

The University of Liverpool - CHP2



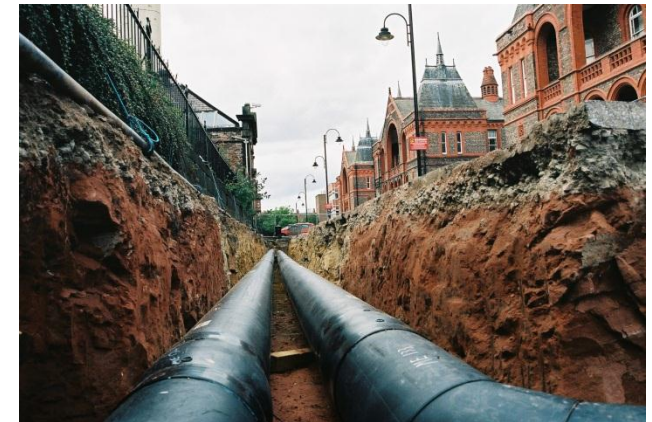
David Wilkinson CEng MCIBSE
Associate Design Director

VITAL
ENERGi

leading innovator in efficient energy provision

Overview of The University of Liverpool

- > Strong, lasting relationship over the past 6 years
- > Recent framework includes a 4 year implementation of district heating (2007-2011)
- > 1000m of district heating pipework
- > Framework involves the joining of new and old buildings



Current Energy Centre

- > Installed in 2006-2007 by Emcor
- > The current Energy Centre contains:
 - > 3.4 MWe HT CHP
 - > 3 No. 12 MW HT Boilers



- > Enabling works carried out to connect the New Energy Centre to the existing Energy Centre

Enabling Works

- > Replace main header
- > Main DH pump replacement



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- > Upgrade existing pressurisation unit
- > Upgrade existing DH connection

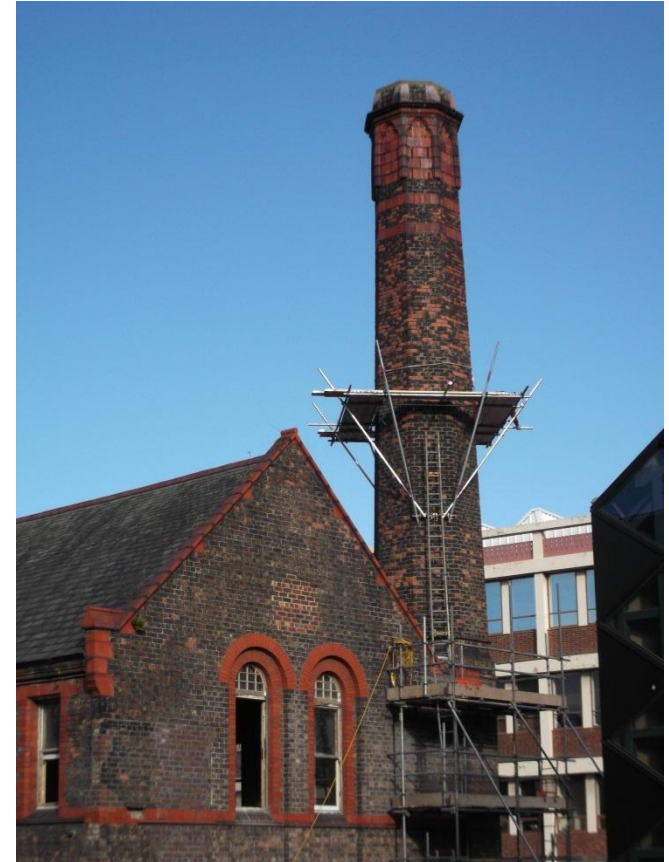
New Energy Centre

- > Previously used as the Royal Infirmary centre
- > 3 story building
- > Built in 1890
- > Grade II listed building
- > Heritage features to be retained



New Energy Centre

- > 2 No. 2 MWe CHP Engines
- > All Ancillary Equipment inc.:
 - > EGHE and Silencers
 - > Oil storage tanks
 - > HT & LT Cooling Radiators
 - > Flues
 - > Shunt Pumps
 - > All LTHW and Gas Pipe work
 - > Transformers and RMU's
 - > HV and LV panels
 - > Integration into HV ring (HV cabling)
- > Drainage
- > Structural and General Building works
- > Restoration works



Winning Bid & Project Delivery

- > Project driven by programme
- > Work taking place July 2013 and due to finish April 2014
- > 50% of the works outside VE's core business
- > Successful bid based on 3 key elements:
 - > Quality of Bid
 - > Client confidence in VE to deliver on Programme
 - > Partnering for non-core business areas

Project delivery partners

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Core Business

- > Turnkey Design, supply, installation & life cycle management of low carbon energy services
- > Existing UoL framework partner
- > Project Team available / capable / experienced

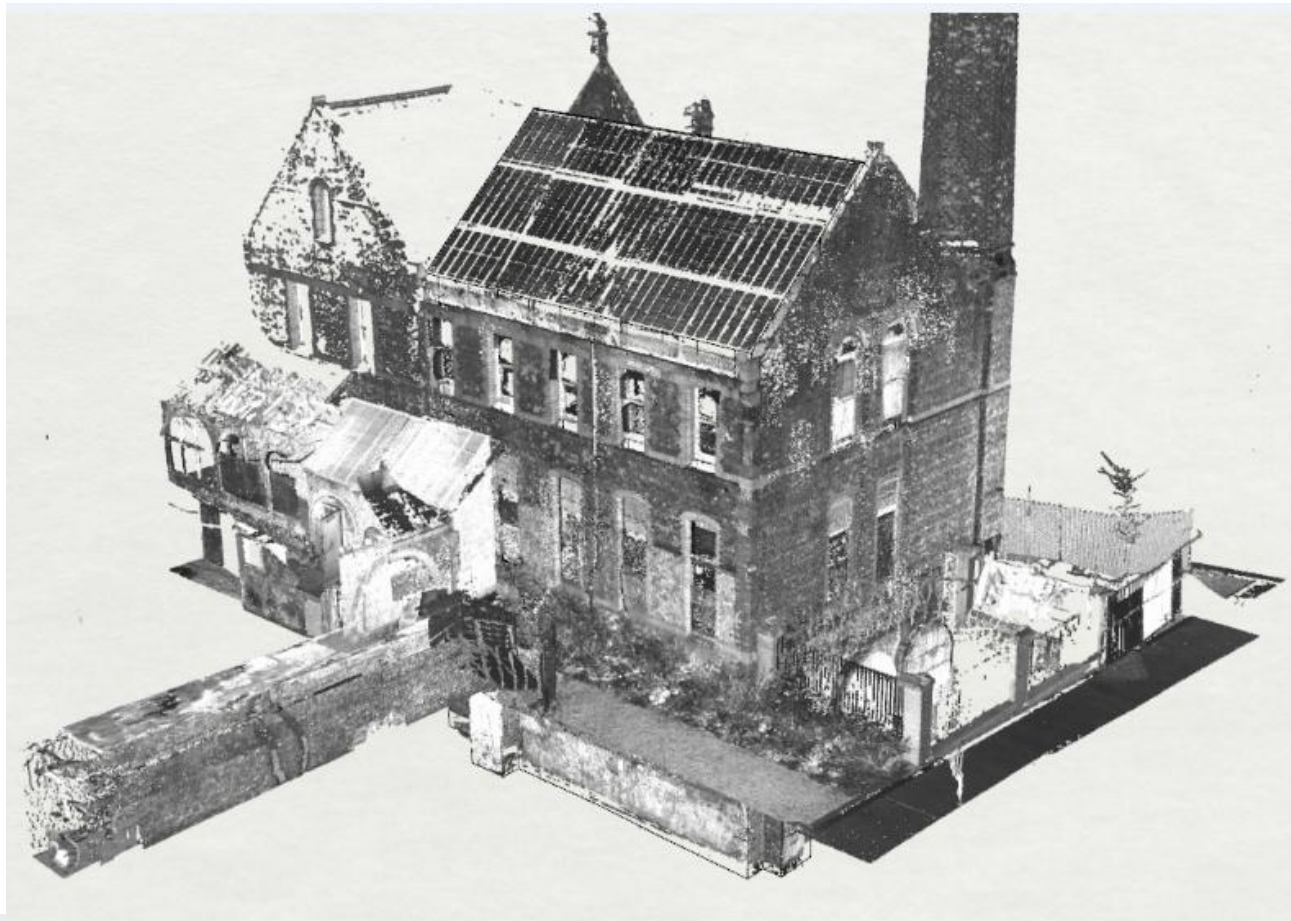
Edina CHP Specialists

- > Existing VE supply chain partner
- > UK MWM Engine partner for 15 years
- > Established Service & Spares business
- > Previous CHP partnerships include:
 - University of York
 - Media City
 - Blackpool Infirmary
 - Wyndford Estate

Harry Fairclough Construction

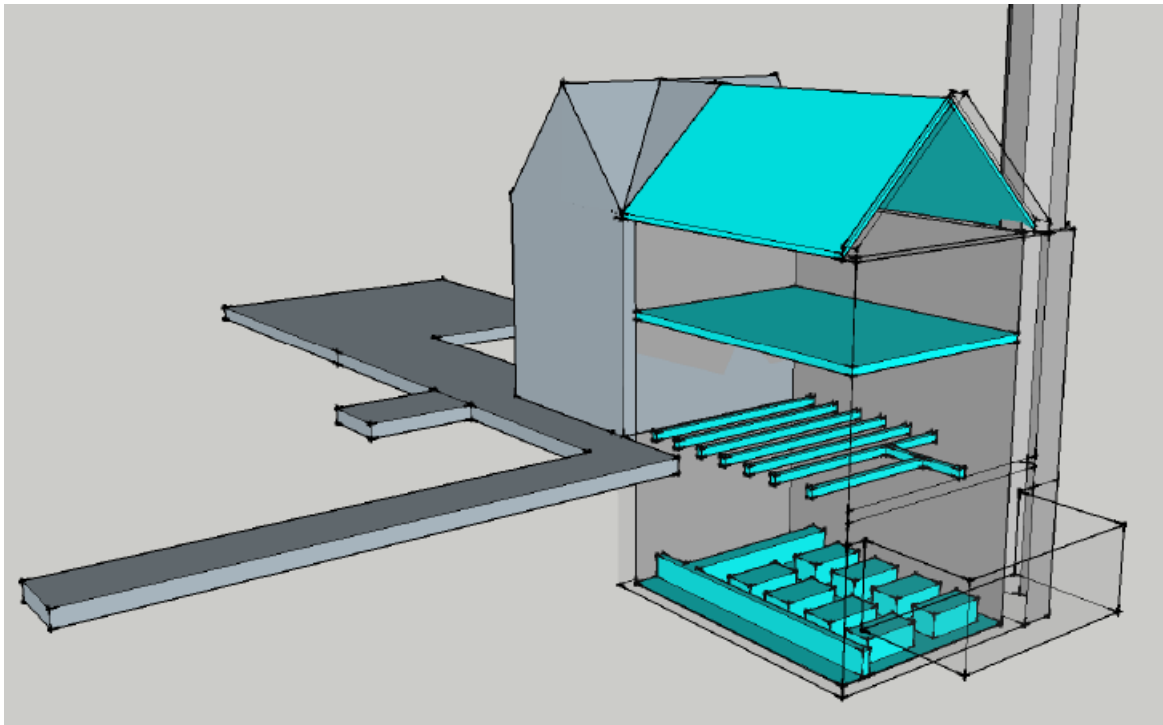
- > Previous UoL projects include:
 - Harry Cohen Library
 - Leahurst Equine Centre
- > UoL framework member
- > Experienced in listed building refurbishments
- > Local delivery team and supply chain

