






# Architecture

## The White House

Washington, D.C. USA



-  Booklet available on:
-  Livret disponible sur:
-  Folleto disponibile en: [Architecture.LEGO.com](https://www.lego.com/Architecture)

# James Hoban

James Hoban, 1762-1831, was born in Desart, near Callan, County Kilkenny, Ireland. Hoban was raised at Cuffesgrange, Co Kilkenny where he learned carpentry skills. He studied architecture at the Royal Dublin Society.

During the American Revolutionary War, Hoban emigrated to the United States, and established himself as an architect in Philadelphia in 1781. Hoban moved to South Carolina in 1787, with his brothers Philip and Joseph; he lived there for at least six more years.

We know little of Hoban's life in South Carolina except that he formed a partnership with carpenter Pierce Purcell and became well known among the gentry for his ability as an architect and builder. He was a founding vestryman in 1791 of Saint Mary's Church, the first Catholic church established in the Carolinas. Among Hoban's references were some of the most prominent citizens of Charleston: Henry Laurens, a close friend of President George Washington; fellow Irishman Aedanus Burke; and American Revolutionary War General William Moultrie.



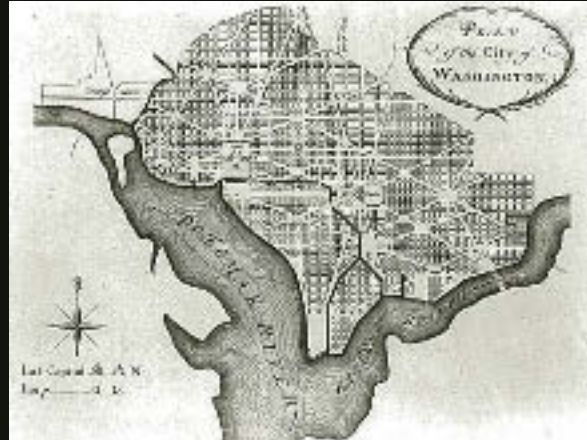
*James Hoban*

Hoban's name has been connected with public buildings and plantation houses in the Charleston area, most notably the historic Charleston County Courthouse and the William Seabrook house. Another prominent building in Charleston, actually documented as a Hoban design, was a 1,200-seat theater on Savage's Green that no longer survives.

## The plan of Washington

In 1791 President George Washington appointed Pierre Charles L'Enfant to design the new capital city. L'Enfant's plan was based on a grid, with streets traveling north-south and east-west. Diagonal avenues, which came to be named after the states, crossed the grid, intersecting with the grid to form plazas. The overall effect aimed to establish a city with direction and character.

To be connected in a straight line by an avenue 160 feet wide, L'Enfant selected two high spots – Jenkins Hill for the “Congress House” and a second hill a mile and a



Pierre L'Enfant plan of Washington, D.C. Wikimedia Commons

half away for the “President's Palace”. The avenue, though no longer a straight line since an addition to the Treasury building in 1840 effectively blocked it, became Pennsylvania Avenue.

As described above, the pattern of radiating avenues was joined and filled by a gridiron matrix of streets, which were numbered to the east and west and lettered to the north and south – excluding J Street, which L'Enfant omitted to avoid confusion with the letters land J that were indistinguishable and often interchangeable at the time, according to a 1994 Washington Post Magazine article.

Although L'Enfant's design became the basis for land sales, construction and planning, President Washington red him a year after he was hired because L'Enfant “forged ahead regardless of his orders, the budget, or landowners with prior claims”.

## The design competition

In 1792, at Washington's request, Secretary of State Thomas Jefferson announced an architectural competition to produce design drawings for the President's House. Washington insisted that the building should be made of

stone, so that it would have a more substantial appearance, much like the most important buildings in Europe. The young nation had never seen anything like it, and that was what Washington liked about it. The building was to be more than the home and office of the president; it was to be a symbol of the presidency. A republic could not have a king's palace, but the building must command respect from citizens in the United States and, just as importantly, foreign visitors who came to visit America's leader.

On July 16, 1792, President Washington examined at least six designs submitted in the President's House architectural competition. The plans were quite varied. One of the designs was by James Hoban, an Irishman whom the president had met a year earlier in Charleston. A second plan was submitted by a mysterious man known only as “A.Z.”. Historians have speculated that Thomas Jefferson was the mystery designer, but records suggest that the architect in question was more likely John Collins, a builder from Richmond, Virginia. A third of the six designs is by James Dimond, a Maryland inventor.



James Hoban's White House design.  
Wikimedia Commons

President Washington sought out Hoban, conferred with him, and quickly selected the architect's proposed design for the President's House in July 1792.

Thomas Jefferson, himself of Irish descent, must have gained particular pleasure as the second occupant of the White House in Washington, which was doubtless inspired by Irish Palladianism. Both Castle Coole and

Leinster House in Dublin claim to have inspired James Hoban. The Palladianism of the White House is interesting as it is almost an early form of neoclassicism, especially the South facade, which closely resembles James Wyatt's design for Castle Coole of 1790, also in Ireland. Ironically, the North facade lacks one of the floors from Leinster House, while the Southern facade is given one floor more than Castle Coole, and has an external staircase more in the Palladian manner.

Time, and occupants, have altered the White House in many ways. However, the White House image is Hoban's entirely. It is a handsome residence, embellished with unquestionably the finest architectural stone carving produced in America at that time. And when Hoban rebuilt it, following the fire in 1814, he was ordered to make it as it had been, which he did, perpetuating the image and his own claim to a place in history.

Hoban died on December 8, 1831. He is buried at Mount Olivet Cemetery in Washington, D.C.

# History of The White House

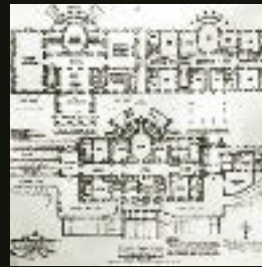
The White House has a total of six storeys, a two-storey basement, the Ground Floor, State Floor, Second Floor and Third Floor. There are 132 rooms, 35 bathrooms, and 6 levels in the White House. There are also 412 doors, 147 windows, 28 fireplaces, 8 staircases, and 3 elevators.

The White House has a variety of recreation facilities including a tennis court, jogging track, swimming pool, movie theater, billiard room and a bowling lane.

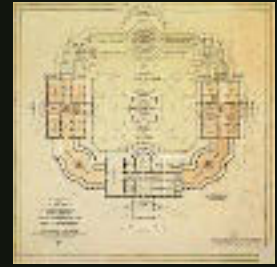
The State Floor includes the East Room, Green Room, Blue Room, Red Room, State Dining Room, Family Dining Room, Cross Hall, Entrance Hall, and Grand Staircase. The Ground Floor is made up of the Diplomatic Reception Room, Map Room, China Room, Vermeil Room, Library, the main kitchen, and other offices. The second floor family residence includes the Yellow Oval Room, East and West Sitting Halls, the White House Master Bedroom, President's Dining Room, the Treaty Room, Lincoln Bedroom and Queens' Bedroom, as well as two additional bedrooms, a smaller kitchen, and a private dressing room. The third floor consists of

the White House Solarium, Game Room, Linen Room, a Diet Kitchen, and another sitting room.

The exterior of the White House was expanded to include two colonnades in 1801. Further additions include the South portico in 1824 and the North portico in 1829. Today, the porticos connect to the East and West Wings. The West Wing was added to the house in 1901, with the Oval Office added to the wing in 1909. The East Wing was added in 1942.



*Lorenzo Winslow's 1948 plan for changes. White House Museum*



*Alterations to the Executive Mansion. Library of Congress, Prints & Photographs Division*

# Federal style

The White House is a grand mansion in the neoclassical Federal style, with details that echo classical Greek Ionic architecture. James Hoban's original design was modeled after the Leinster House in Dublin, Ireland and did not include the north and south porticos.

Federal-style architecture is the name for the classicizing architecture built in the United States between c. 1780 and 1830, and particularly from 1785 to 1815. This style shares its name with its era, the Federal Period. In the early Republic, the founding generation consciously chose to associate the nation with the ancient democracies of Greece and the republican values of Rome. Grecian aspirations informed the Greek Revival, lasting into the 1850s. Using Roman architectural vocabulary, the Federal style applied to the balanced and symmetrical version of Georgian architecture that had been practiced in the American colonies new motifs of neoclassical architecture as it was epitomized in Britain by Robert Adam, who published his designs in 1792. The classicizing manner of constructions and town

planning undertaken by the federal government was expressed in federal projects of lighthouses and harbor buildings, hospitals and in the rationalizing urbanistic layout of L'Enfant's Washington, D.C. and in New York the Commissioners' Plan of 1811.

American federal architecture differs from preceding Georgian colonial interpretations in its use of plainer surfaces with attenuated detail, usually isolated in panels, tablets and friezes.



*Sailors' Snug Harbor, Minard Lafever. Wikimedia Commons*



*Tennessee State Capitol, William Strickland. Wikimedia Commons*



# Facts from The White House

Location:..... 1600 Pennsylvania Avenue,  
Washington, D.C. USA

Style:..... Neoclassical Federal blended  
with Irish Palladianism

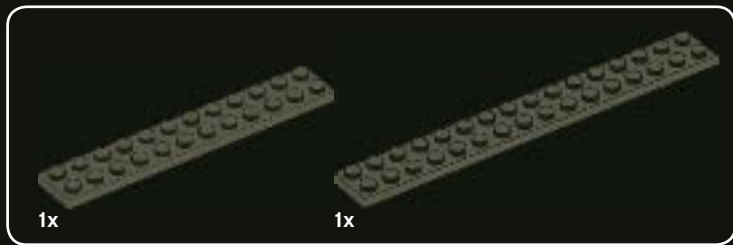
Materials:..... Aquia Sandstone

Size:..... 55,000 ft<sup>2</sup> (5,110 m<sup>2</sup>)

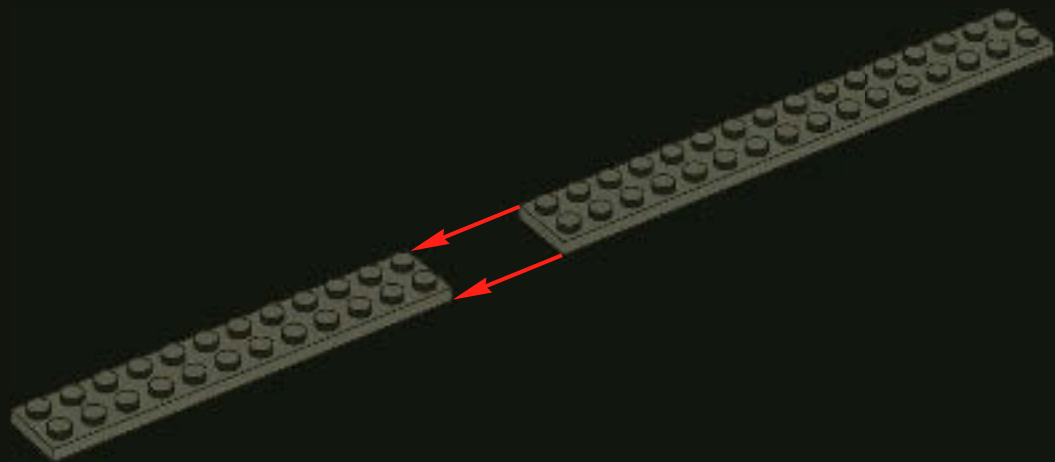
Year: ..... First cornerstone laid in October  
of 1792. The full construction of  
the building took place between  
1792 and 1800 when the first  
residents moved in.

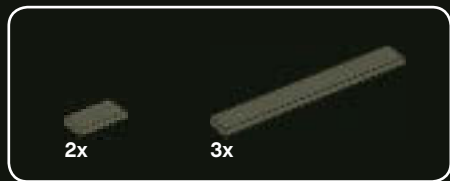




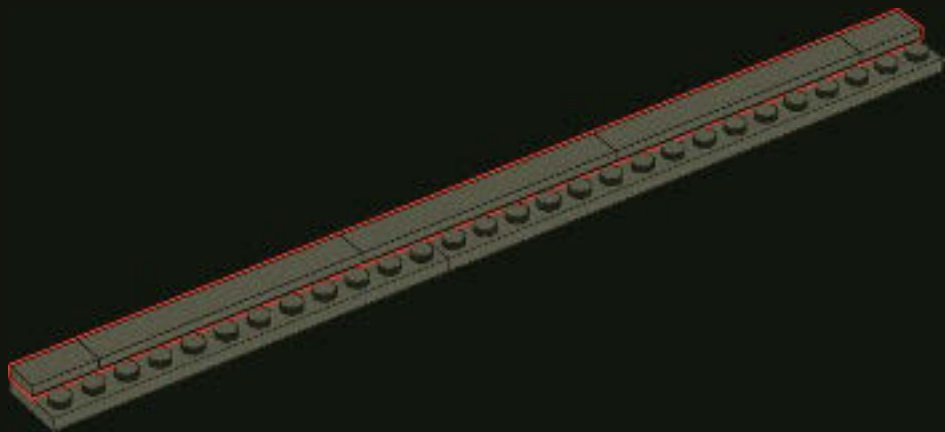


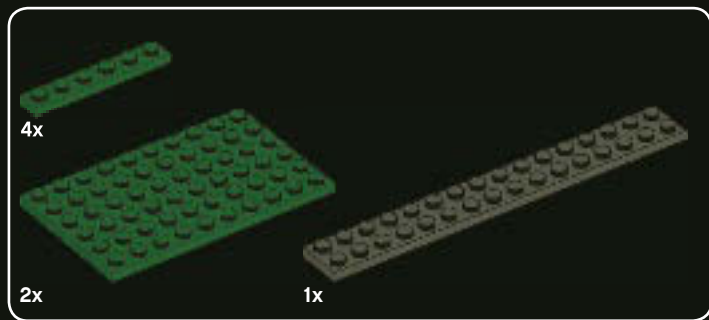
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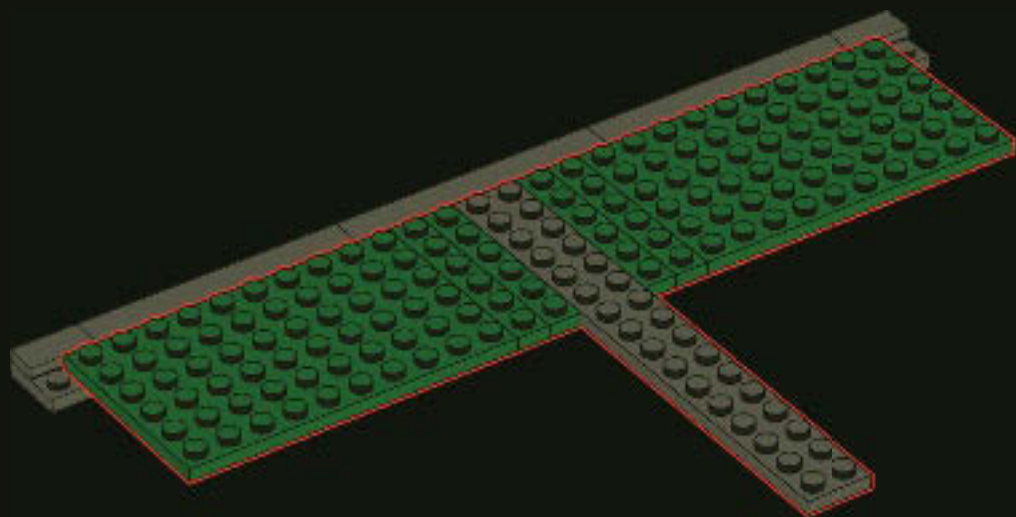


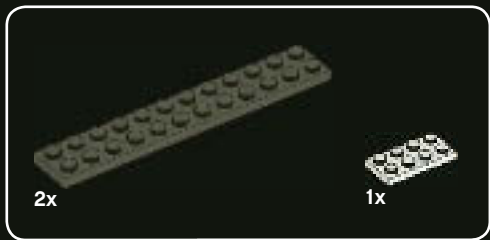
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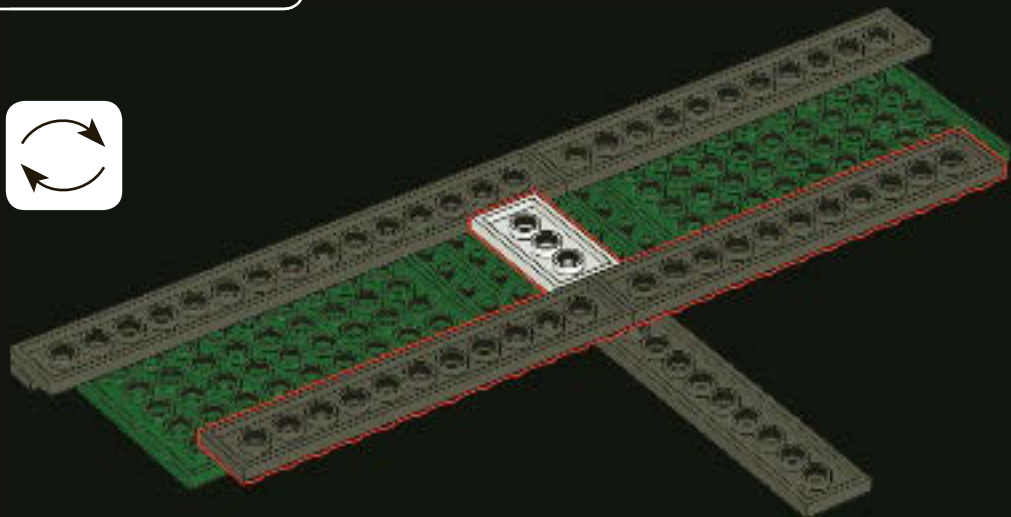


