

Building 3

Building 1

Building 2

Building 4

Room Q  
Timber shed

Room B  
Timber shed

Room C

Room P

Room N

Room J

Room M

Room H

Room G

Room K

Room L

Room A

Room D

Room E

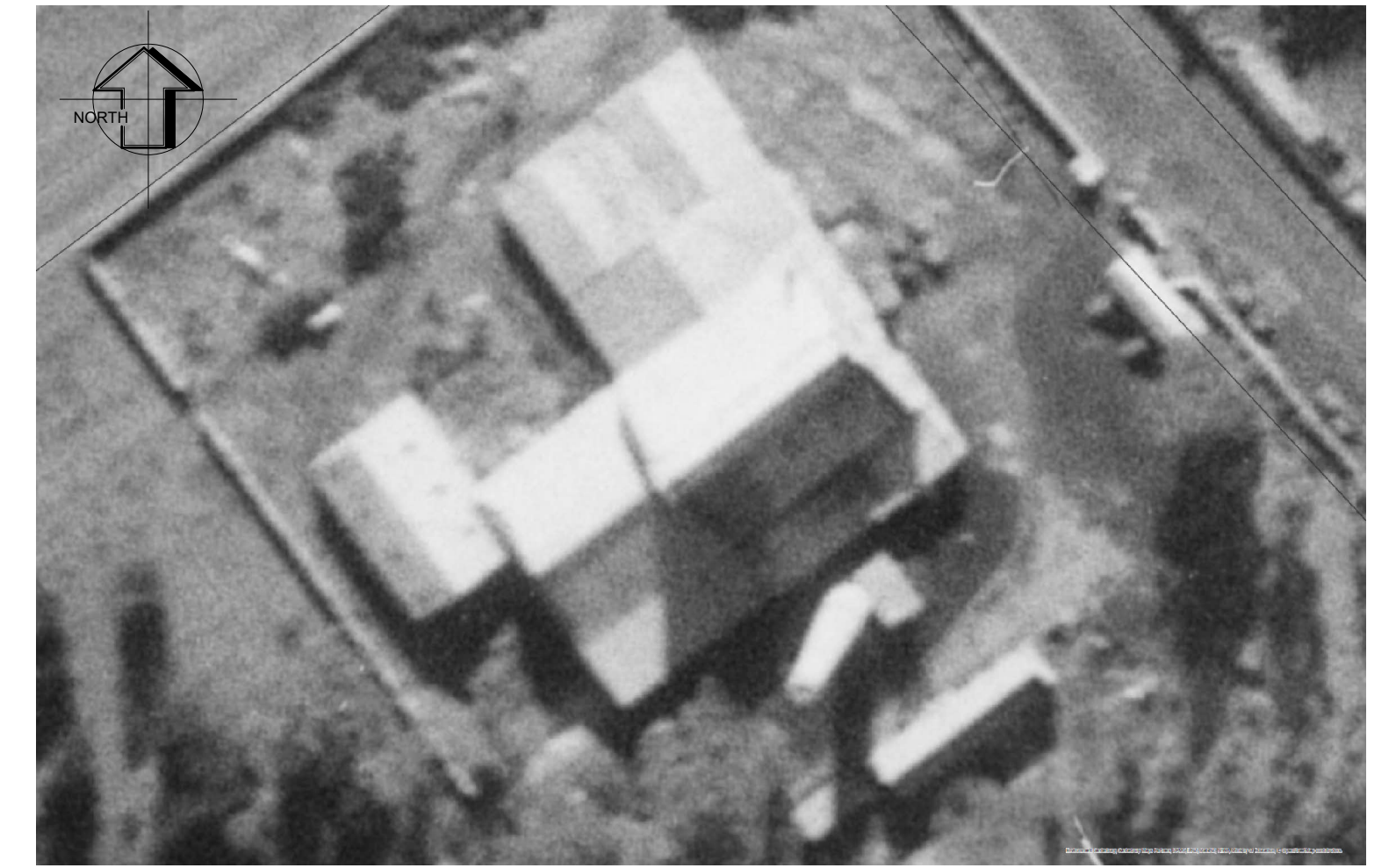
Room U

Room F

Concrete Chimney

Chimney

Floor Plan  
1:150



Aerial photo circa 1940 to 1944  
not to scale



Aerial photo circa 1955 to 1959  
not to scale

**NOTES**

Building 1 and the chimney were constructed in 1928.

Building 2 and 3 were constructed circa 1930.

