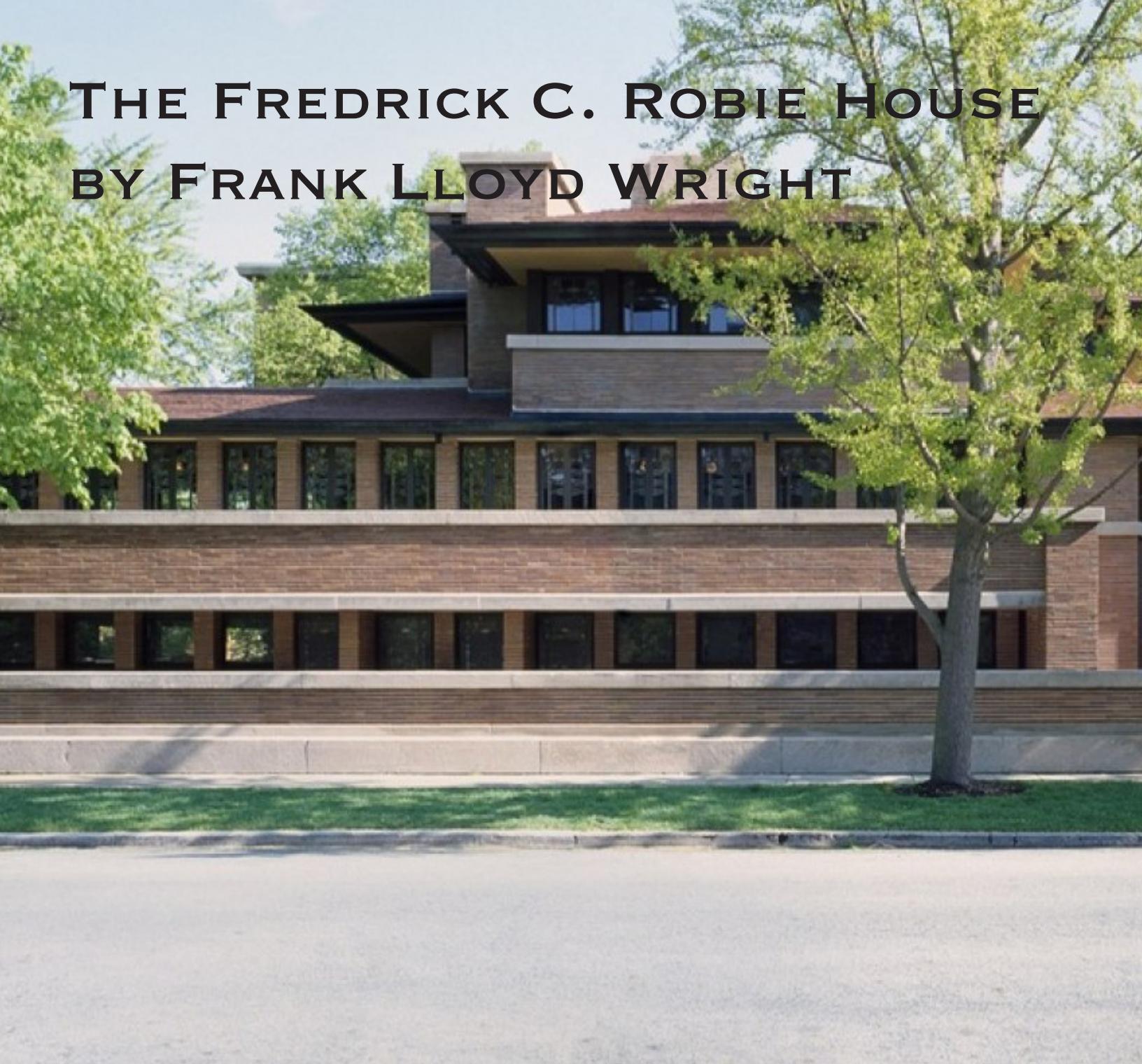


THE FREDRICK C. ROBIE HOUSE BY FRANK LLOYD WRIGHT



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Program: Architectural Technology
Class: CAD Drafting 1
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EXECUTIVE SUMMARY

Frank Lloyd Wright's Frederick C. Robie House is a three-car garage, full lot house in Chicago of the Prairie Style of architecture. It measures in 1,377 meters squared in useable floor space and costs a substantial \$9.46 million in construction costs.

The circulation is efficient and open concept, as well as consistent between floors, allowing for easy orientation. Spaces allow for light and a sense of levity with light screens and the many windows that line the walls. The servants have their own wing that is at the back and above the garage and has its own separate entrance from the main entrance.