Programme and Method Statement

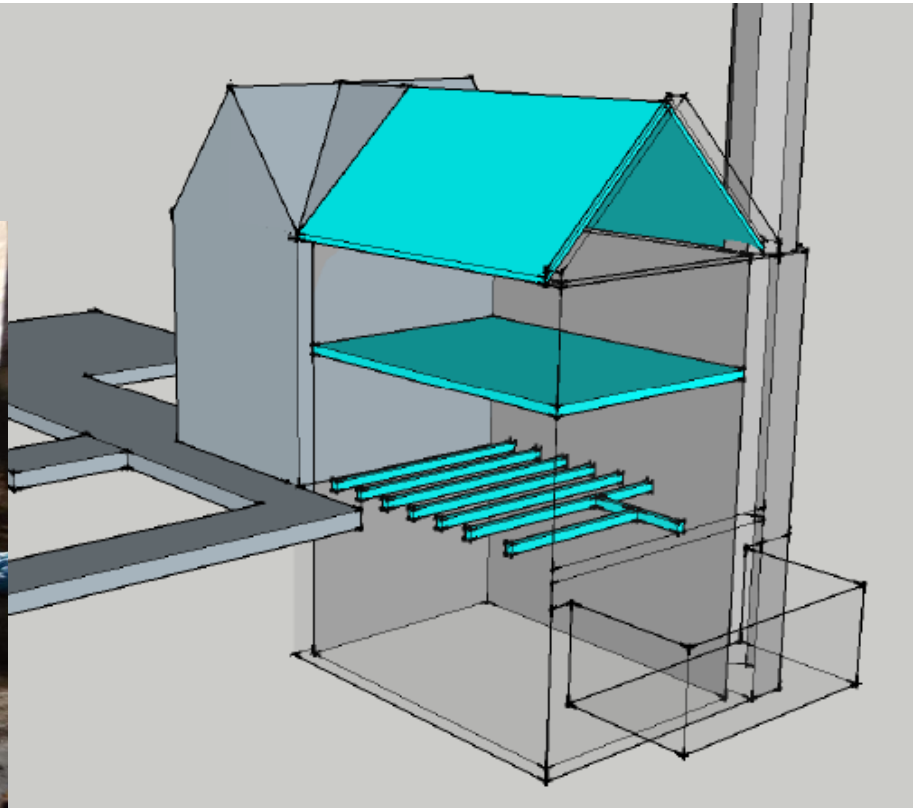


Existing
Building

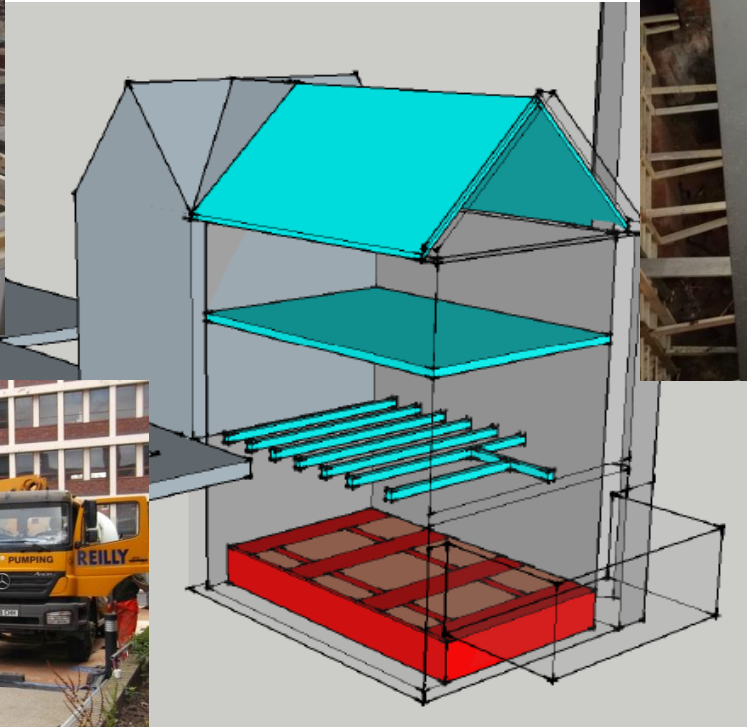
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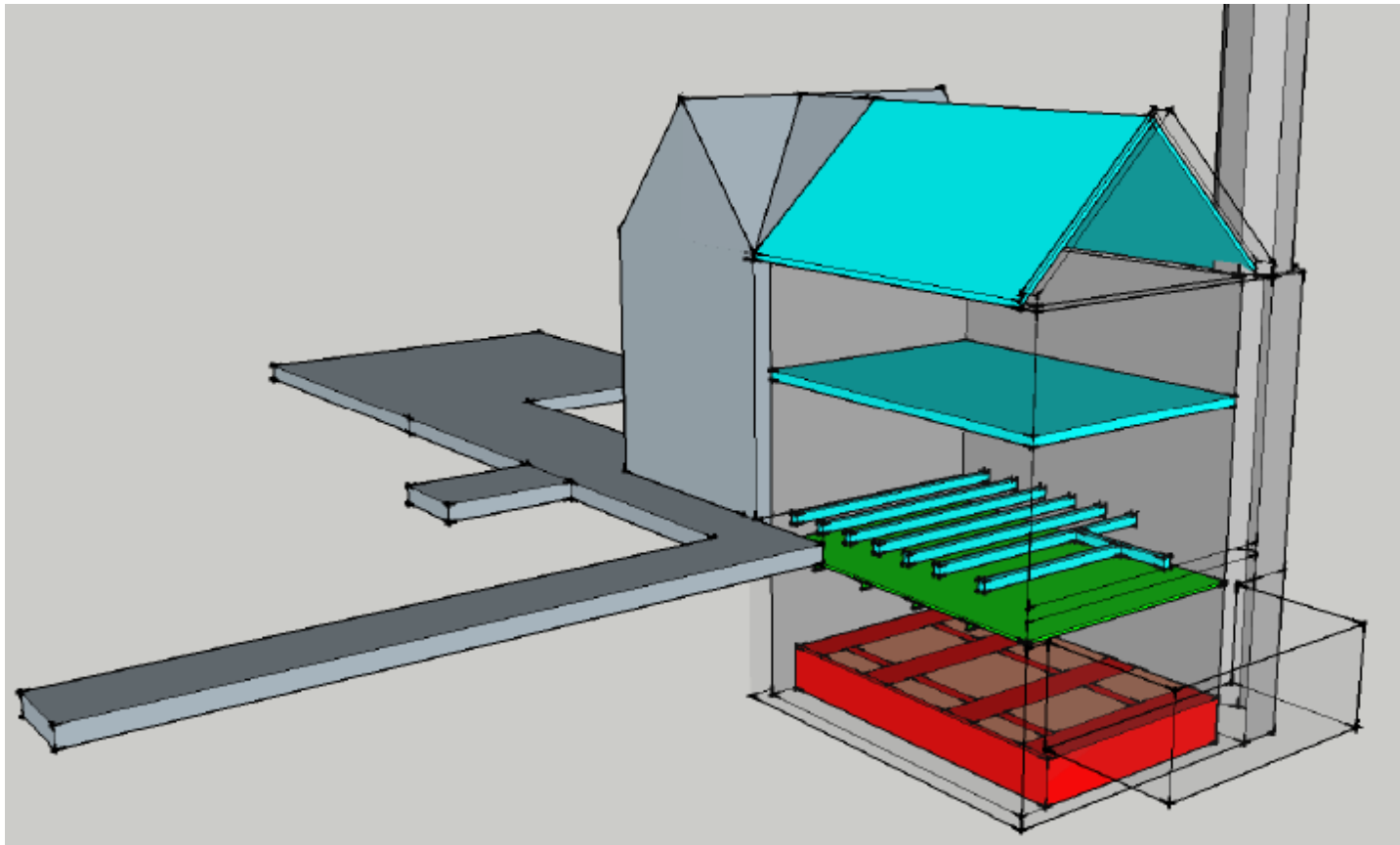
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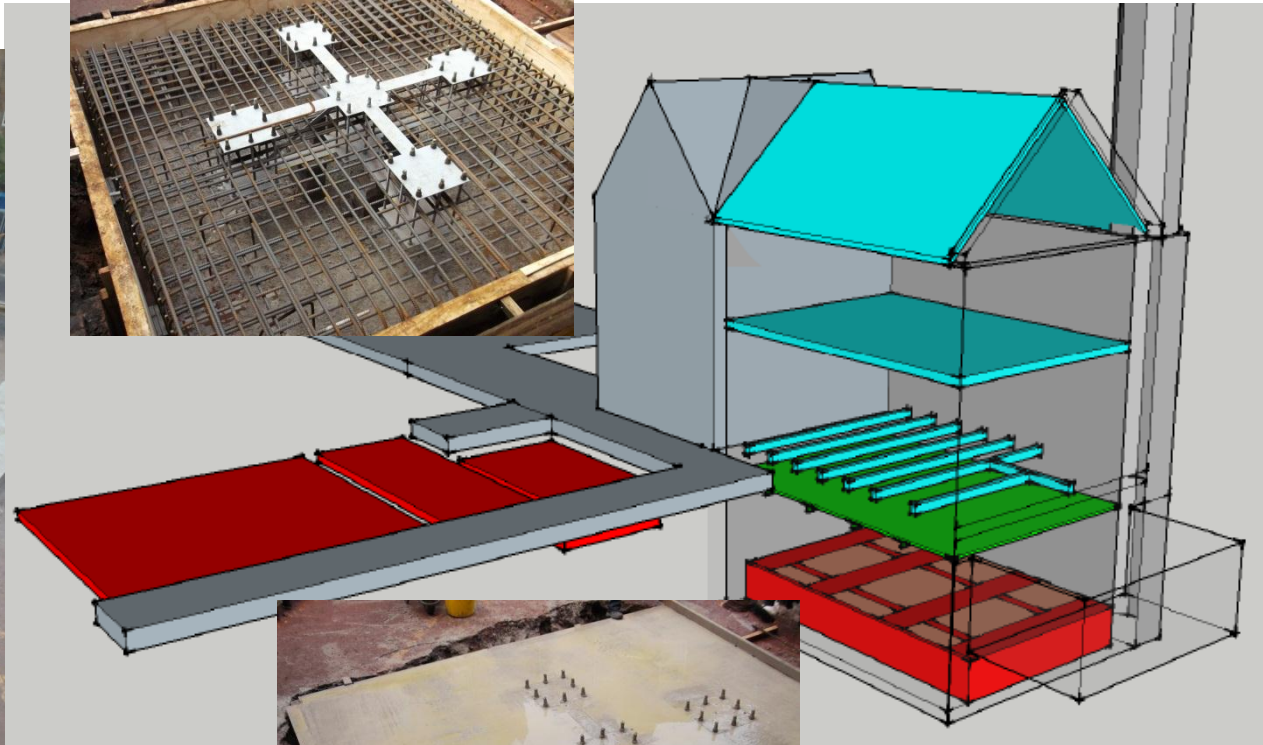