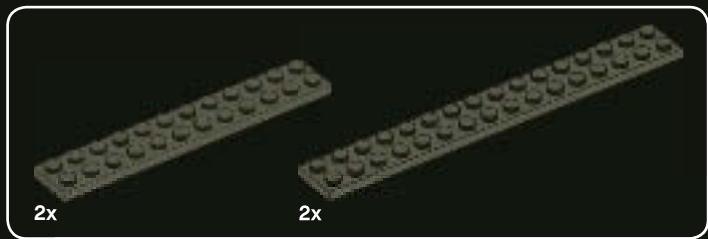
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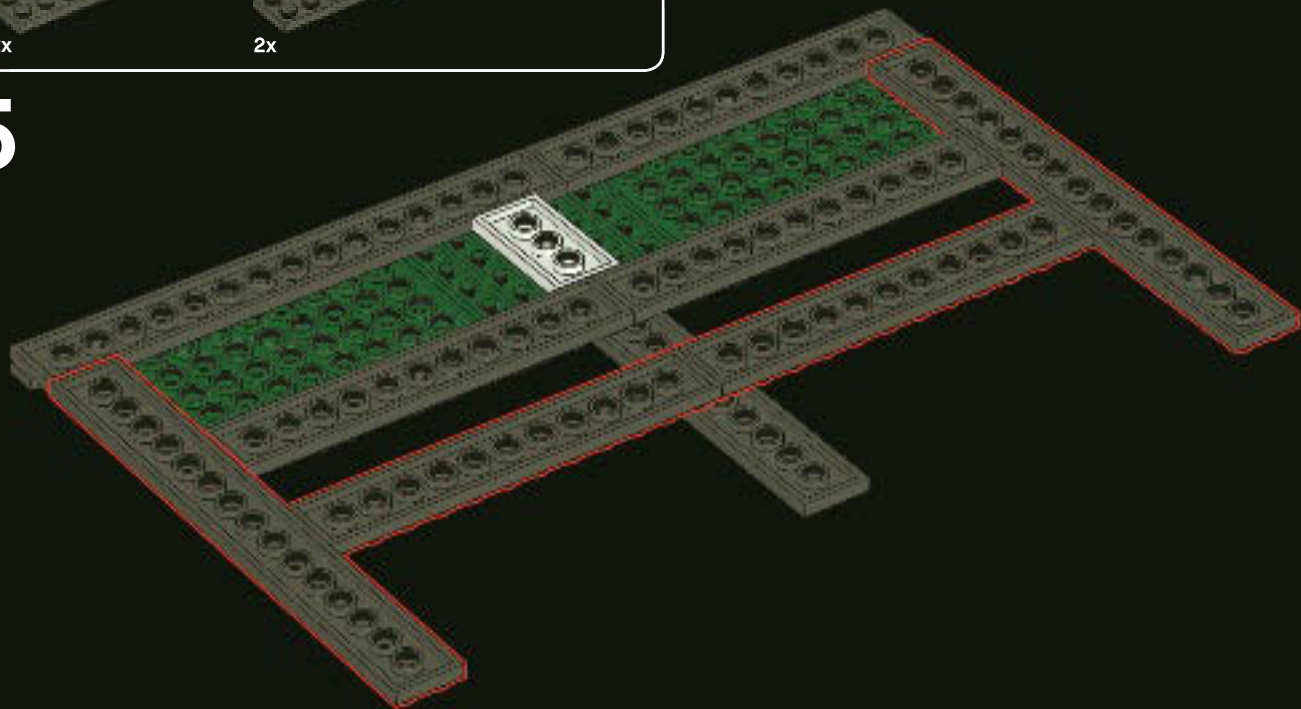


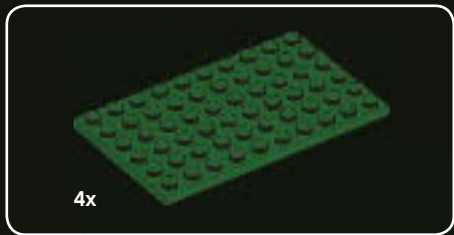
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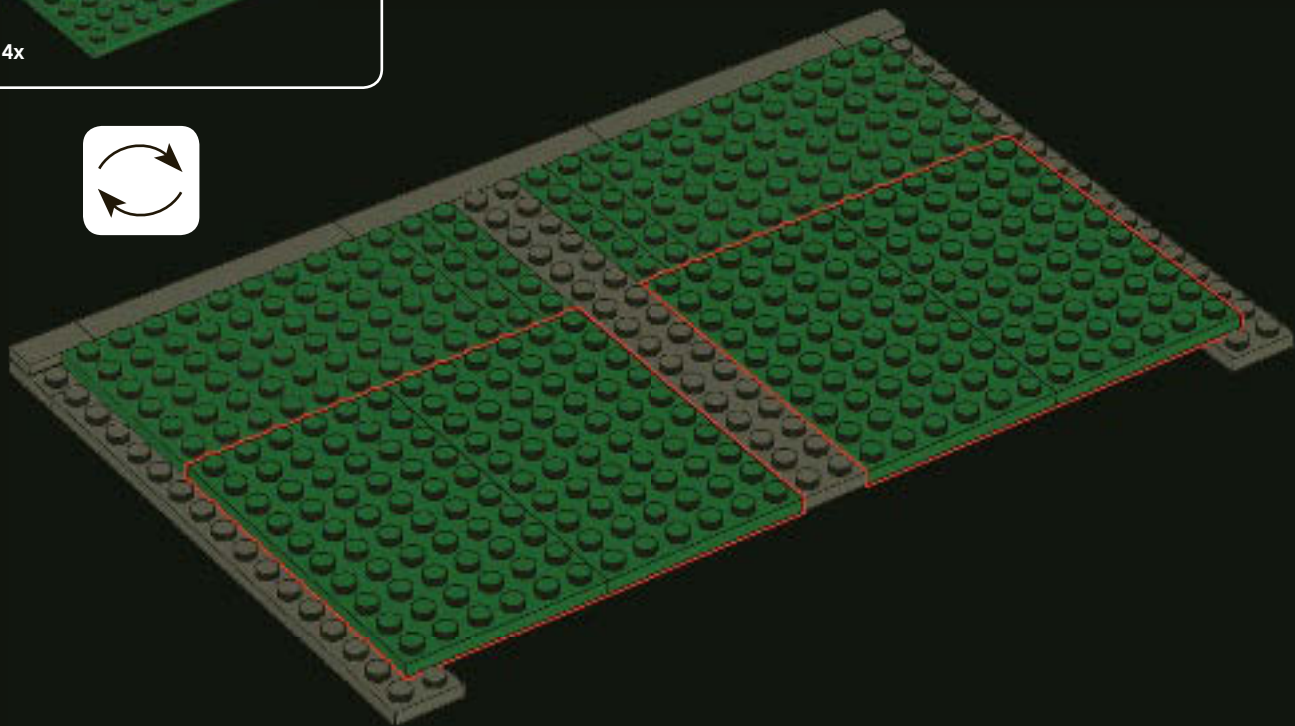


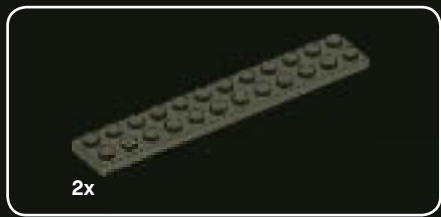
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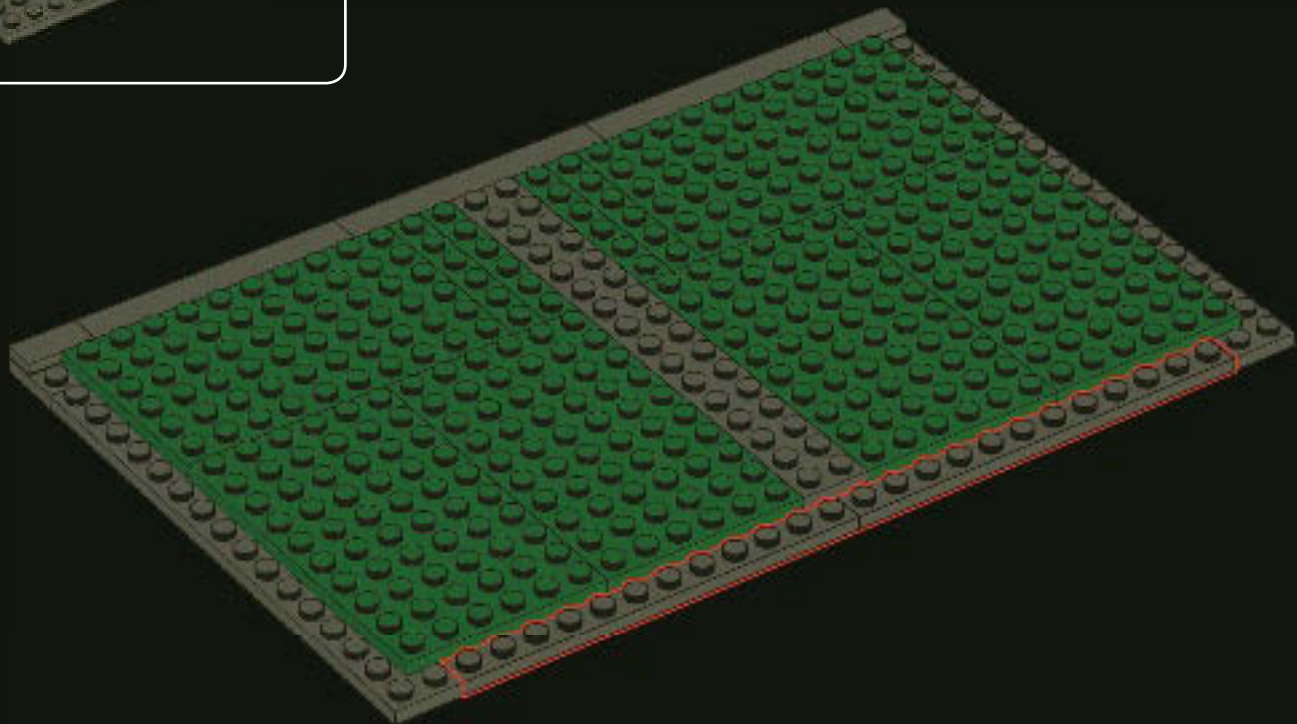


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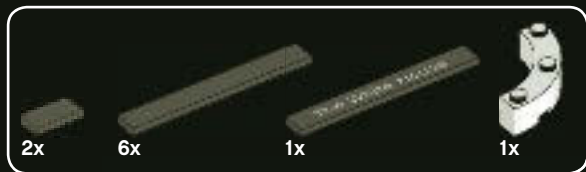




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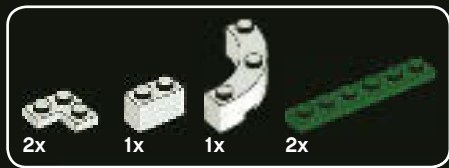






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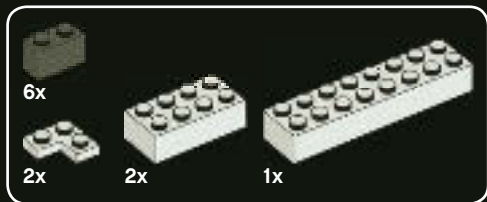
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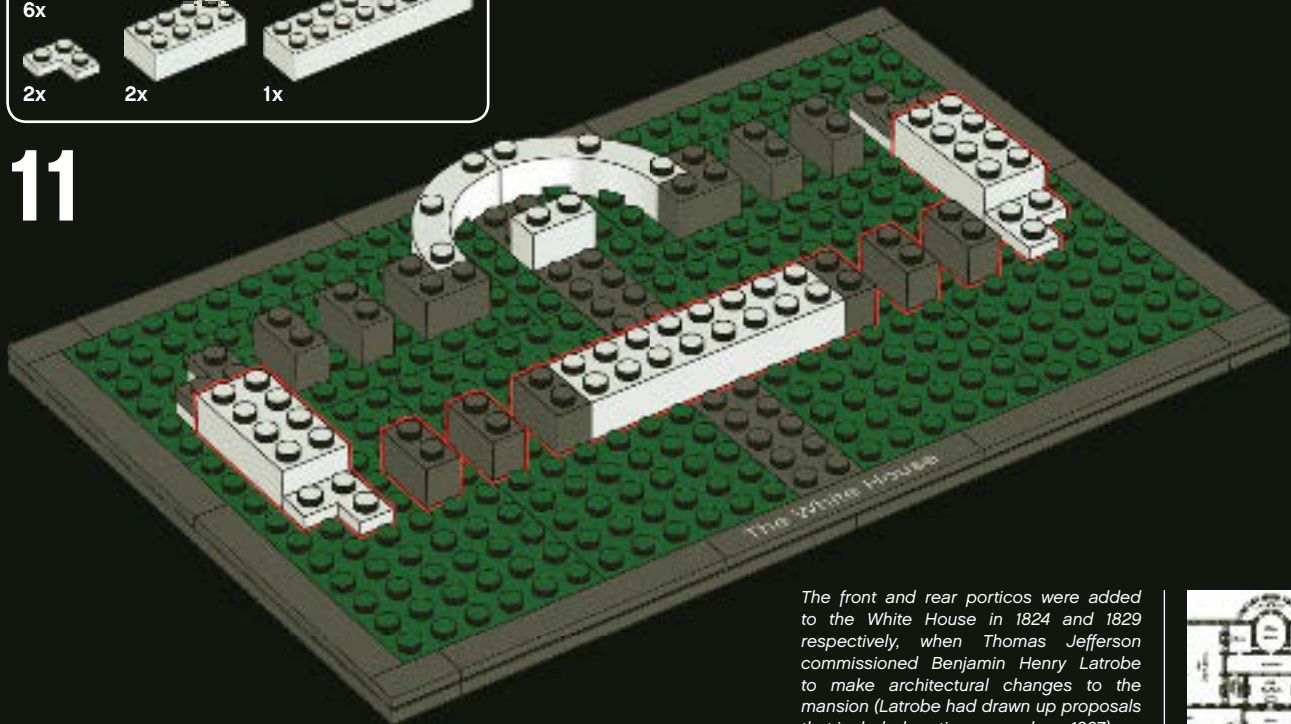
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# 10





# 11



*The front and rear porticos were added to the White House in 1824 and 1829 respectively, when Thomas Jefferson commissioned Benjamin Henry Latrobe to make architectural changes to the mansion (Latrobe had drawn up proposals that included porticos as early as 1807).*