It has a rustic and traditional look but uses modern building techniques, including steel beams to hold the long profile of the house up, as well as concrete.

Though, the Robie House has stood the test of time and survived neglect and near demolition, the next step, perhaps, could include adding some accessibility features to make it wheelchair accessible.

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INTRODUCTION

This report will cover details on the Fredrick C. Robie House, in Chicago, Illinois, USA, designed by Frank Lloyd Wright in 1908 and completed in 1910 for client, Fredrick C. Robie and his family.

Frank Lloyd Wright was a pioneer of what is now known as the Prairie School of architecture. He worked for Adler and Sullivan and studied under the direct supervision of Louis Sullivan before a falling out between the two over Wright's side projects.



Wright was inspired by the open landscape and flat terrain of the Great Plains and American Midwest by "emphasizing the horizontal over the vertical" (Frank Lloyd Wright Foundation, n.d.). His style of architecture introduced America to its first unique and enduring style of architecture. The Robie House is said to be the "measuring stick against which all other Prairie School buildings are compared" (Frank Lloyd Wright Foundation, n.d.).



ARCHITECTURAL STYLE AND FEATURES

The Robie House is one of Frank Lloyd Wright's earlier examples of the Prairie School of architecture, a style that was common in the United States at the turn of the 20th century, especially in the American Midwest and Great Lakes regions. Because it was one of the earlier incarnations of the prairie school, it set the standard for future prairie school projects he'd create and is "the measuring stick against which all other prairie school buildings are compared" (Frank Lloyd Wright Foundation, n.d.).

Wright had the philosophy that "the prairie has a beauty of its own and we should recognize and accentuate this natural beauty, its quiet level. Hence, gently sloping roofs, low proportions, quiet sky lines, suppressed heavy-set chimneys and sheltering overhangs, low terraces and out-reaching walls sequestering private gardens." (Frank Lloyd Wright, s.d.; cited by ArchDaily, 2010)

The Robie House is an expression of the open prairie landscape of the Midwest that Wright describes. It is long and rectilinear, maximizing the full property lot that it occupies with its long, but narrow rooms. It seems flat, like a bungalow, yet three stories tall; and, like a bungalow, lacks a basement.

A three-car garage occupies the back of the lot to the east. On the east and west elevations, the building extends itself outwards, further accentuating the "long axis of the house" (ArchDaily, 2010) and offering exterior views. The south elevation features a long and narrow balcony. The roofs are gently sloping hip roofs, some of which cantilever far over the terraces, offering privacy from pedestrians and shelter from the sun.



The interior is warm and earthy. It is well lit by "light screens" (ArchDaily, 2010) that feature arranged designs made of clear and coloured glass, representing nature and dominate the north and south walls. The furniture and fixtures were designed by Wright himself to specifically match the interior design.



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ZONING AND CIRCULATION

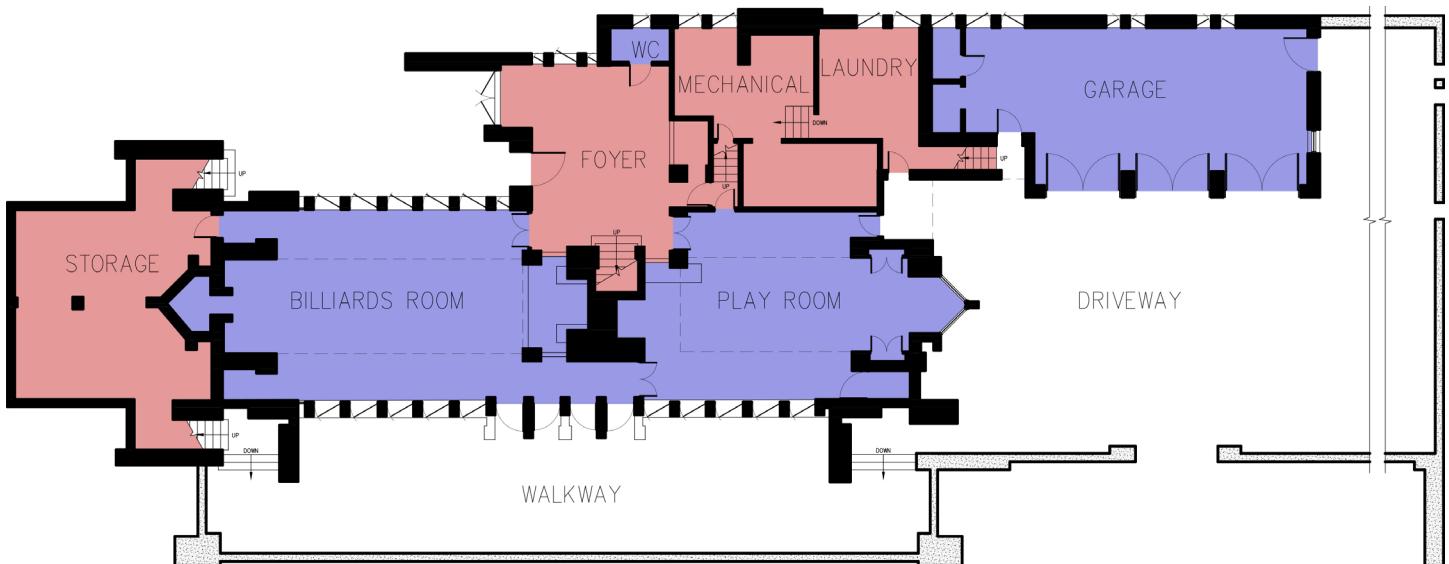
Typical of Wright's projects, "the entrance of the house is not clearly distinguishable at first glance due to the fact that Wright believed the procession towards the house should involve a journey (Frank Lloyd Wright, s.d.; cited by ArchDaily, 2010). The Robie House is no exception. A driver has to perambulate through a walkway and across a terrace to reach the primary entrances, for example.