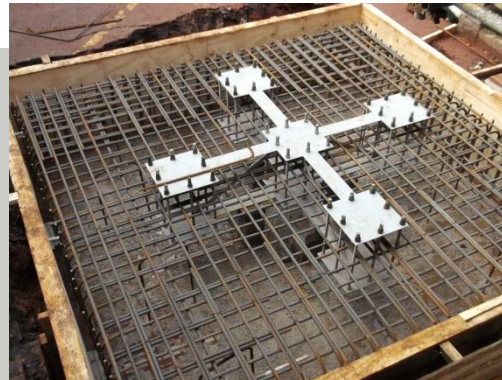
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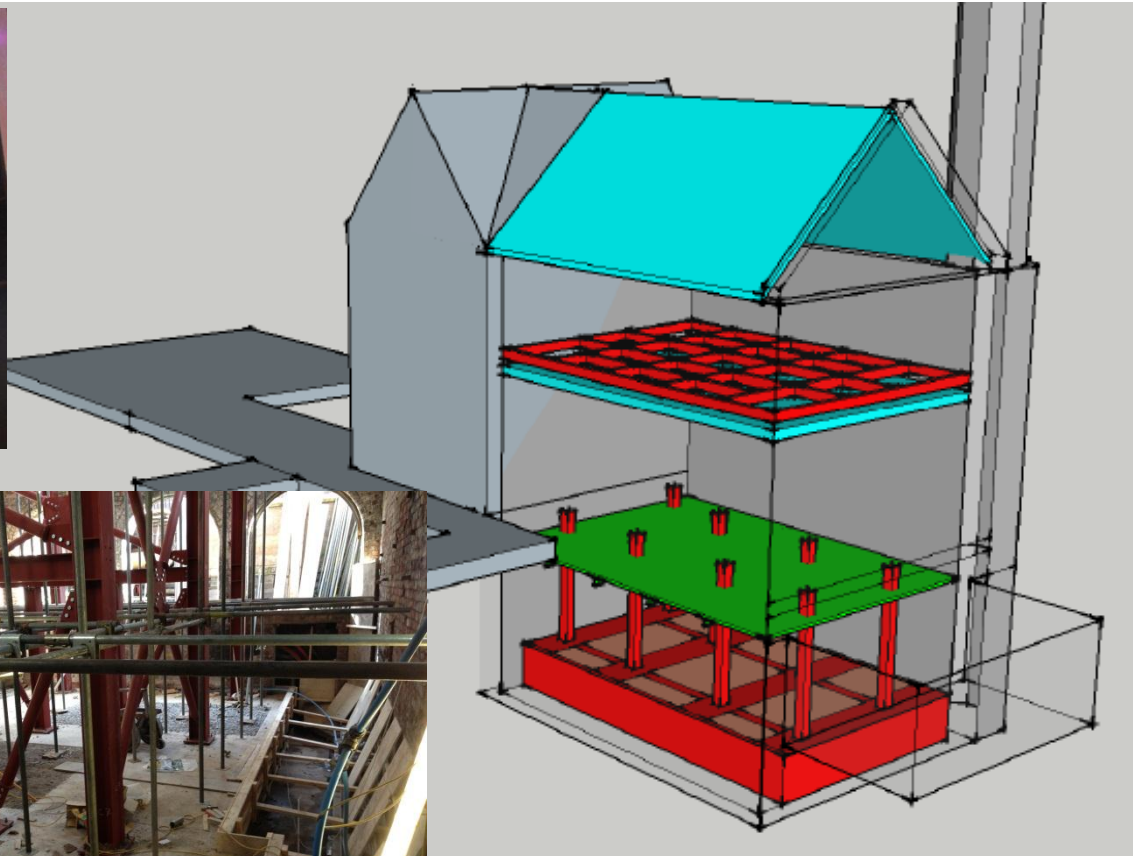
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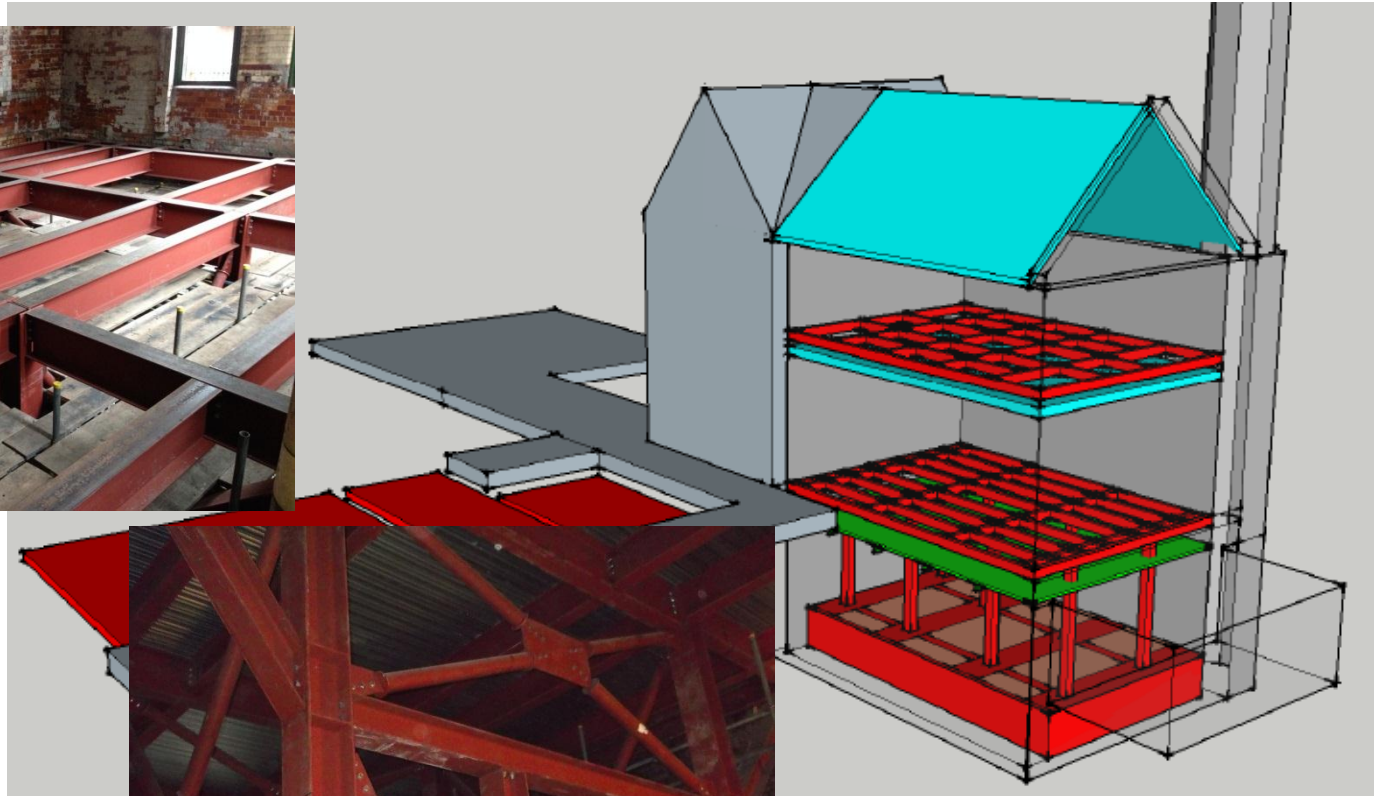
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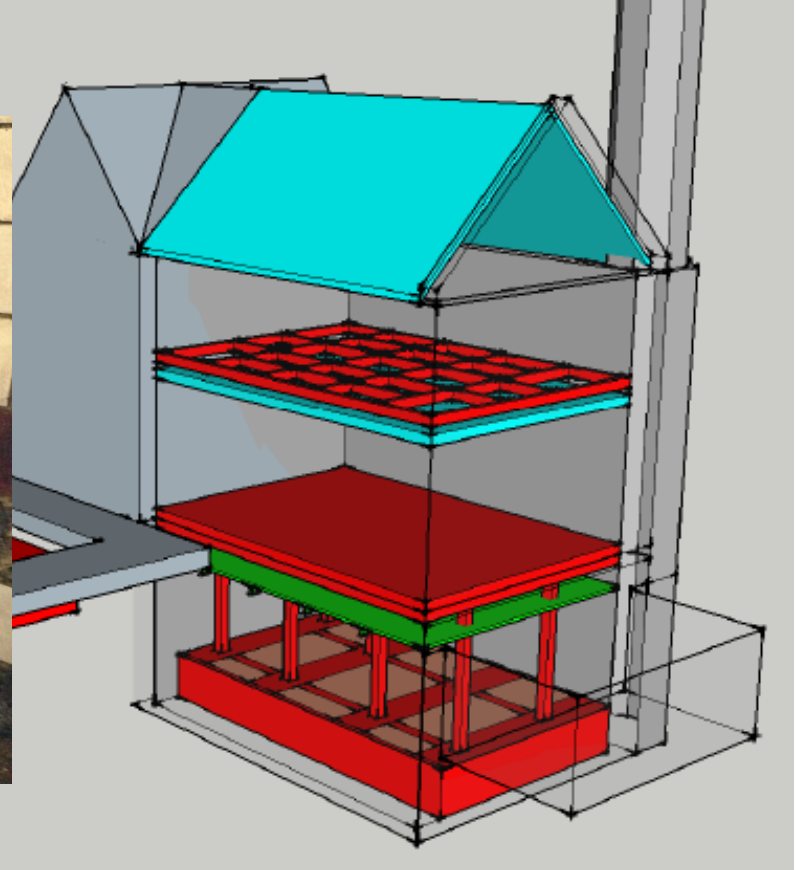