12







# 13





14







# 15





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6x

# 16





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# 17





18





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2x

# 19







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# 20





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# 21







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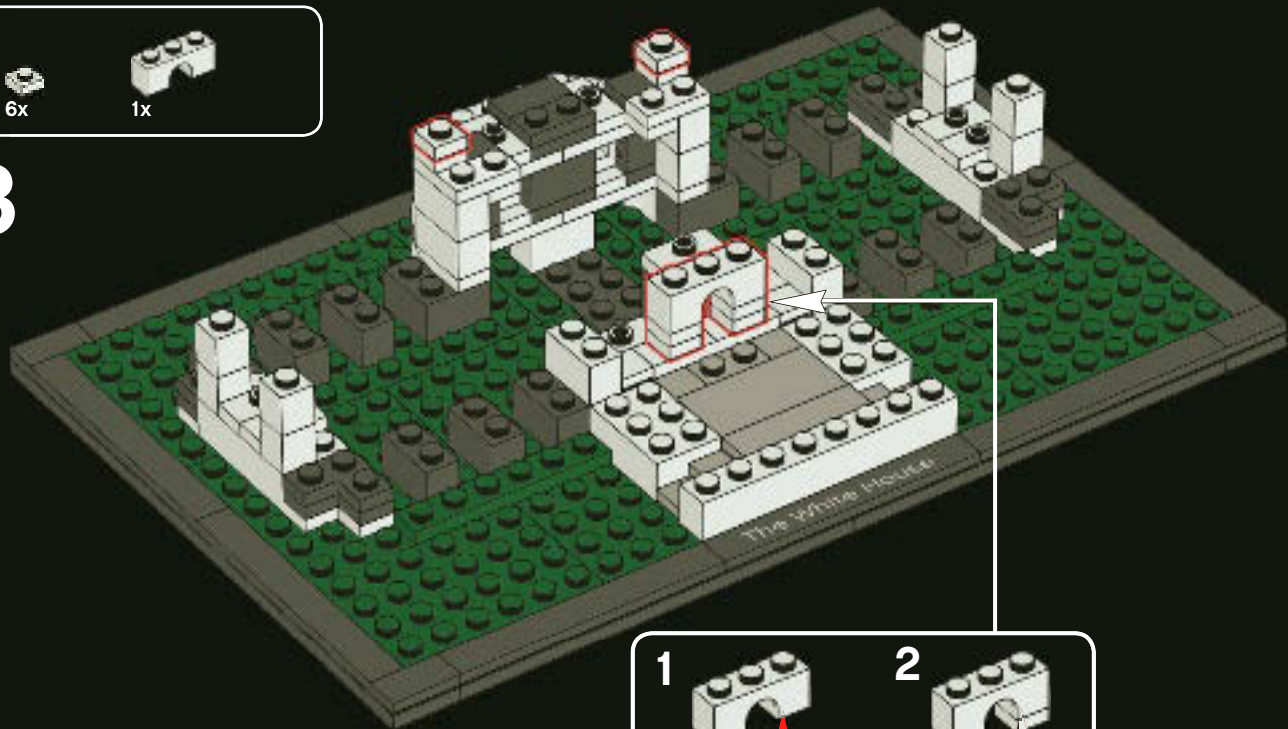


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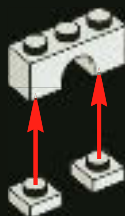


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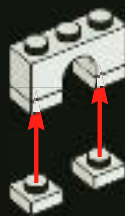
# 23



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4x



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# 25



2x



4x



4x

# 26

## 1



## 2

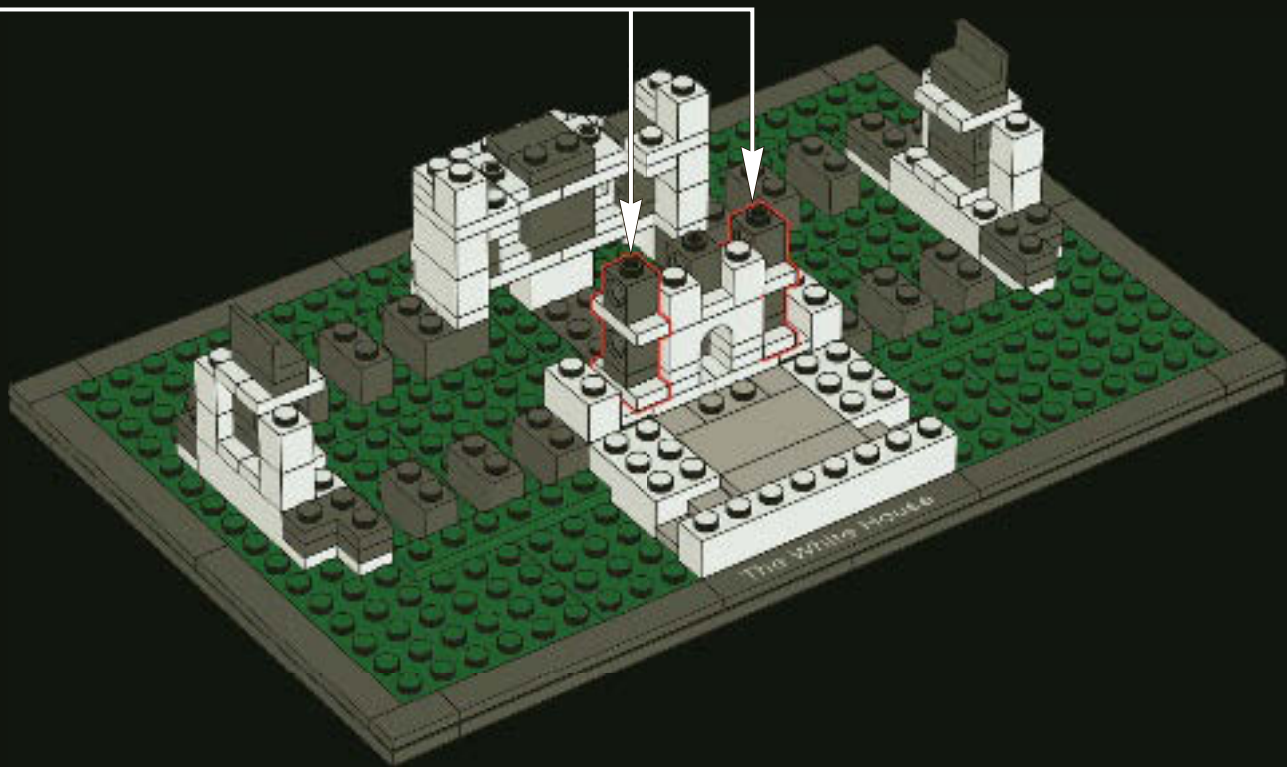


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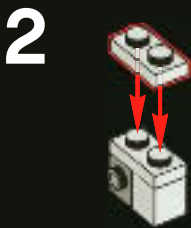
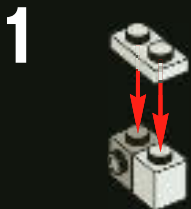








# 27







# 28

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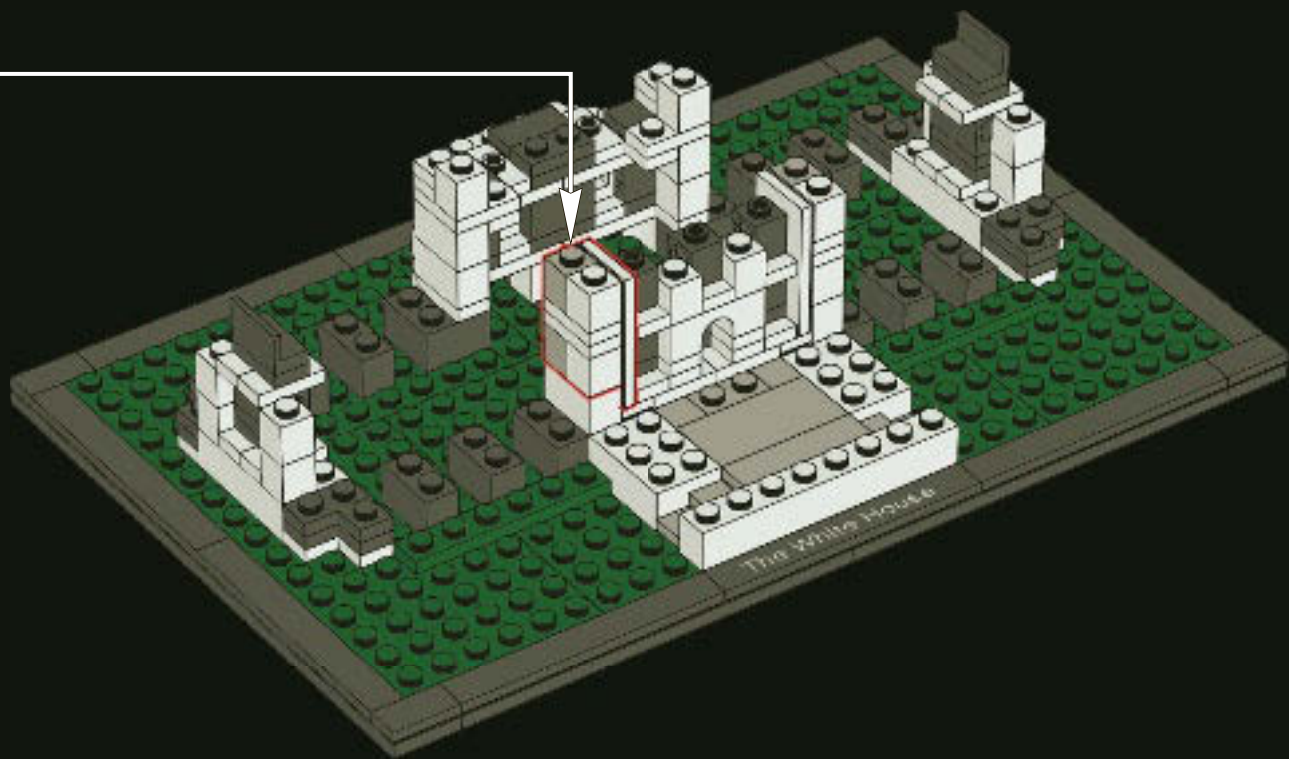


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## 1



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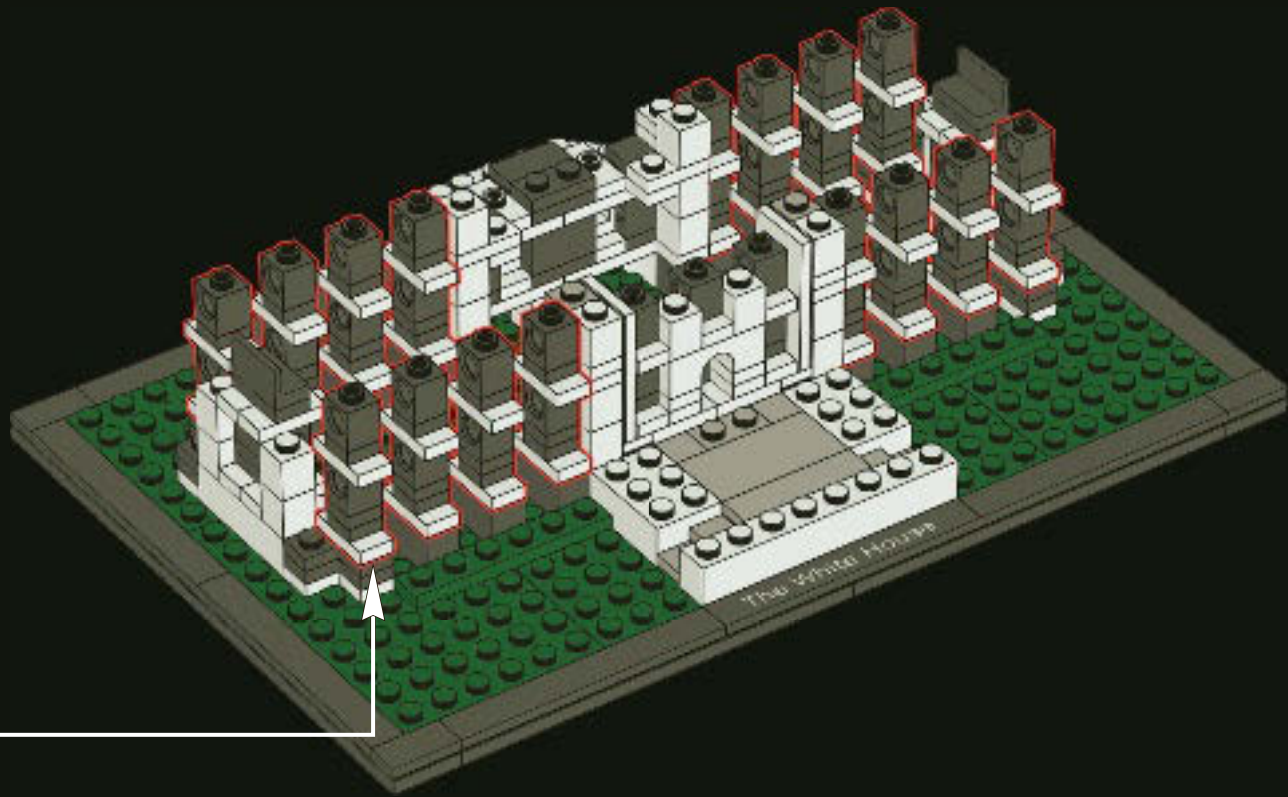
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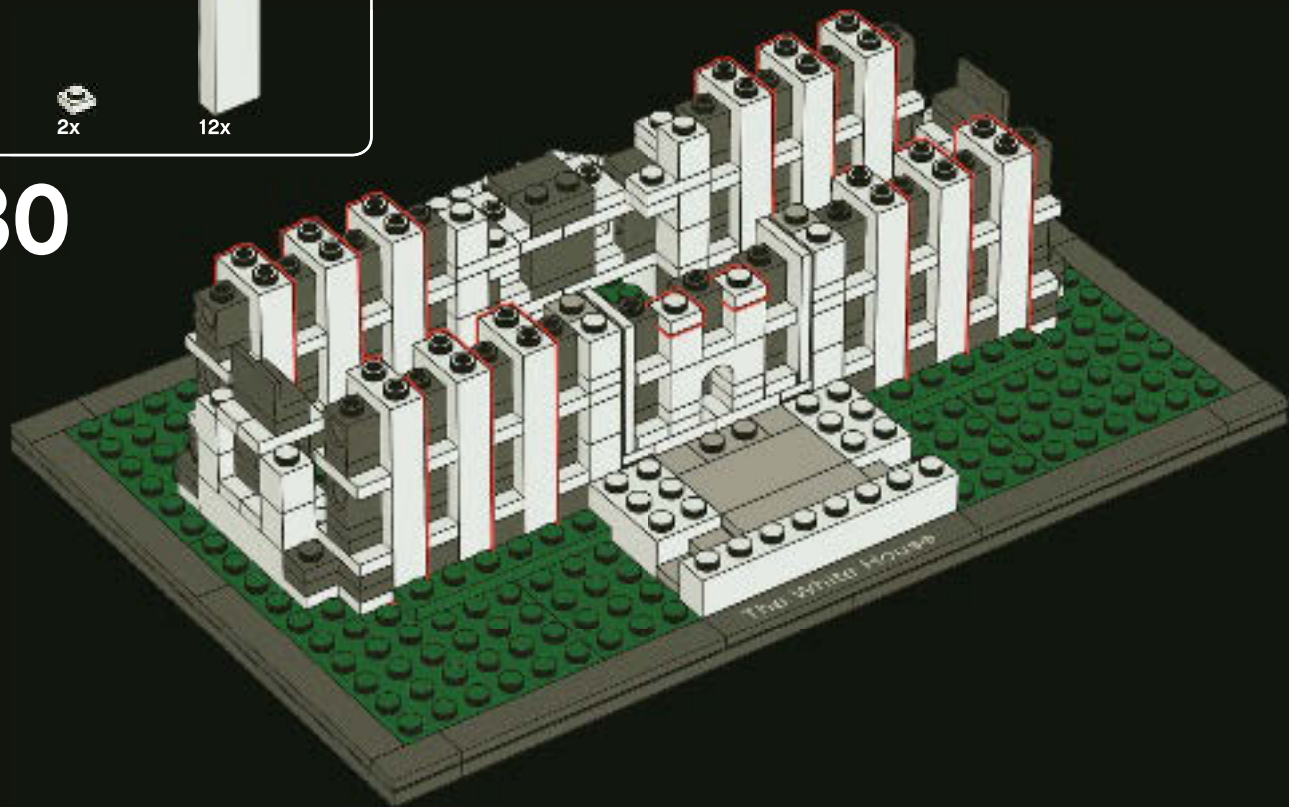
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30



4x

12x

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# 31

1



2



3



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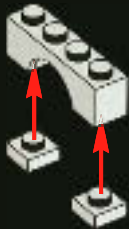
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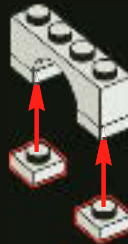