There are three primary entrances. One is a public facing front door at the northwest corner of the lot, accessible from the street, via the front patio; or through a long below-grade walkway to the south that connects to the driveway and garage at the southeast, via the terrace. Two more private facing entrances are located on the terrace itself that leads directly into the living room on the second floor.

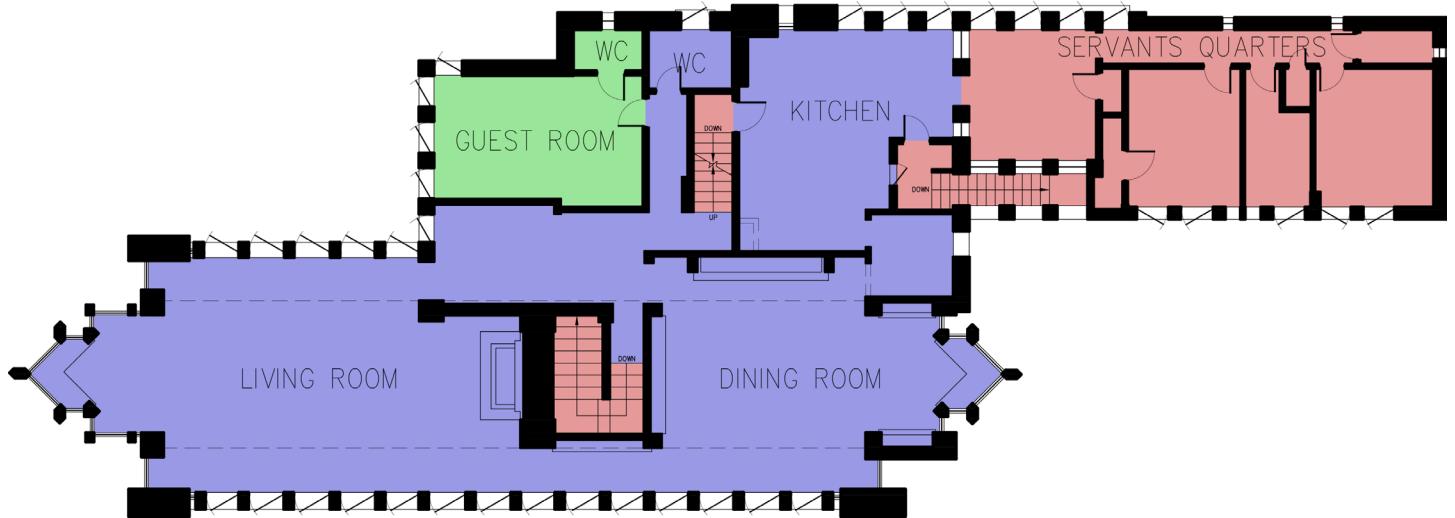


With the exception of the billiards and play rooms, the first floor is mostly service spaces, such as the foyer, garage, mechanical room, laundry room, and storage spaces or the liminal spaces that connect these rooms together with the centrally located stairs.

The billiards and playroom are the only public spaces on the first floor and are accessible to each other by either going through the foyer on the north side or a long connecting hallway on the south side.



The second floor consists mostly of public spaces and the servant's wing. Public spaces include the living room, dining room, and kitchen. The kitchen is a public space that is equally part of the servant's wing, as this is where they'll be working. To the south of the kitchen is the dining room and the dining room is separated from the living room by the centrally located stairs and a large hearth. The third floor is strictly private spaces where the four bedrooms are clustered together around the stairs.