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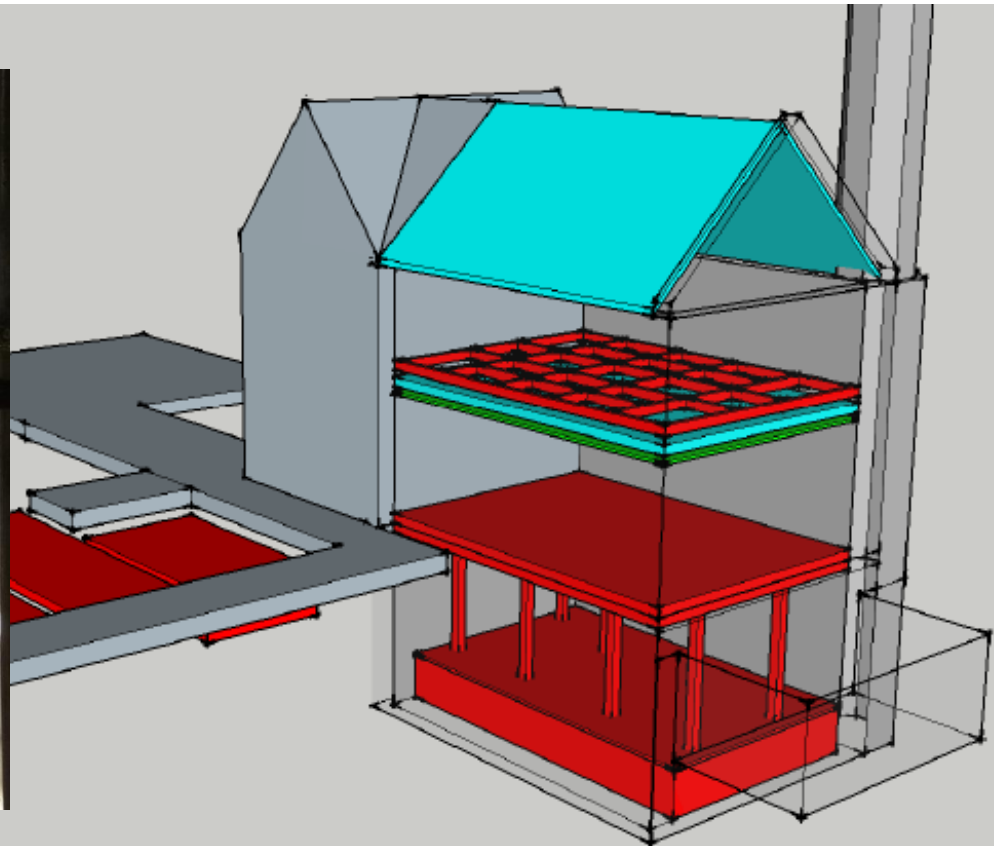
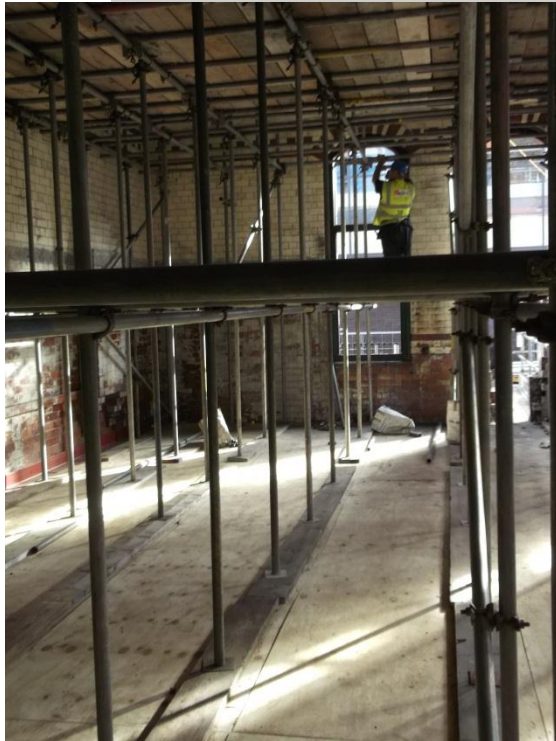
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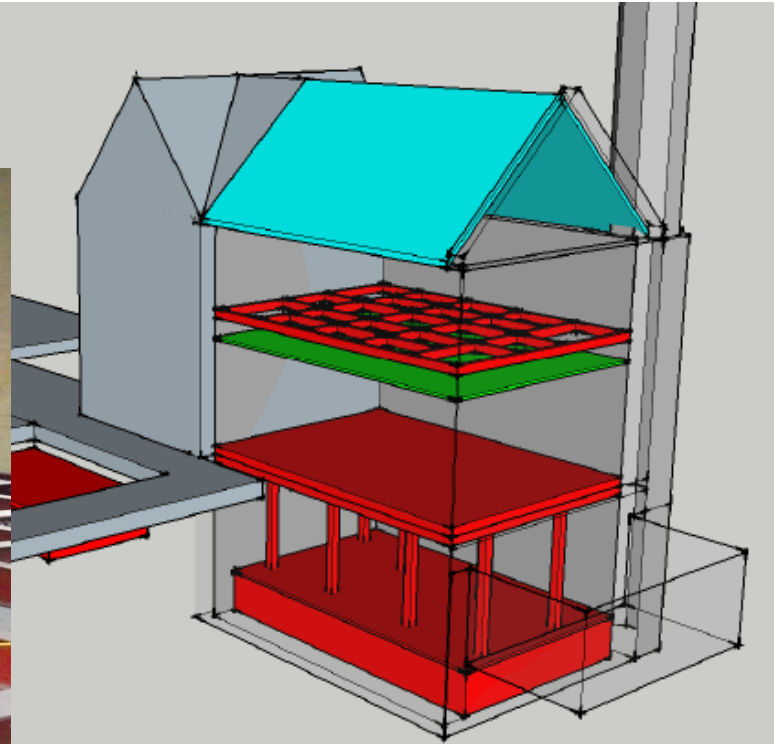
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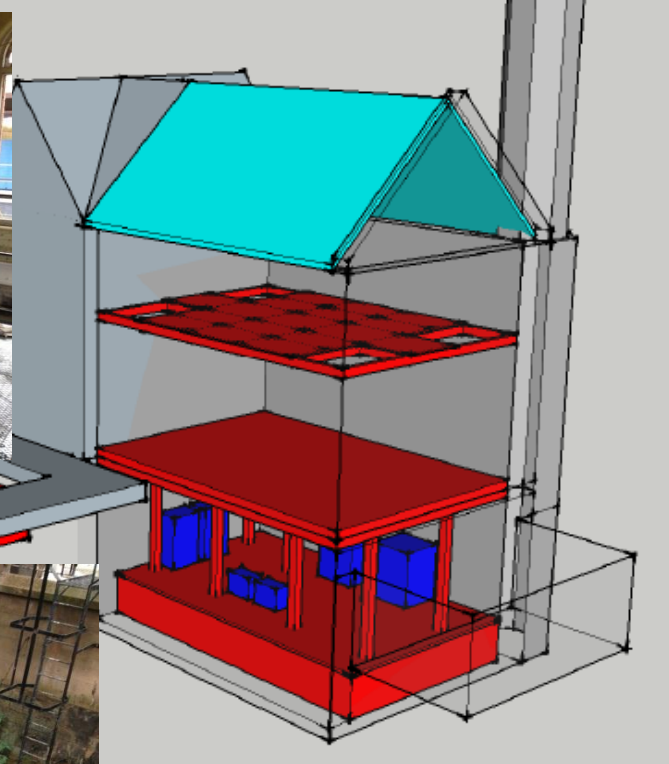
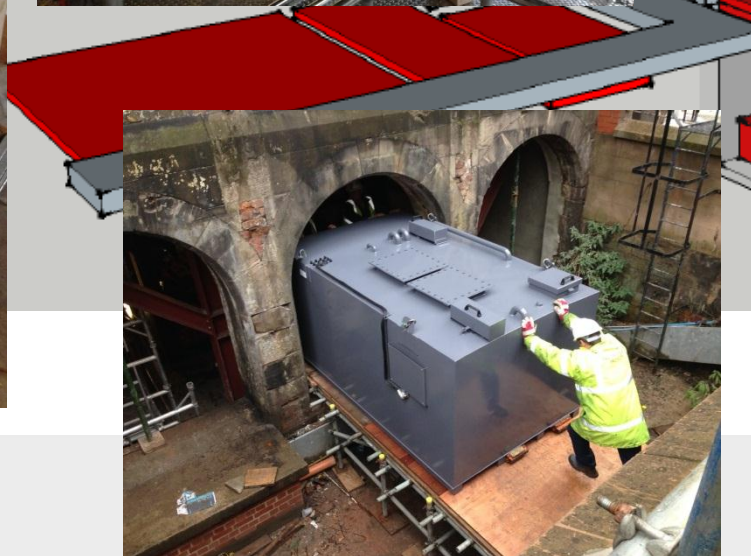