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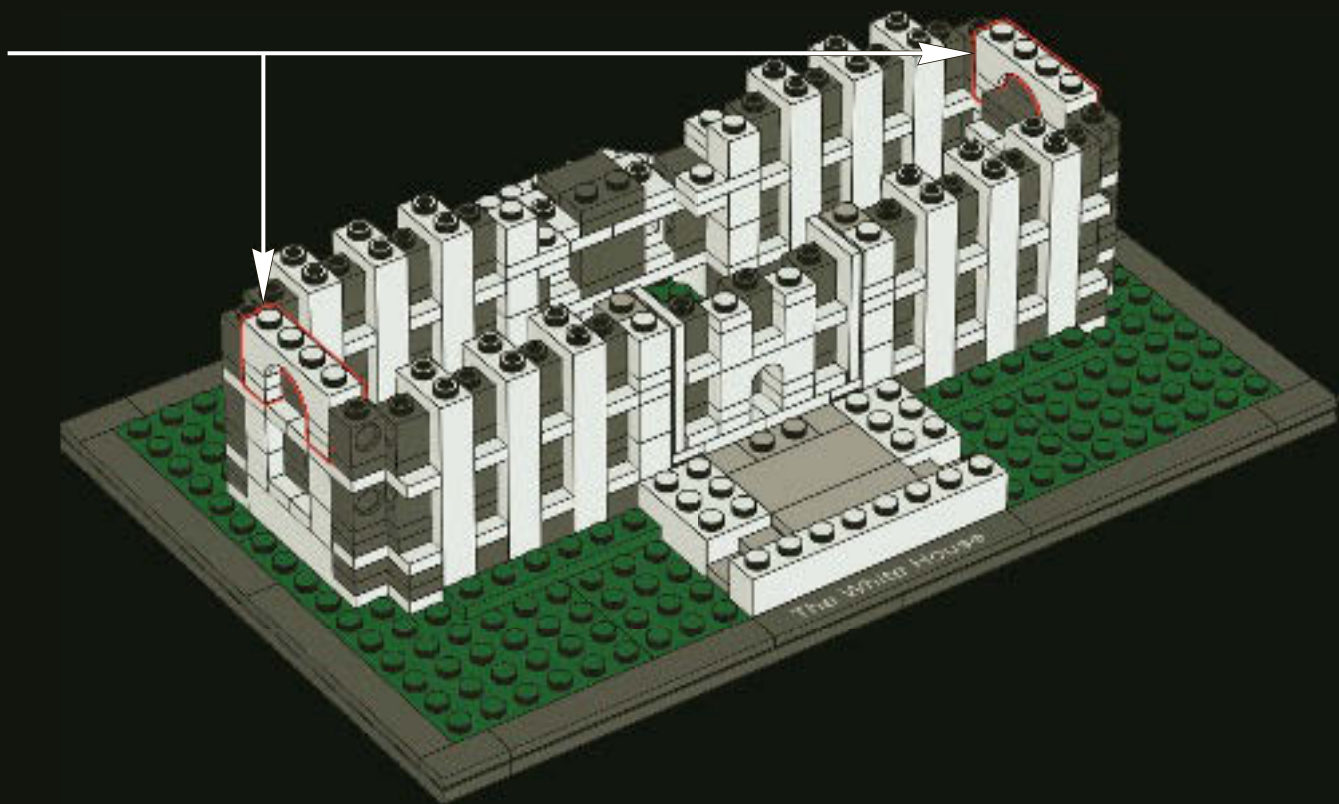
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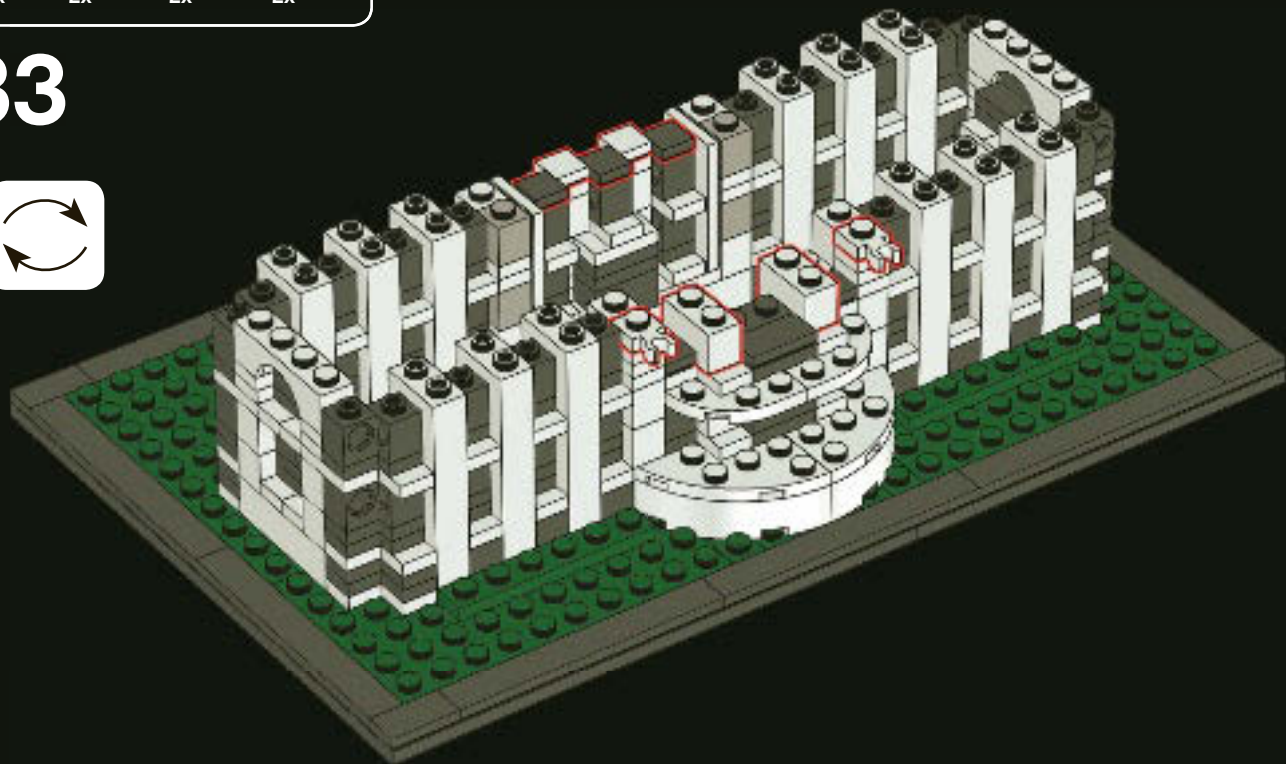


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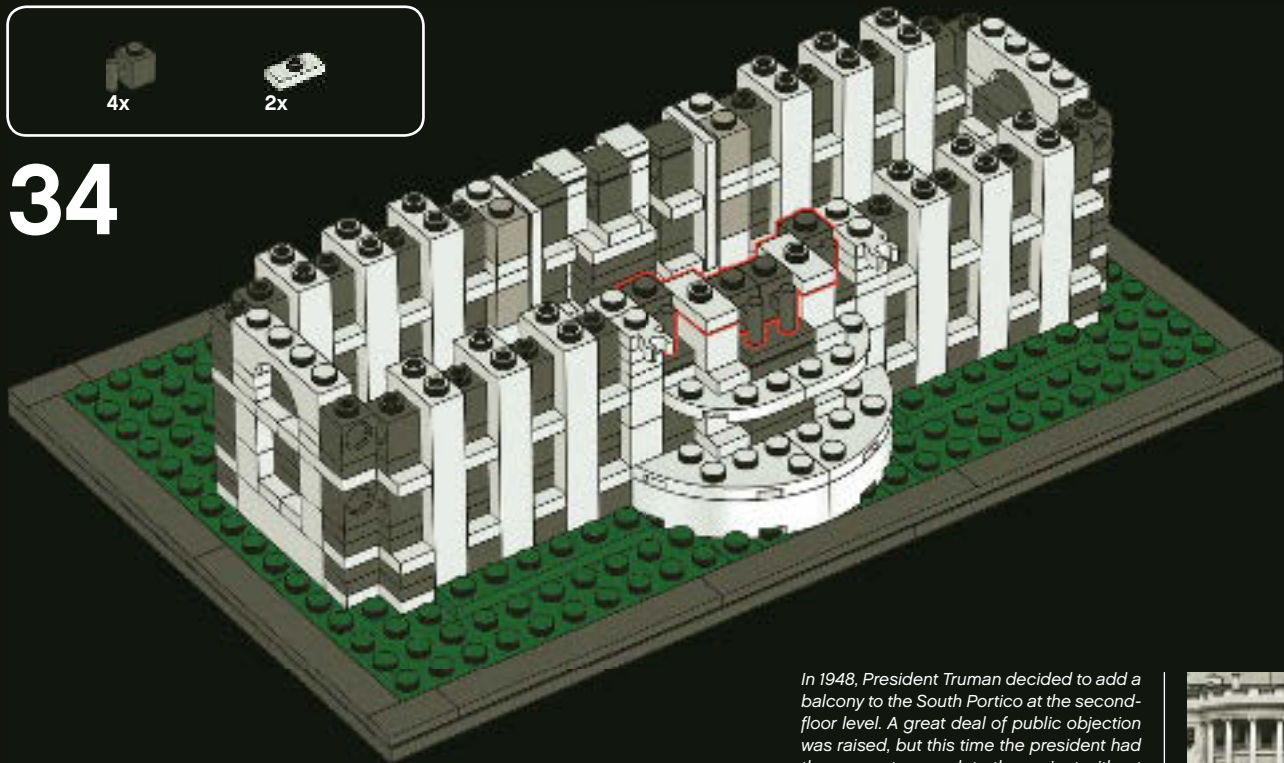


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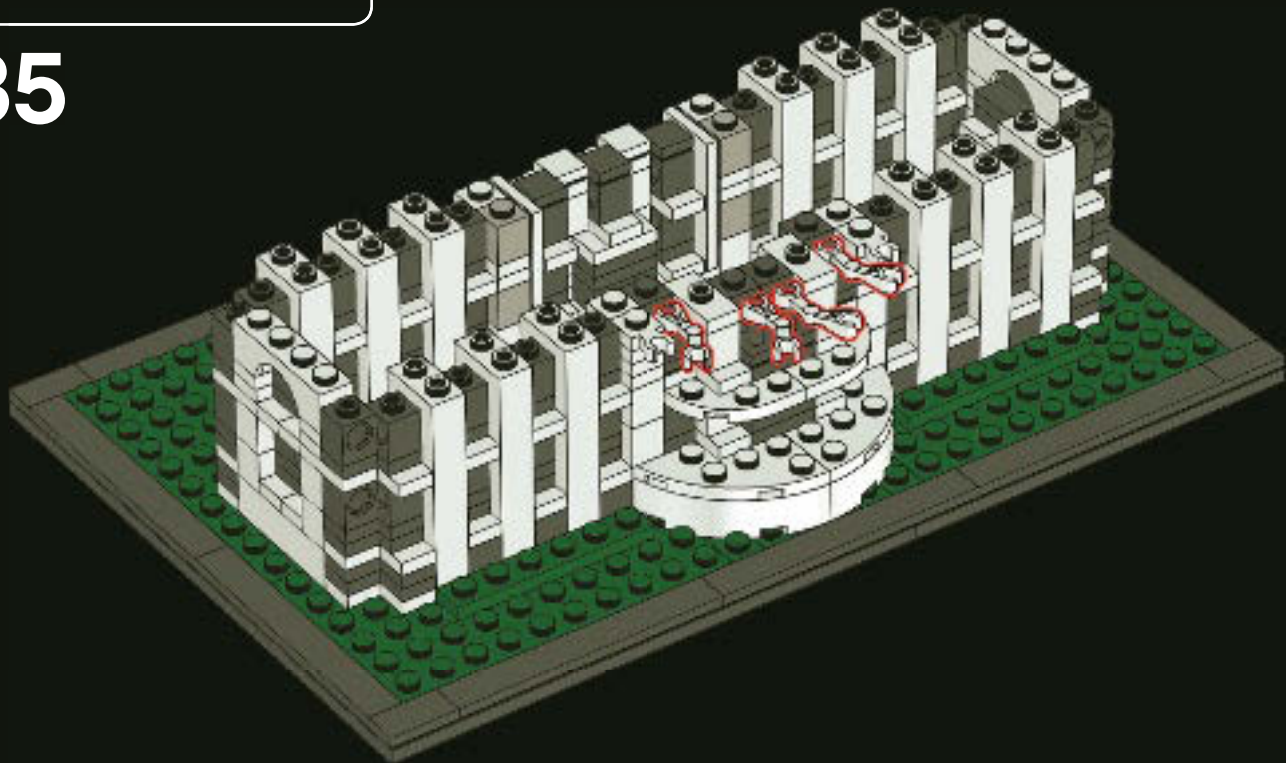
*In 1948, President Truman decided to add a balcony to the South Portico at the second-floor level. A great deal of public objection was raised, but this time the president had the money to complete the project without relying on Congress, and the balcony was constructed according to plan.*