The servants have their own entrance and stairs to the servant's wing, accessible from the garage in the east and leading directly to the kitchen on the second floor. A window faces into the action of the kitchen. A door allows servants to bypass the chaos of the kitchen and into their wing, which is located above the garage. The kitchen also has a service exit that leads downstairs to the first floor.

CONSTRUCTION SYSTEMS AND MATERIALS

The Robie House uses a traditional wood framing system, likely platform framing, and is sheathed in narrow long red Roman bricks and yellow mortar, capped off with equally long limestone slabs. Red vertical mortar was used in-between the Roman bricks to maintain the horizontal illusion of the building. The windows are made of polished plate glass. The only non-natural material inside is steel.



Because of its lengthy mass, all of the long and flat roof overhangs and balconies use steel beams for additional structural support and load transfers, which timber wood beams cannot provide. These transfer beams are located in the first floor ceiling and in the roof above the second floor ceiling. They, along with crossbeams, transfer loads down to the foundation, via steel piers in the living room and the centrally located fireplace.



Without steel, there would be no open spaces and the low pitched cantilevered roof would be impossible. These design elements add to the theme of the open wide Prairie landscape that, while simultaneously offering a level of enclosure and privacy.

CONCLUSION

The Fredrick C. Robie House is the premiere template building for Frank Lloyd Wright's Prairie School of architecture. His influences come from his upbringing in the wide open and flat landscape of the Great Plains. It is visible in the Robie House. From its flattened roof, to its wide footprint, and to its warm, earthy interiors.

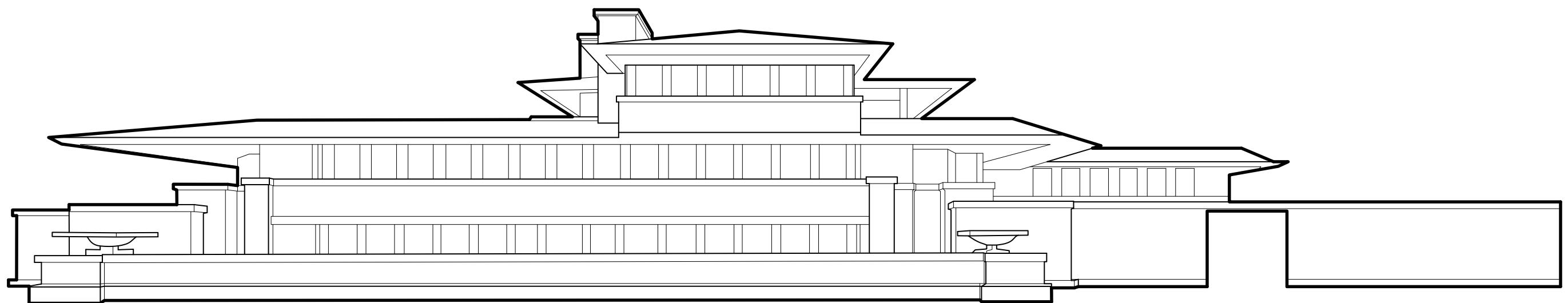
It is an elegant structure amongst the then emerging modernist styles of the early 20th century, using modern materials to achieve a style that is rustic and more traditionalist. The interior of the Robie House is open concept and yet clear divisions exist between public spaces and private spaces, as well as the servants spaces and the occupants spaces.

There are many ways to perambulate into and through the Robie House. Whether it be from the front door, accessible from the street or the walkway from the driveway, or through the back door into the kitchen from the driveway. Either way, you get a good sense of the Robie House inside out, just as Wright had intended.