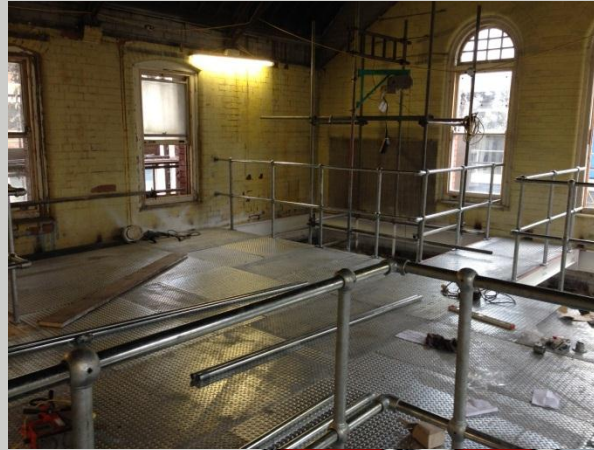
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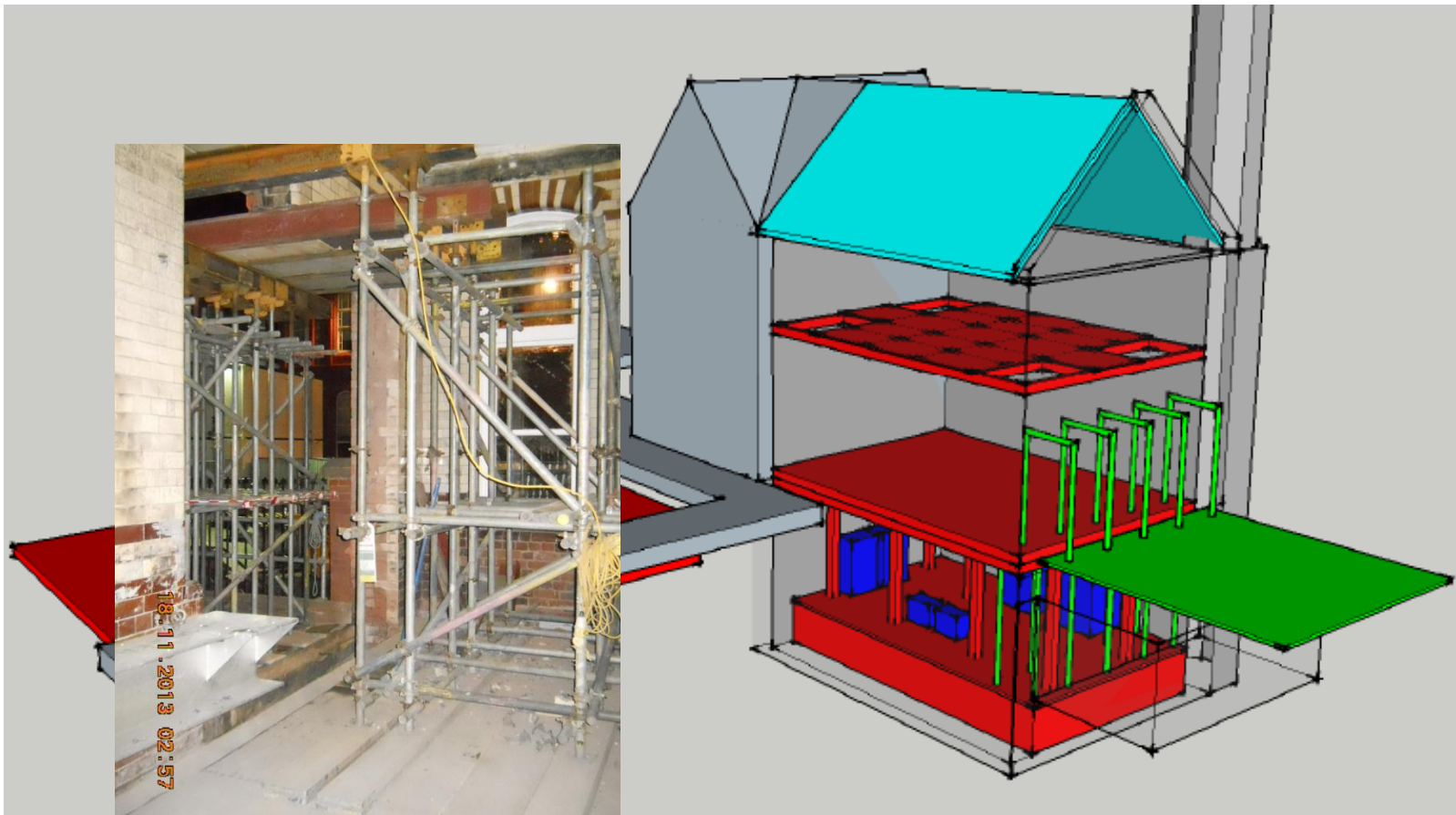
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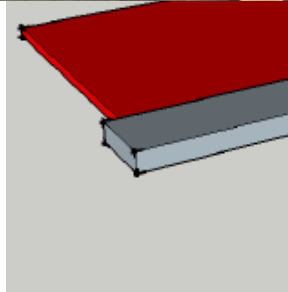
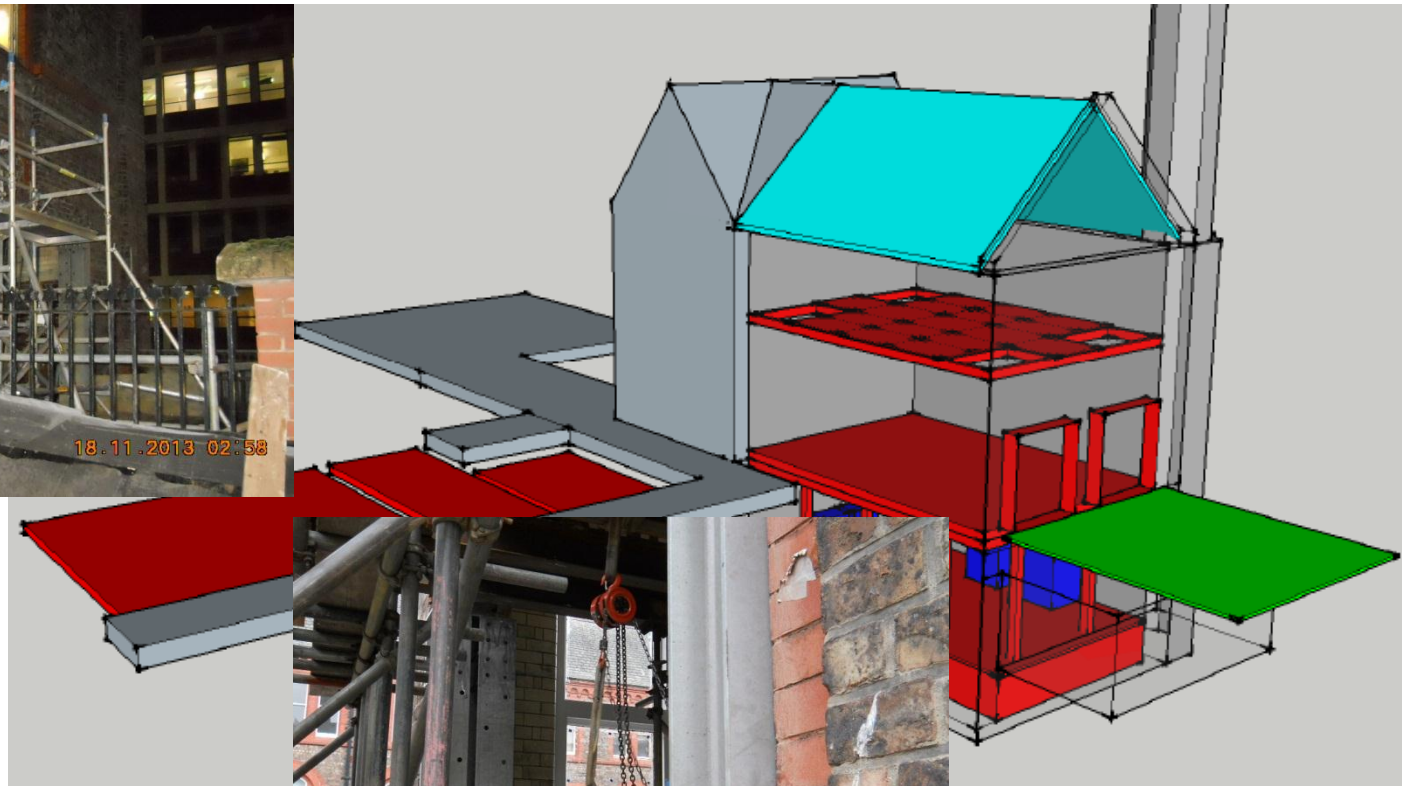
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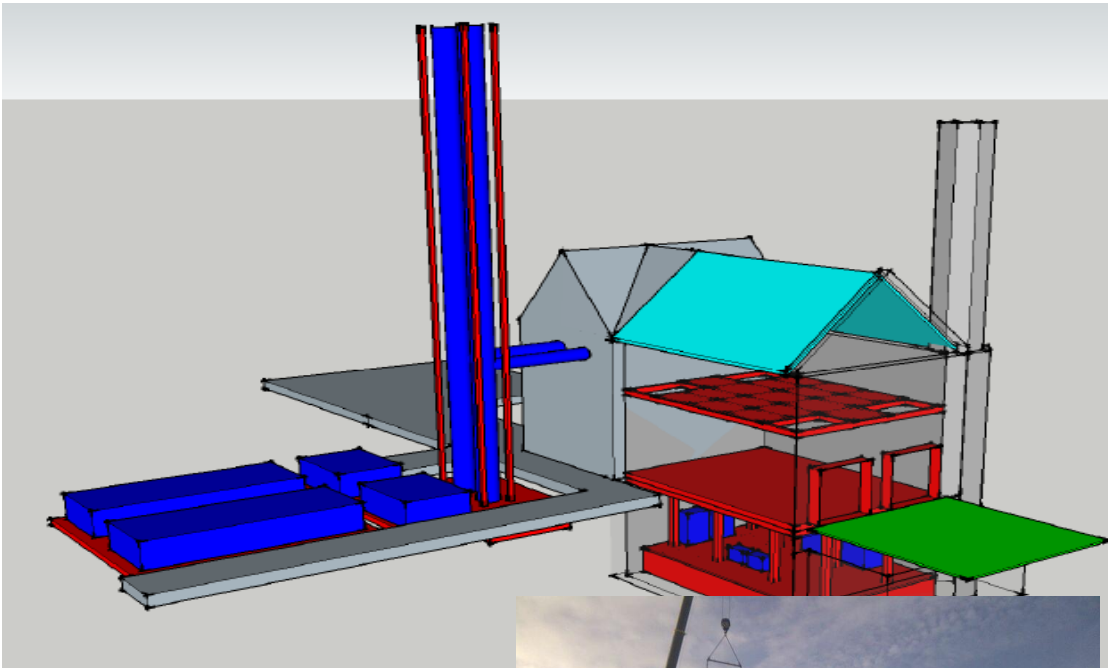
