

# Religious heritage protected

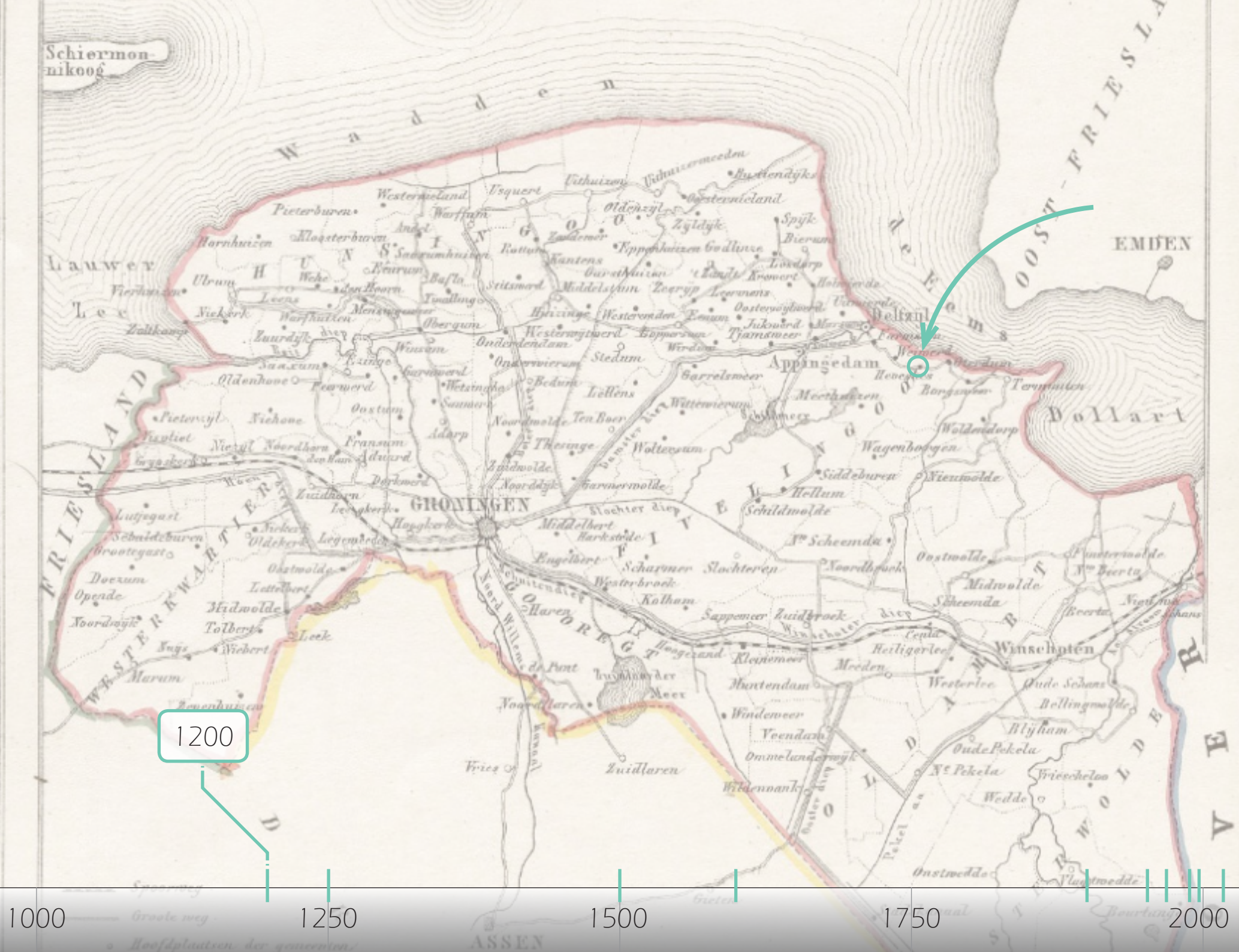
seismic reinforcement for the church of Heveskes



Graduation presentation  
Paul Versteeg 28-06-2016







Schiermonnikoog

W a d d e n

O O S T - F R I E S L A N D

EMDEN

L a u w e r  
L e x

F R I E S L A N D  
W E S T E R W A R T E R

D o l l a r t

G R O N I N G E N

O R E G T

B E R G E

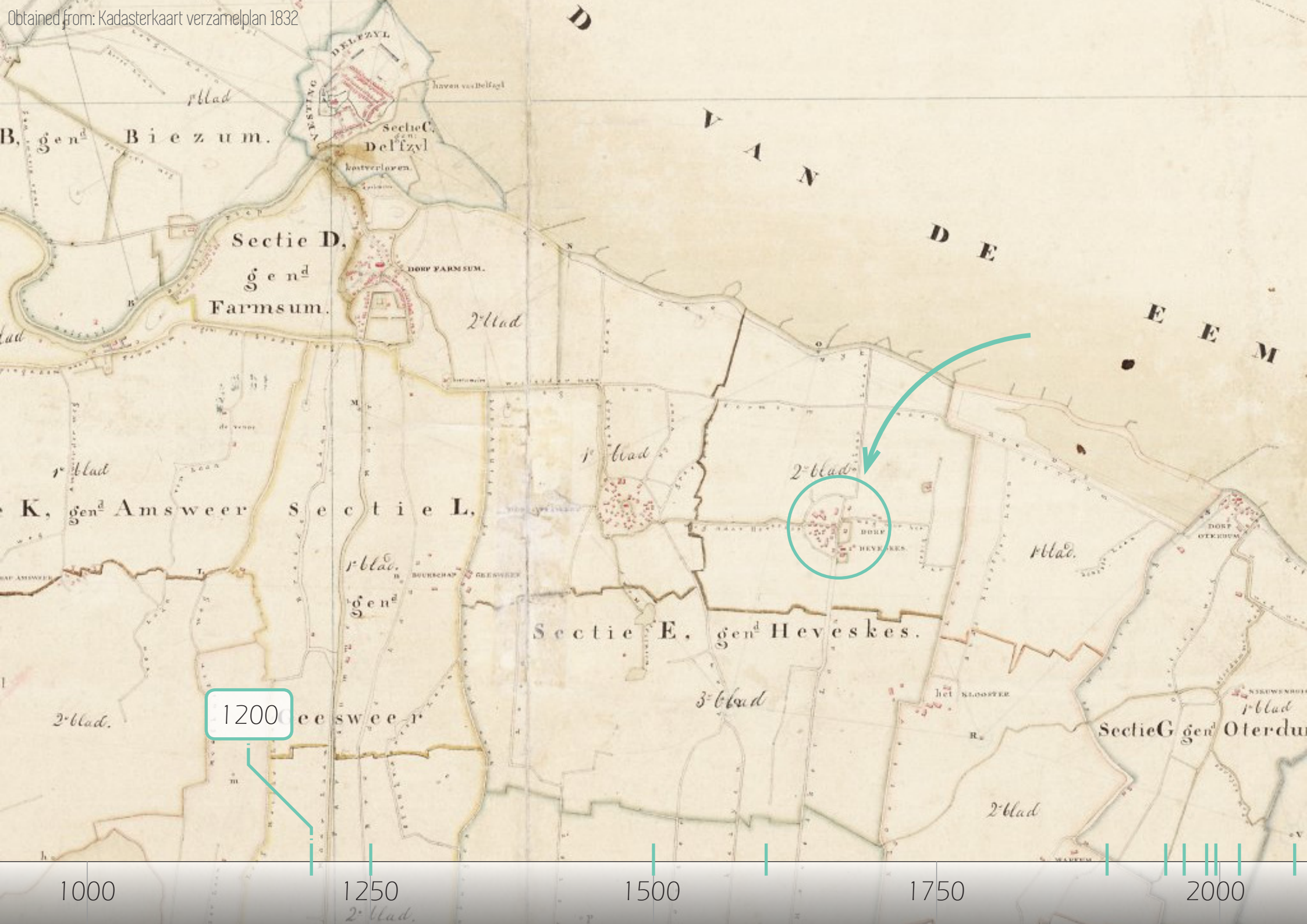
1200

1000 1250 1500 1750 2000

Spoorweg  
Grootweg  
Hoofsteden der gemeenten

ASSEN





1200

1000

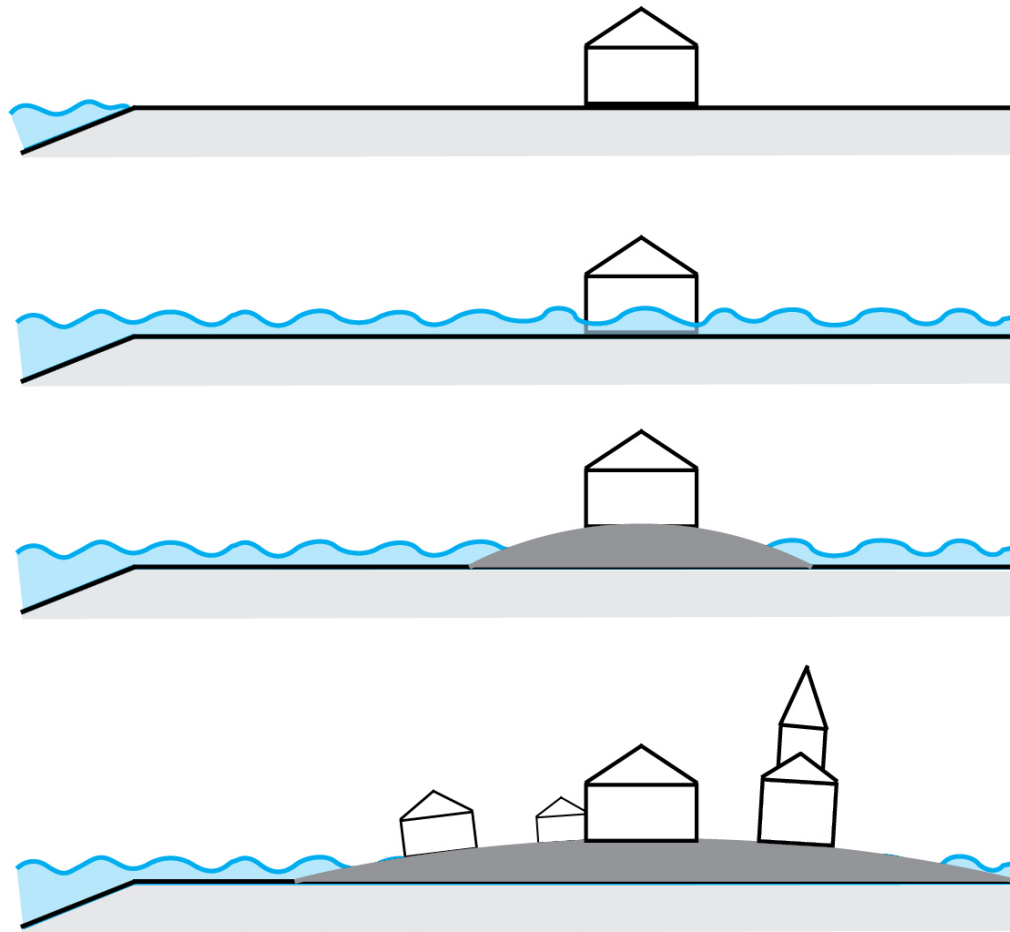
1250

1500

1750

2000





wierde village

1200

1000

1250

1500

1750

2000



Tower of  
Zuidbroek

1200

1000

1250

1500

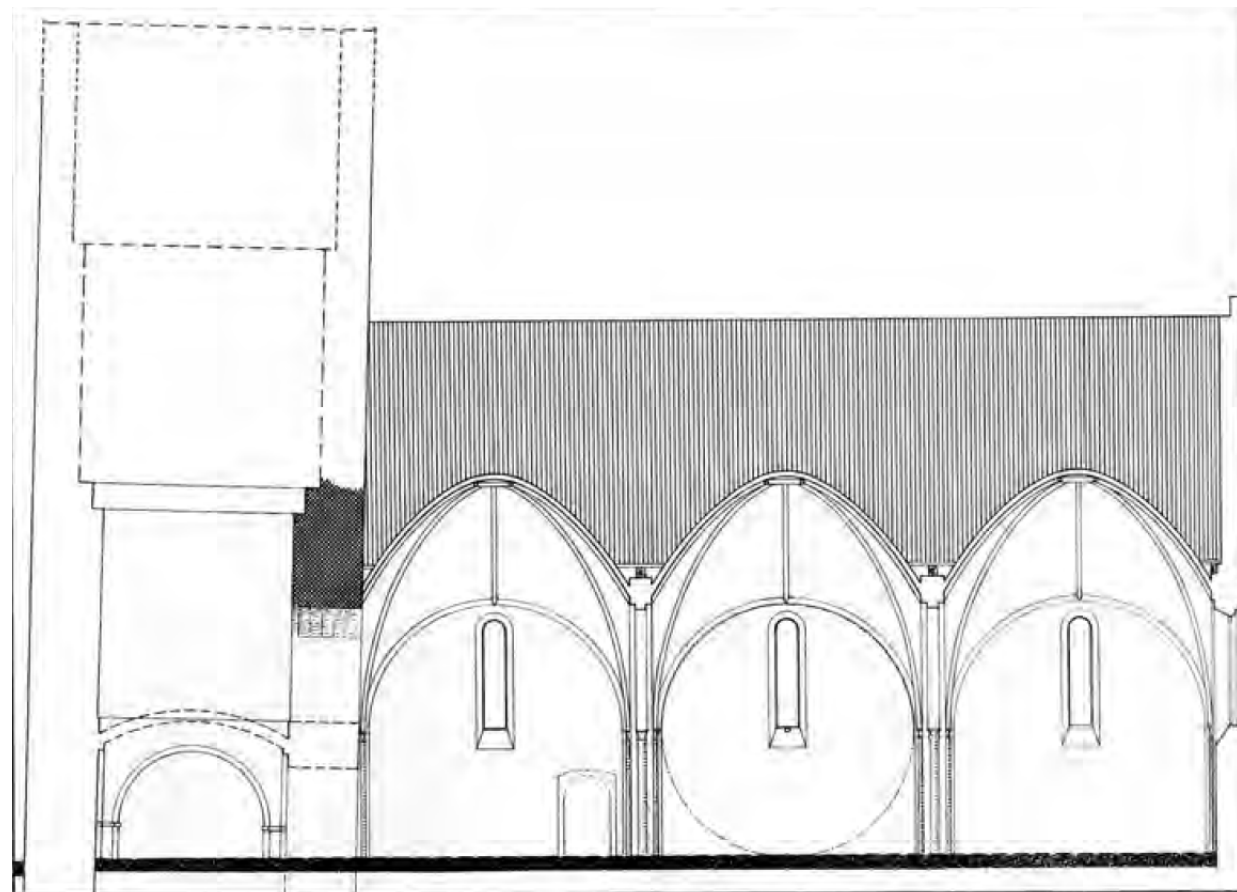
1750

2000

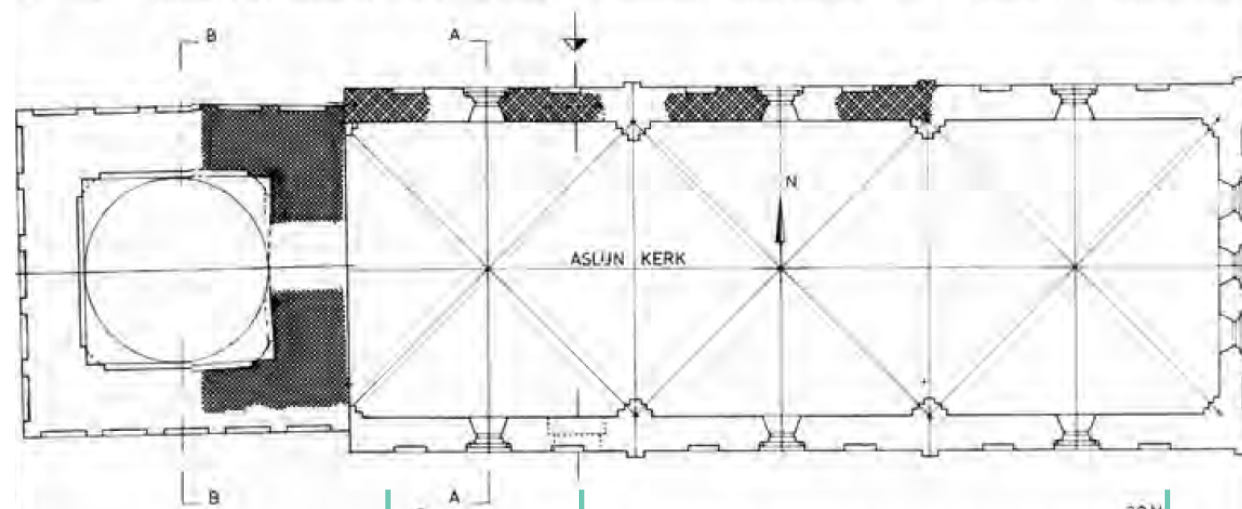




Reconstruction drawings



OVERBLIJFSEL ROMAANSE TOREN    NOORDMUUR ROMANO-GOTISCH SCHIP    RECONSTRUCTIE



1250

1000

1250

1500

1750

2000



Marodeure vor einem brennenden Dorf - Egbert van er Poel



1500

1000

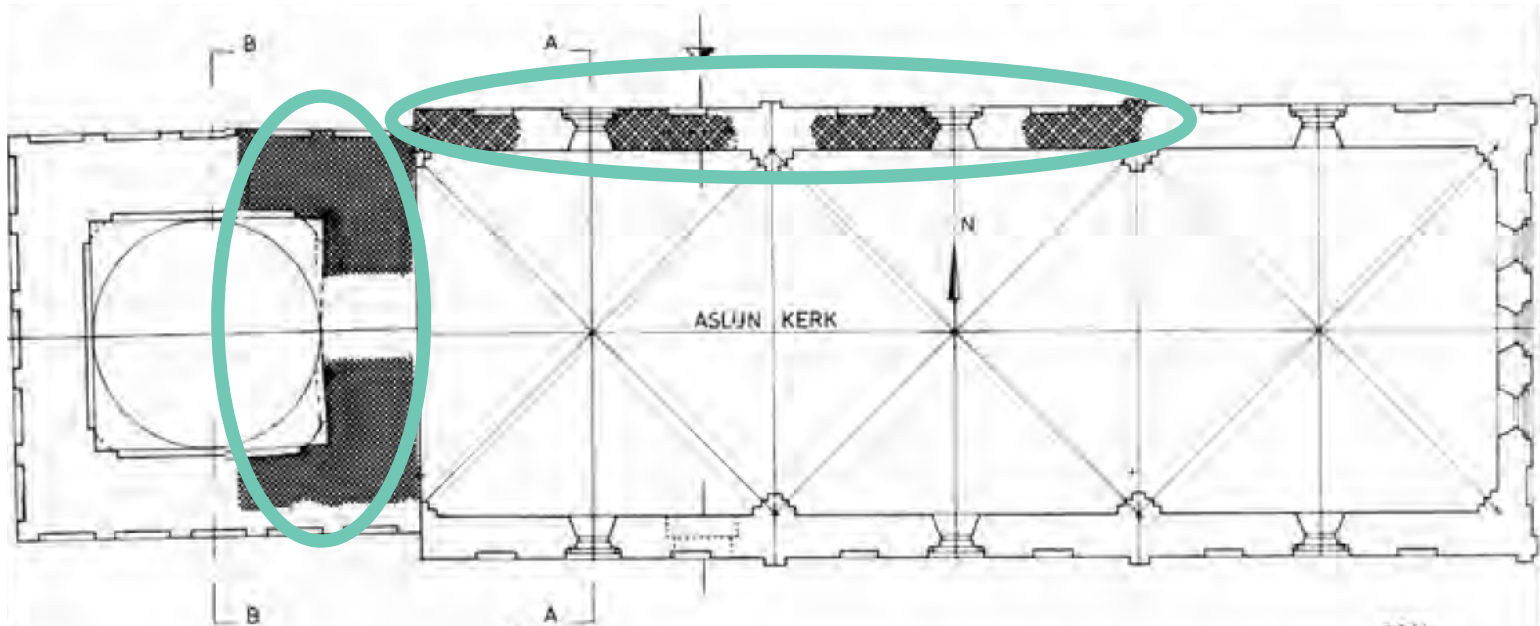
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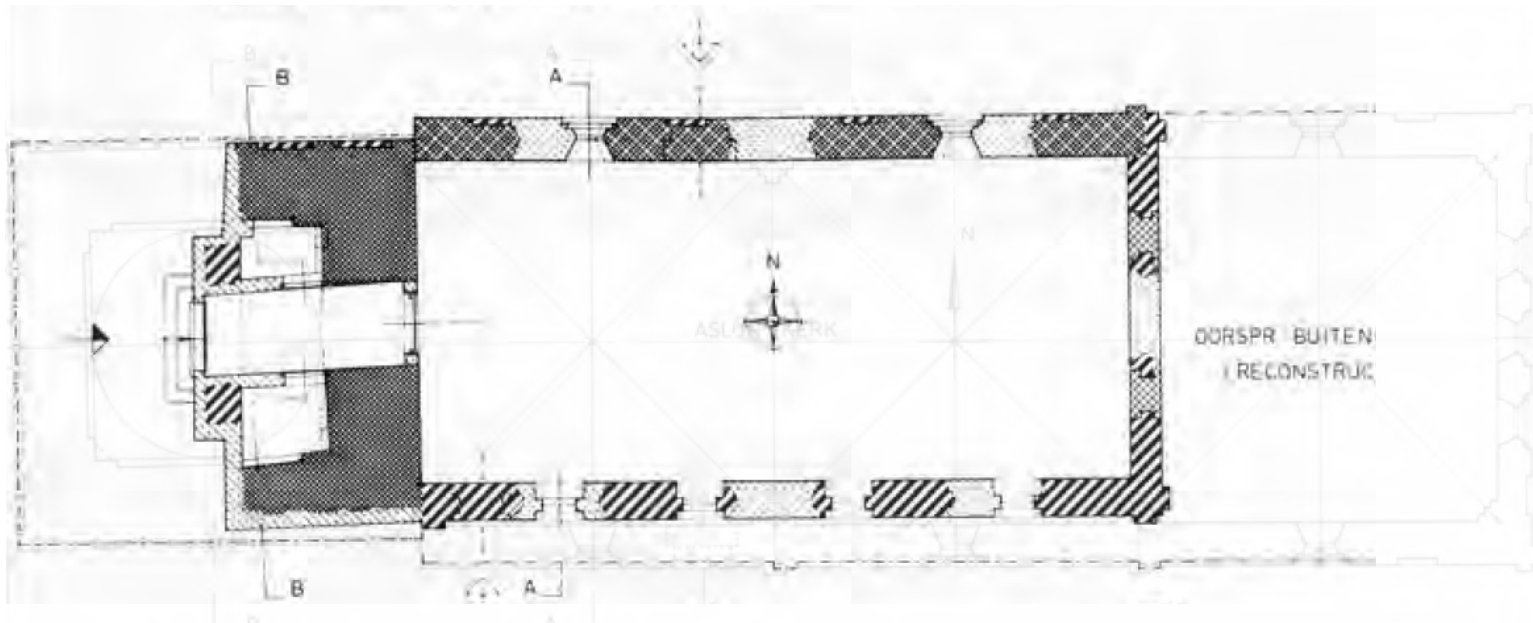
1500