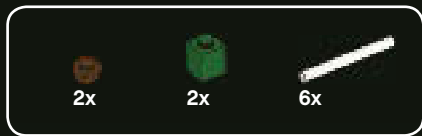




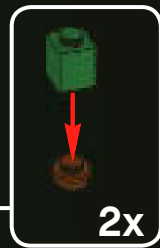
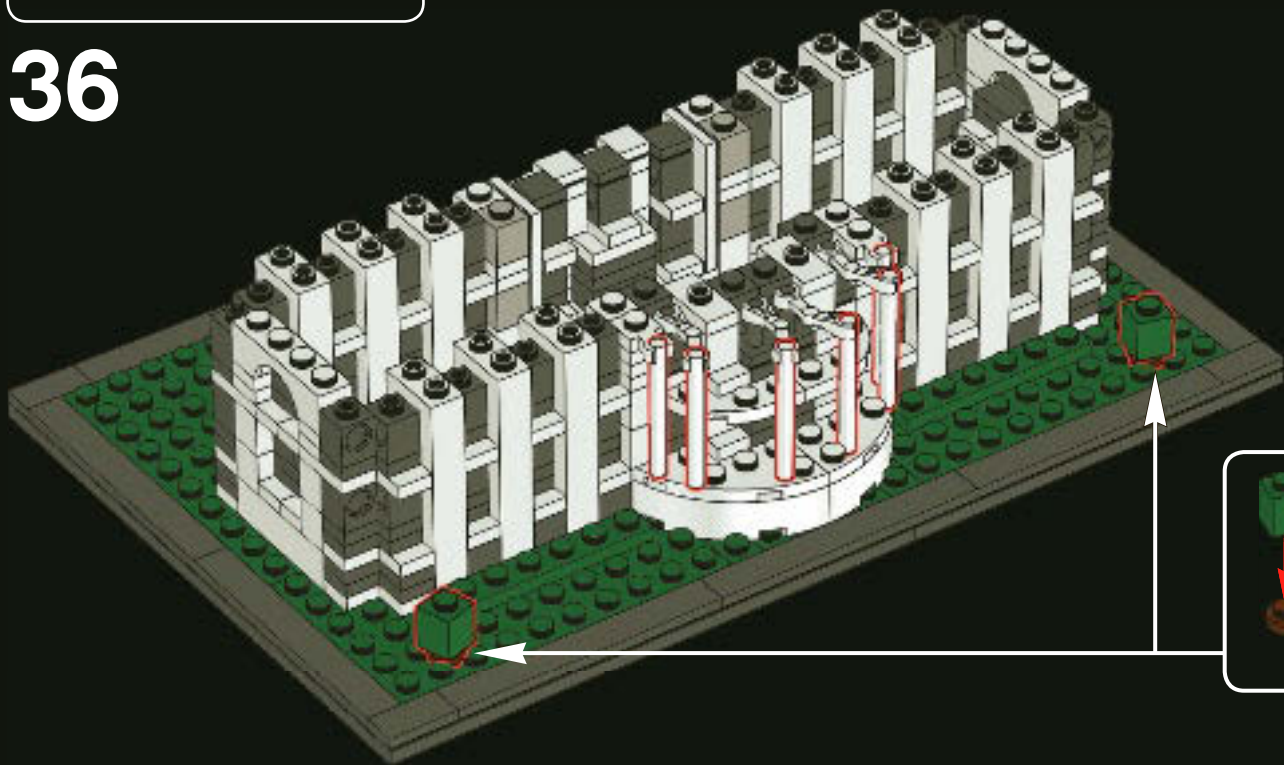
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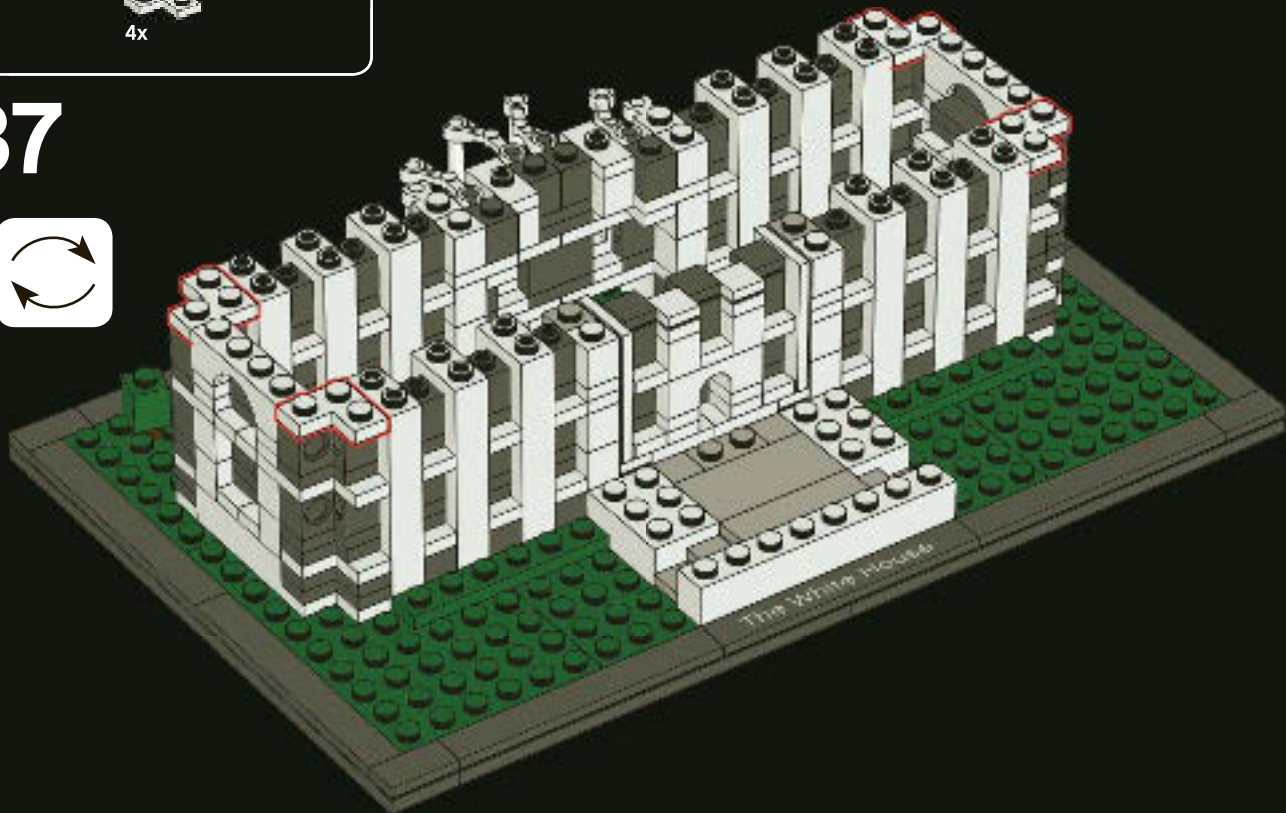
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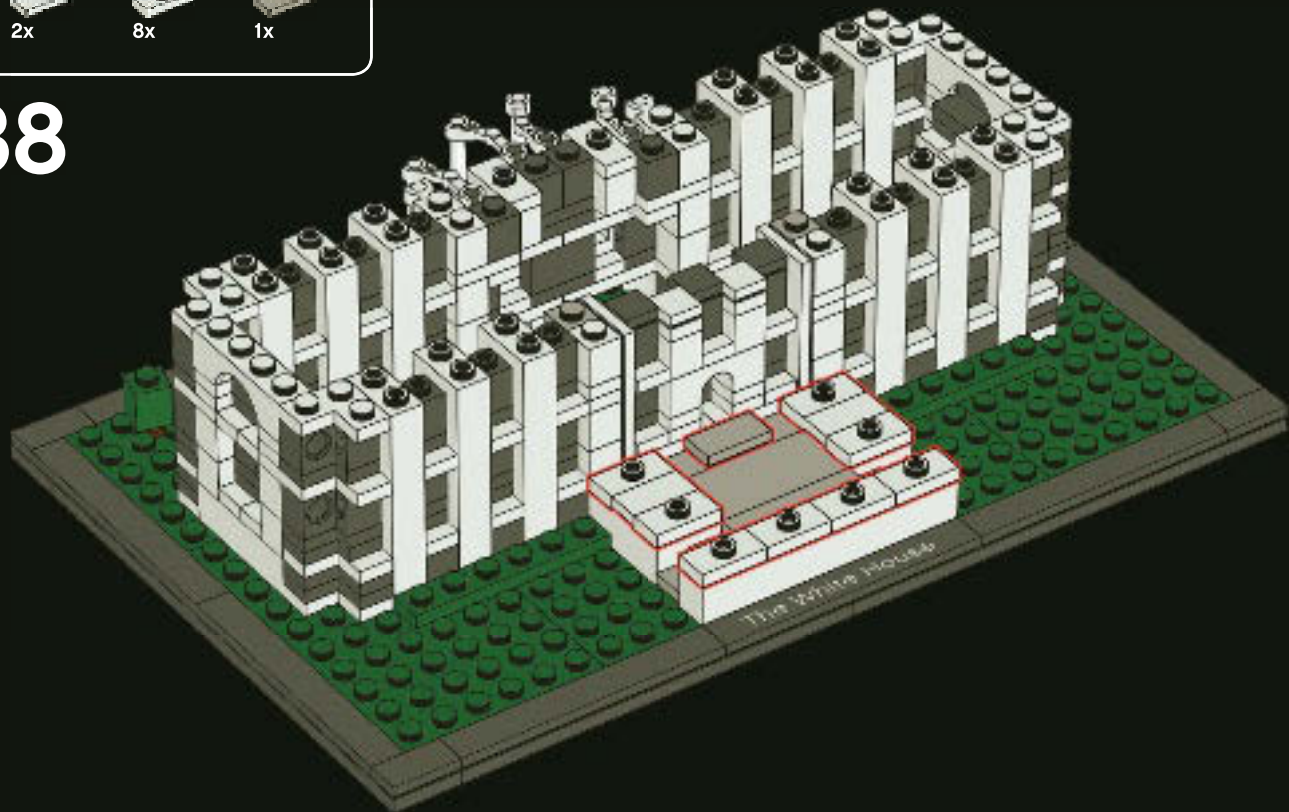


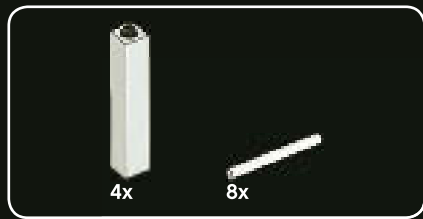
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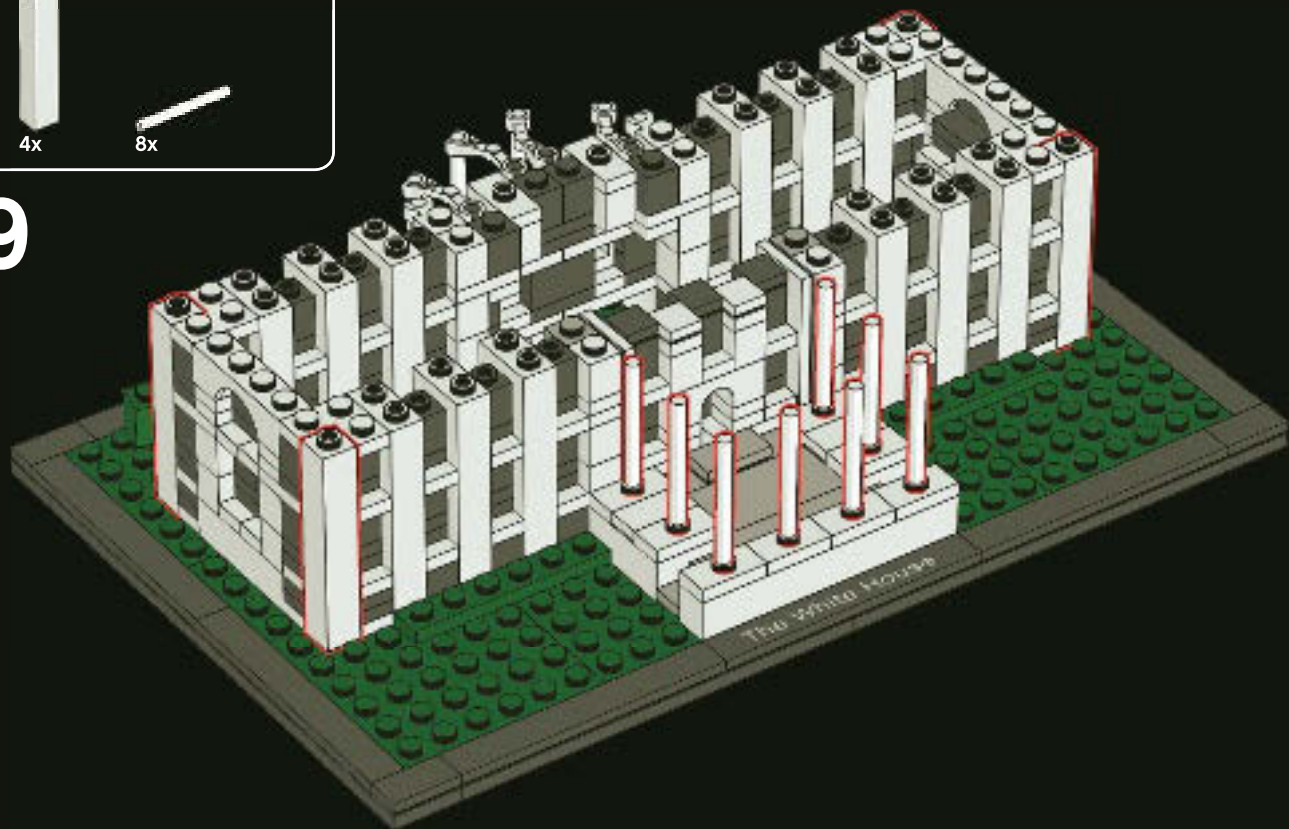
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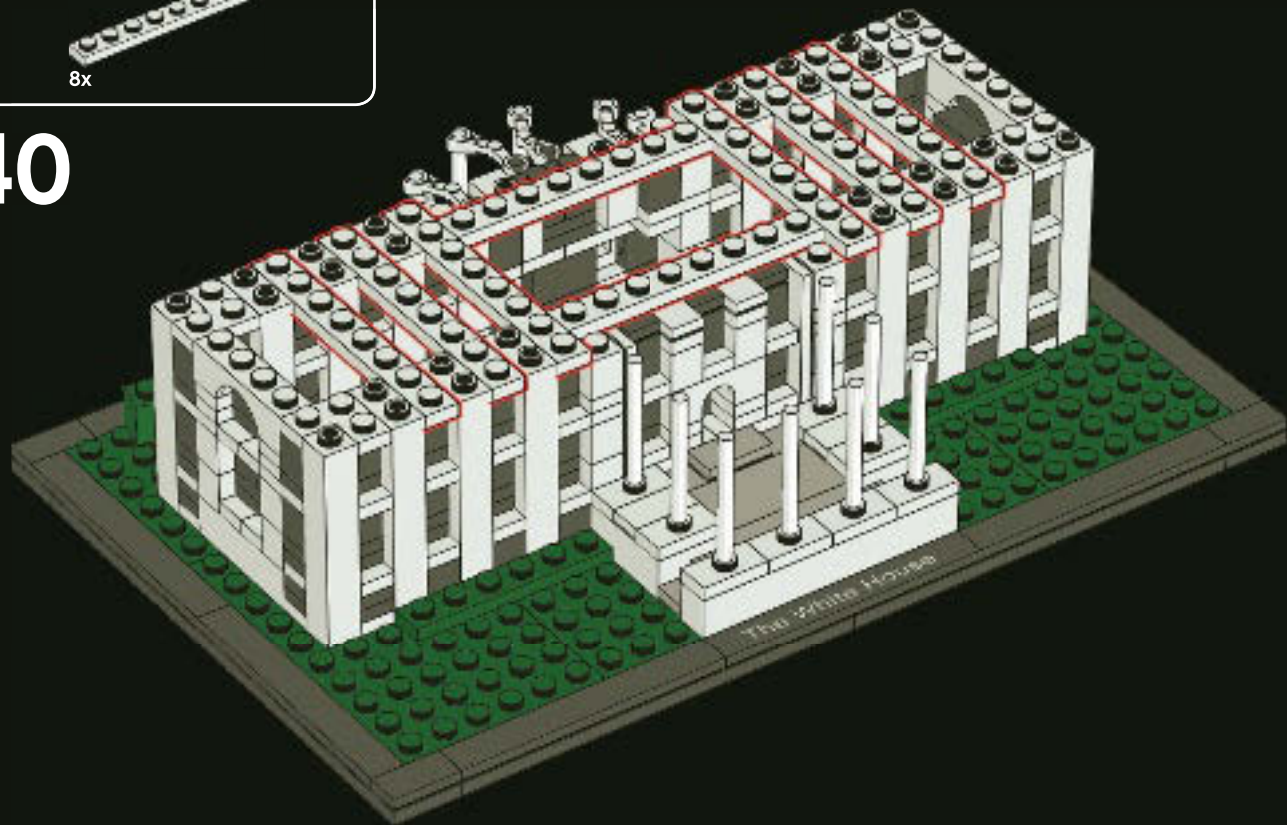


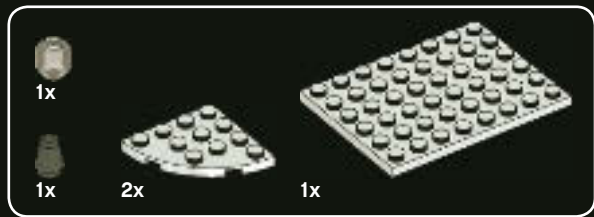




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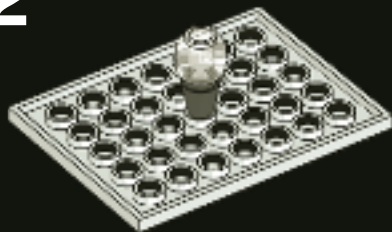