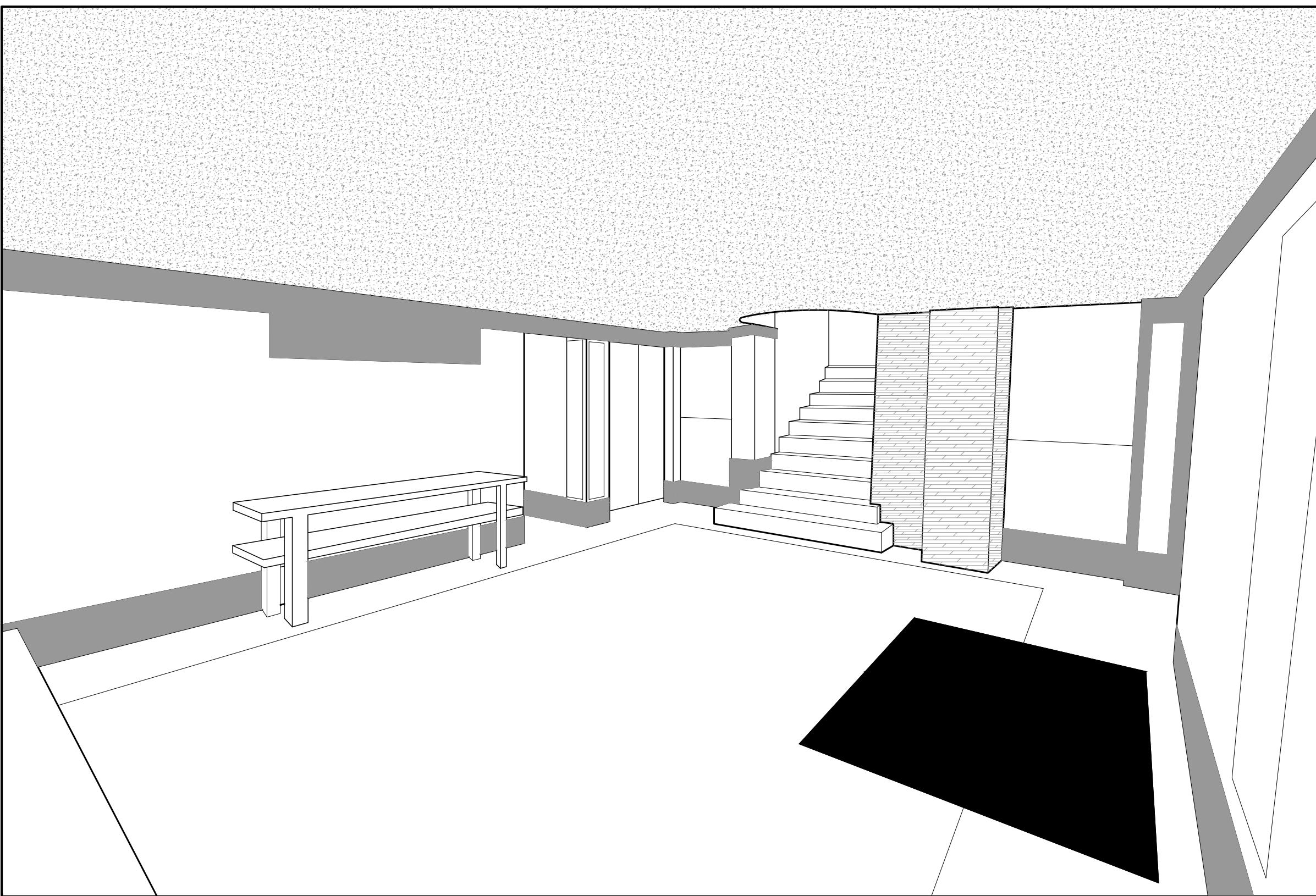
The Robie House is over 100 years old and, as such, is not wheelchair friendly. A recommendation I would have for future renovations is to add a lift, or a series of lifts to reach the upper floors; and a ramp through the front entrance. Such additions may modify the floor plan of the building and require permits, but could be sold as a positive change.