1750

2000

1600





1600

1000

1250

1500

1750

2000



1948

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1250

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1750

2000



'Er moet ook aan de toekomst worden gedacht' *Eemlander*  
27.07.'09

# Henk Elderman bezorgd over het industrie-gevaar

**Heveskes**

*Hoe mooi was Hewenschenze eens!*

**(Heemskes), het oude wierdedorp,  
wordt weggevaagd**

Aluminium voor landbouw donkere kleur  
**Heveskes betaalt zware tol  
nog EERDER dan Oterdum**

**KAPPER MOET „KAPPEN”  
met HEVESKES**



1960

1000

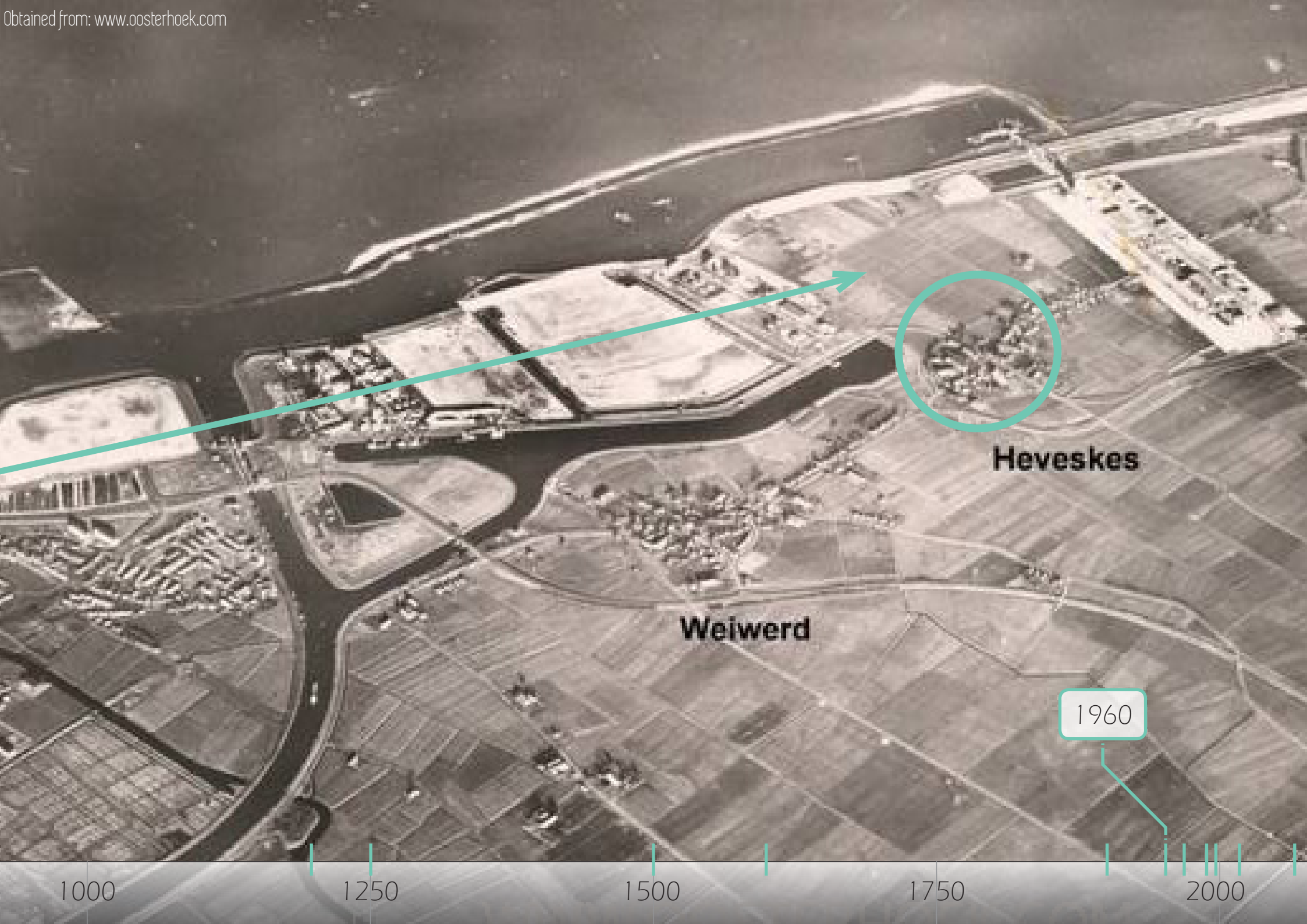
1250

1500

1750

2000





**Heveskes**

**Weiwerd**

1960

1000

1250

1500

1750

2000





Heveskesvaalge

Weiwerd

Heveskes

Oterdum

1960

1000

1250

Heveskesklooster

1500

1750

2000



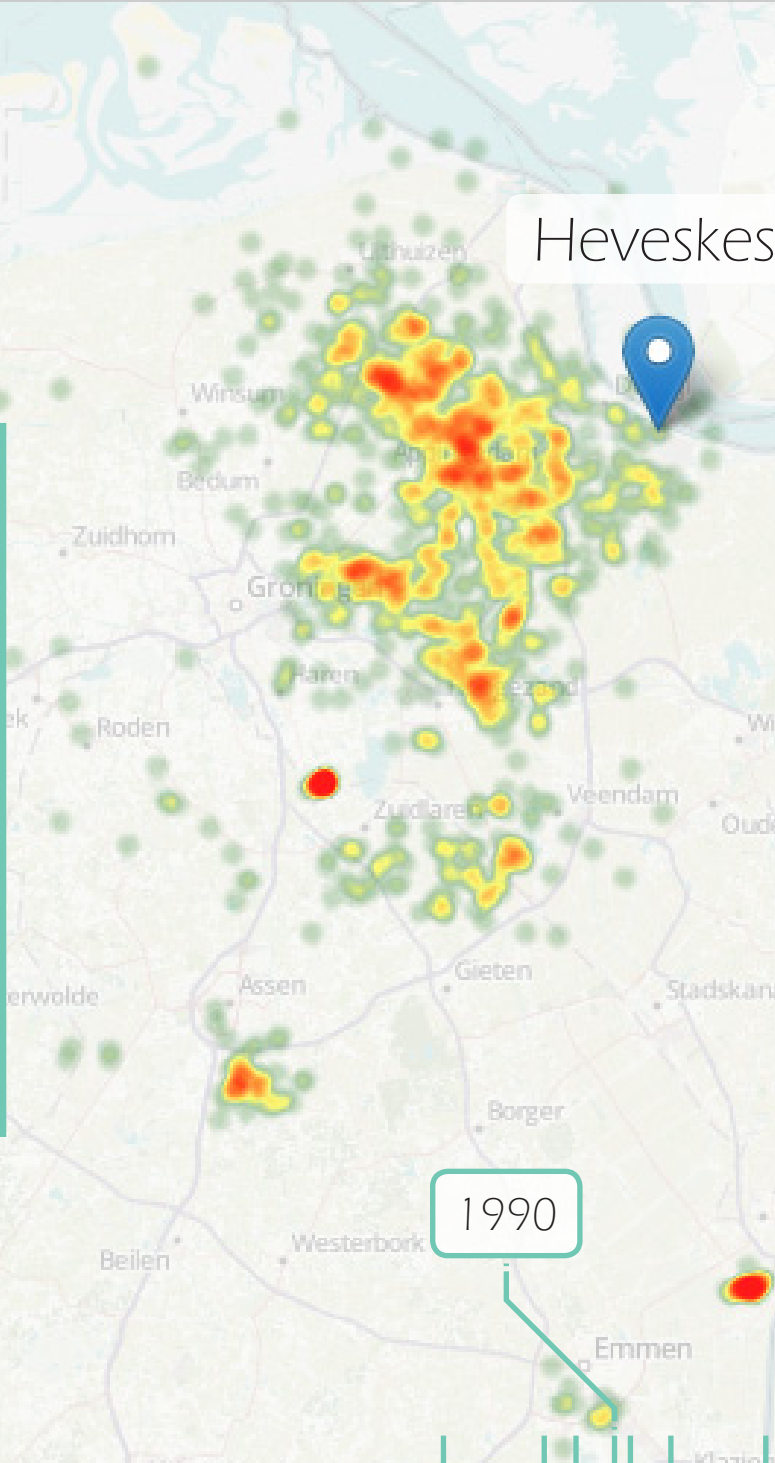


1967

1000 1250 1500 1750 2000



# Heveskes



1990

1000 1250 1500 1750 2000





1990

1000

1250

1500

1750

2000





1990

1000

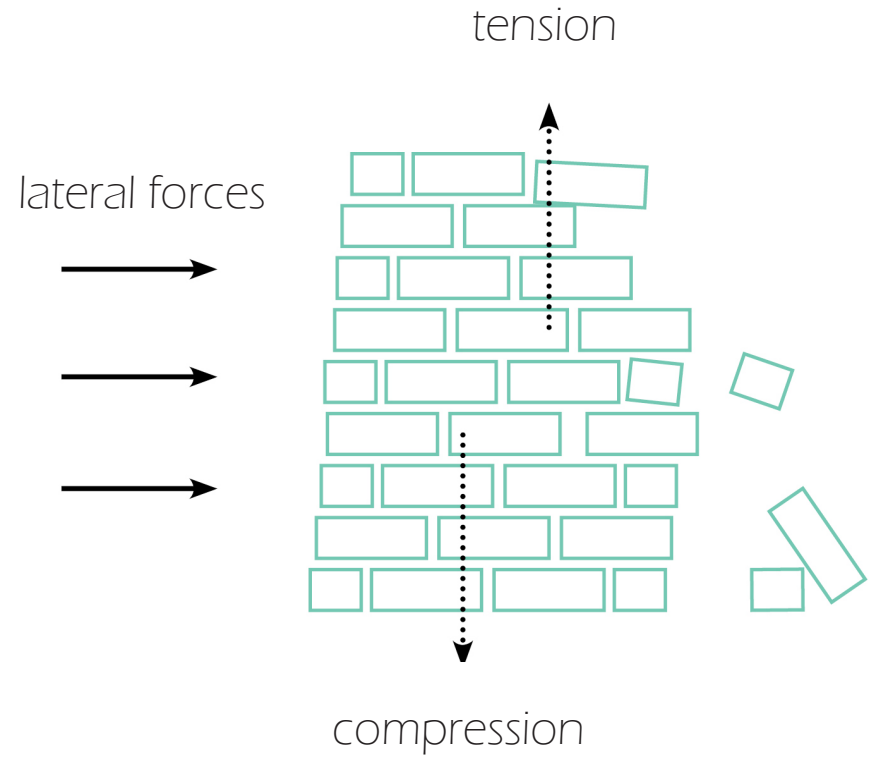
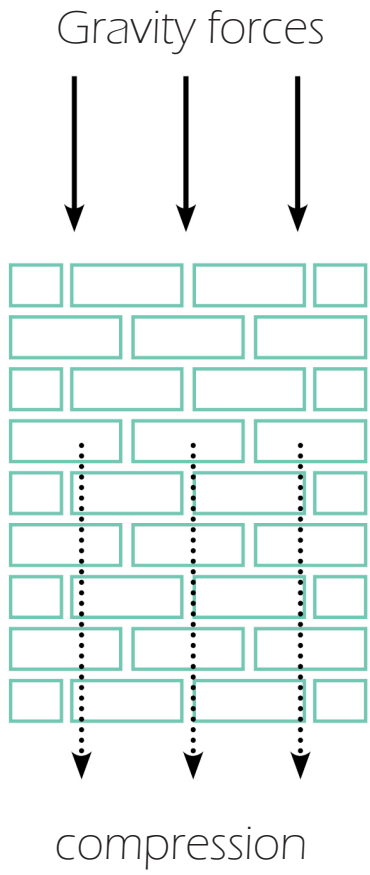
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1750

2000





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1250

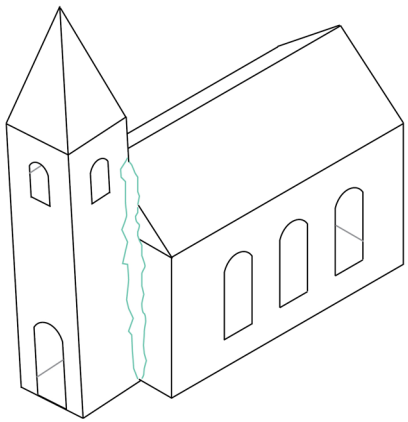
1500

1750

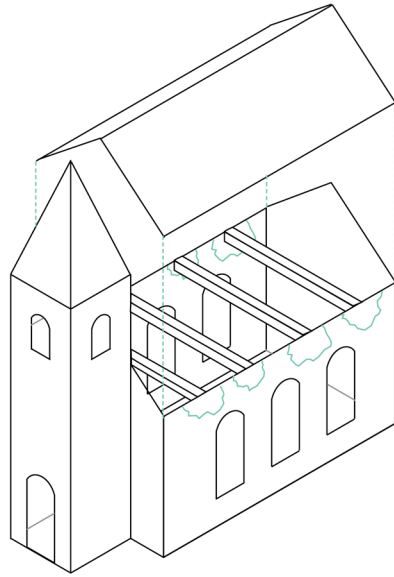
2000

1990

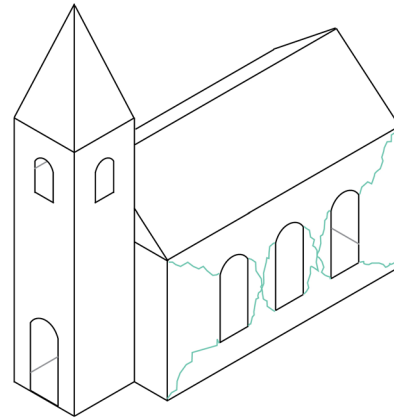




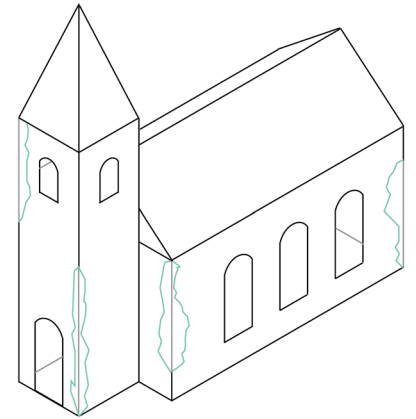
Tower-naive connection



Roof-wall connection



Masonry walls



Structural integrity

1000

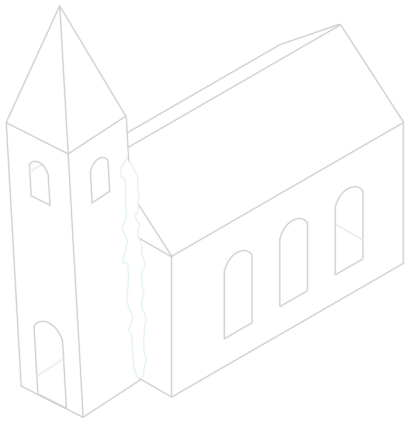
1250

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2000

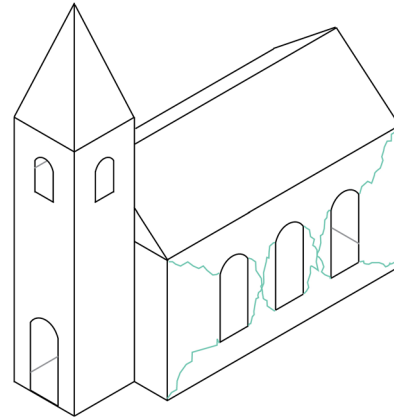
1990



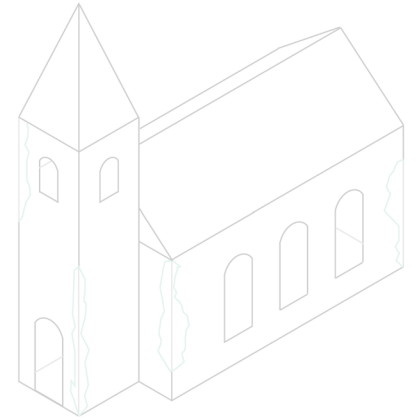
Tower-nave connection



Roof-wall connection



Masonry walls



Structural integrity

1000

1250

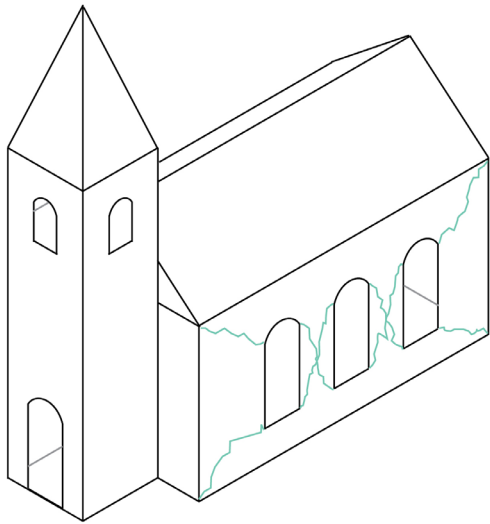
1500

1750

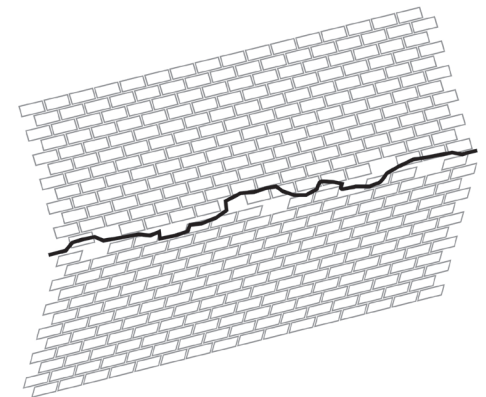
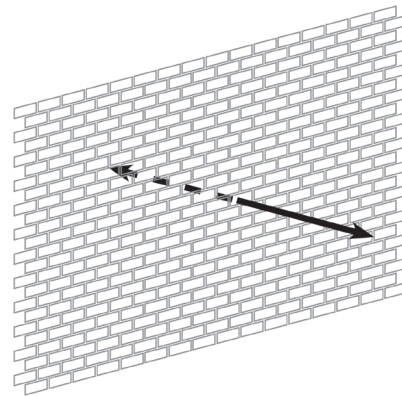
2000