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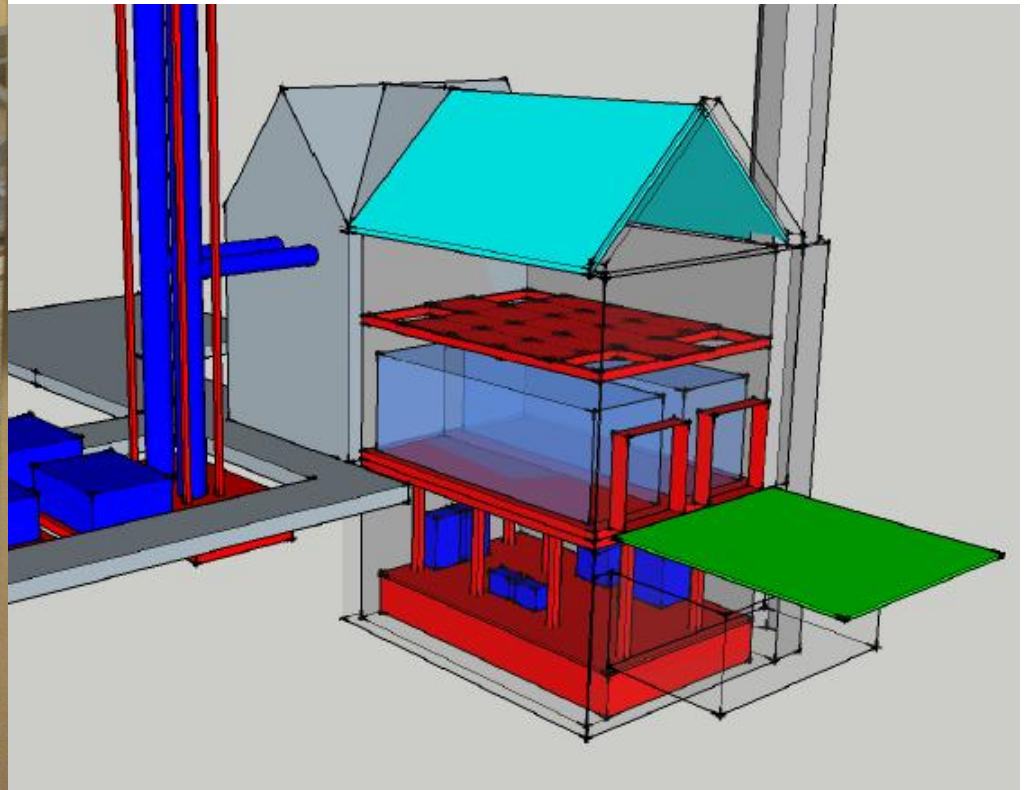
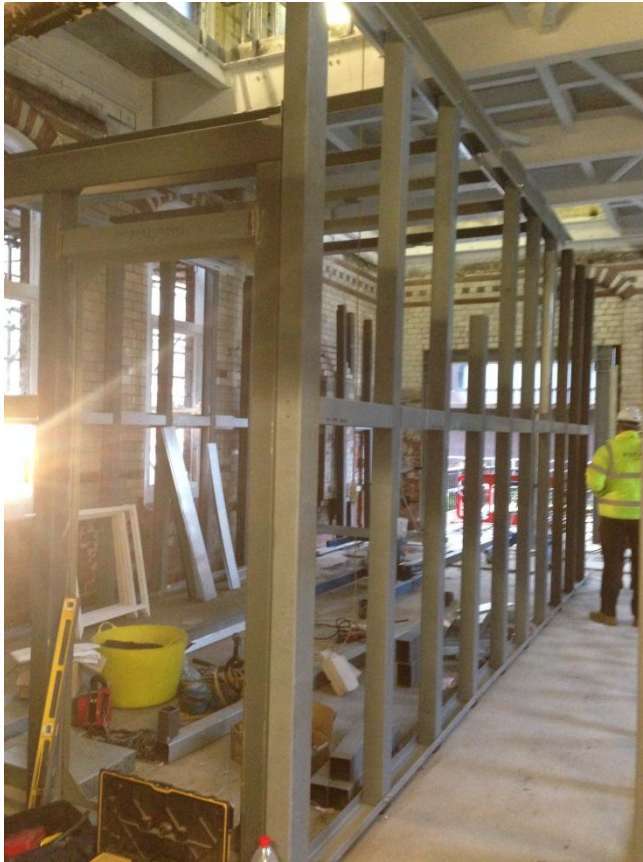
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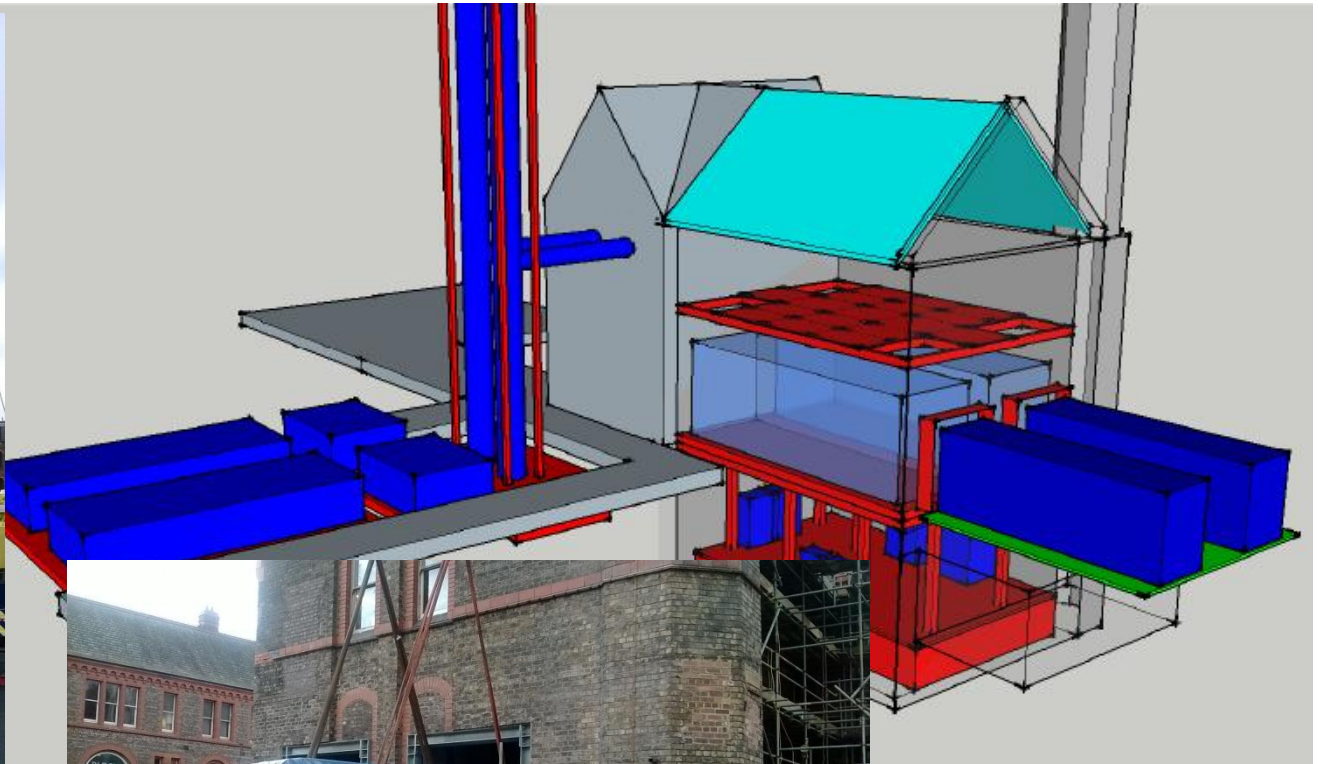
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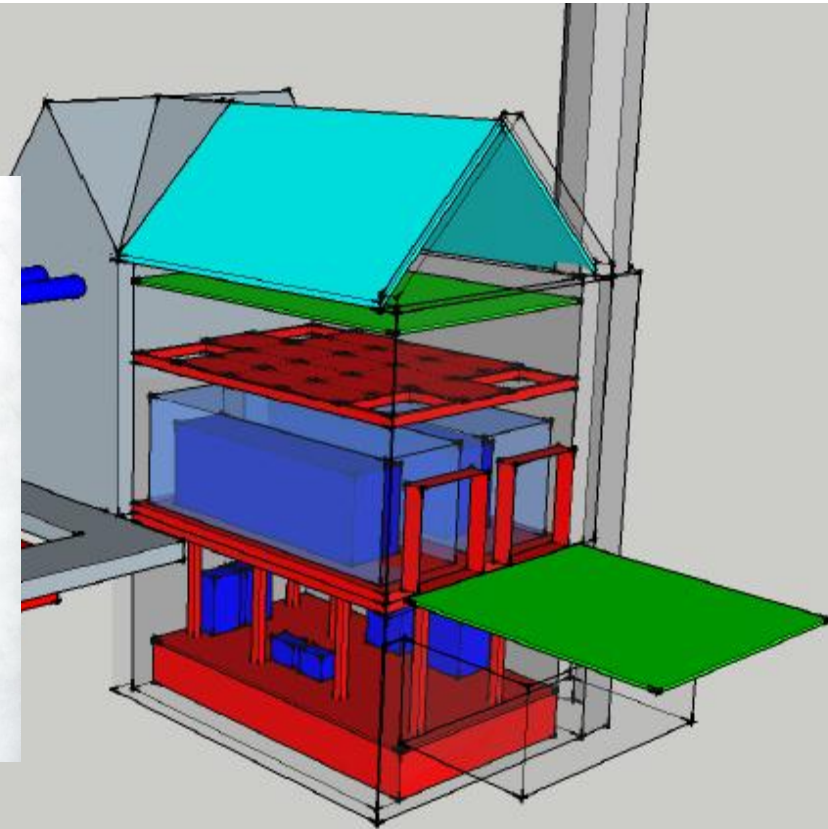