APPENDIX A: DRAWINGS

FRONT EXTERIOR PERSPECTIVE

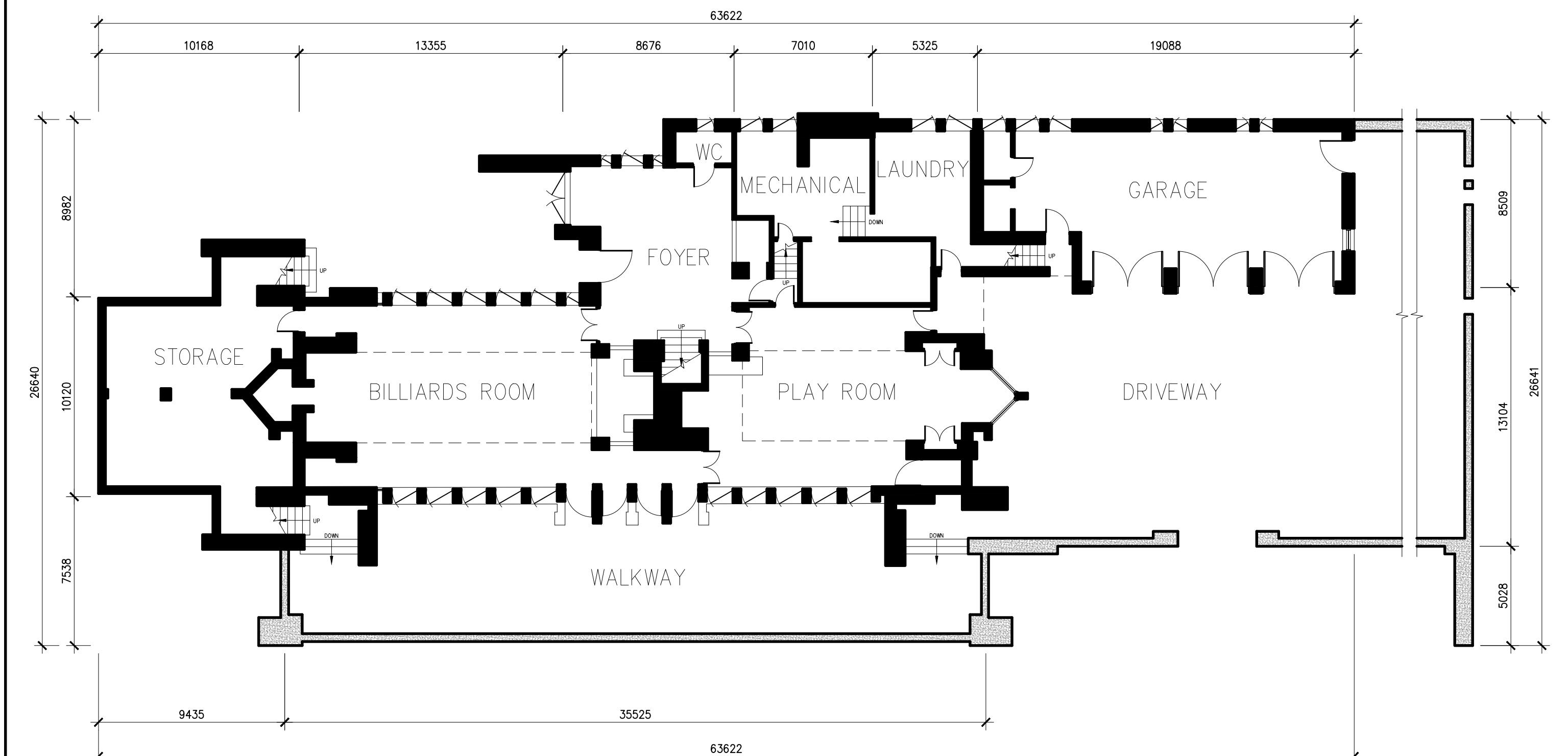


LIVING ROOM INTERIOR PERSPECTIVE