1990





Masonry walls



Out of plane failure

1000

1250

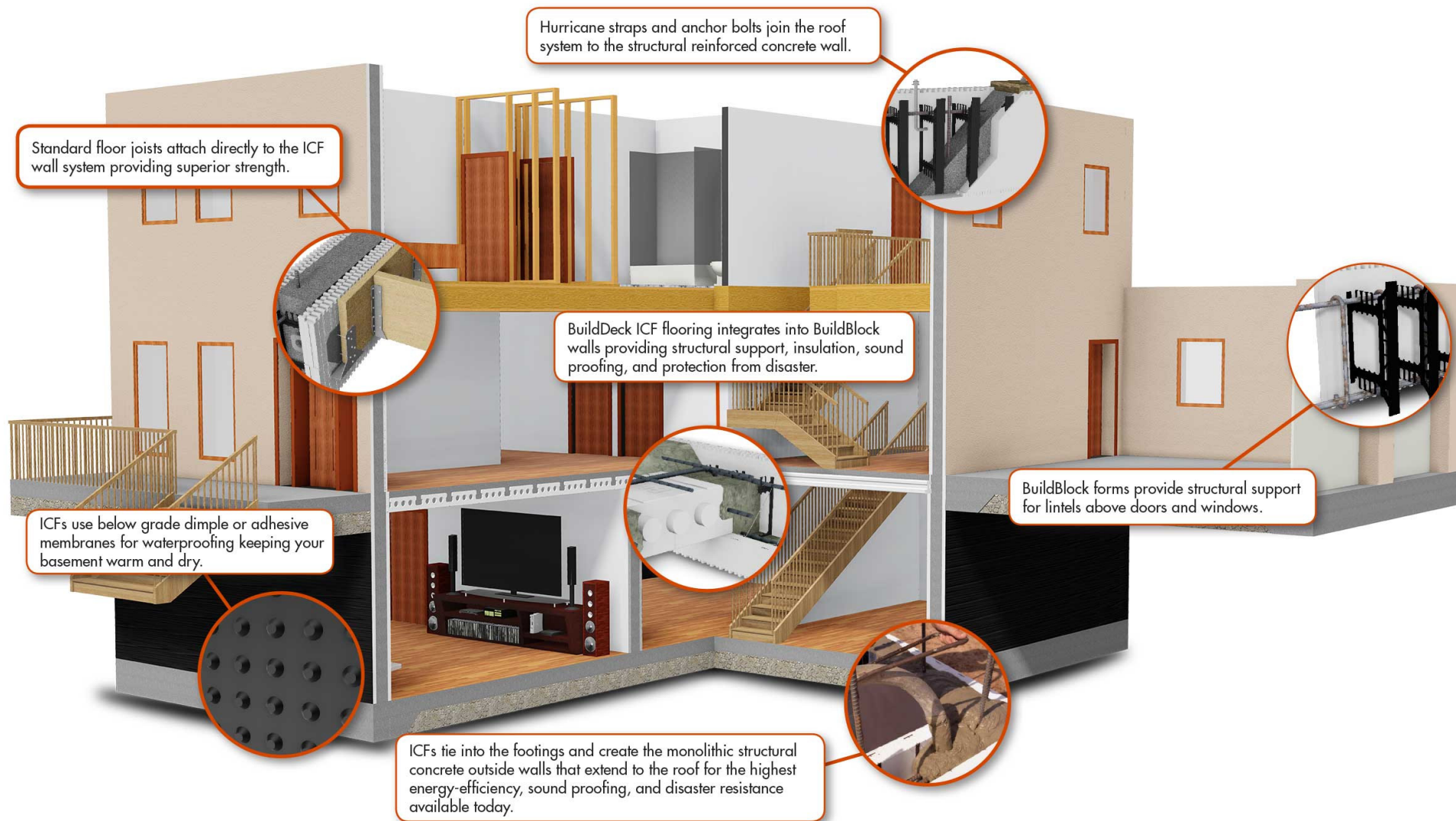
1500

1750

2000

1990





## Conventional solutions

1990

1000

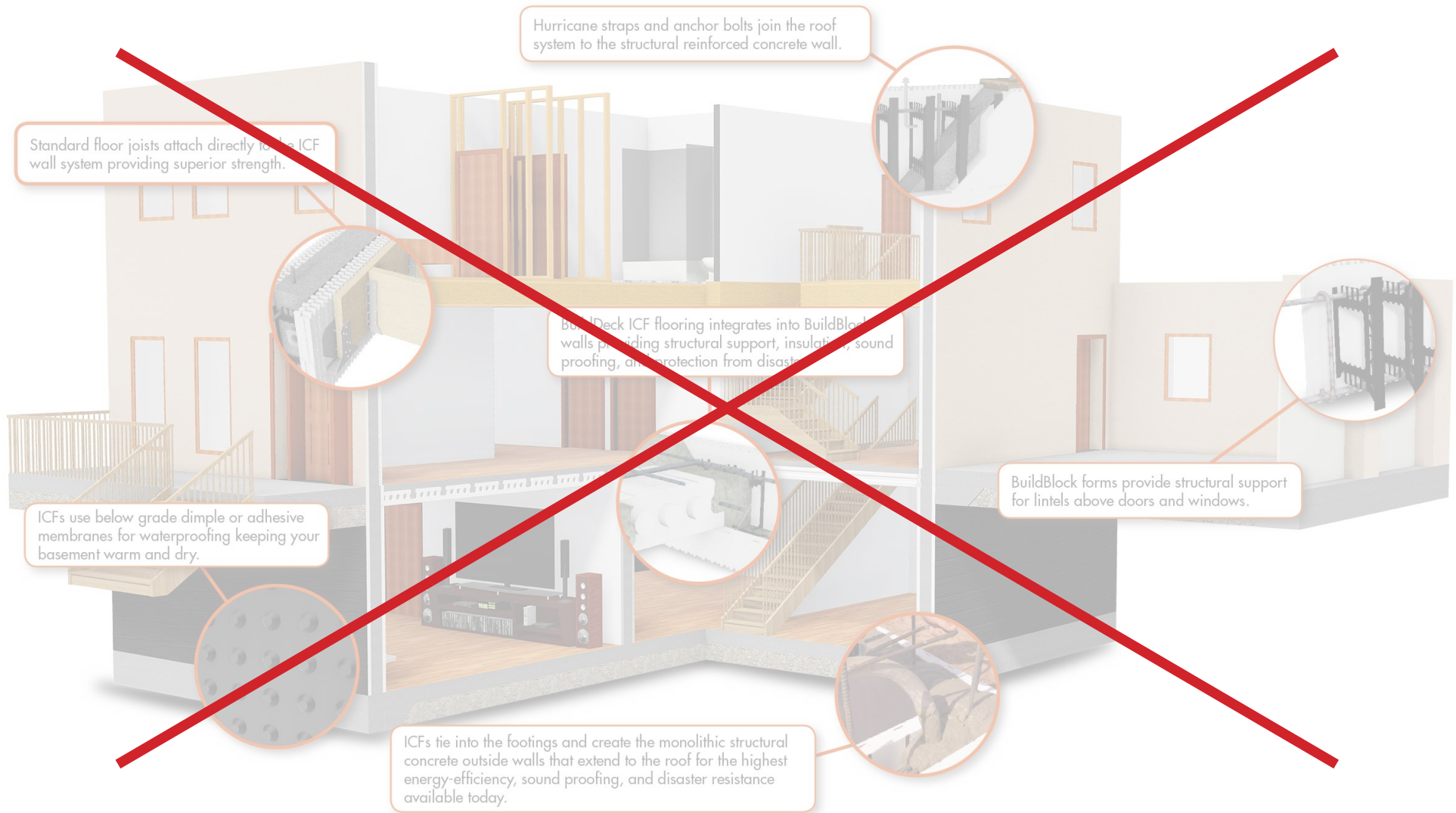
1250

1500

1750

2000





## Conventional solutions

1990

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1250

1500

1750

2000



# Weg vrij voor restauratie bouwvallig kerkje Heveskes



▲ Vertegenwoordigers van de stichting Oude Groninger Kerken en Vrienden van Behoud Kerk Heveskes zijn verheugd. Het middeleeuwse kerkje wordt opgeknapt en blijft zo voor het nageslacht behouden.

Foto: Anne Marie Katng

Stichting Oude Groninger Kerken

1996

1000

1250

1500

1750

2000





1996

1000 1250 1500 1750 2000





1996

1000

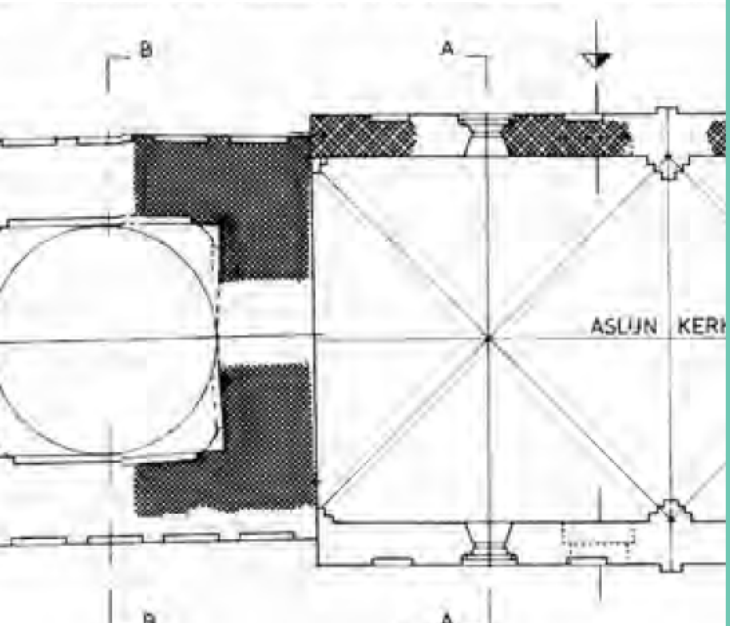
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1000

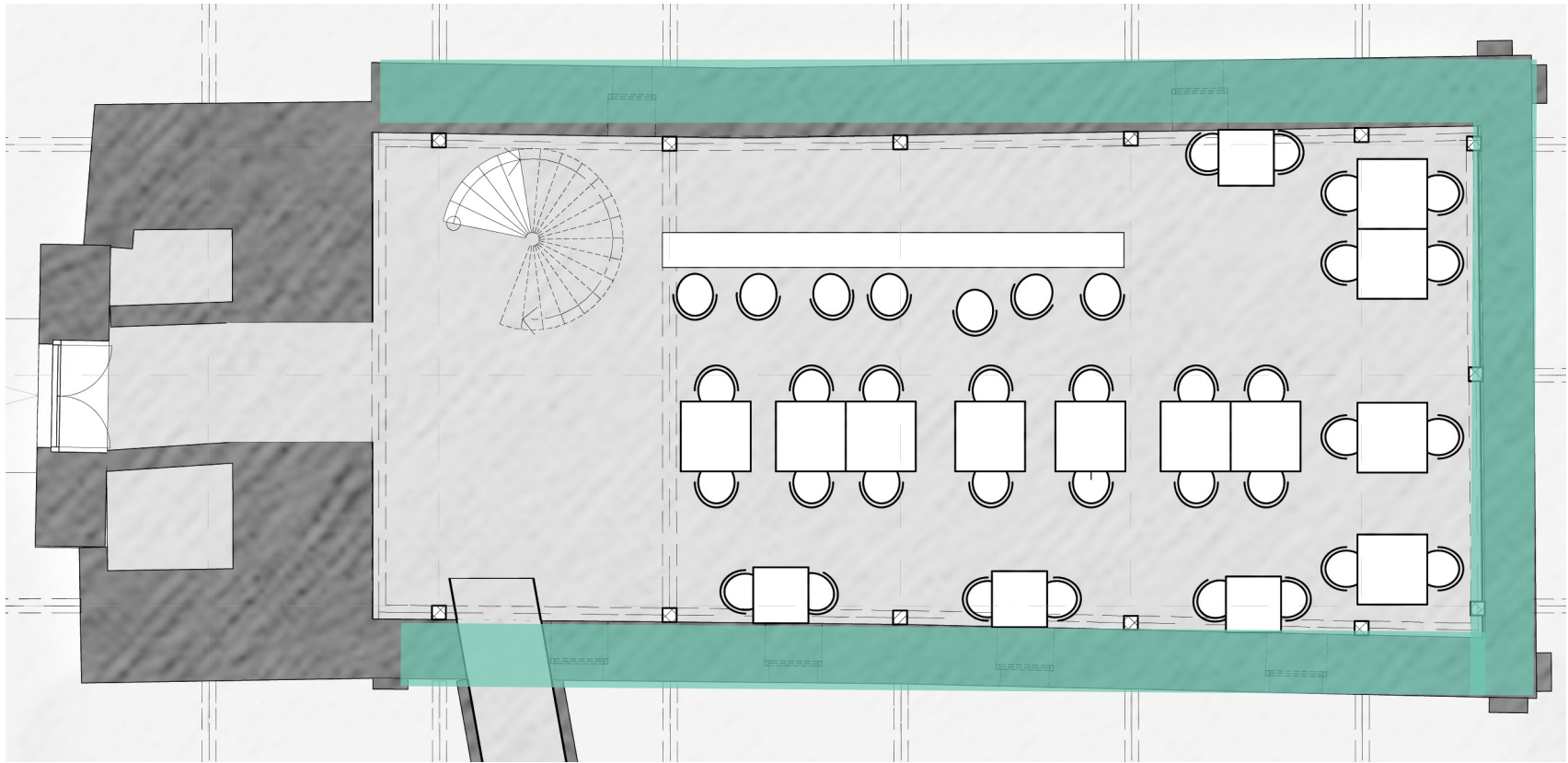
1250

1500

1750

2000





Unsupported walls of the nave

2016

1000

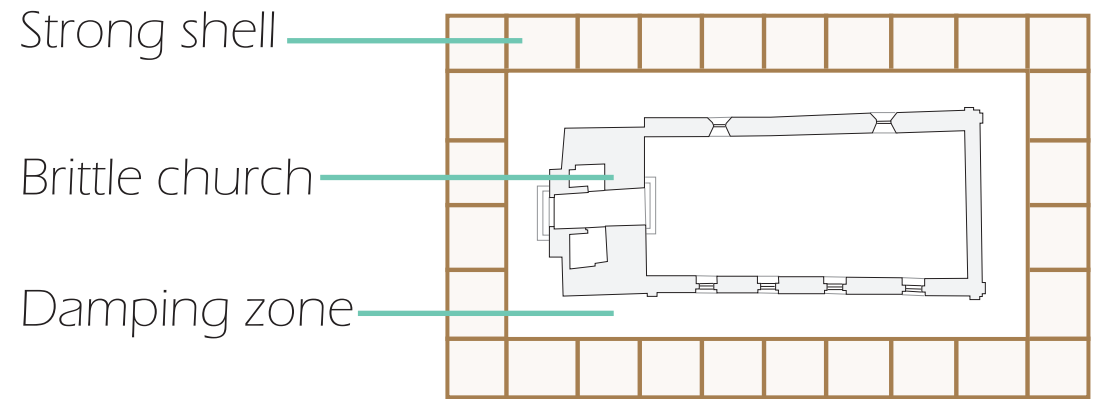
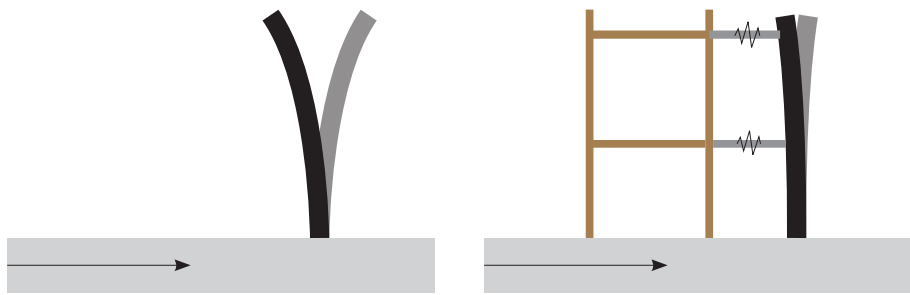
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1750

2000





1000

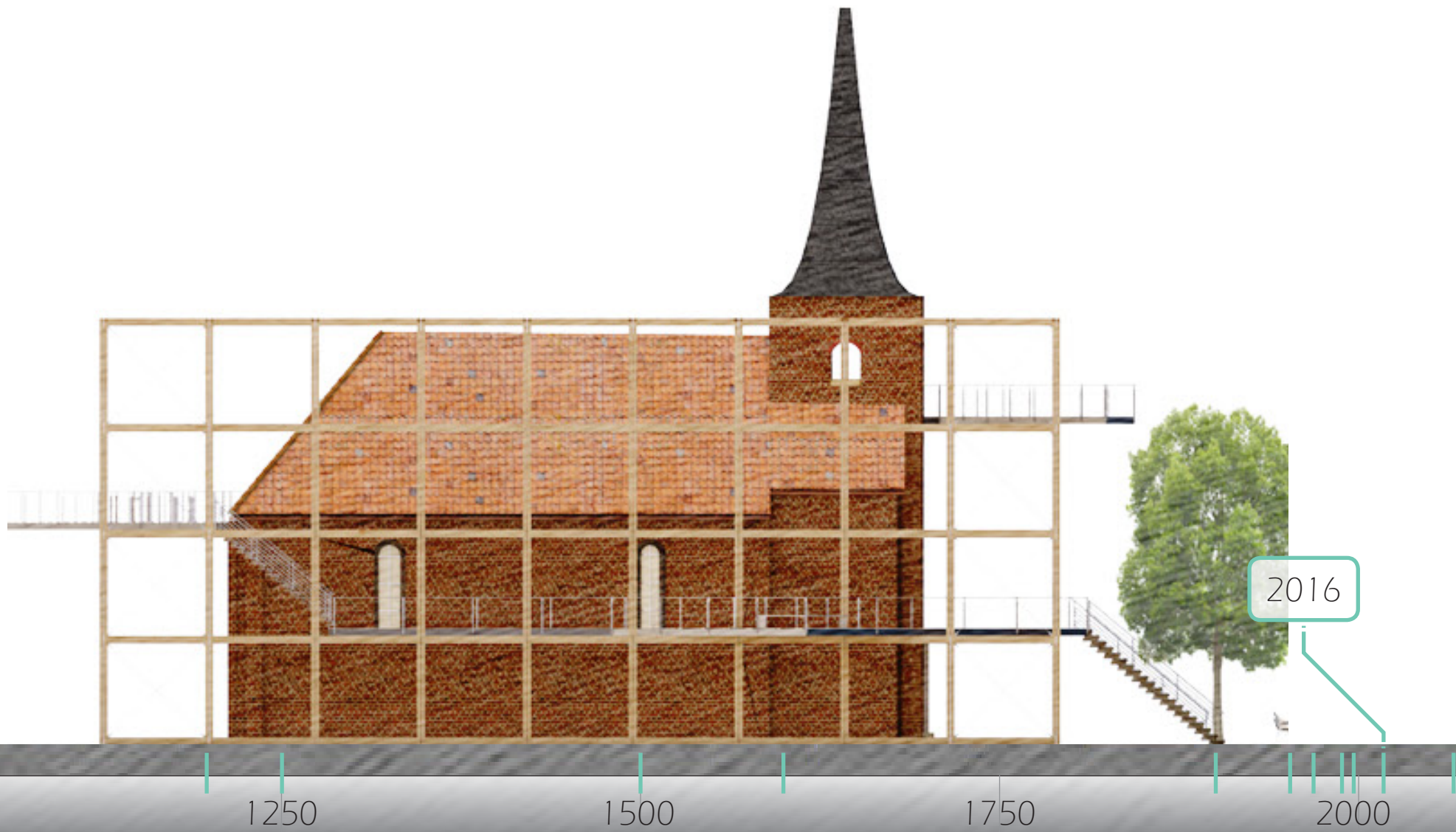
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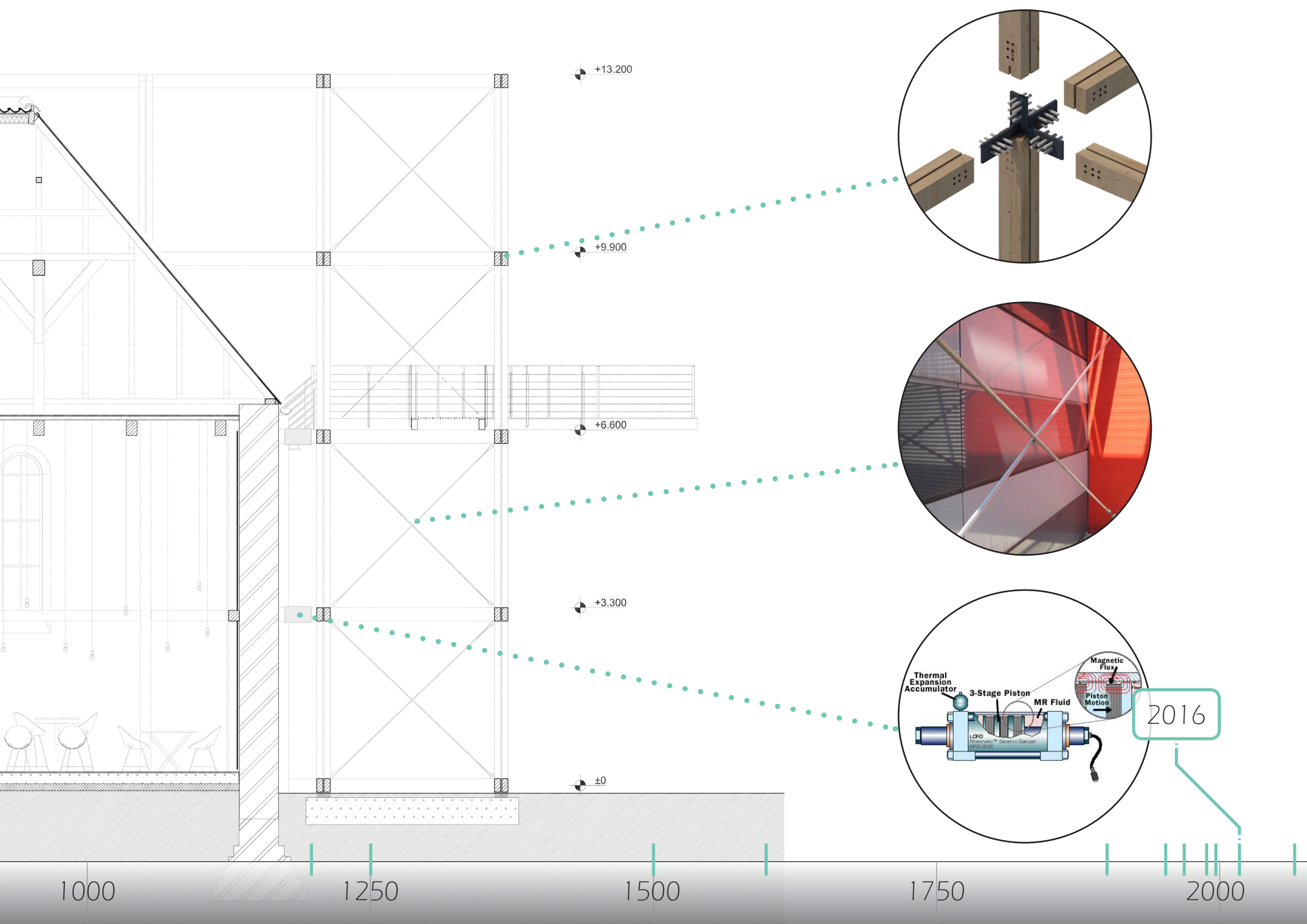
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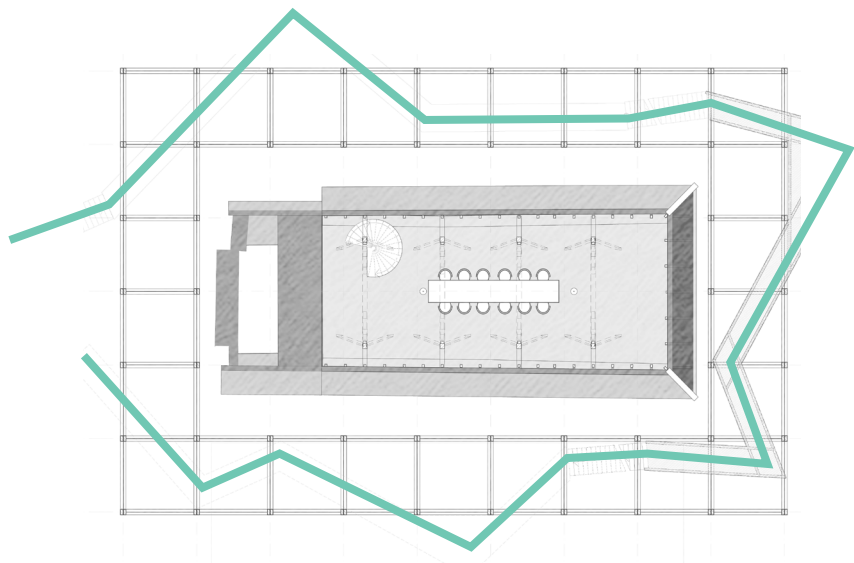
2000