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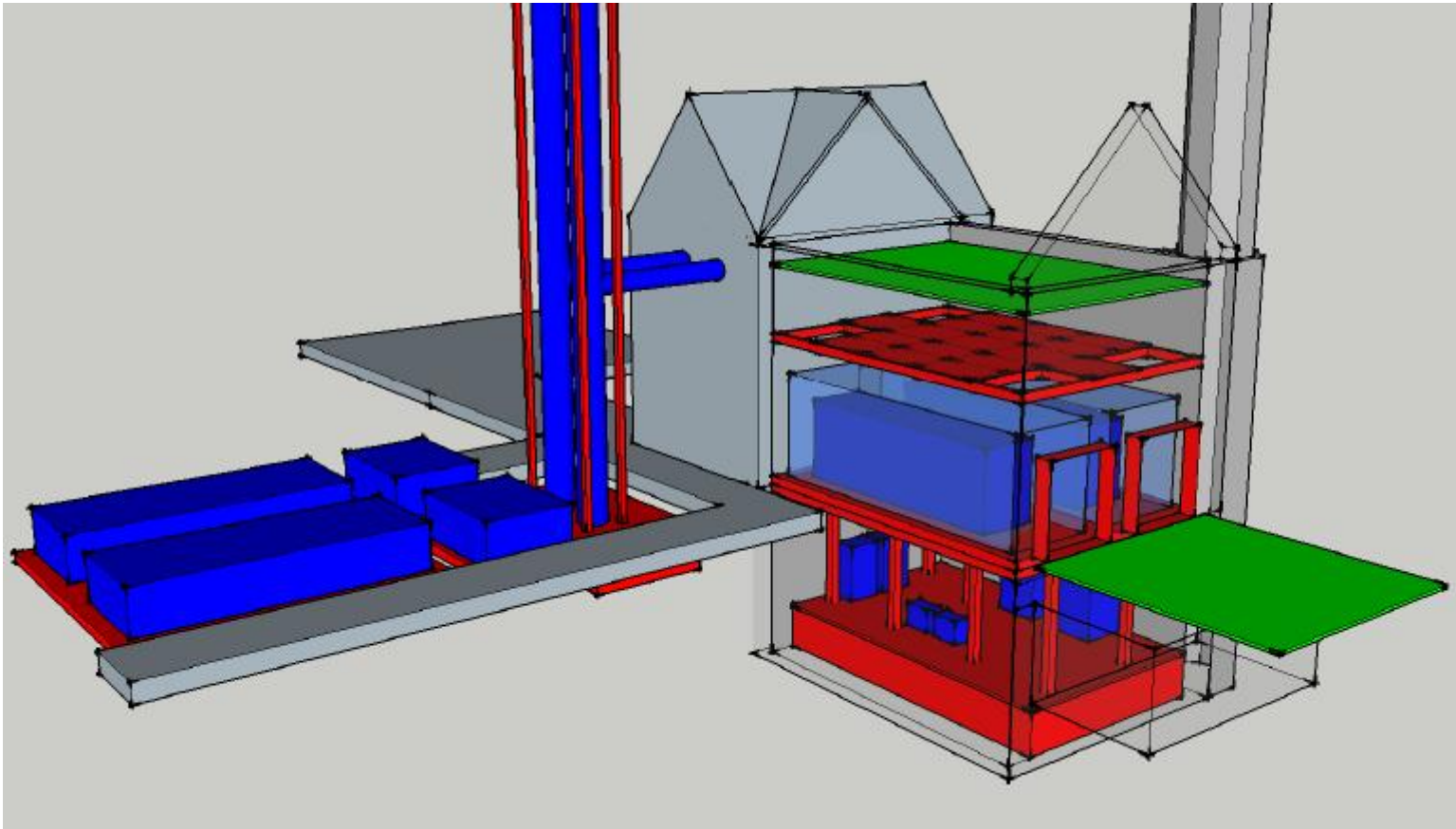
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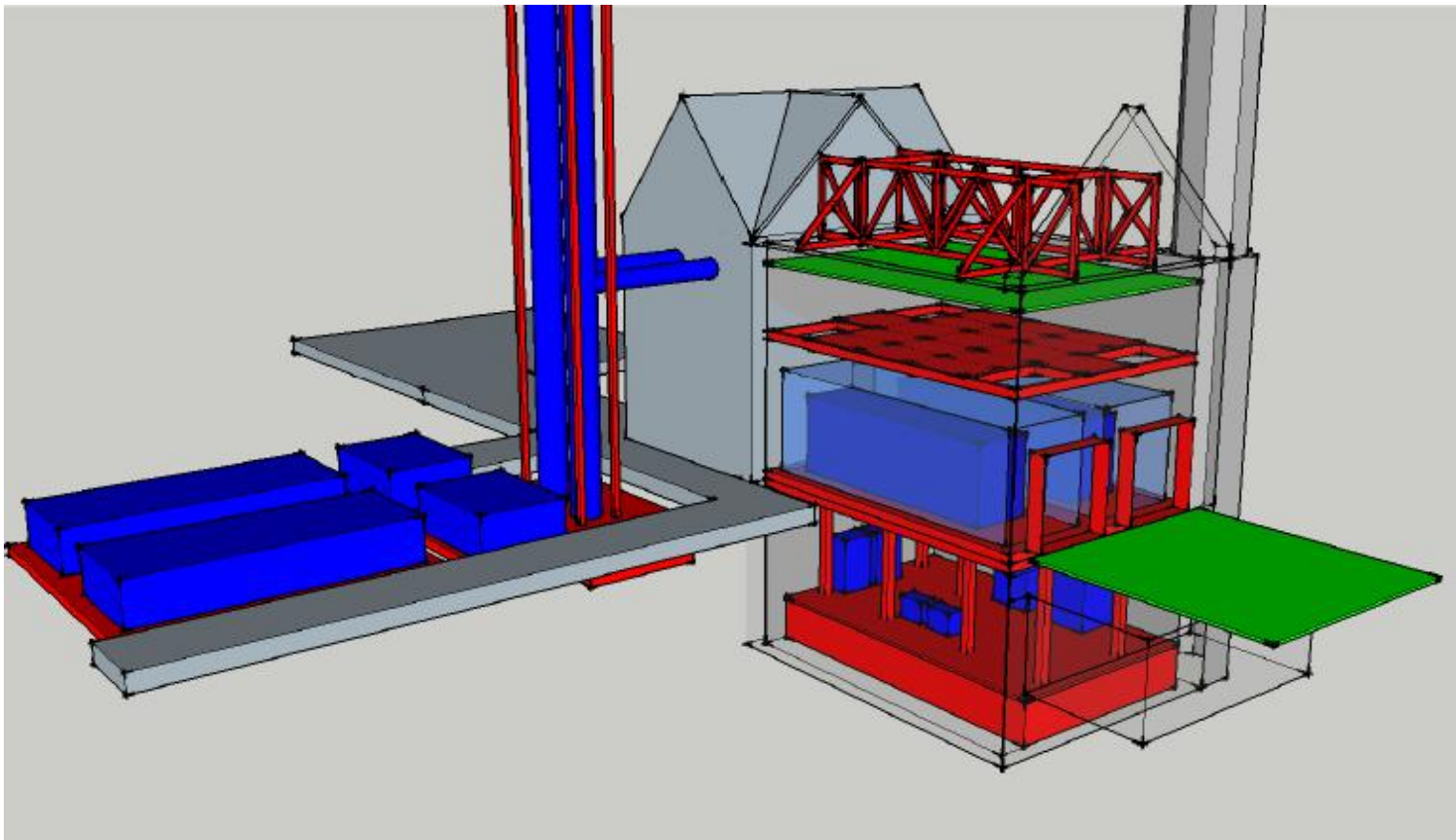
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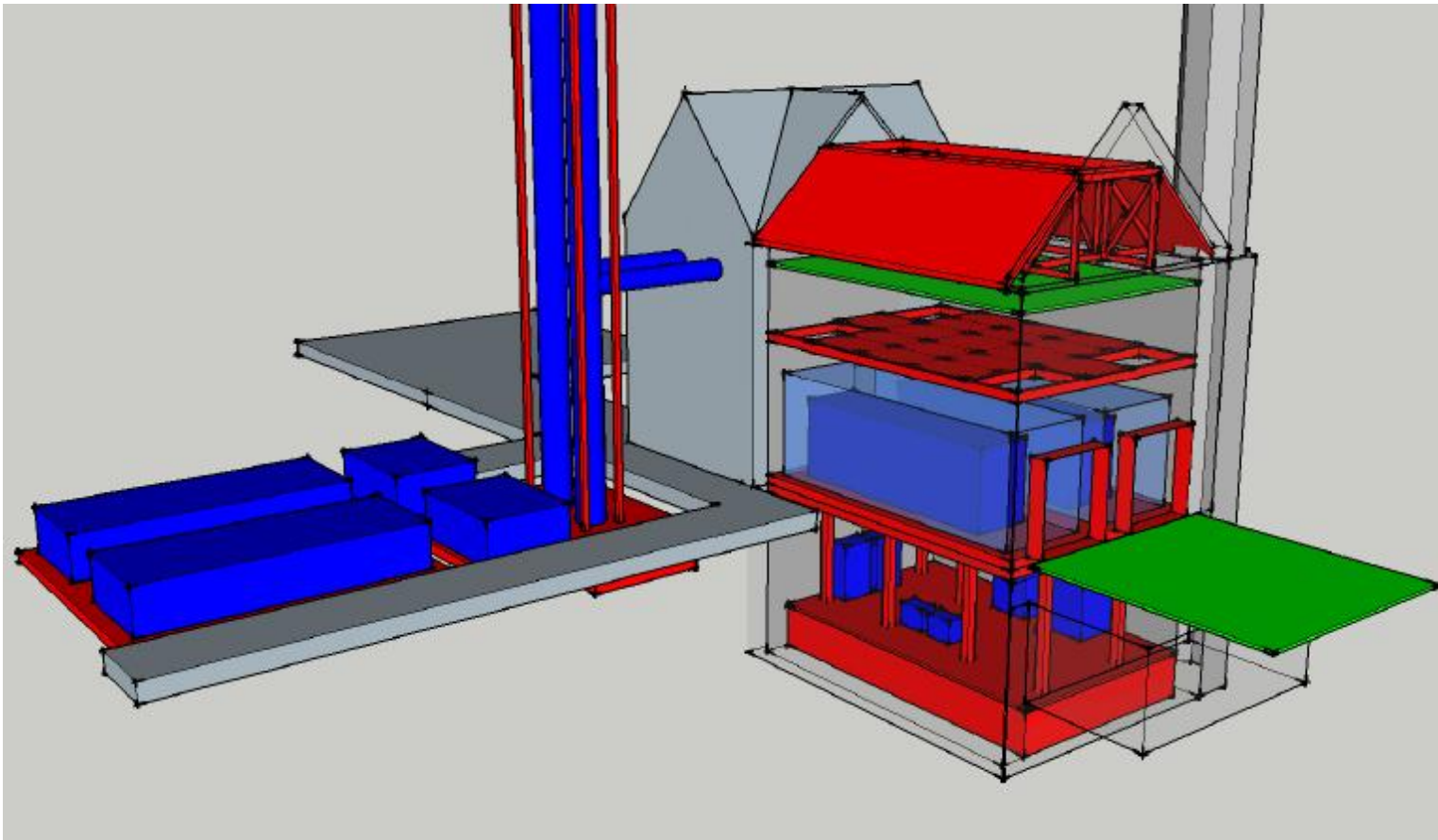
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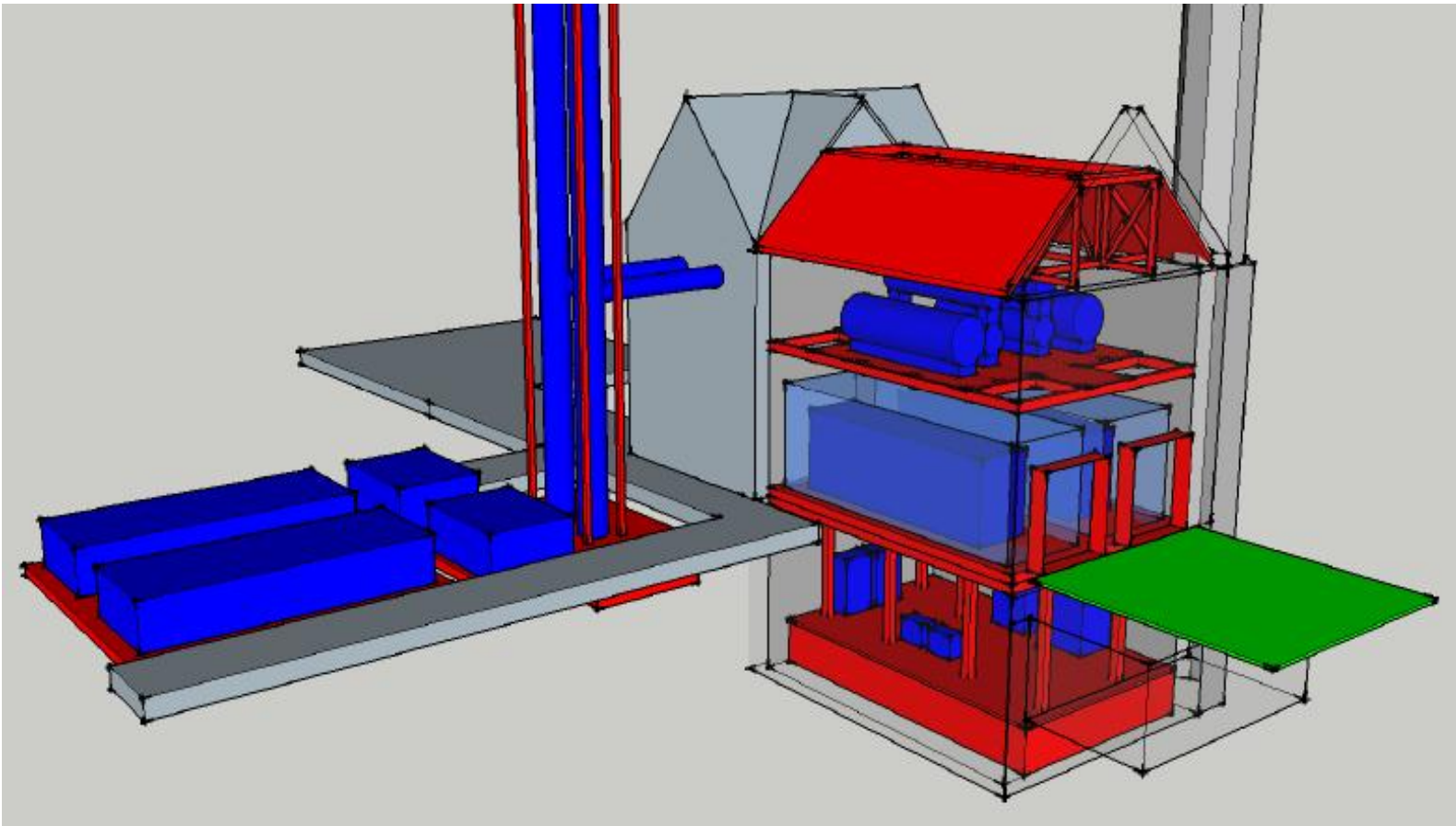