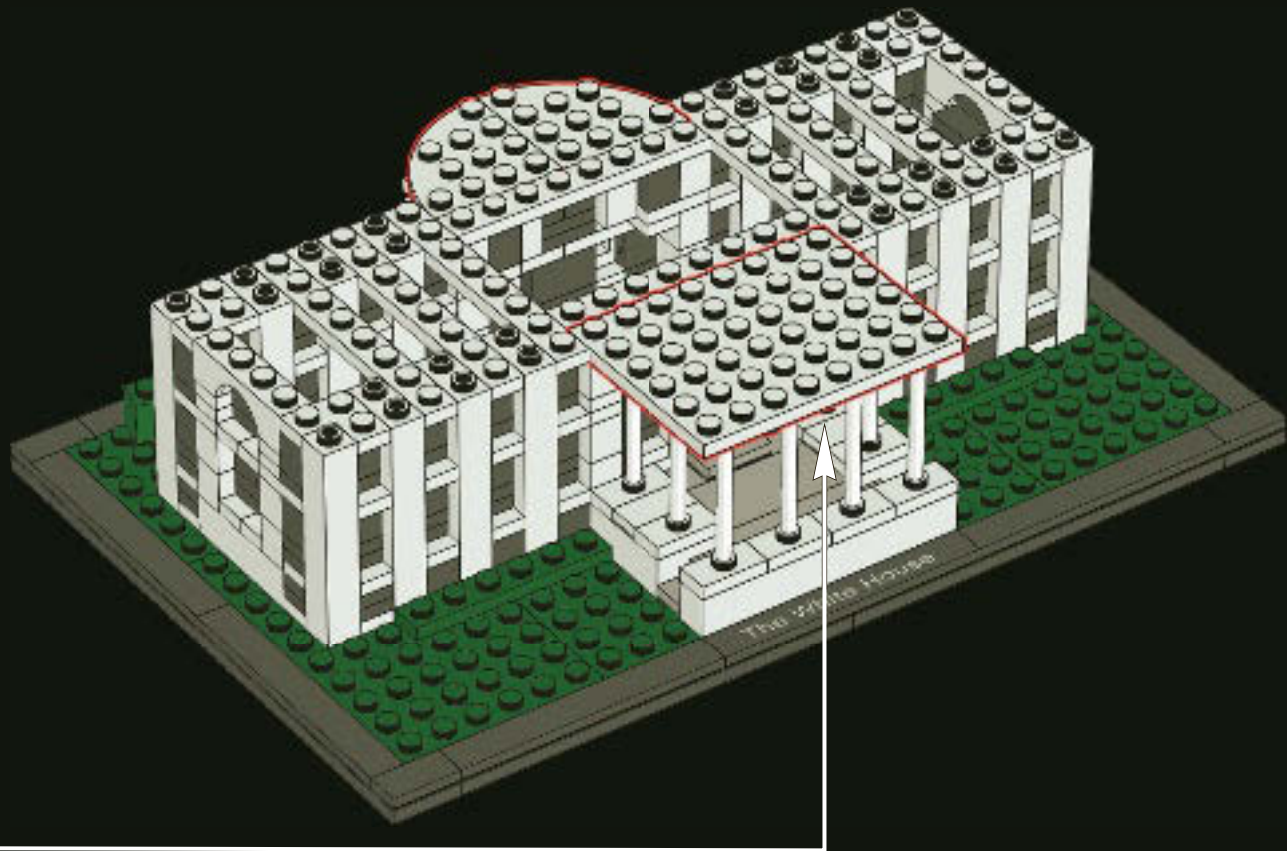
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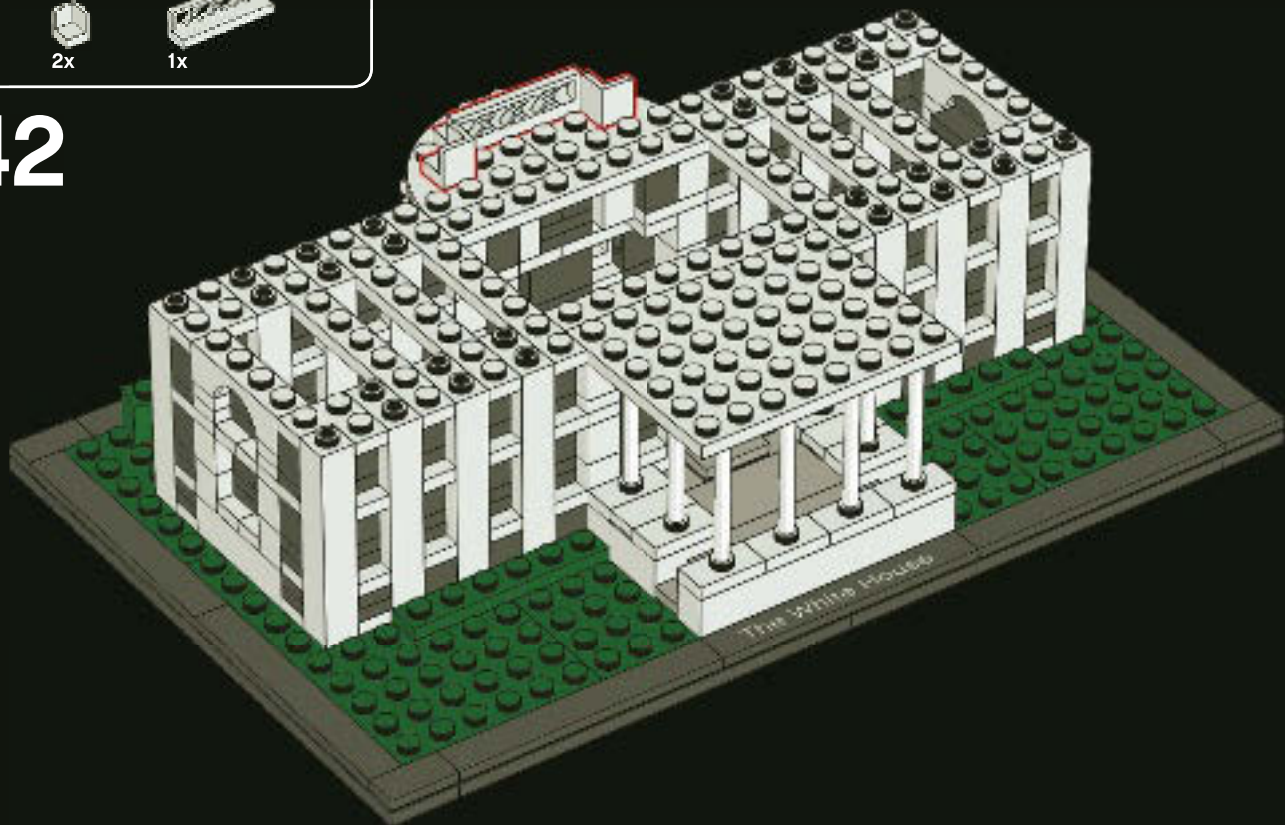


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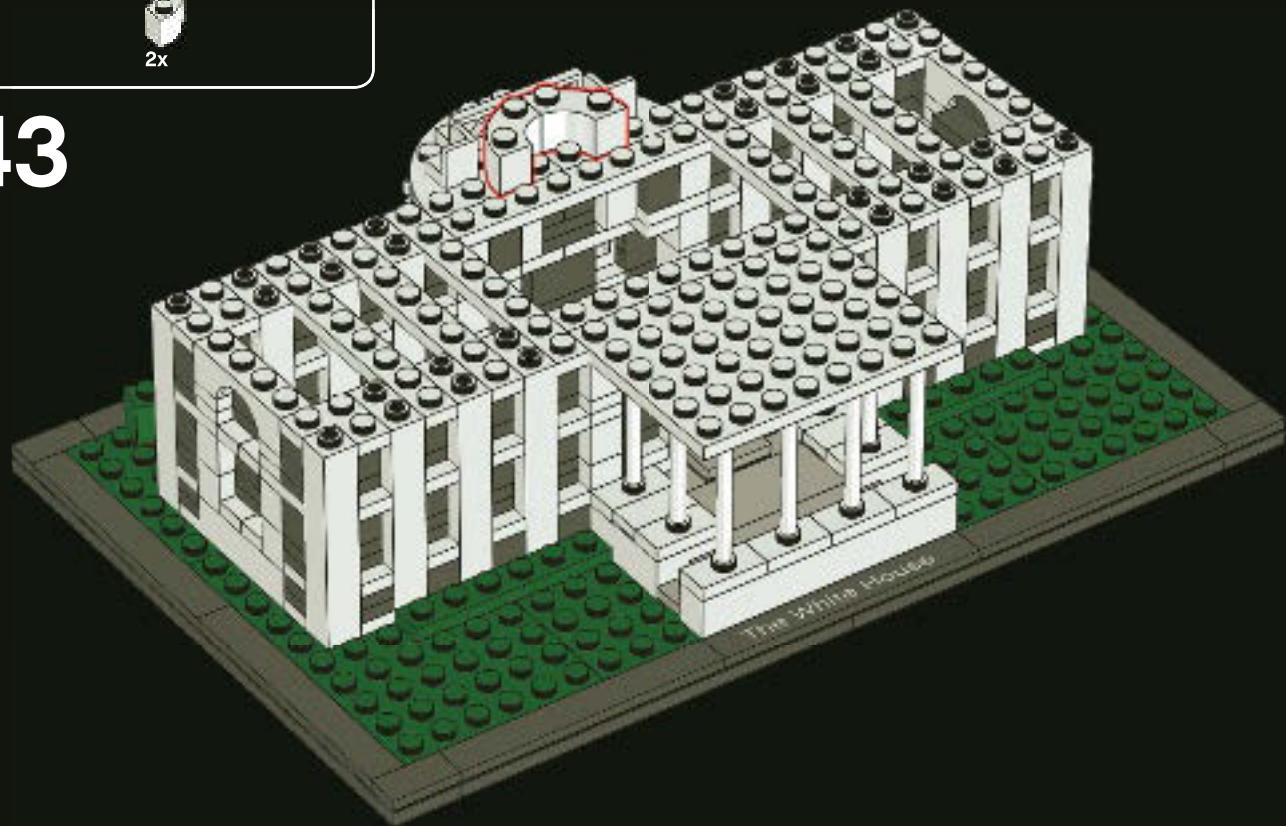
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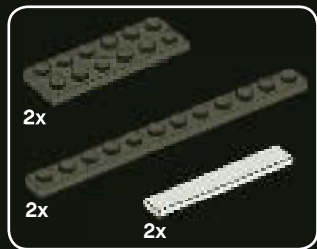


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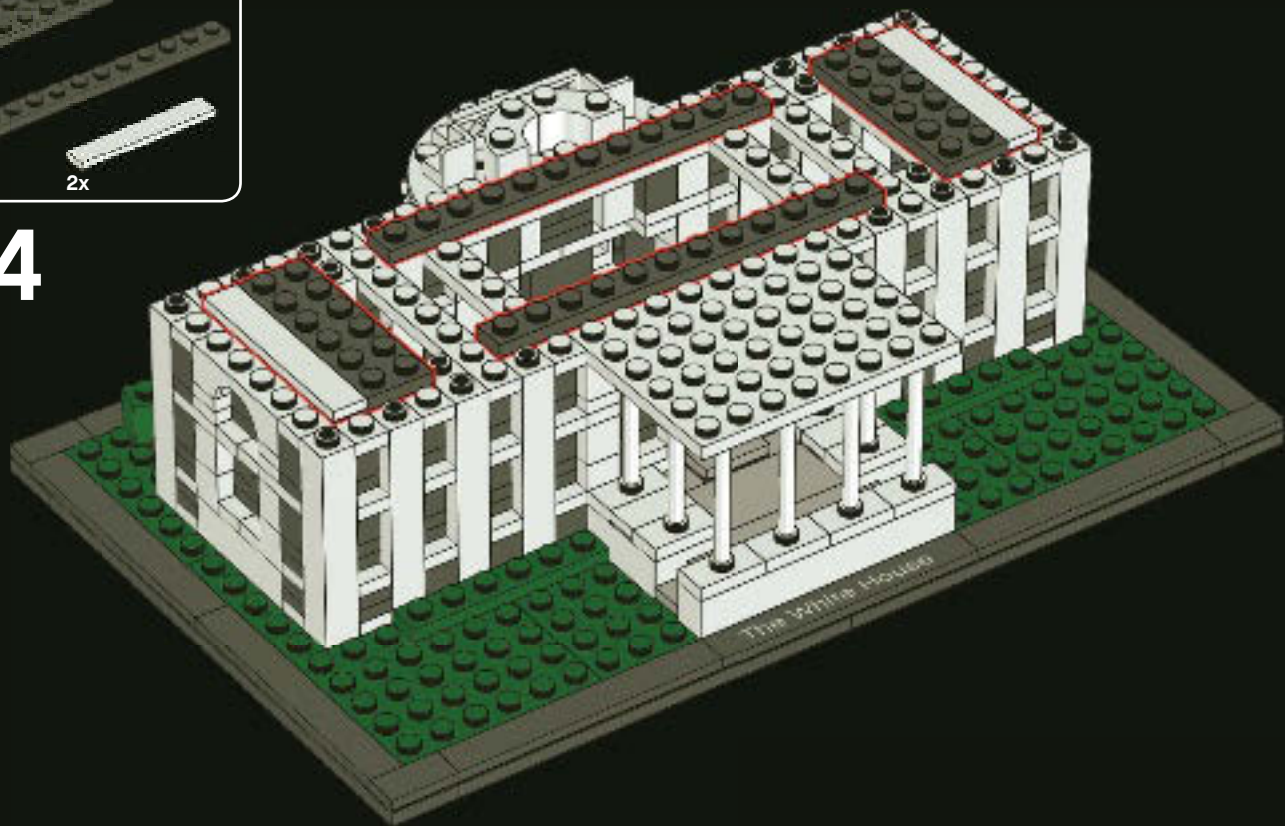
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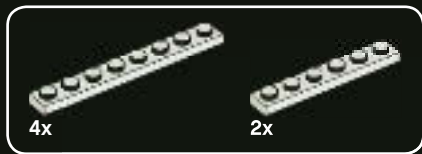




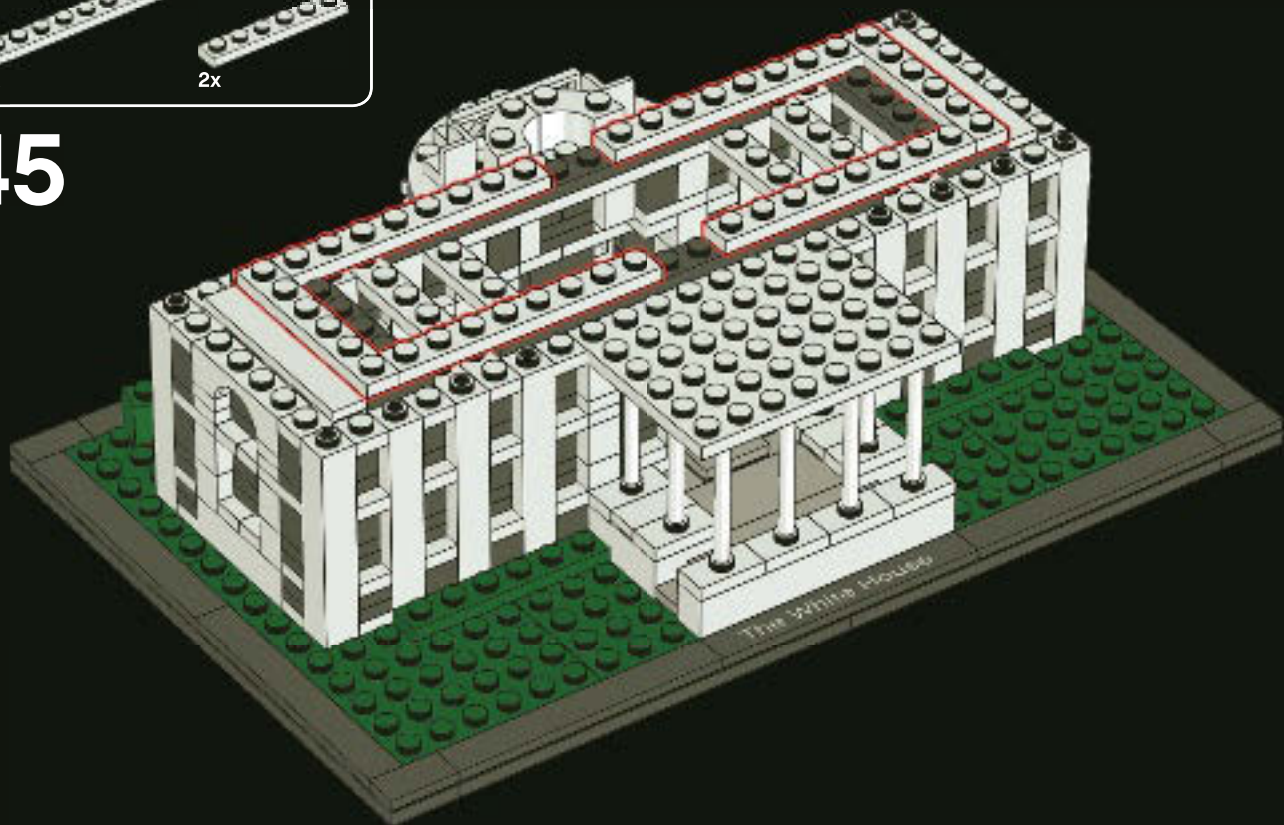
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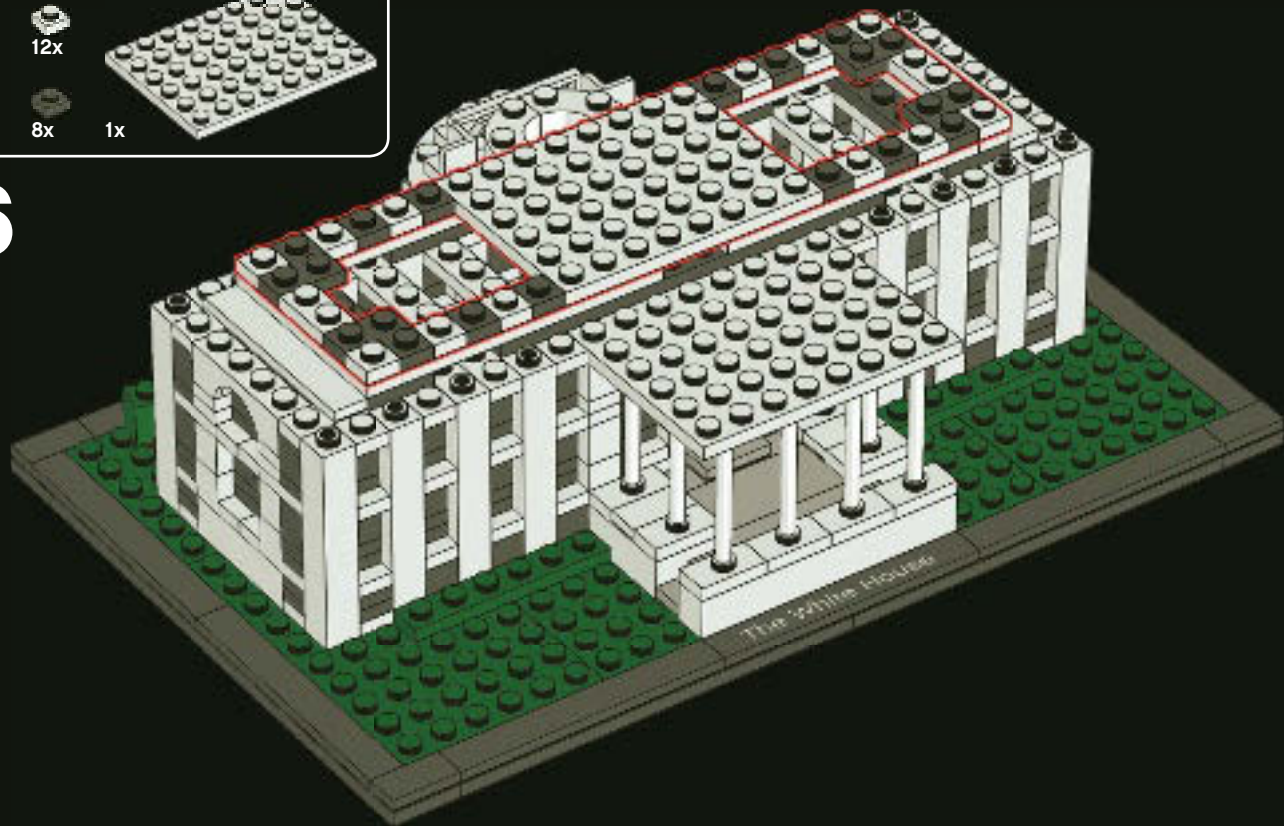