2016

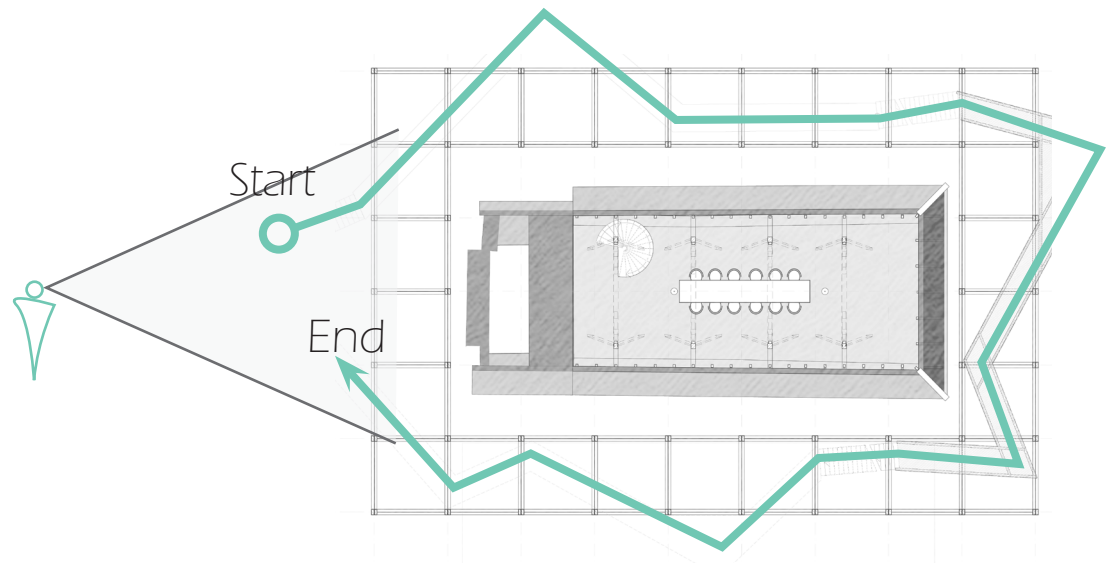








Guest in the structure



Makes curious

1000

1250

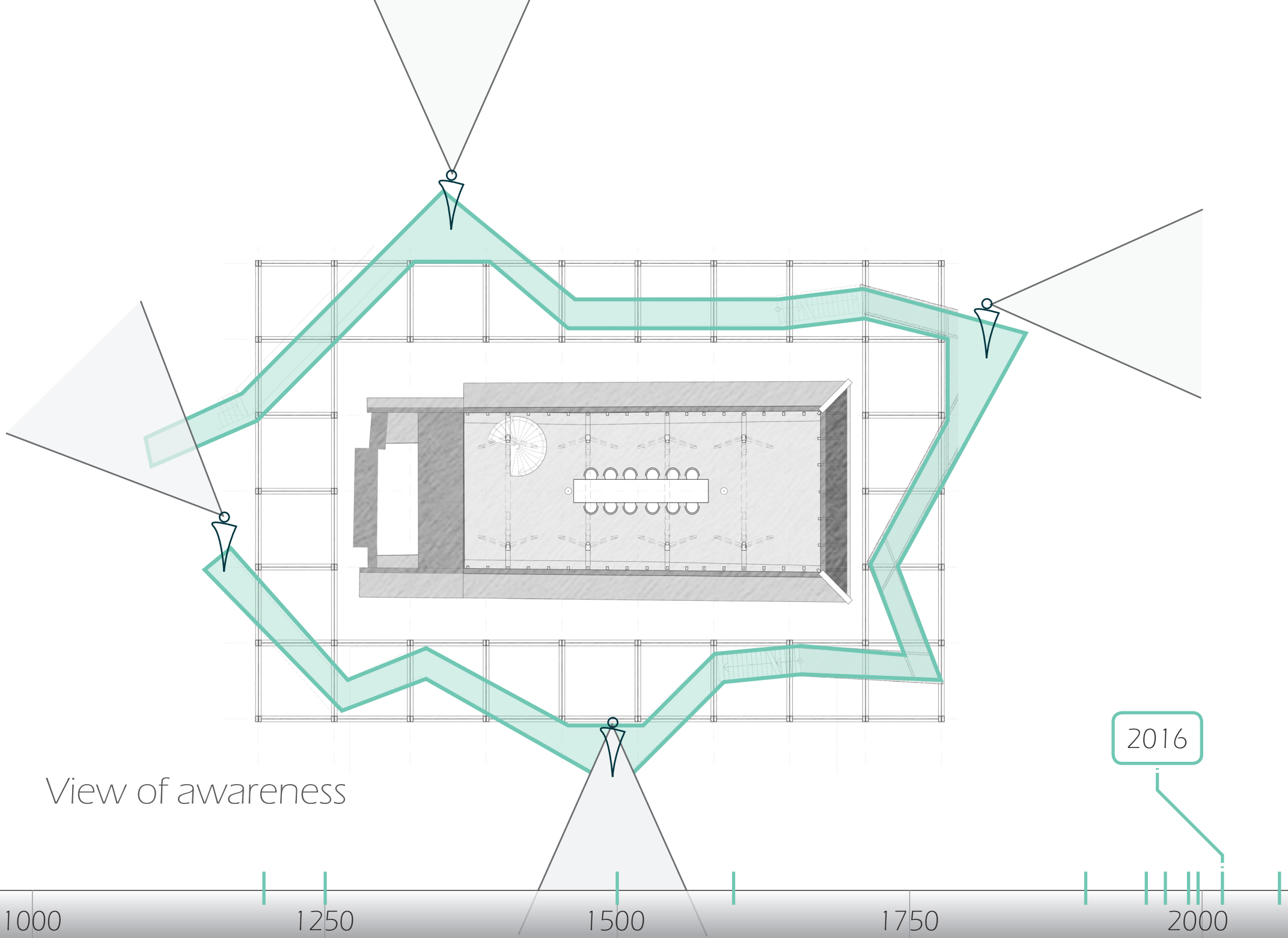
1500

1750

2000

2016





Heveskes

DORP HEVESKES

Weg

Haar

2016

1000 1250 1500 1750 2000







Oterdum

2016

1000

1250

1500

1750

2000



Heveskesklooster

2016

1000

1250

1500

1750

2000



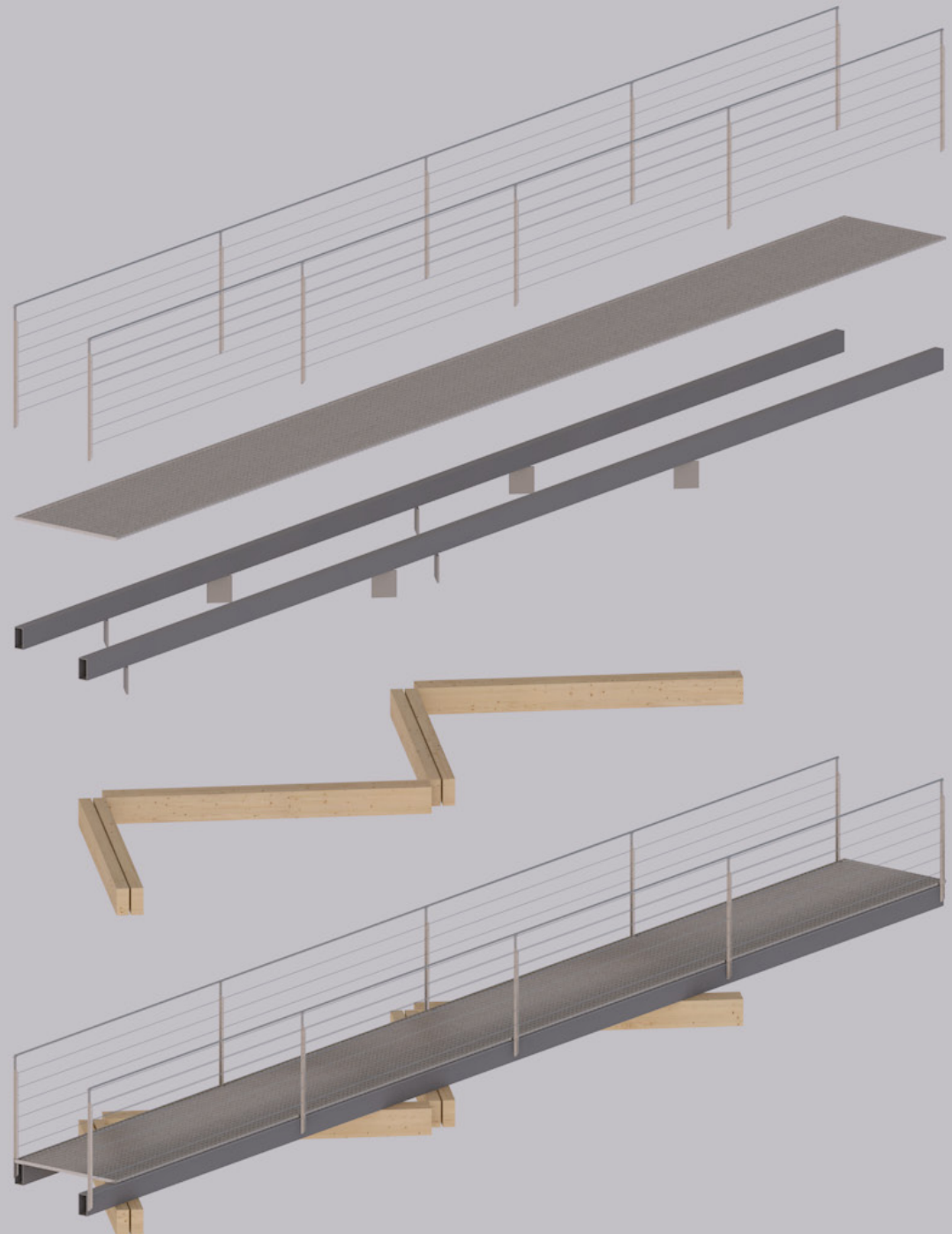


Chemiepark Delfzijl

2016







1000

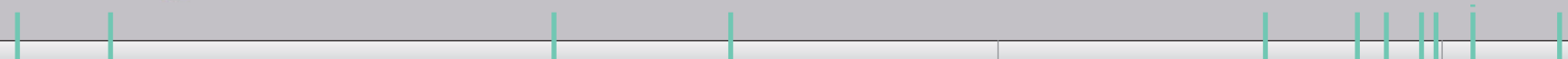
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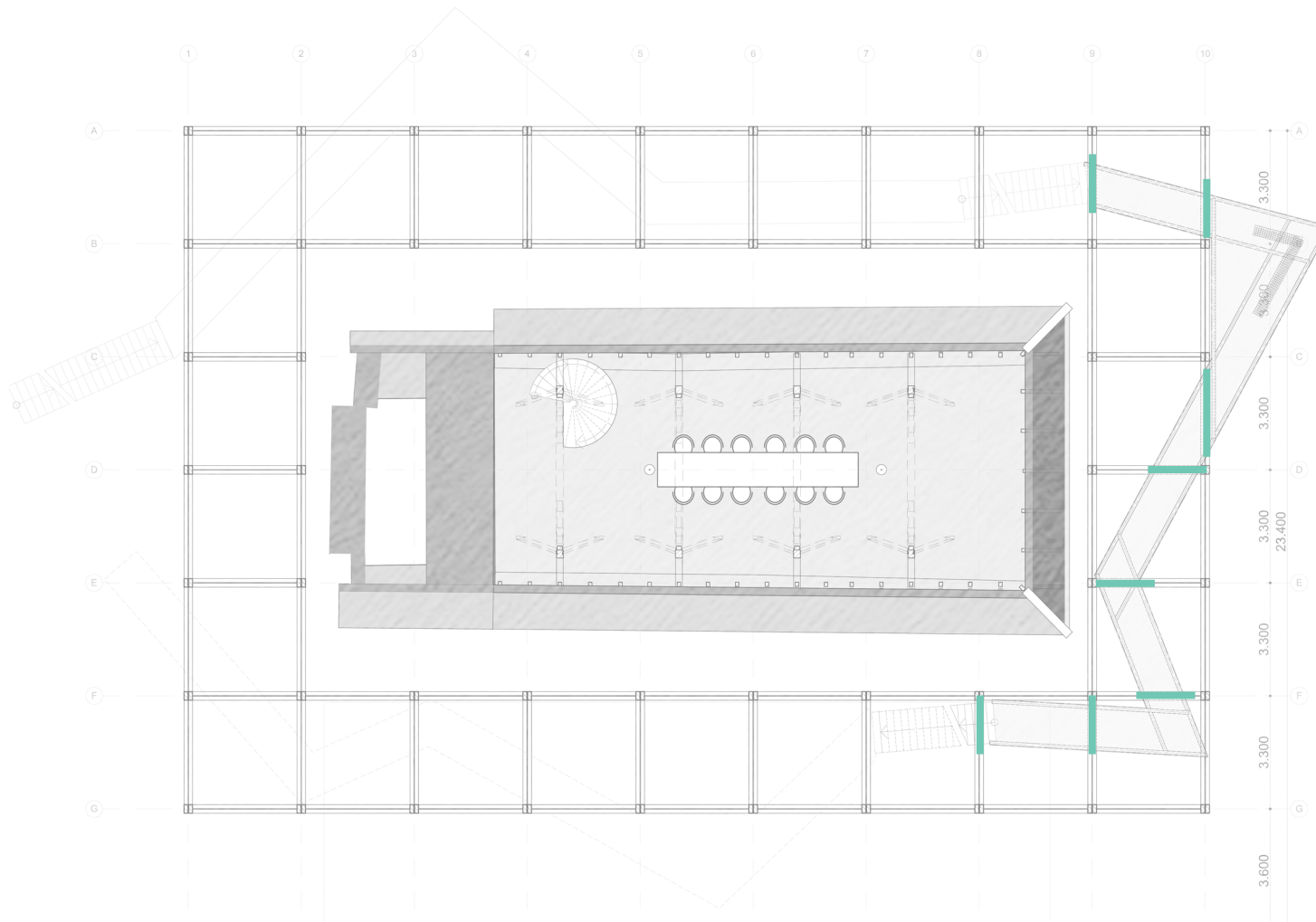
1750

2000

2016







Connection with timber structure

2016

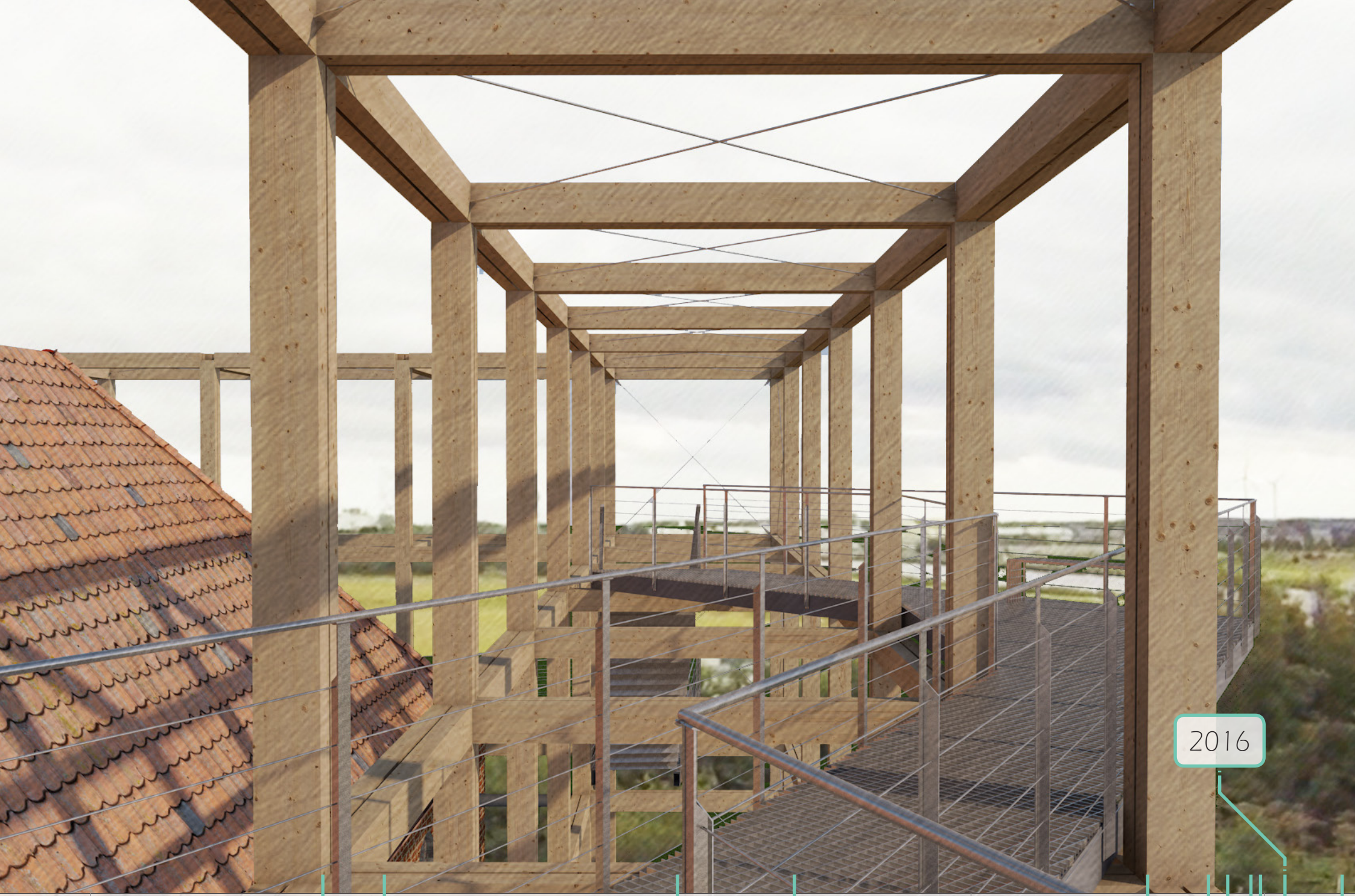
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2016

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1500

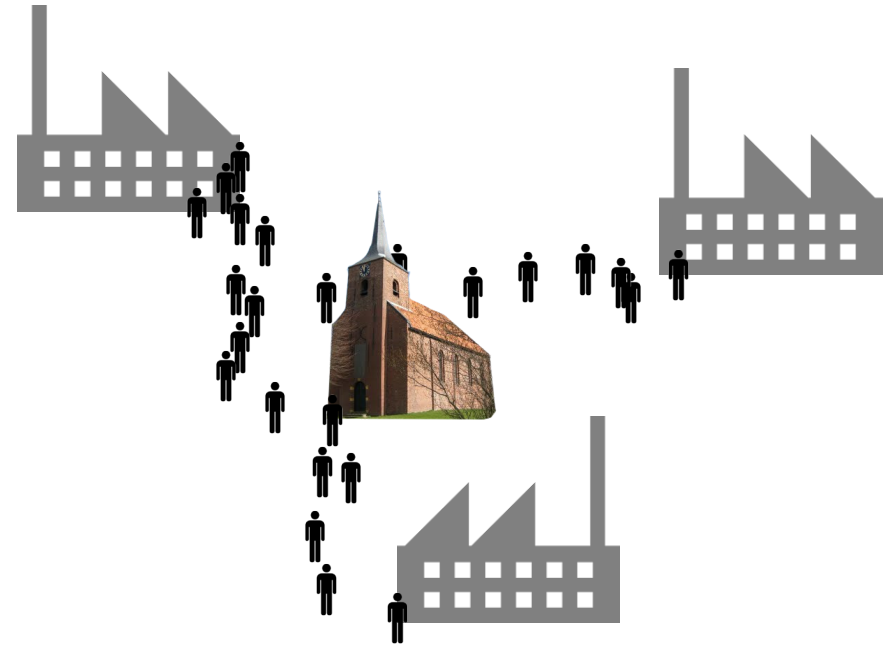
1750

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vs.



