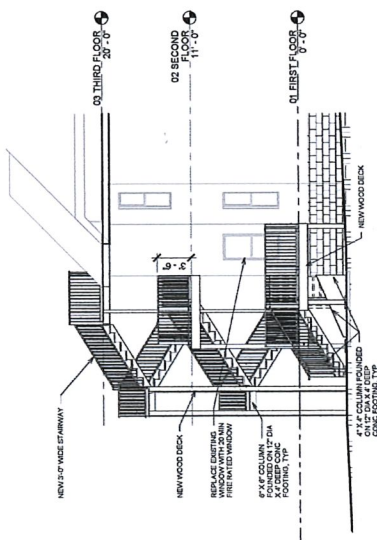
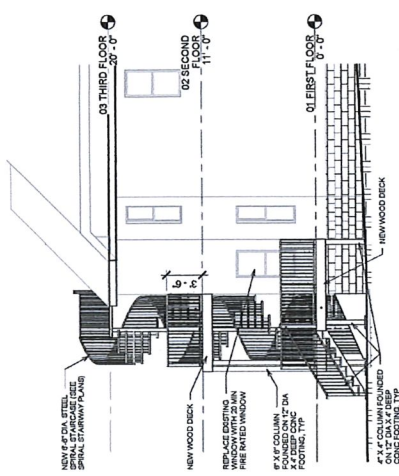
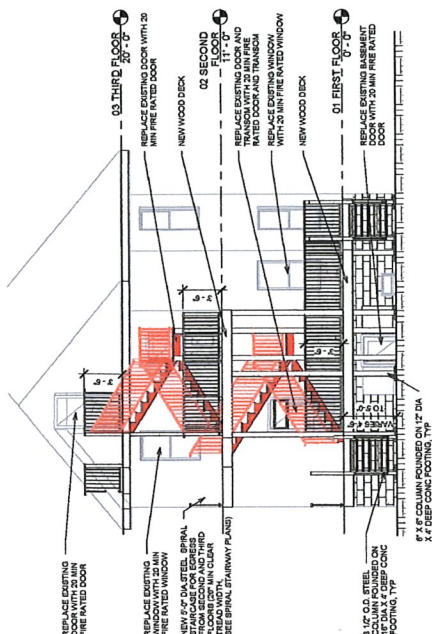
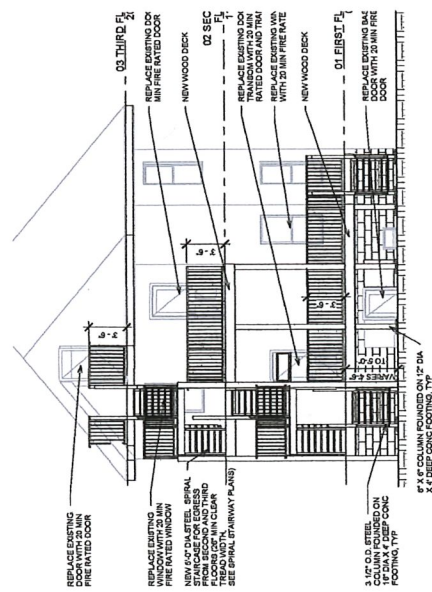
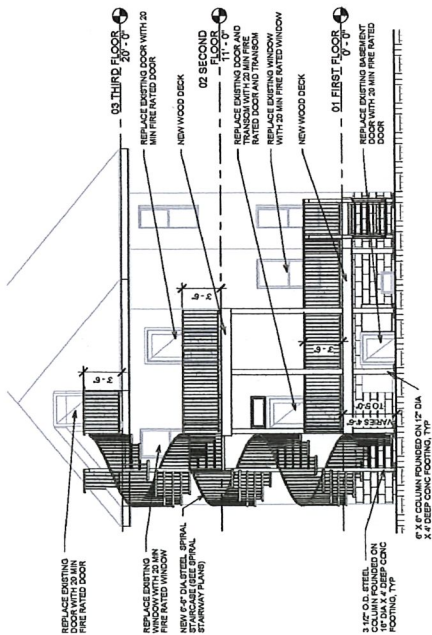
2-Importance of Residential Parking Extremely limited geographical area behind home for solutions. Parking for residents downtown is a significant issue. The area behind these two homes currently provides residential parking for 9 cars.

3-Neighborhood Improvement Significantly improving neighborhood, adjacent houses have begun renovations after seeing the work we are putting into this historic home. We have completed extensive wood rot removal and replacement on exterior; repainted entire home; rehabilitated 57 rotting windows; installed new storm windows conforming to historical requirements improving heat efficiencies; sanded and re-sealed wood floors; extensive foundation masonry work that conforms to historical requirements using mortar no harder than ASTM, type N to match original; extensive plumbing repair & replacement; and complete bathroom renovation on all three levels.