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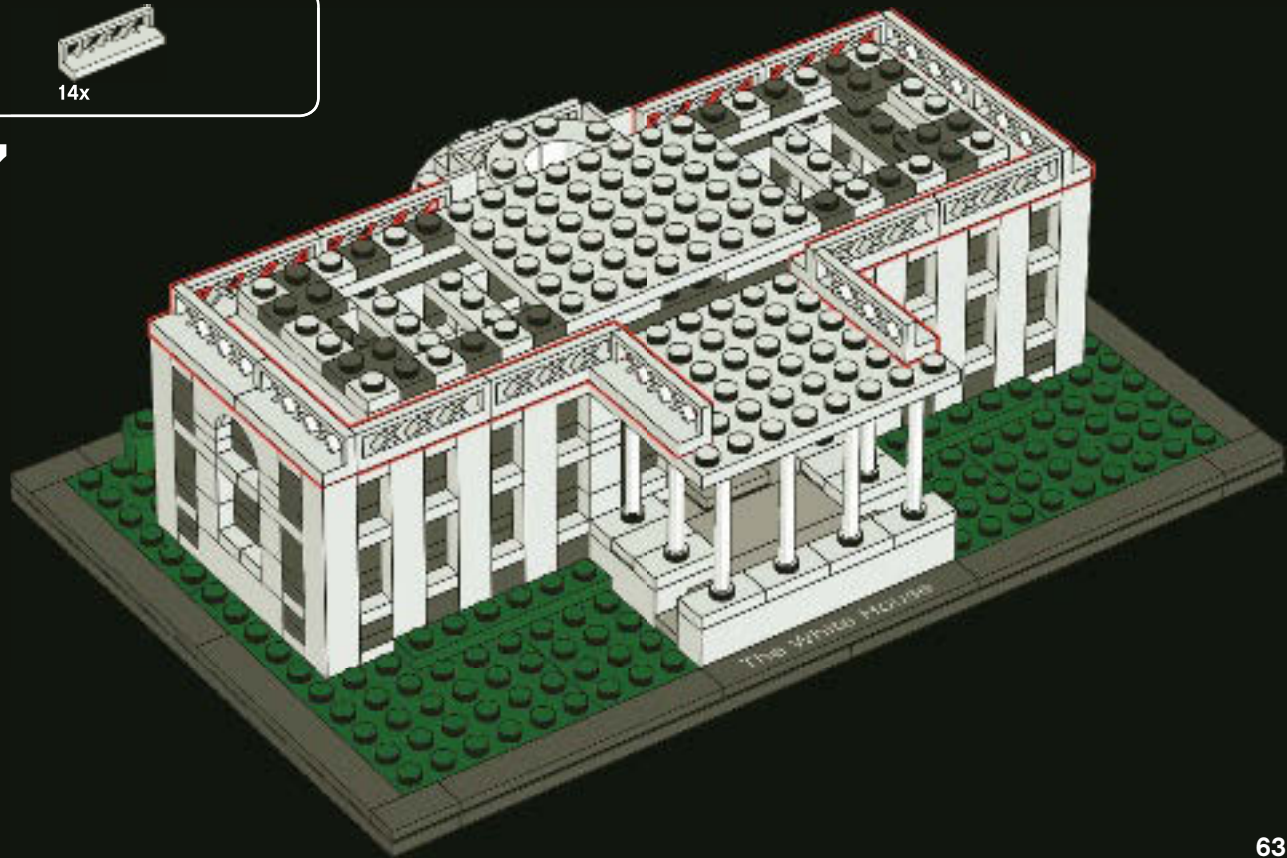
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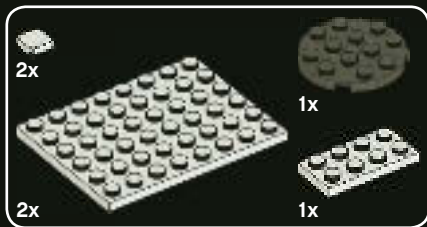




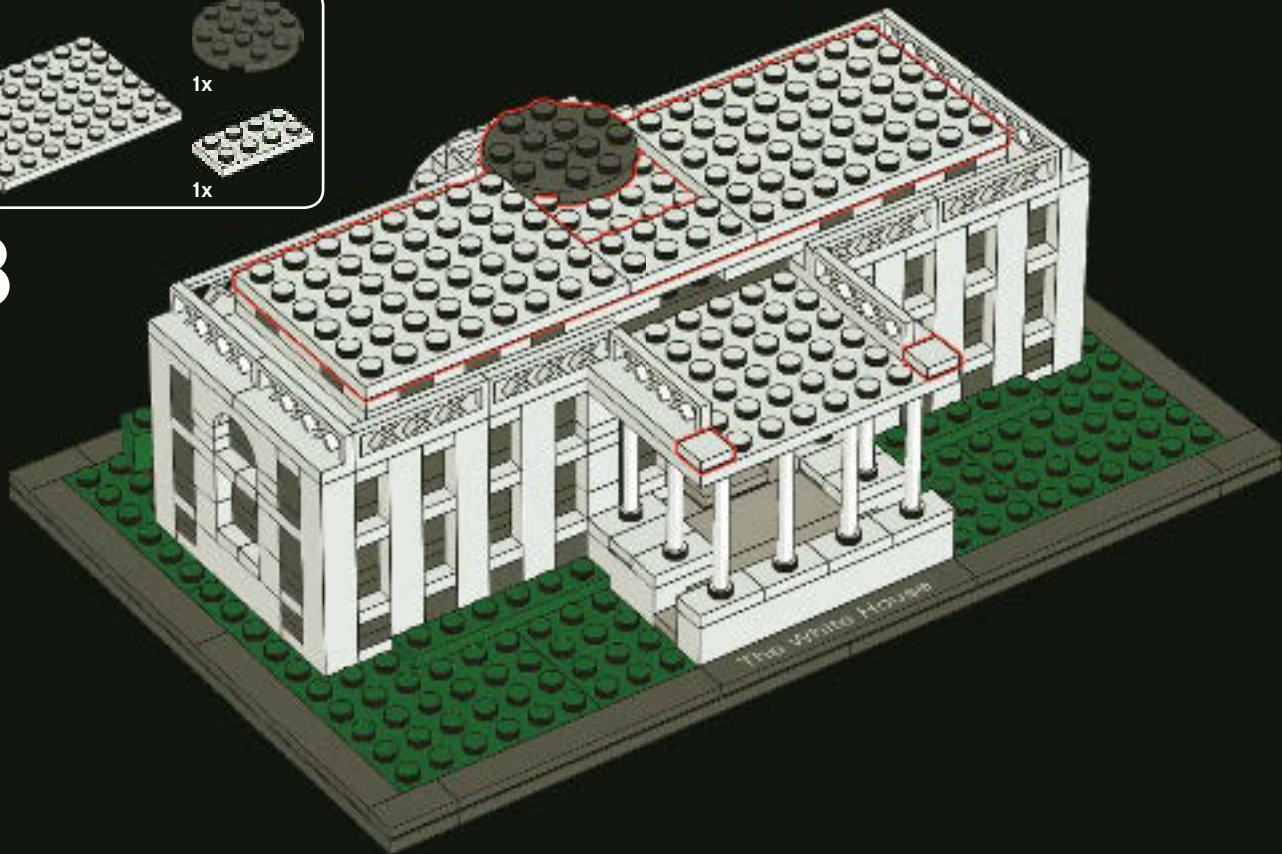
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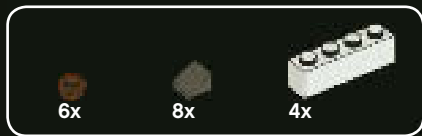




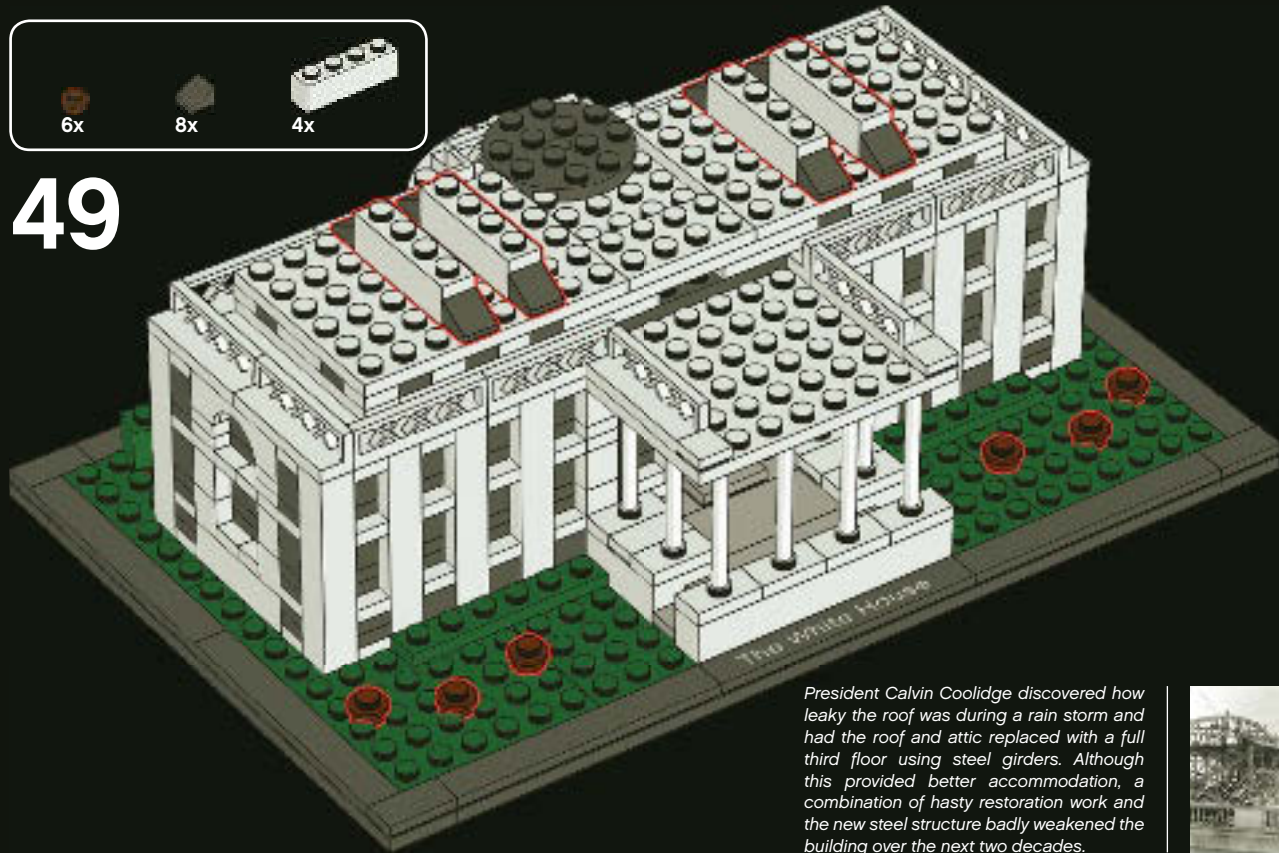
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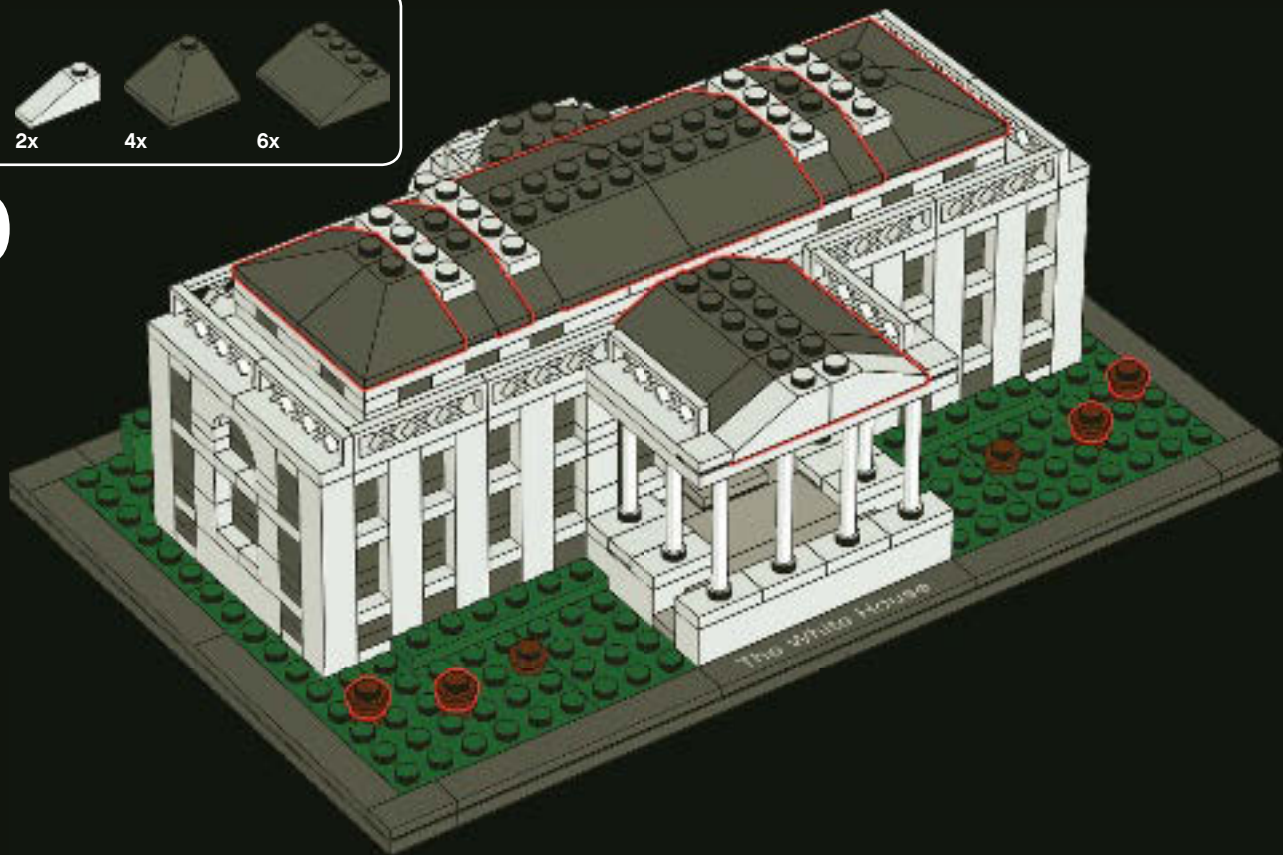


*President Calvin Coolidge discovered how leaky the roof was during a rain storm and had the roof and attic replaced with a full third floor using steel girders. Although this provided better accommodation, a combination of hasty restoration work and the new steel structure badly weakened the building over the next two decades.*