Program

1000

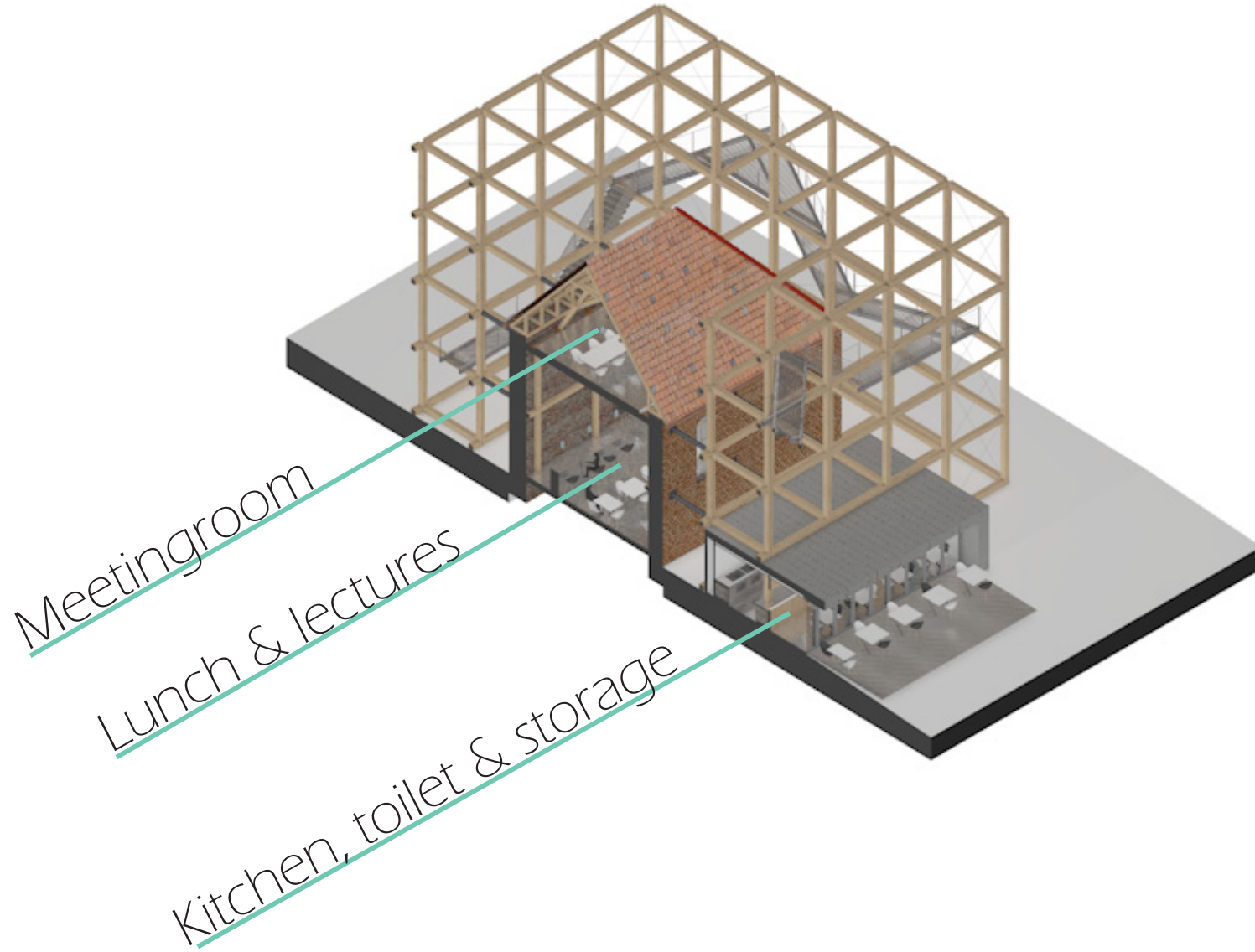
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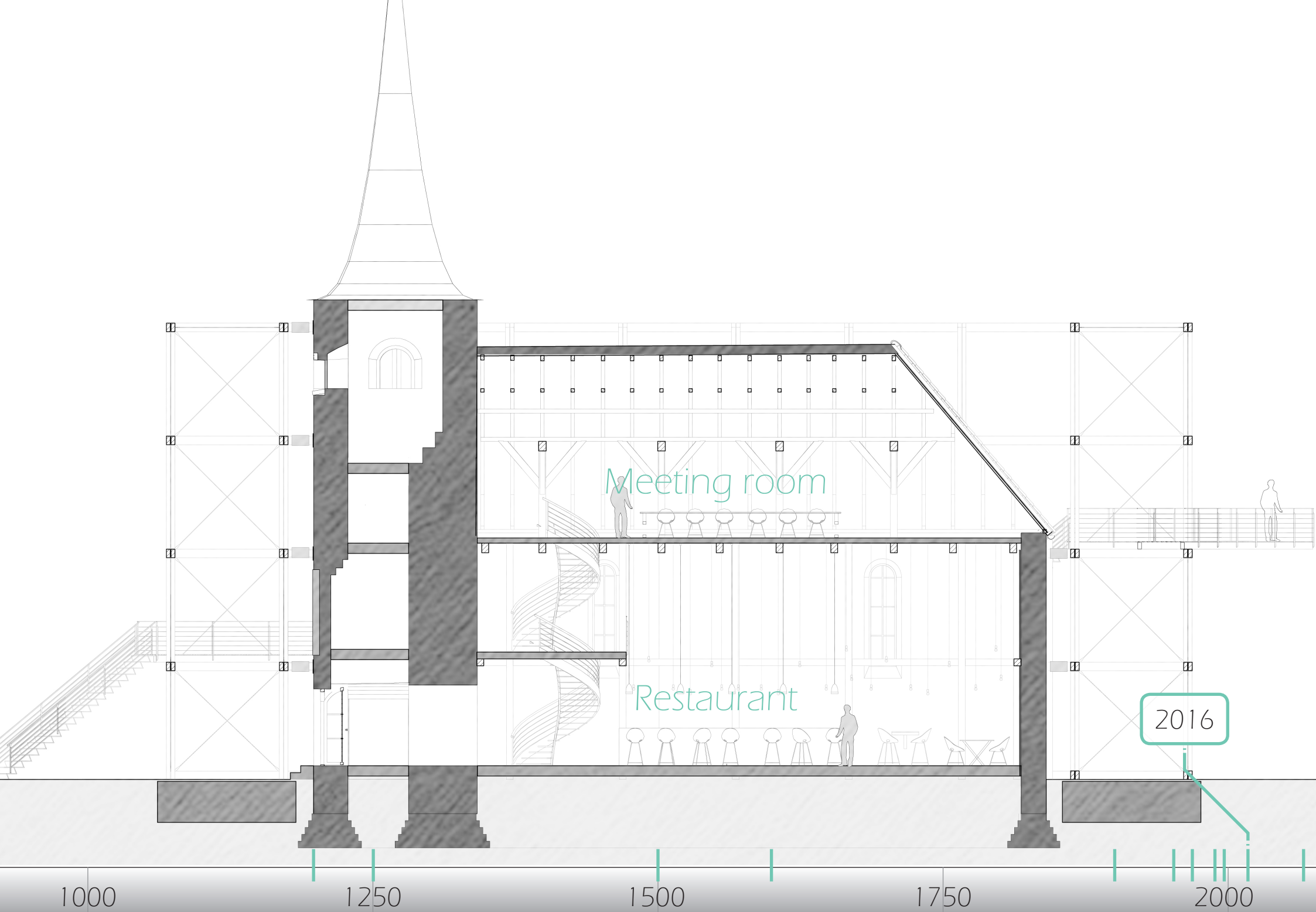
2016



2016

1000 1250 1500 1750 2000





Meeting room

Restaurant

2016

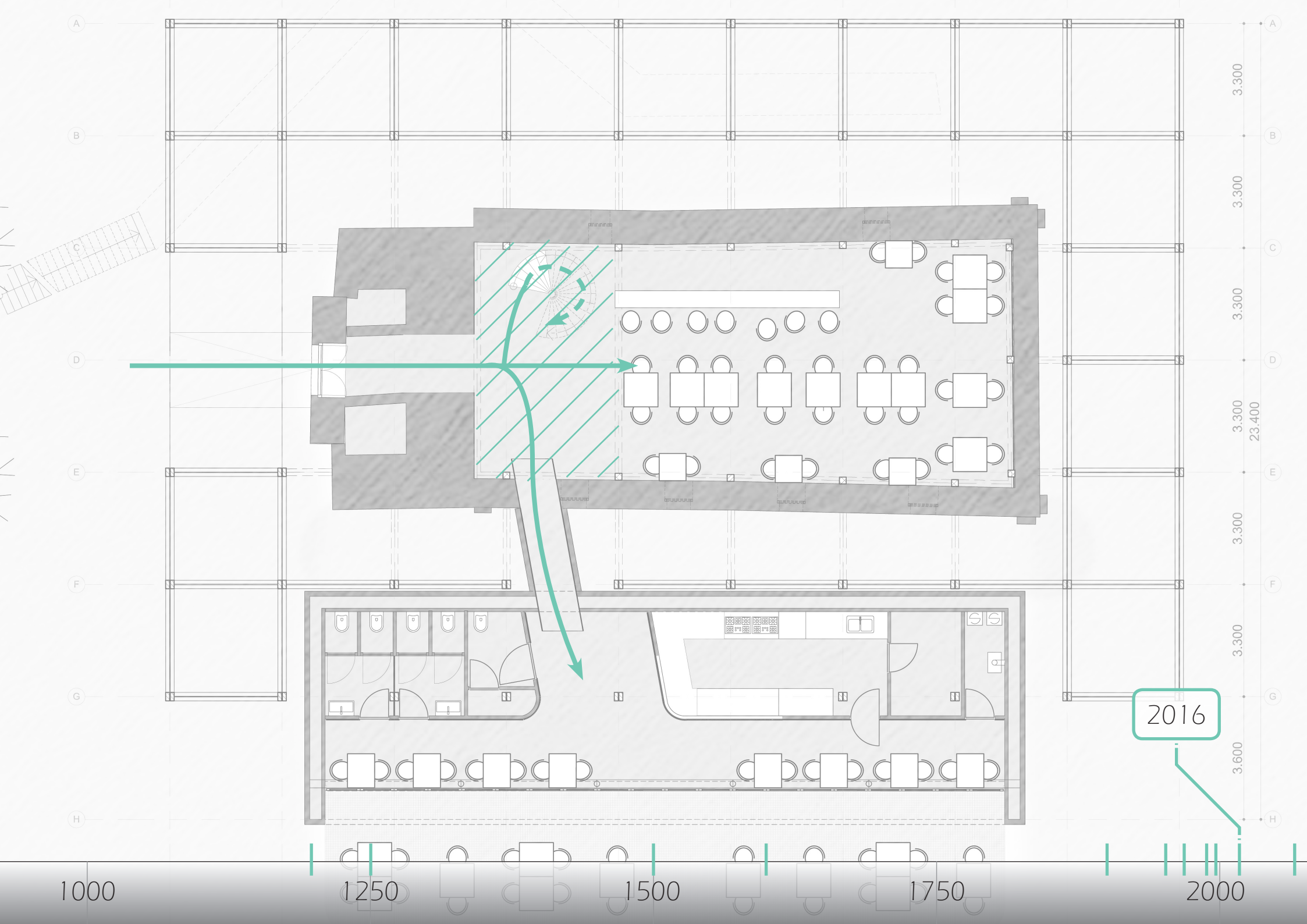
1000

1250

1500

1750

2000



A

B

D

E

F

G

H

A

B

C

D

E

F

G

H

3.300

3.300

3.300

3.300

3.300

3.300

3.600

23.400

2016

1000

1250

1500

1750

2000

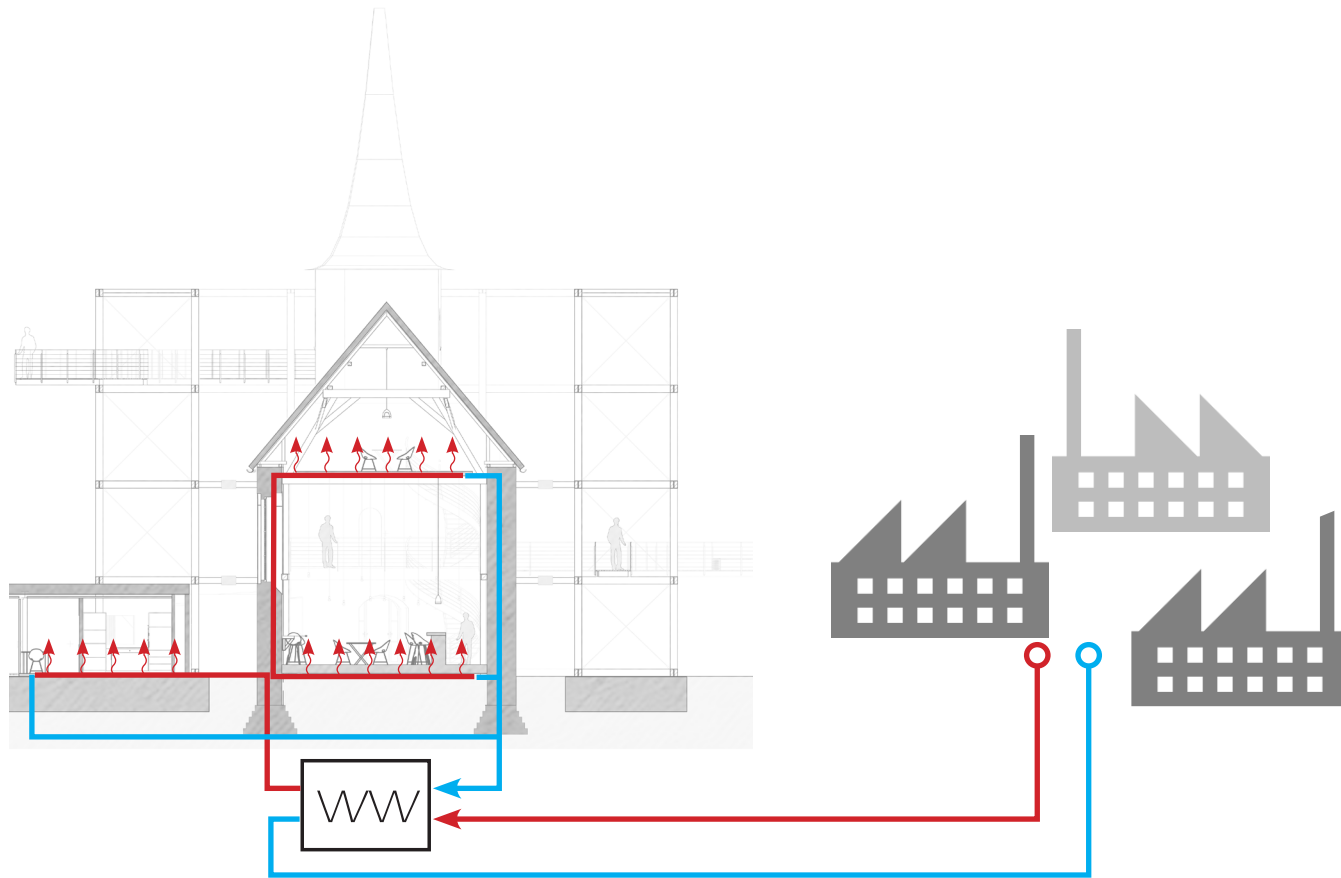




2016

1000 1250 1500 1750 2000





Heating concept

2016

1000

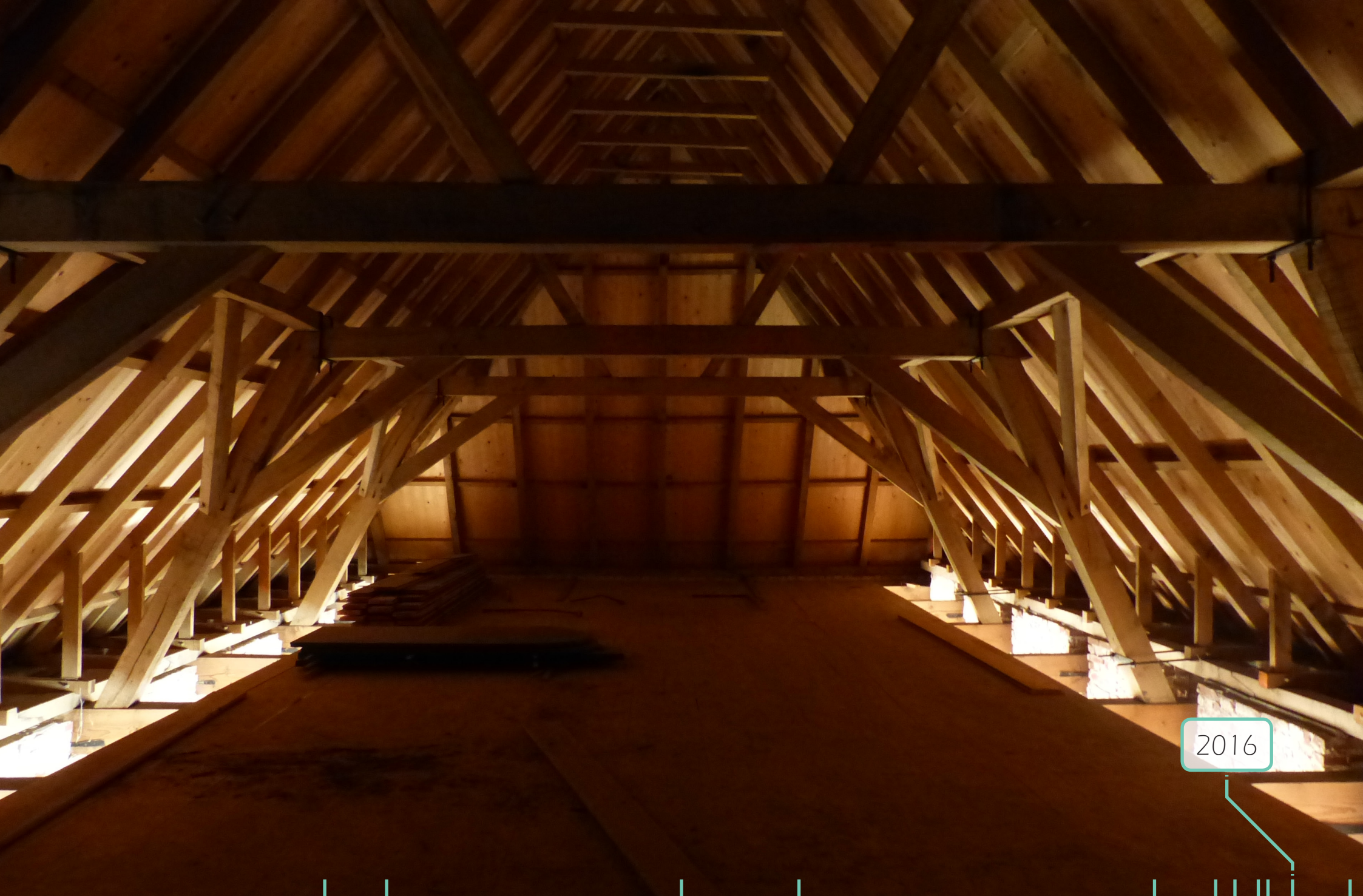
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2016