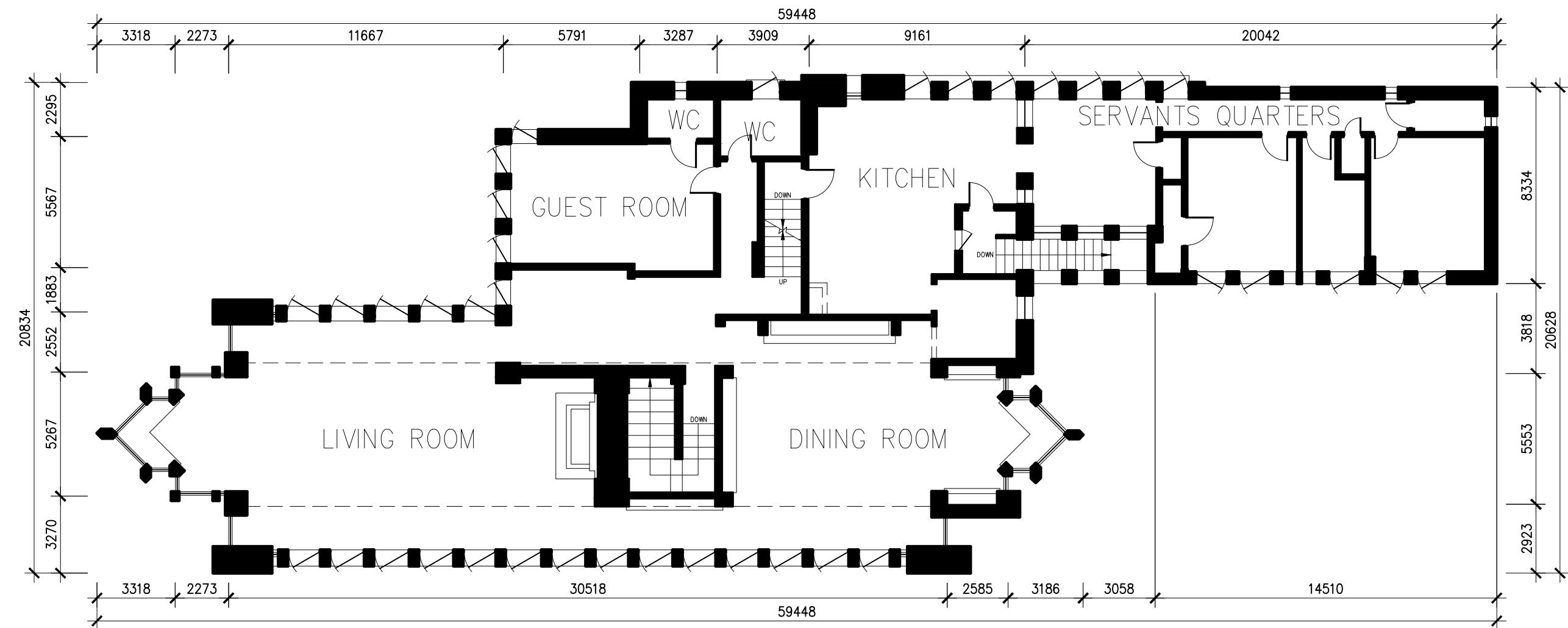


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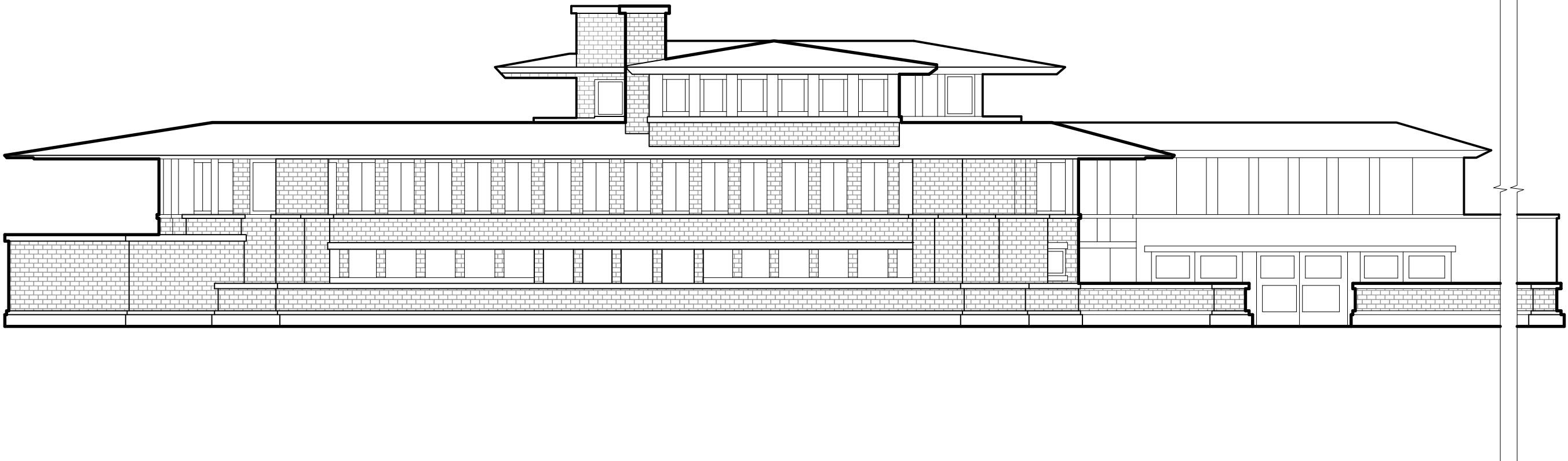
1ST FLOOR PLAN