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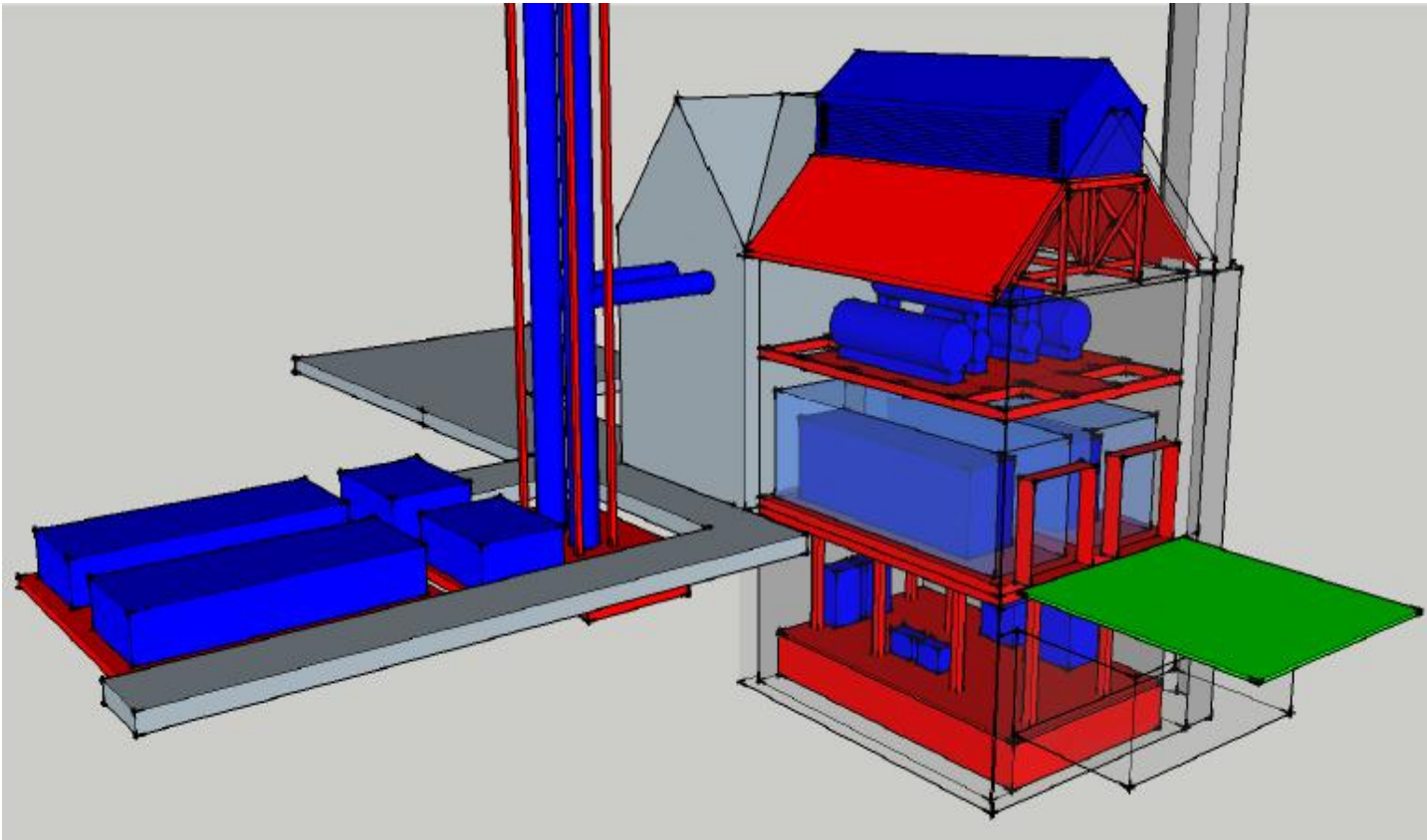
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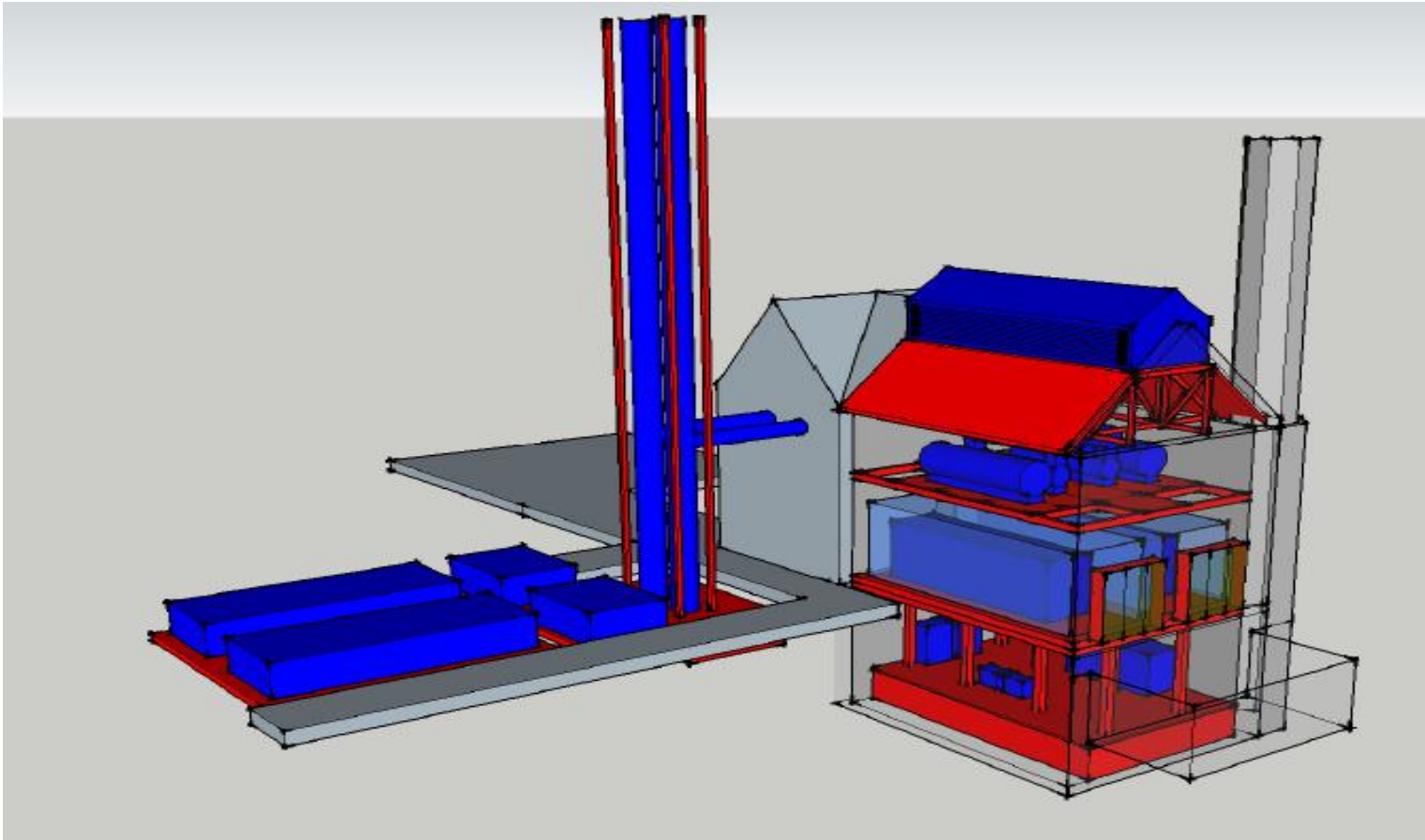
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THANKS FOR LISTENING
ANY QUESTIONS?

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