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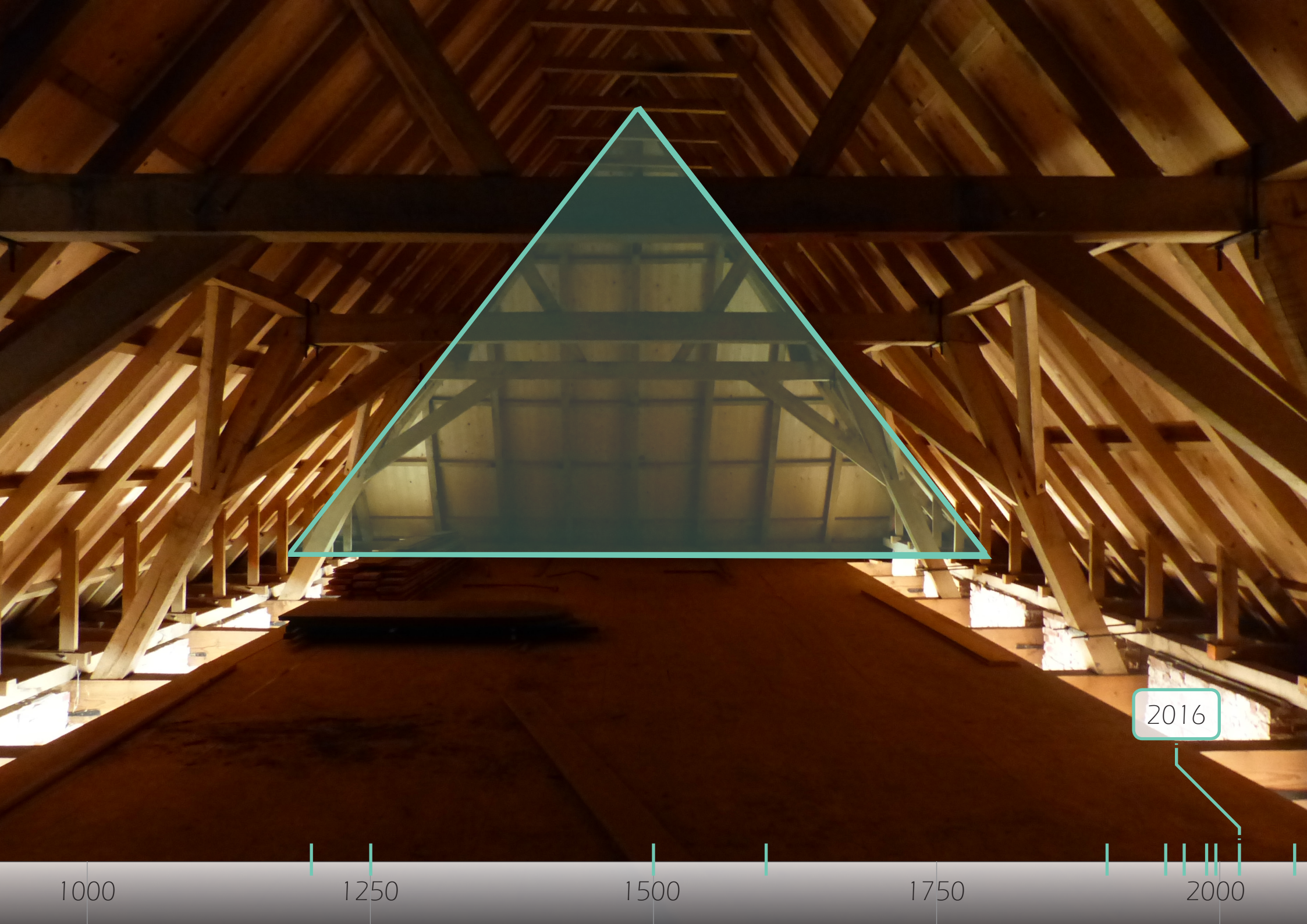
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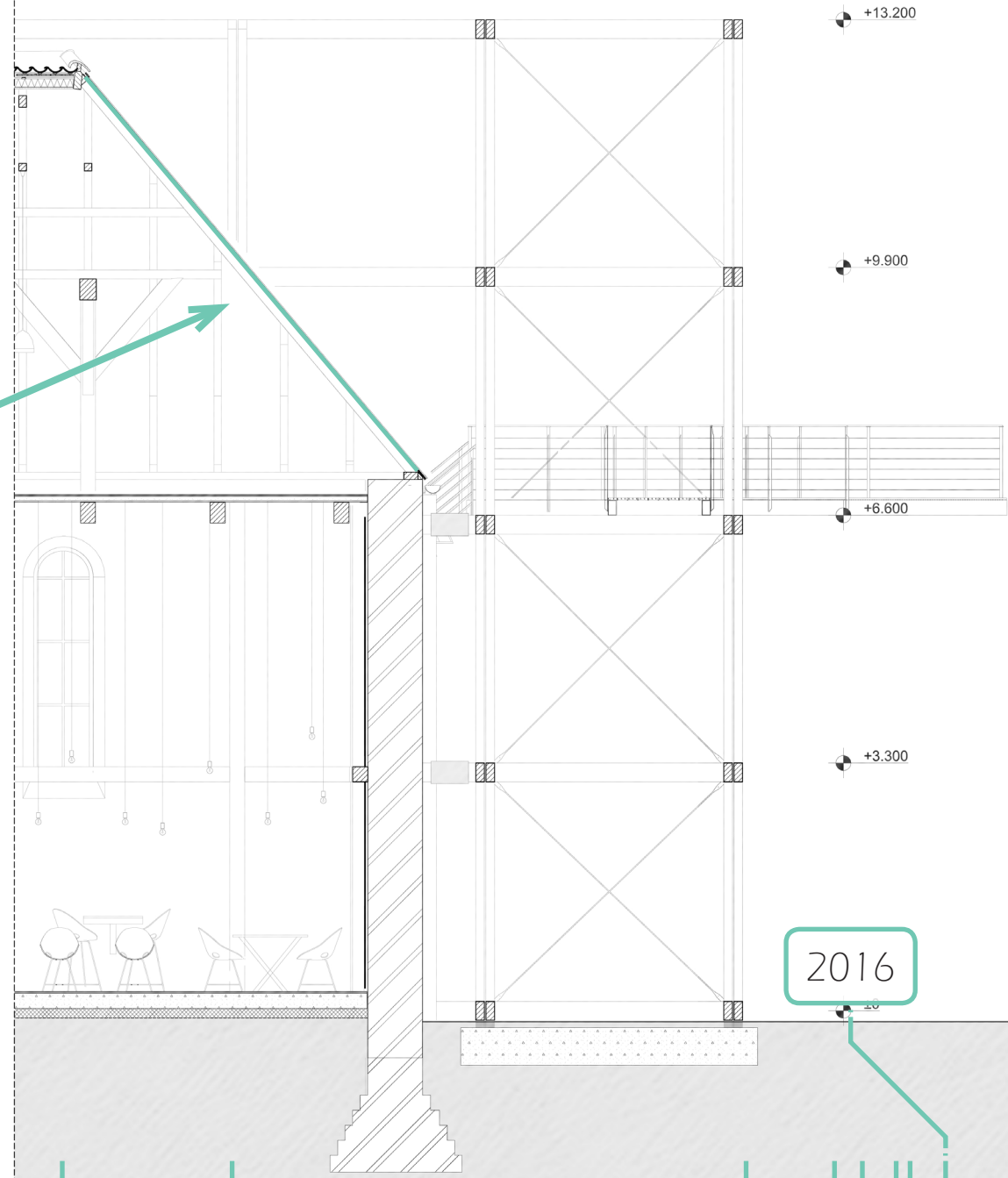
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1750

2000

2016





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1250

1500

1750

2000





2016

1000

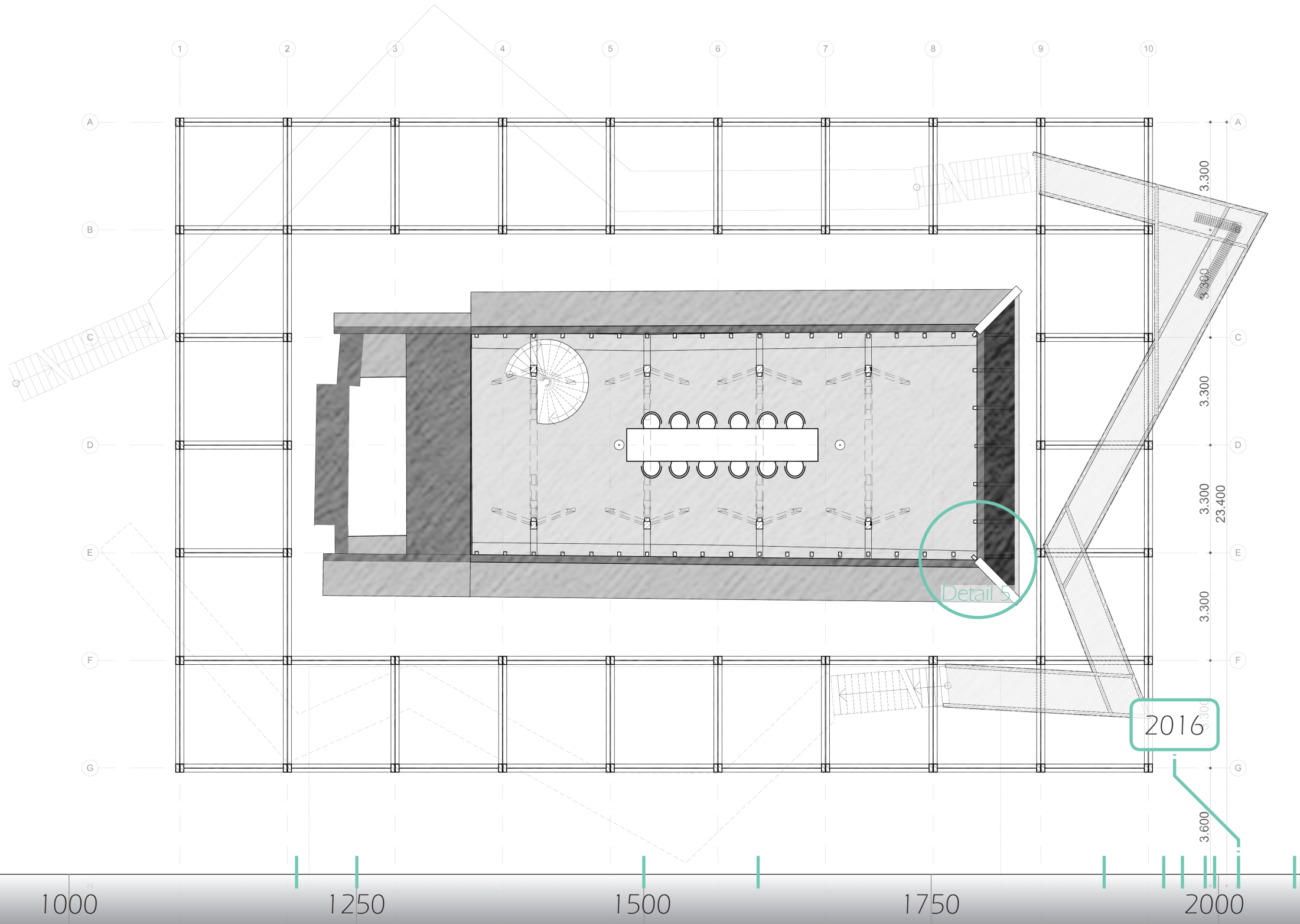
1250

1500

1750

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Detail 5

2016

1000

1250

1500

1750

2000

3.300

3.300

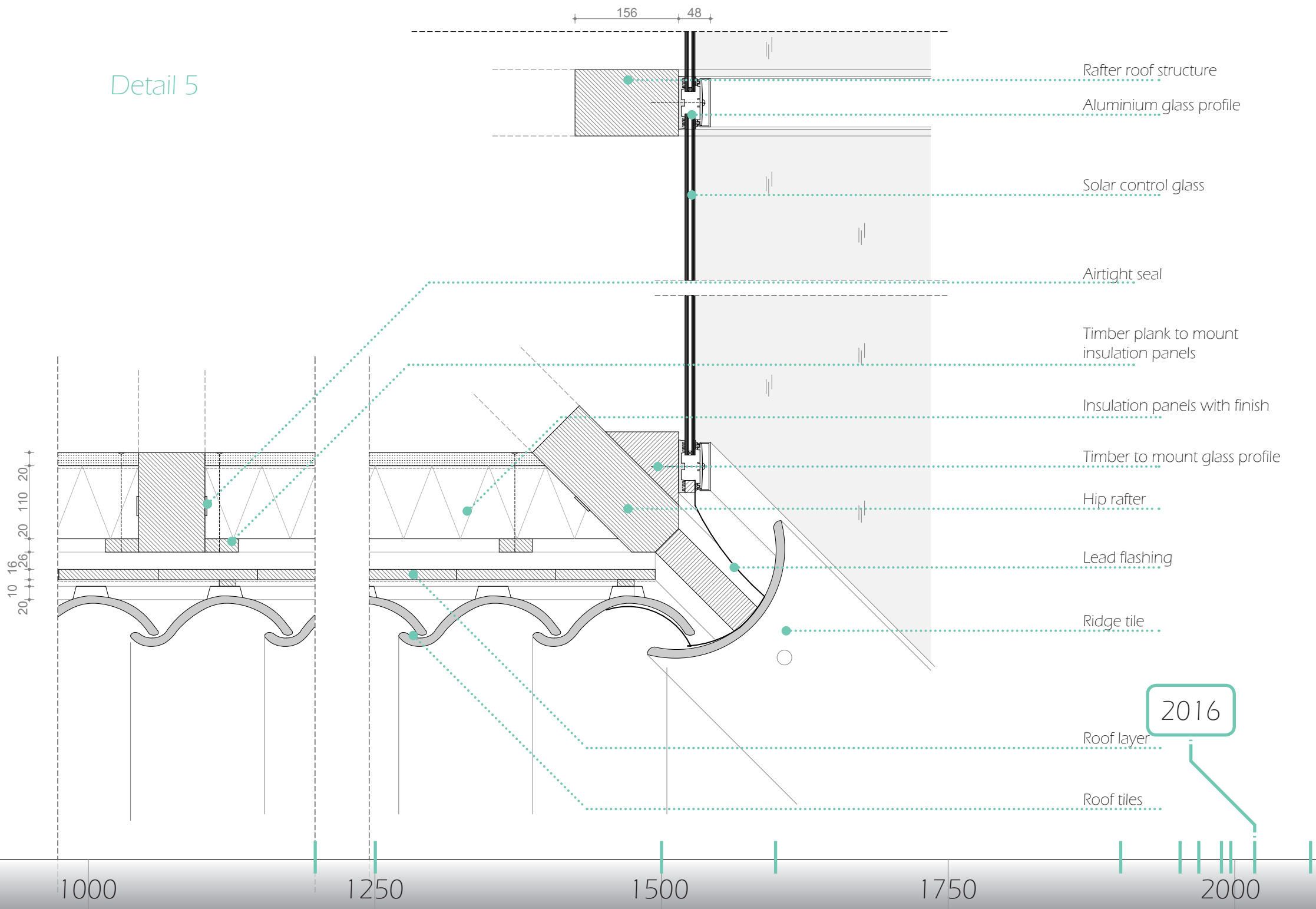
3.300  
23.400

3.300

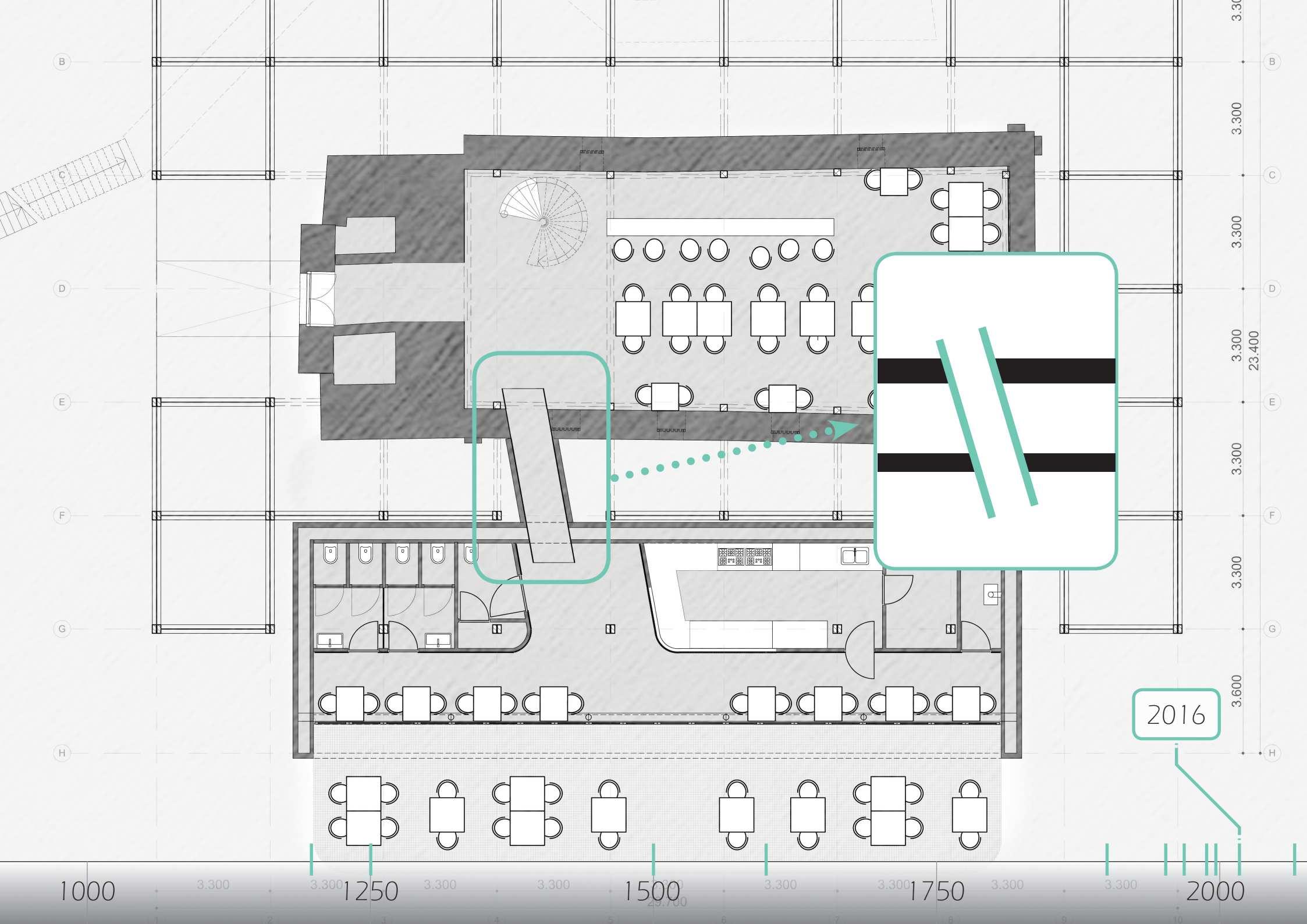
3.300

3.600

# Detail 5







2016





2016

1000

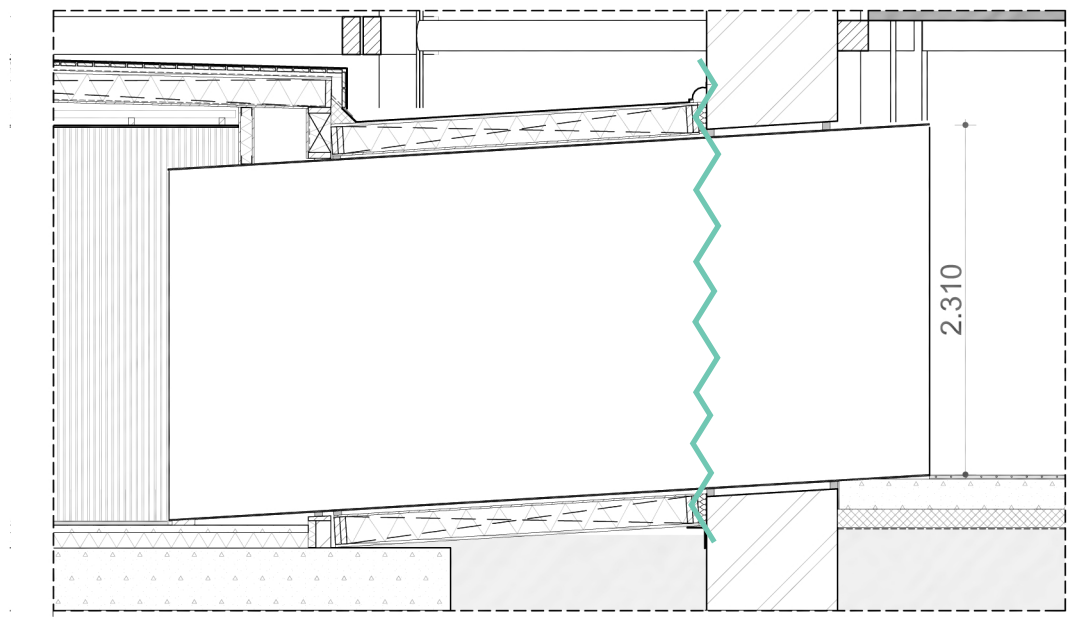
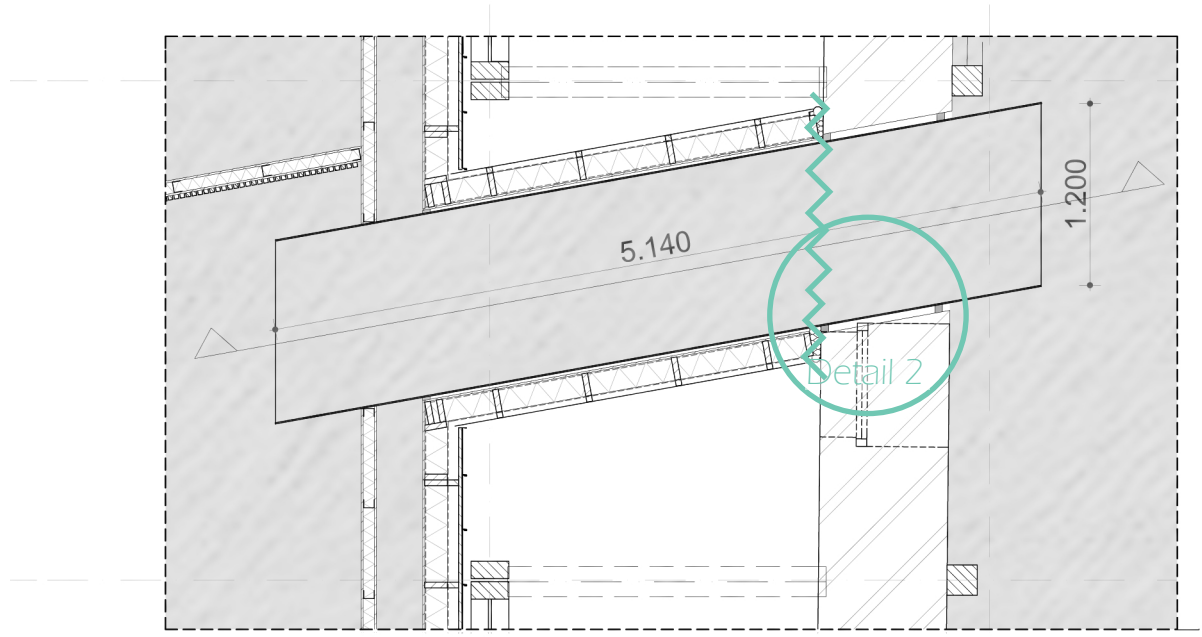
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1750