2ND FLOOR PLAN



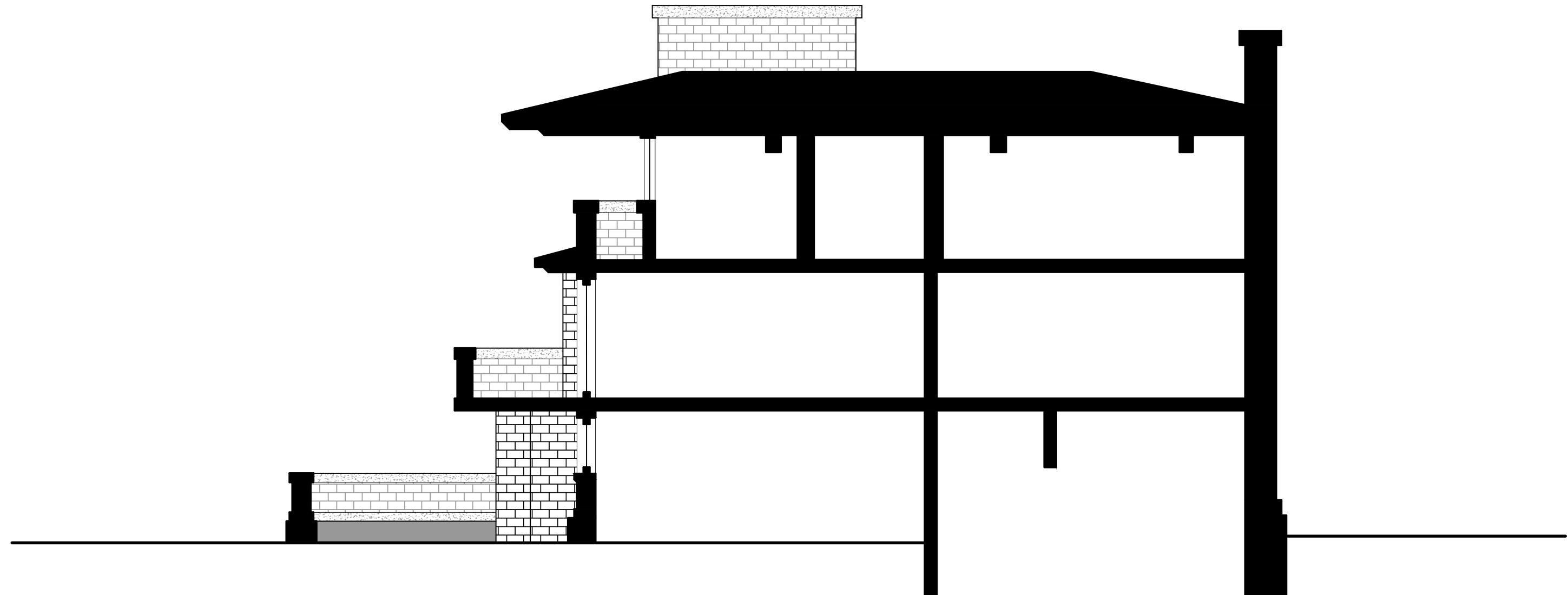
SOUTH ELEVATION



EAST ELEVATION



EAST SECTION



APPENDIX B: AREA AND COSTS

Robie House Construction Costs

Zone	Floor	Space	Area (sq. m.)	Cost per sq. m.	Total Space Cost
Service	1st	Foyer	72.10	\$ 550.00	\$ 39,655.00
Service	1st	Mechanical	53.36	\$ 750.00	\$ 40,020.00
Service	1st	Laundry	33.82	\$ 750.00	\$ 25,365.00
Service	1st	Storage	97.16	\$ 550.00	\$ 53,438.00
Public	1st	Garage	132.69	\$ 250.00	\$ 33,172.50
Public	1st	Billiards Room	158.44	\$ 950.00	\$ 150,518.00
Public	1st	Playroom	116.33	\$ 950.00	\$ 110,513.50
Public	1st	Washroom	4.60	\$ 1,450.00	\$ 6,670.00
Net Total	1st	ALL	668.50	\$ 6,200.00	\$ 4,144,700.00
Public	2nd	Kitchen	78.36	\$ 1,550.00	\$ 121,458.00
Public	2nd	Living Room	161.24	\$ 950.00	\$ 153,178.00
Public	2nd	Dining Room	113.98	\$ 750.00	\$ 85,485.00
Public	2nd	Washroom	8.50	\$ 1,450.00	\$ 12,325.00
Private	2nd	Guest Room	45.21	\$ 650.00	\$ 29,386.50
Private	2nd	Guest Room Washroom	5.10	\$ 1,450.00	\$ 7,395.00
Service	2nd	Servants Quarters	131.74	\$ 1,500.00	\$ 197,610.00
Net Total	2nd	ALL	544.13	\$ 8,300.00	\$ 4,516,279.00
Public	3rd	Washroom	8.50	\$ 1,450.00	\$ 12,325.00
Private	3rd	Bedroom 1	42.10	\$ 650.00	\$ 27,365.00
Private	3rd	Bedroom 2	37.34	\$ 650.00	\$ 24,271.00
Private	3rd	Master Bedroom	68.70	\$ 650.00	\$ 44,655.00
Private	3rd	Master Bedroom Washroom	8.50	\$ 1,450.00	\$ 12,325.00
Net Total	3rd	ALL	165.14	\$ 4,850.00	\$ 800,929.00
Net Total Area	ALL	ALL	1377.77	\$ 19,350.00	\$ 9,461,908.00

APPENDIX C: REFERENCES

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