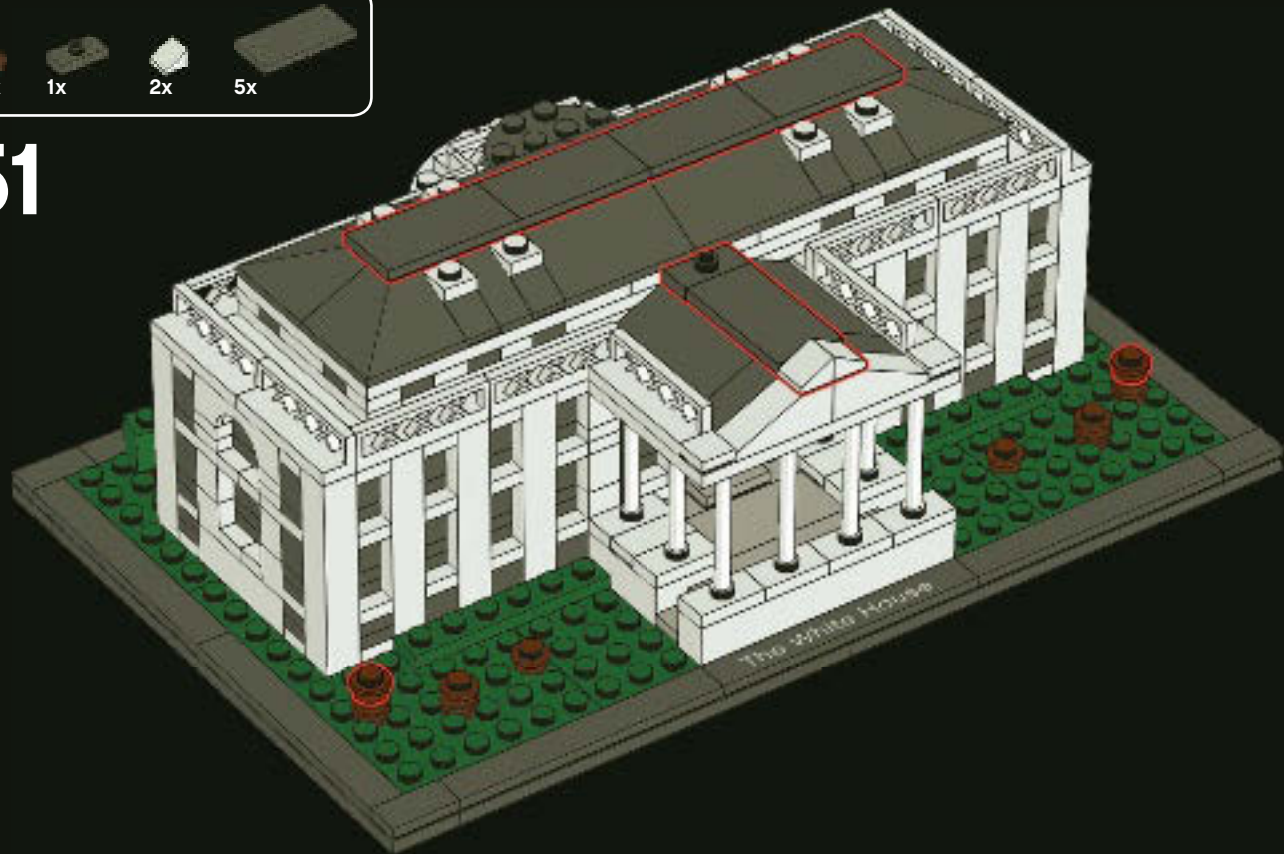
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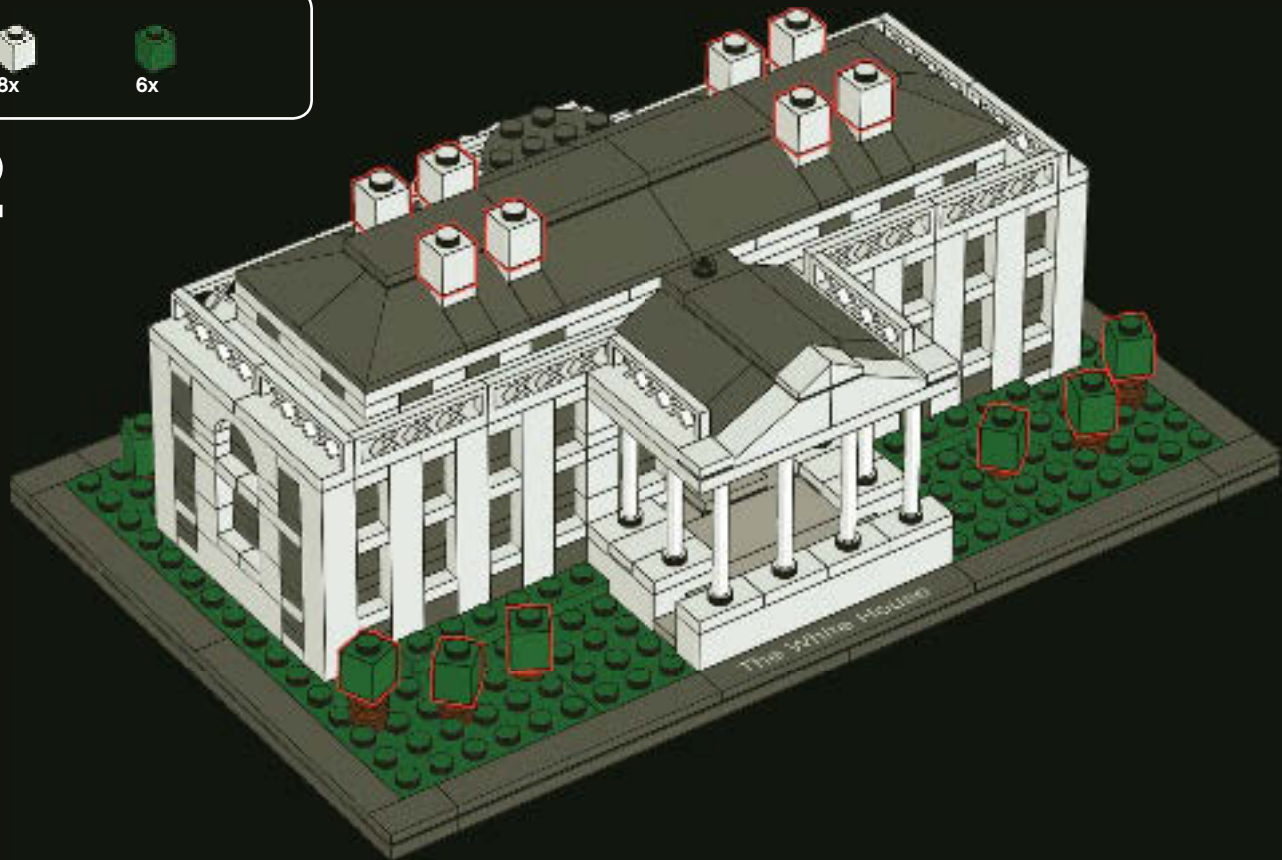


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# 52



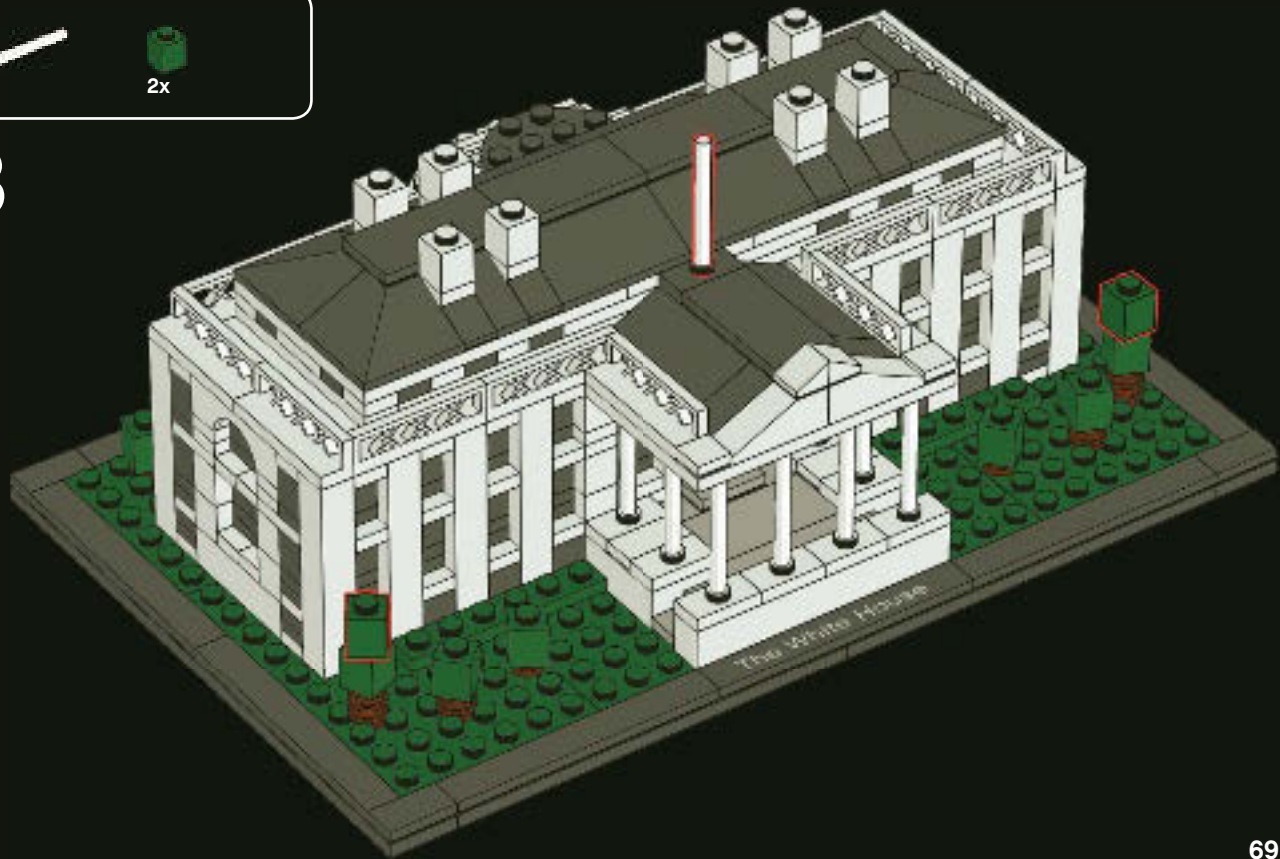


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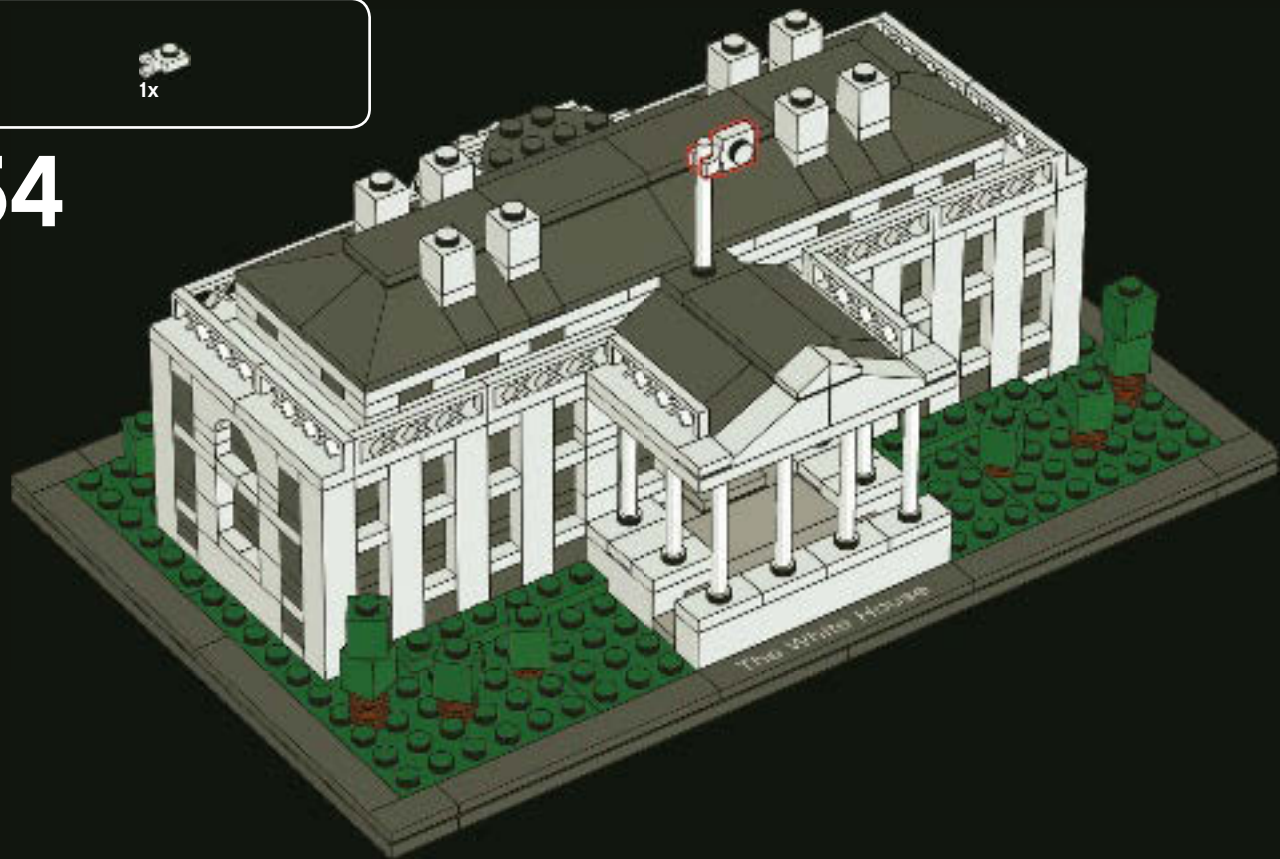
# 53





1x

54



# Renovating The White House

During this renovation the south portico was added. It is rumored that following the fire, the house was painted white to help cover soot stains from the fire, and that it is from this time that people began to refer to it as “The White House”.

Between 1948 and 1952, The White House was extensively renovated. During this renovation the interior of the house was gutted, new foundations were built and a steel framework was added to reinforce the building’s original sandstone walls.

1792-1800:	Residence Construction
1801-1809:	Thomas Jefferson Enhancements
1814-1817:	James Madison Reconstruction
1825-1865:	Architectural Improvements & War
1866-1872:	Post-War Renovation
1873-1901:	Victorian Ornamentation
1902-1904:	Theodore Roosevelt Restoration
1917 & 1927:	Roof Expansions
1948-1952:	Truman Reconstruction
1961-1963:	Kennedy Renovation



National Park Service, Abbie Rowe, Courtesy of Harry S. Truman Library.



National Park Service, Abbie Rowe, Courtesy of Harry S. Truman Library.

Since the early 60s, each presidential administration has seen the White House as a kind of living museum, making changes to the decor and maintaining the building’s structure and exterior, but making very limited alterations to the architecture and layout. In the early 1990s, the White House exterior was extensively refurbished, with some 40 layers of paint removed and the sandstone exterior repaired and repainted. In 1993, the White House embarked on an extensive “greening” project to reduce energy consumption.



## A Word from the Artist

As an Architectural Artist my desire is to capture the essence of a particular architectural landmark in its pure sculptural form. I first and foremost do not view my models as literal replicas, but rather my own artistic interpretations through the use of LEGO® bricks as a medium. The LEGO brick is not initially thought of as a material typically used in creating art or used as an artist's medium. However, I quickly discovered the LEGO brick was lending itself as naturally to my applications as paint to a painter or metal to a blacksmith. As I explore how to capture these buildings with the basic shapes of the bricks and plates, I find the possibilities and challenges they offer almost magical.

### The White House

My initial concern while designing this model was how to replicate the style without the model appearing to be an ordinary white shoebox. I layered the model by isolating the three major components of the building form. Then I refined each one of those in its own way to emphasize or capture those highlights most often associated with The White House.

Starting with the center section I focused on depressing the windows allowing shadows to develop. The last two components that make up the form are the front portico and the back rotunda. Each of these design elements focuses your attention to the center of the house. This center also acts as a spine joining the two symmetrical wings. I used subtle details to recreate the columns, railings, and even the hanging chandelier by letting the LEGO pieces themselves embrace your "postcard" imagination. The last feature I decided was important to include, was a little hint of foliage.



– Adam Reed Tucker



# “Architecture – a wonderful game”

This was the title, or rather a paraphrase of the French title (“L’architecture est un jeu ... magnifique”) of a 1985 exhibition hosted by the Pompidou Centre in Paris, where 30 young European architects were given the opportunity to play with the famous Danish LEGO® bricks. The original idea was actually Dutch, Rotterdam’s Kunststichting arranging a small event the previous year where ten local architects were let loose on a large number of LEGO bricks. Such was the success of this first initiative that the Pompidou Centre decided to expand the idea to include 30 young aspiring architects from across Europe – their goal: to each draw an imaginary villa which would then, brick by brick, be built at LEGO HQ in Billund.

During the event, many a quotation was made from the history of architecture. For example, the Italian Renaissance architect Palladio was quoted alongside modernists such as Mies van der Rohe and Gerit Rietveld, the quotes relating to architectural projects from oil platforms to romantic ruins. It was a case of no holds



barred and, even though some of the projects produced by the 30 talents ended in weird and wonderful pseudo-philosophical comments on opportunities, or rather the lack of same in the Eighties, it was all nevertheless, a wonderful game.



4x  
245301



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300501



9x  
300401



12x  
245401



2x  
300201



4x  
301001



2x  
300101

74



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300801



1x  
300701



2x  
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2x  
4504369



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300101



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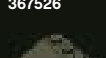
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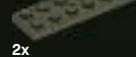
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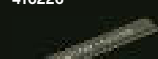
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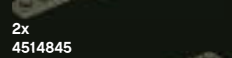
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6x  
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1x  
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4211414



1x  
4211356



1x  
4560183



2x  
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