2000

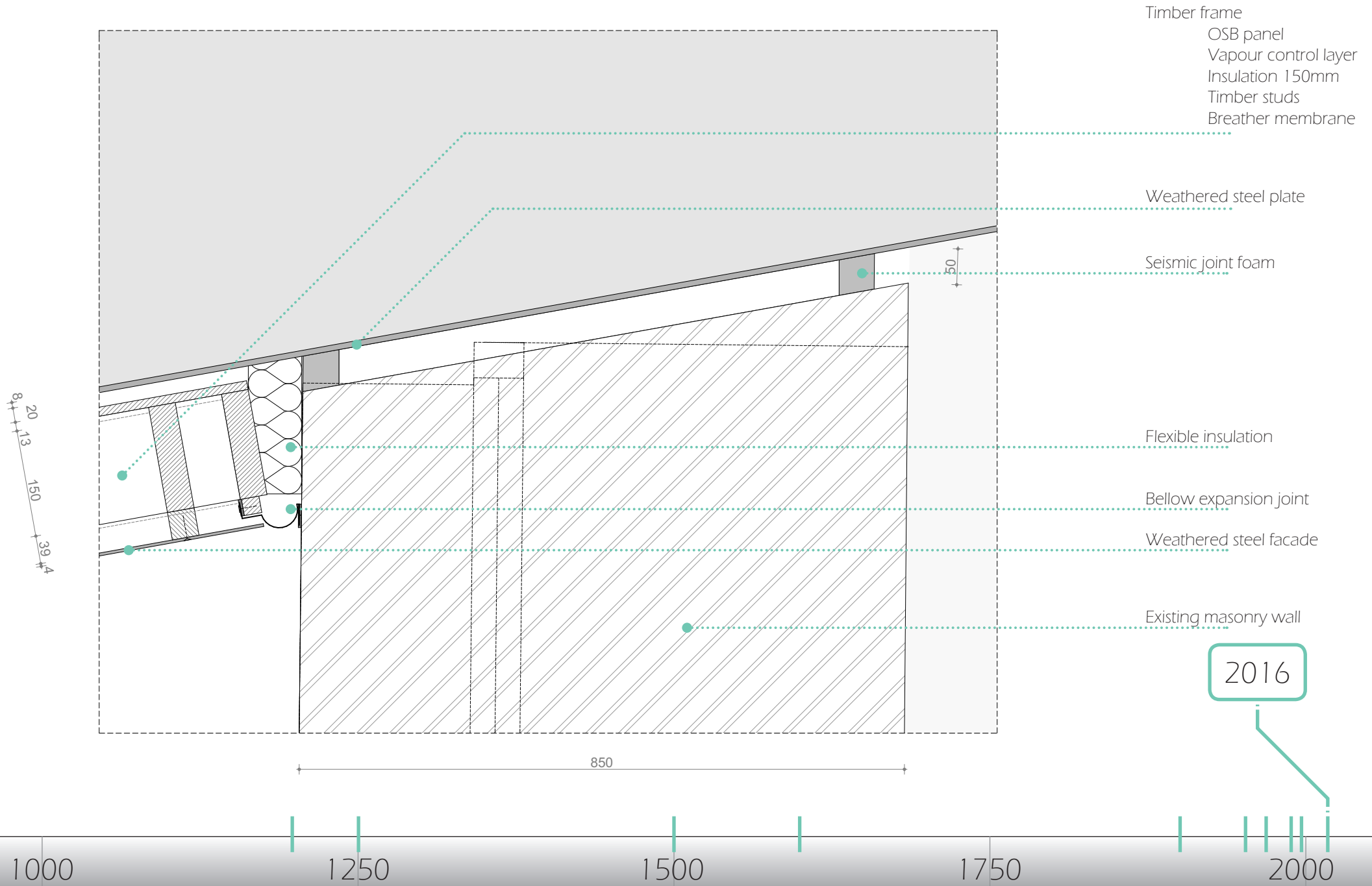




1000 1250 1500 1750 2000

2016

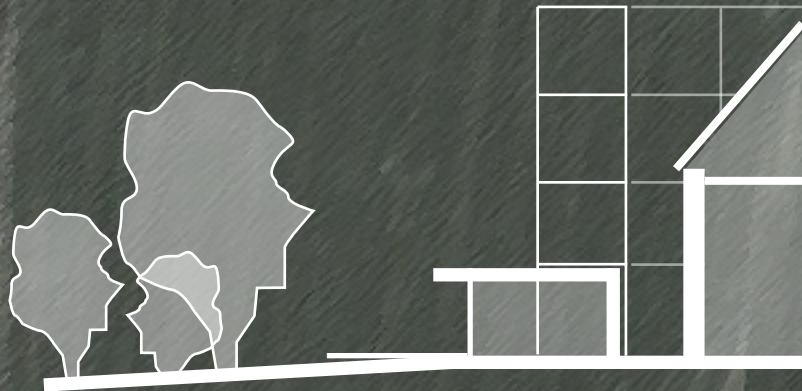
# Detail 2







Framing



Transition



2016

1000

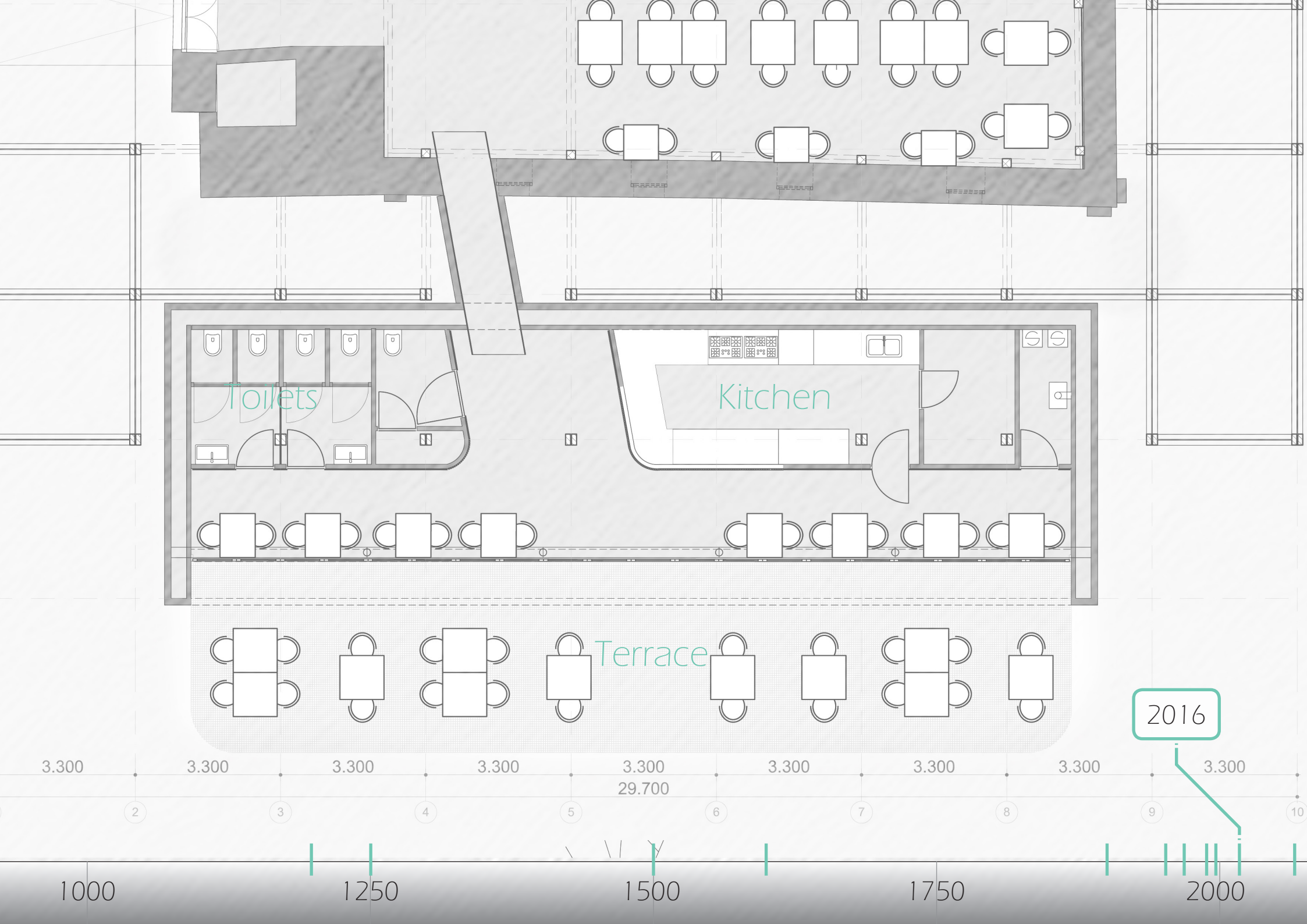
1250

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1750

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Toilets

Kitchen

Terrace

2016

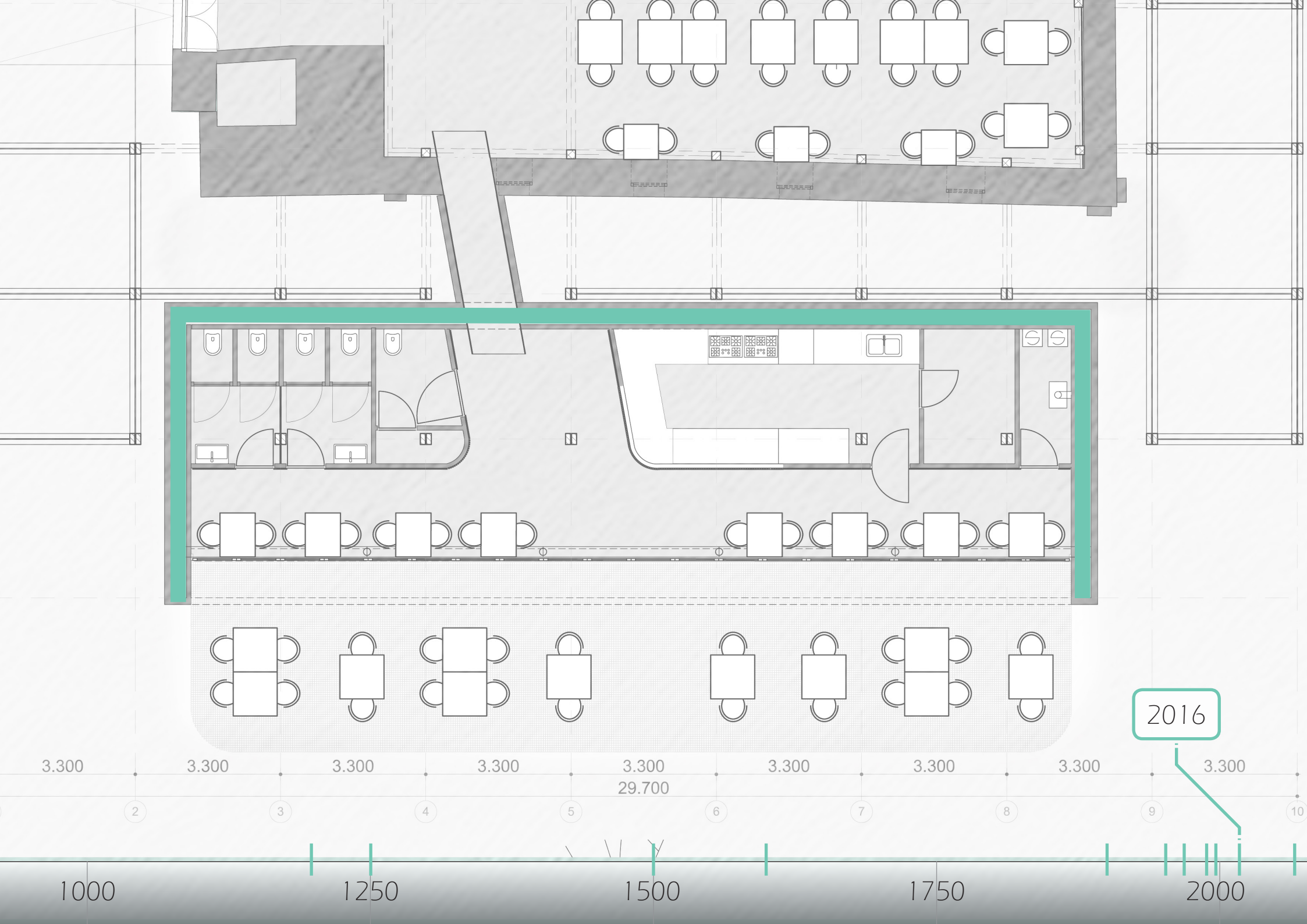
3.300 3.300 3.300 3.300 3.300 3.300 3.300 3.300 3.300

29.700

3.300

1000 1250 1500 1750 2000





2016

3.300

3.300

3.300

3.300

3.300  
29.700

3.300

3.300

3.300

3.300

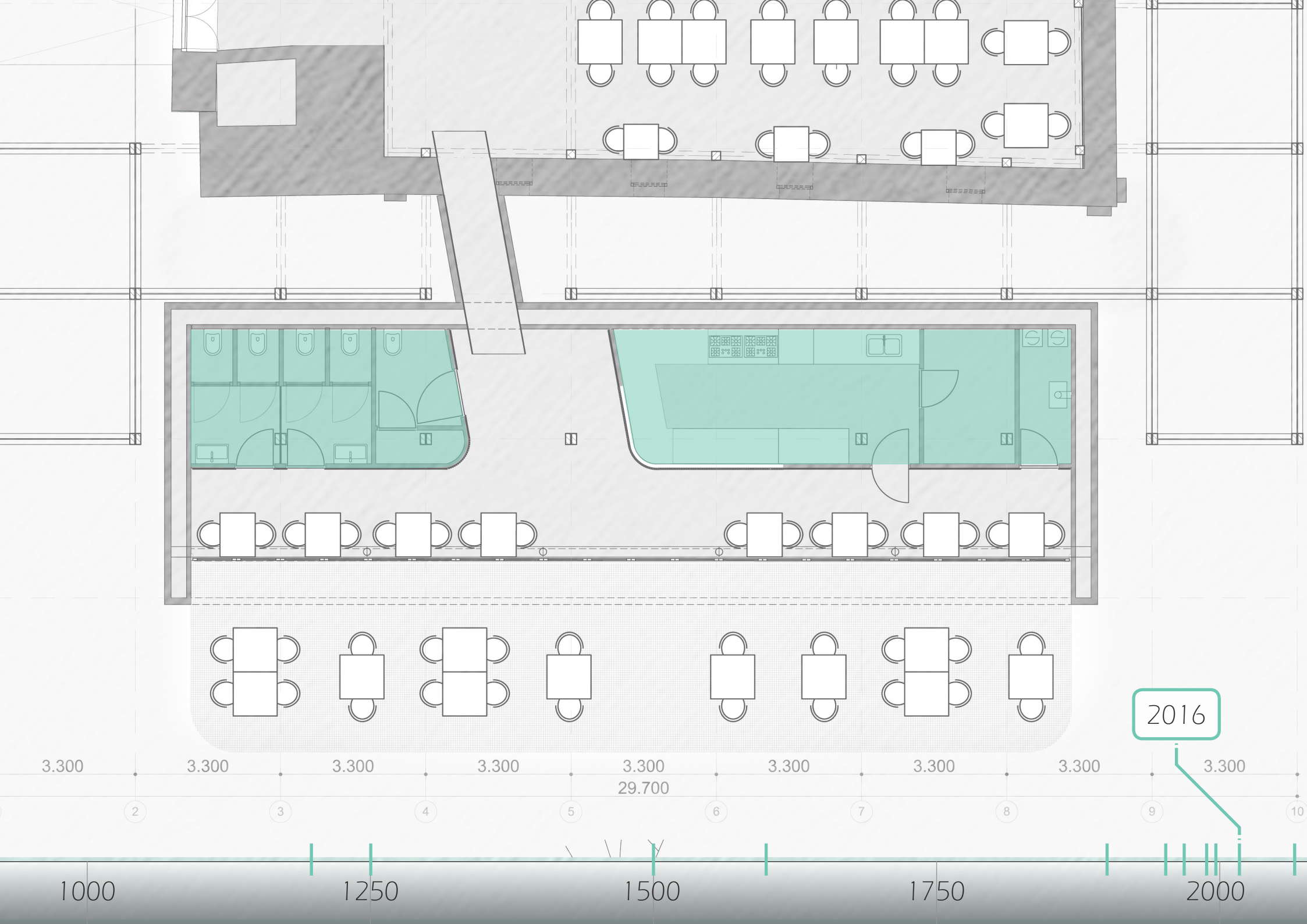
1000

1250

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1750

2000



2016

3.300

3.300

3.300

3.300

3.300  
29.700

3.300

3.300

3.300

3.300

1000

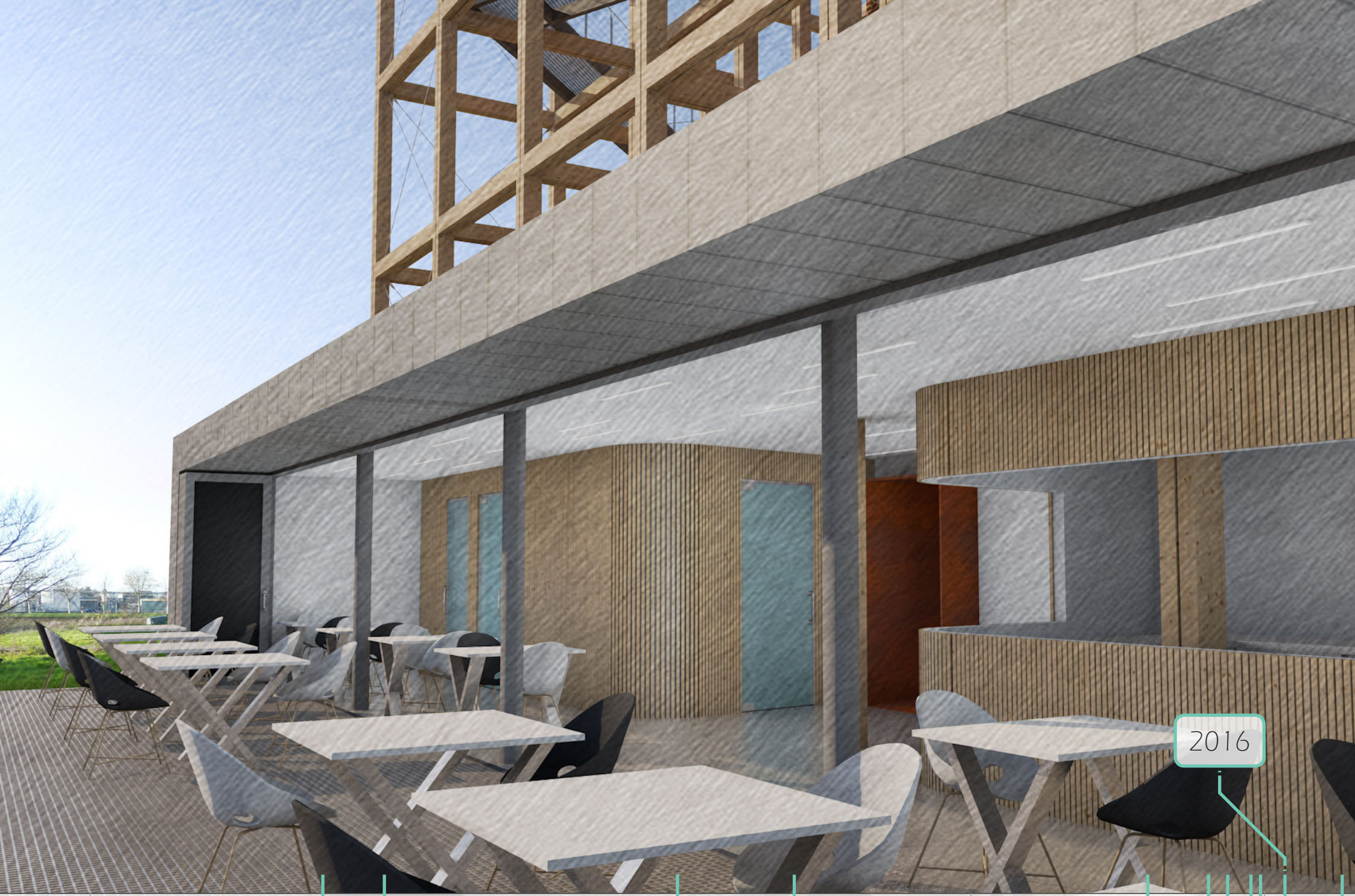
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1750