4-Negatives on Wooden Solutions Costly, very bulky and not feasible. Limited geographical area behind home, and significantly larger wooden staircase solutions would drastically inhibit parking access for all neighborhood residents. Driveway is only seven feet, eight inches wide. Very high risk of cars hitting support pillars for stairway going up three stories. Option of protective pillars would be installed on neighbor's land due to geographical restrictions behind house. This would further inhibit access to residential parking behind both homes. Large bulky wooden solutions will be an eyesore to neighborhood.

5-Wide Spiral Staircase Improvement Six and one-half foot wide spiral staircase will provide easy exiting for a volume of people, significant improvement over the rusty metal jump-offs being replaced. This solution is one and one-half feet larger than the original spiral staircase solution offered at variance meeting on May 21, 2019, and according to our understanding meets all of the applicable code requirements.

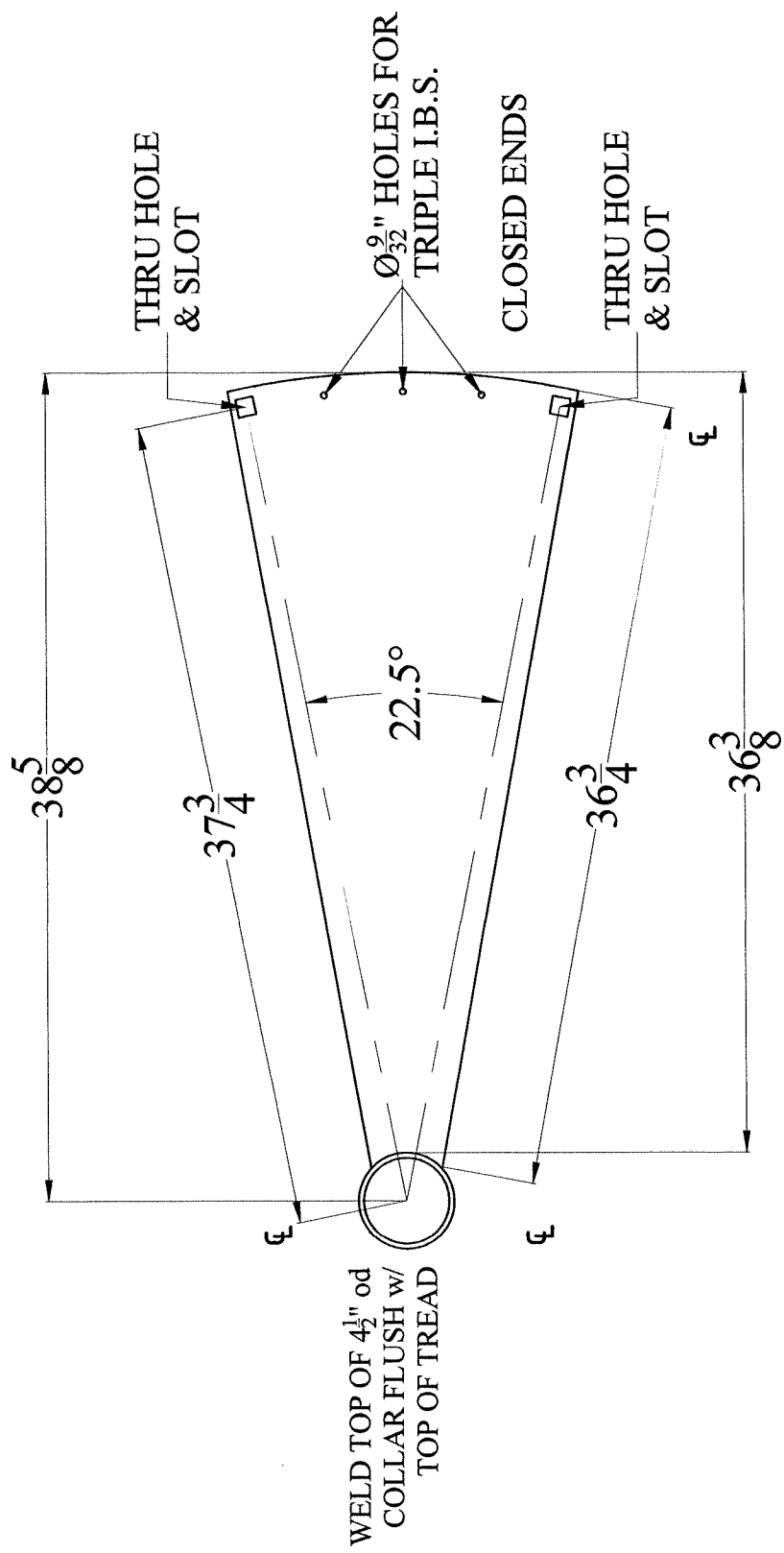
Thank you for your consideration.



SPIRAL

STRAIGHT - PERPENDICULAR

STRAIGHT - PARALLEL
(NOT FEASIBLE)



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