2000





2016

1000

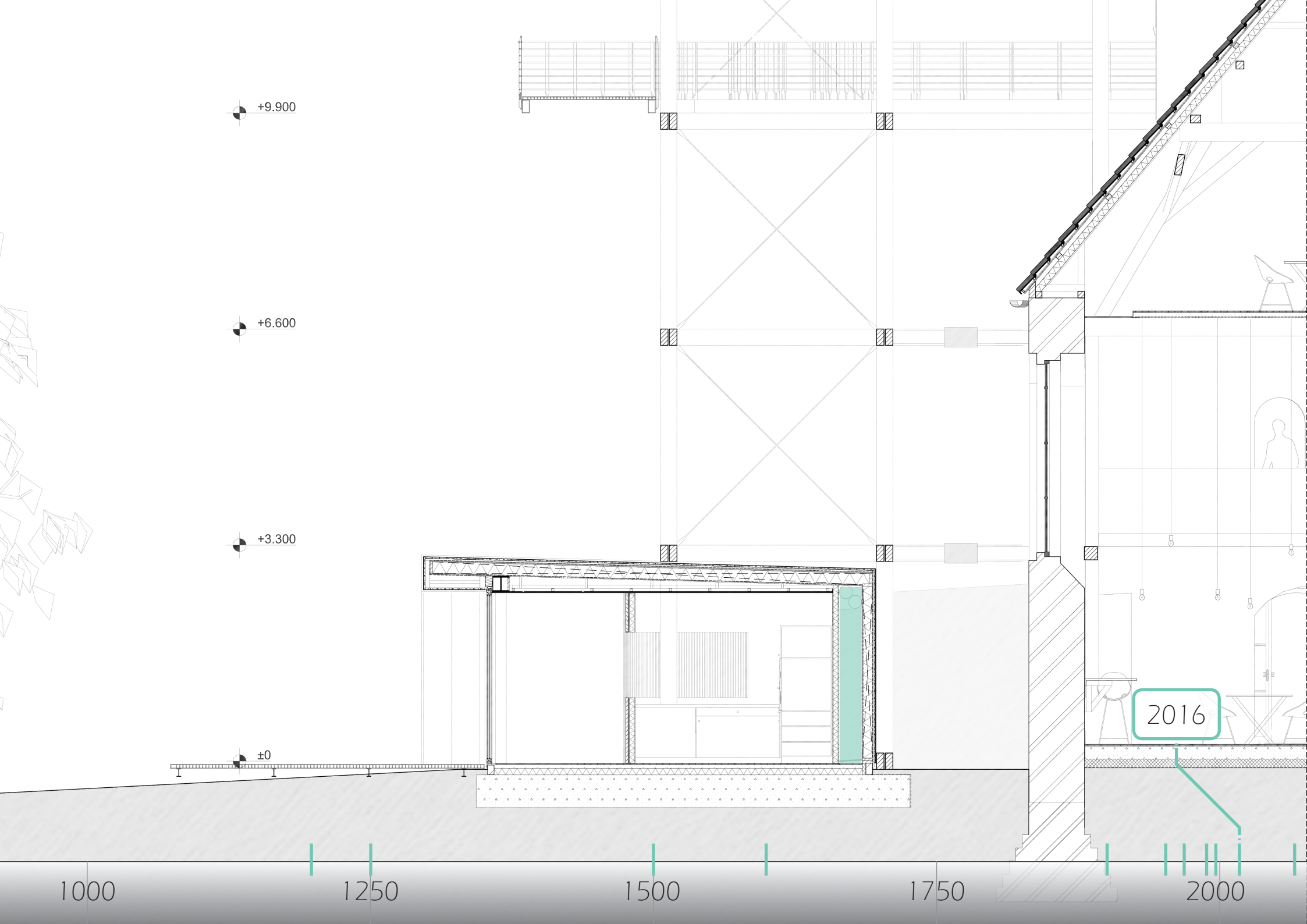
1250

1500

1750

2000





+9.900

+6.600

+3.300

±0

1000

1250

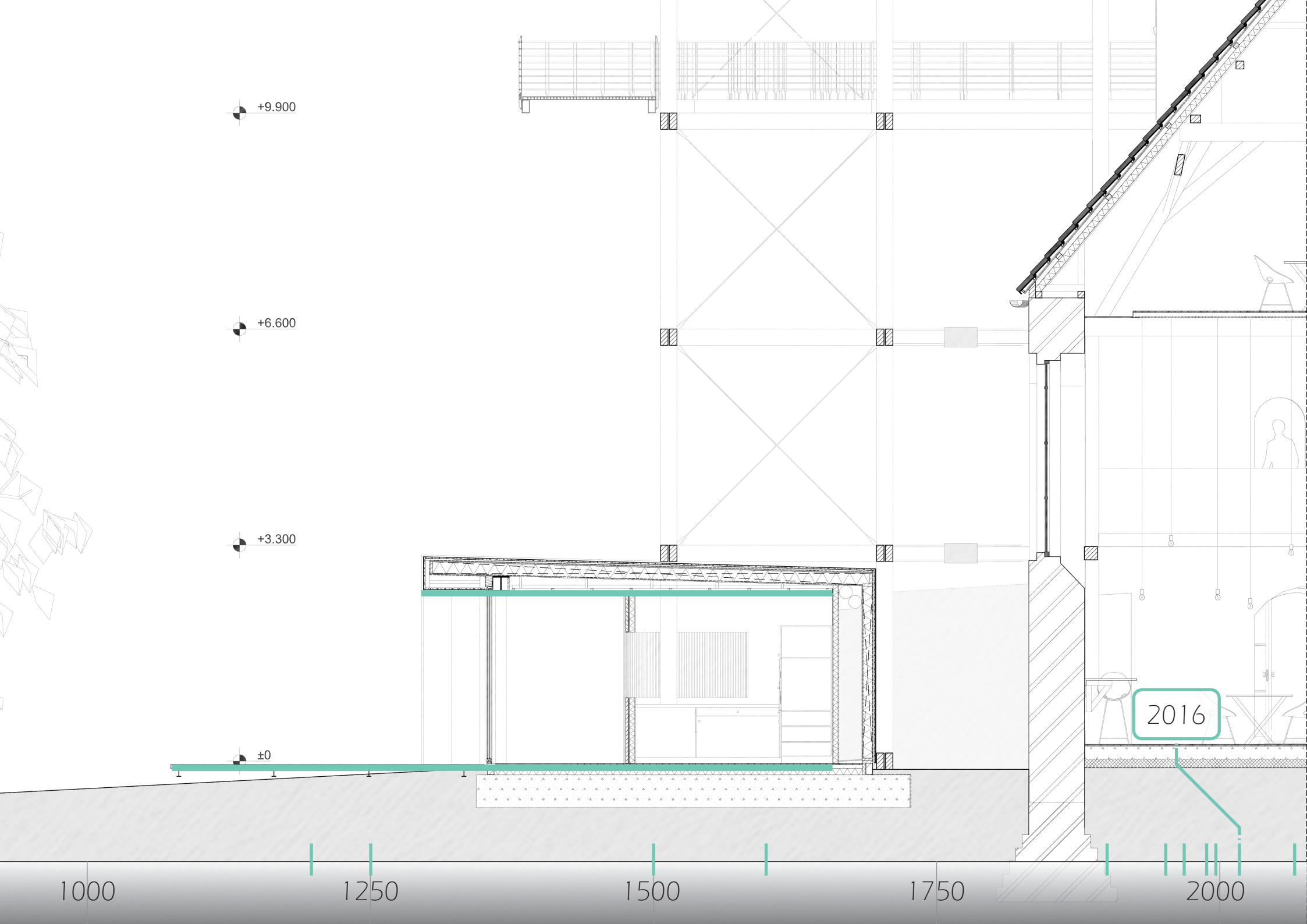
1500

1750

2000

2016





+9.900

+6.600

+3.300

±0

1000

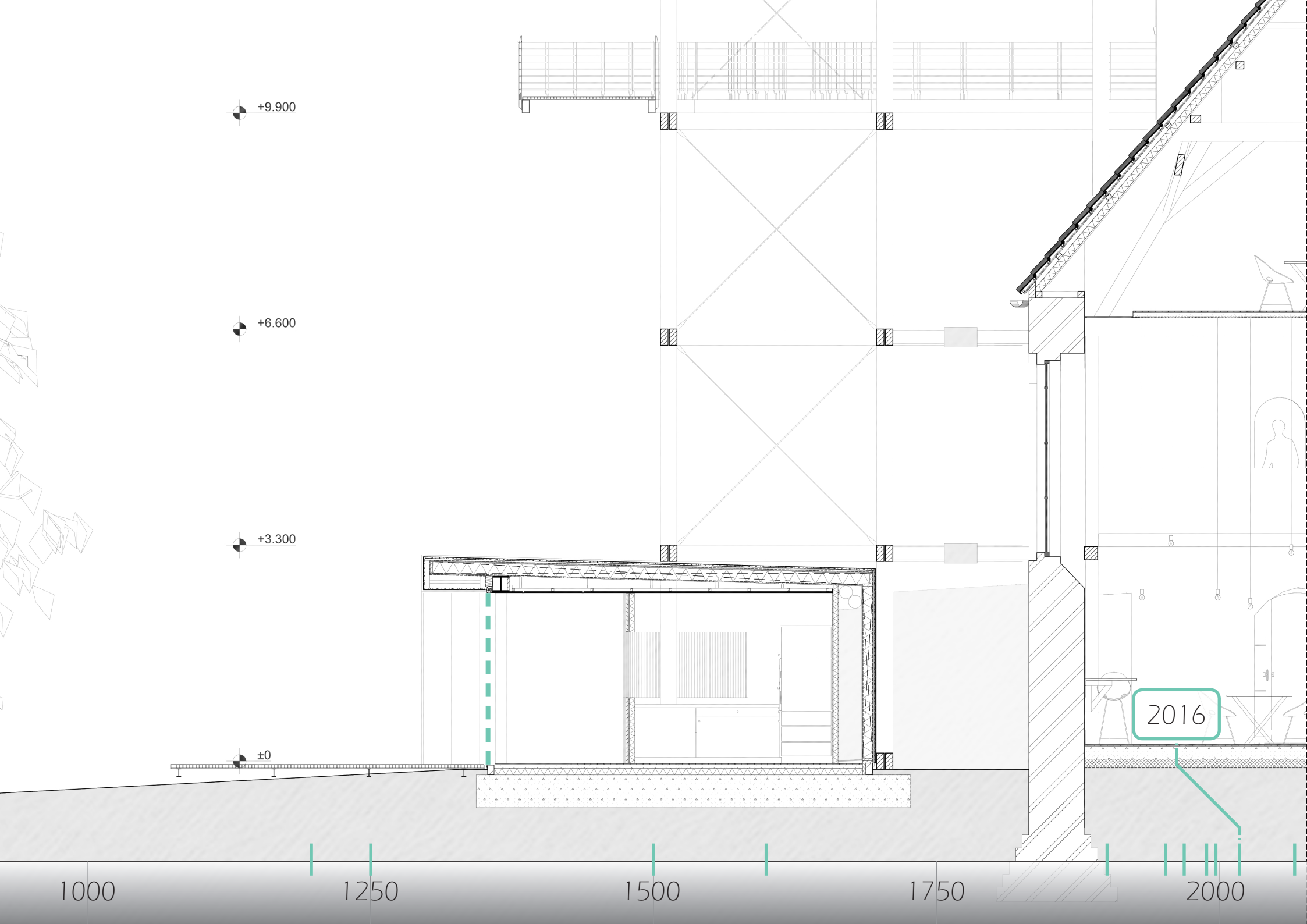
1250

1500

1750

2000

2016



+9.900

+6.600

+3.300

±0

1000

1250

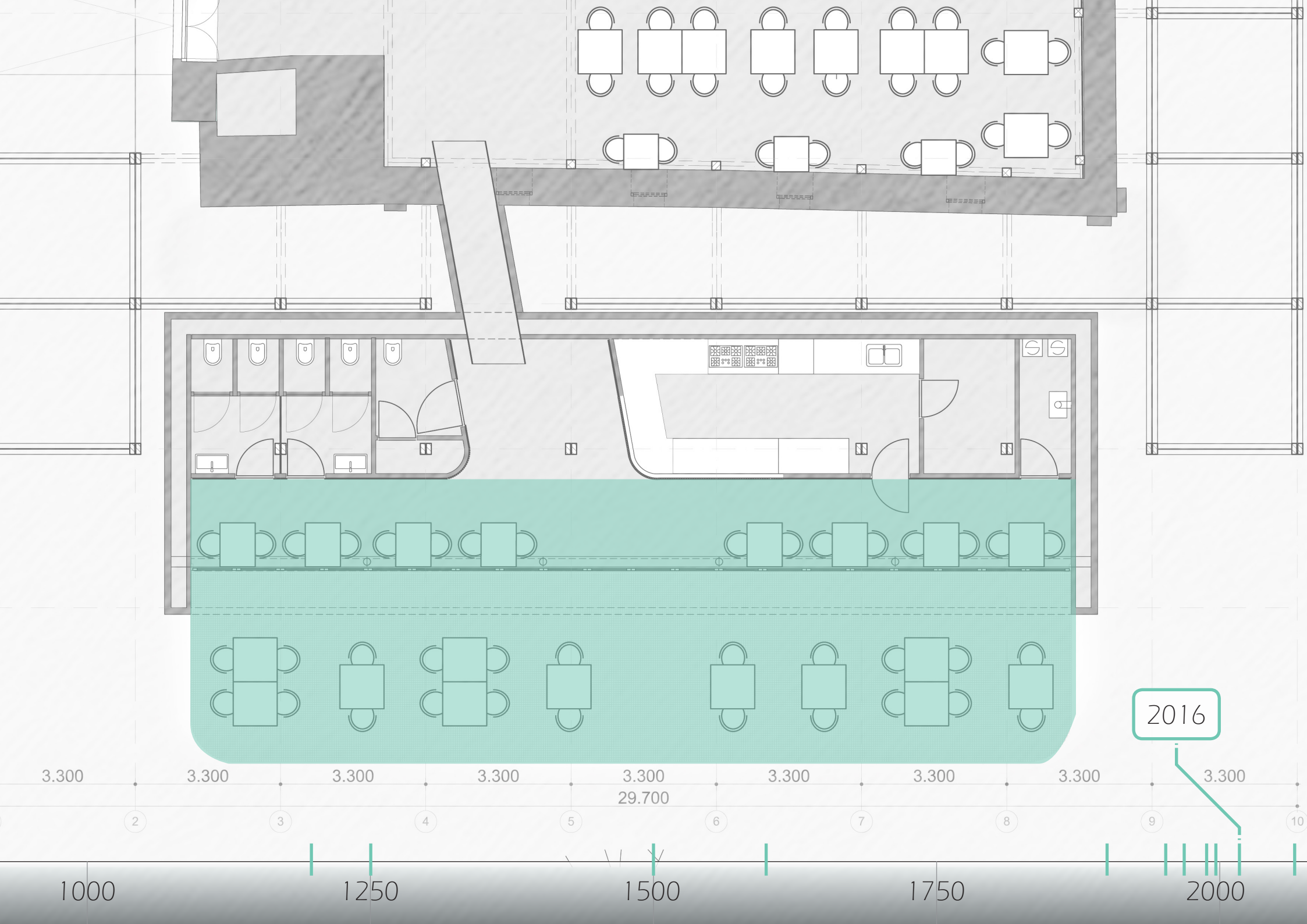
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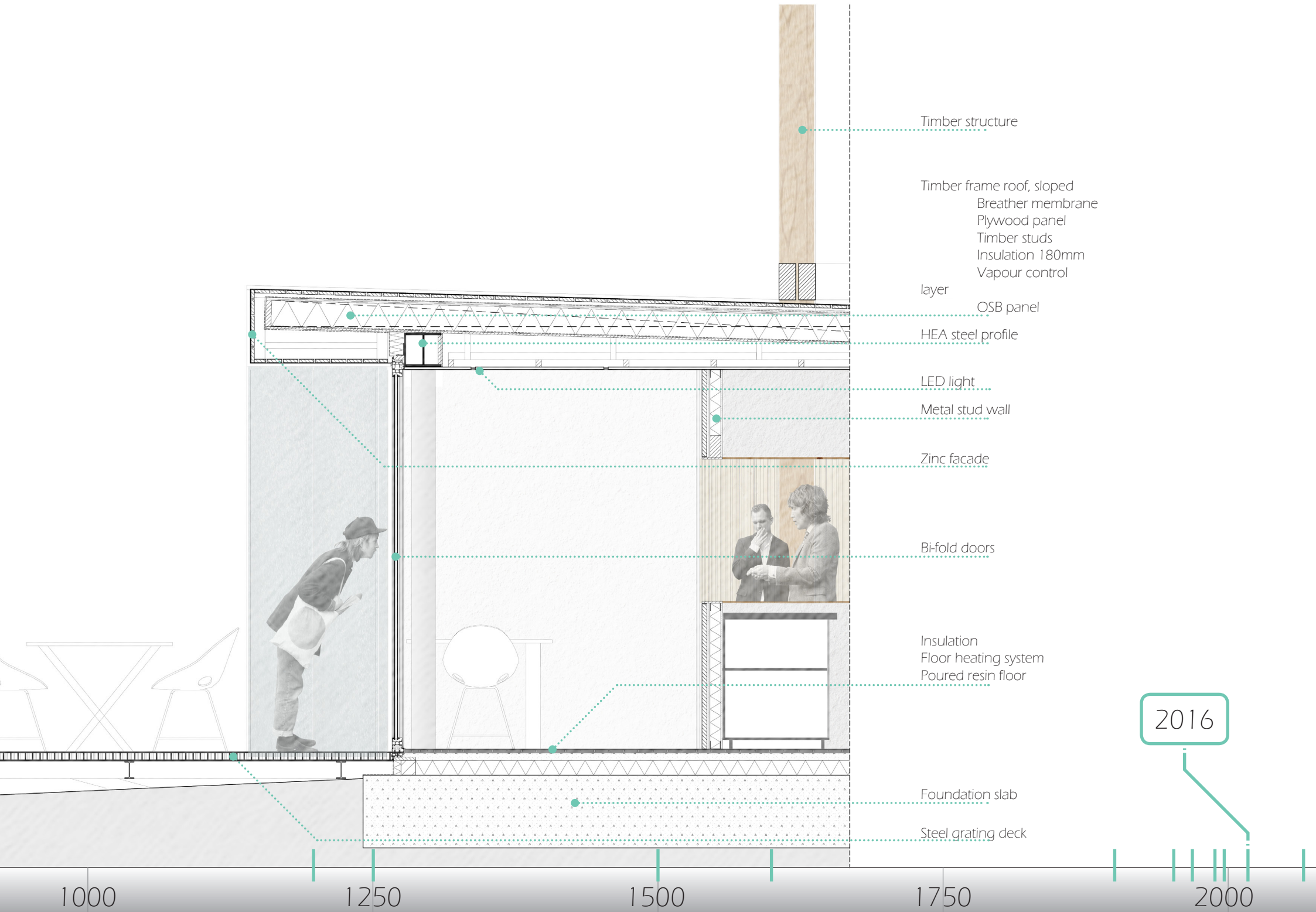
1750

2000

2016







Timber structure

Timber frame roof, sloped  
Breather membrane  
Plywood panel  
Timber studs  
Insulation 180mm  
Vapour control

layer  
OSB panel

HEA steel profile

LED light

Metal stud wall

Zinc facade

Bi-fold doors

Insulation  
Floor heating system  
Poured resin floor

Foundation slab

Steel grating deck

2016

1000

1250

1500

1750

2000





2016

1000

1250

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1750

2000