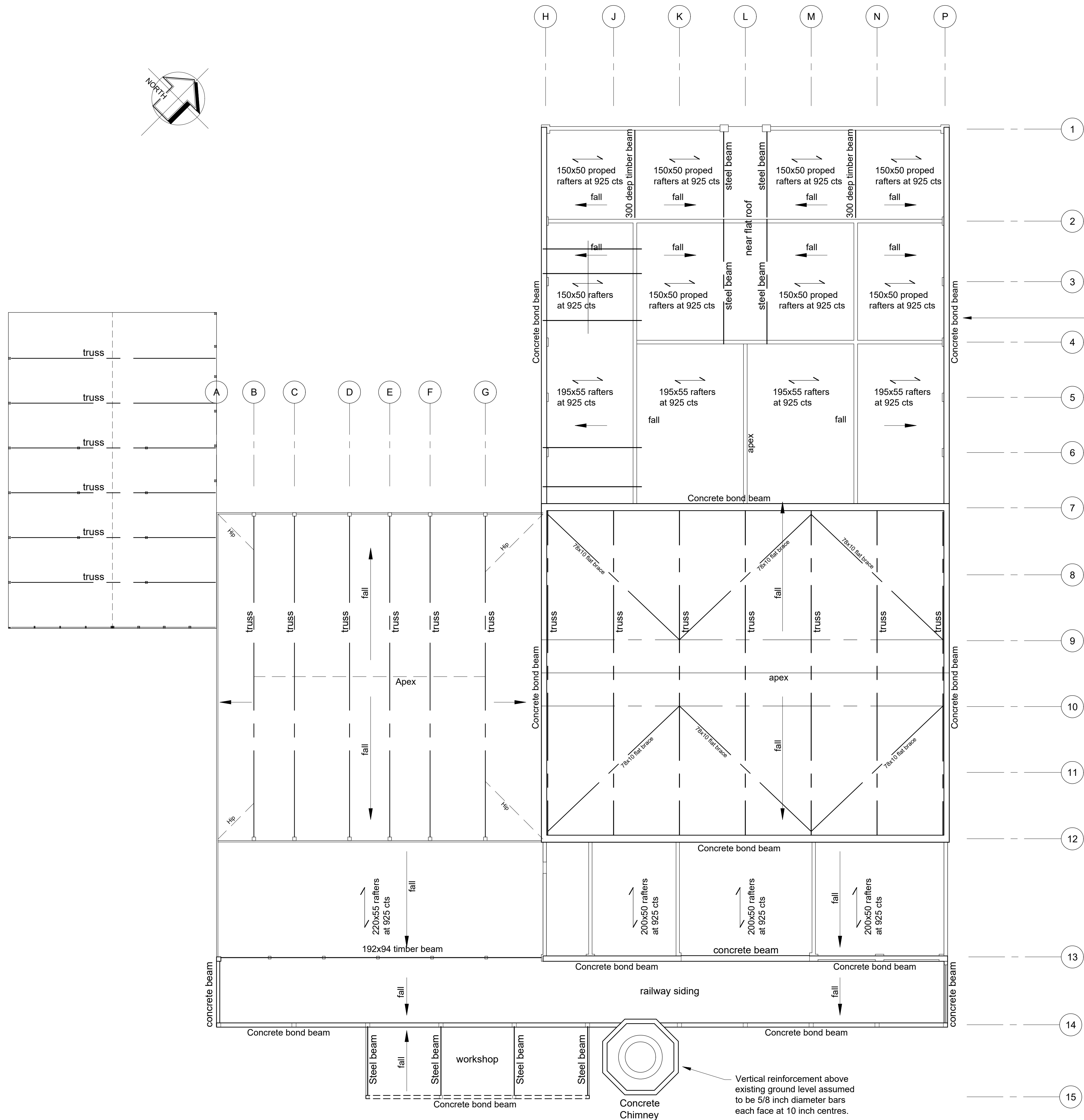
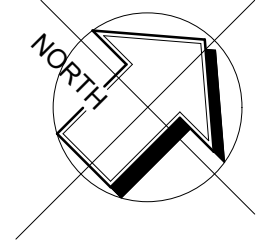
Building 4 extension was added circa 1950's.

The aerial photographs above show the site in the 1940's and 1950's.

Dimensions shown in these drawings are based on site measures and are approximate only and should be confirmed on site before fabricating any strengthening steelwork.

C	DSA Report	18-03-24
B	Preliminary	13-03-24
A	Preliminary	07-12-23
Rev.	Description of Issue / Revision	Date
Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
EXISTING FLOOR PLAN		
Bonniface Consulting Structural Engineers		
Bonniface Consulting Ltd 3/202 Woodbridge Road P.O. Box 39131 Christchurch Tel: (03) 963 1025 Email: admin@bonniface.com		
Job No.	1712	Dr. No.
Designed	D.B.	S-01
Drawn	John Wilson	
Scales	1:150 (A1) 1:300 (A3)	Rev. C





All bond beams are assumed to have 4-1 inch diameter longitudinal reinforcement bars.

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Client  
**MALTEUROP  
ASHBURTON**

Project  
**GLASSWORKS BUILDING  
EQ STRENGTHENING  
PRELIMINARY DESIGN**

Title  
**EXISTING  
ROOF FRAMING PLAN**

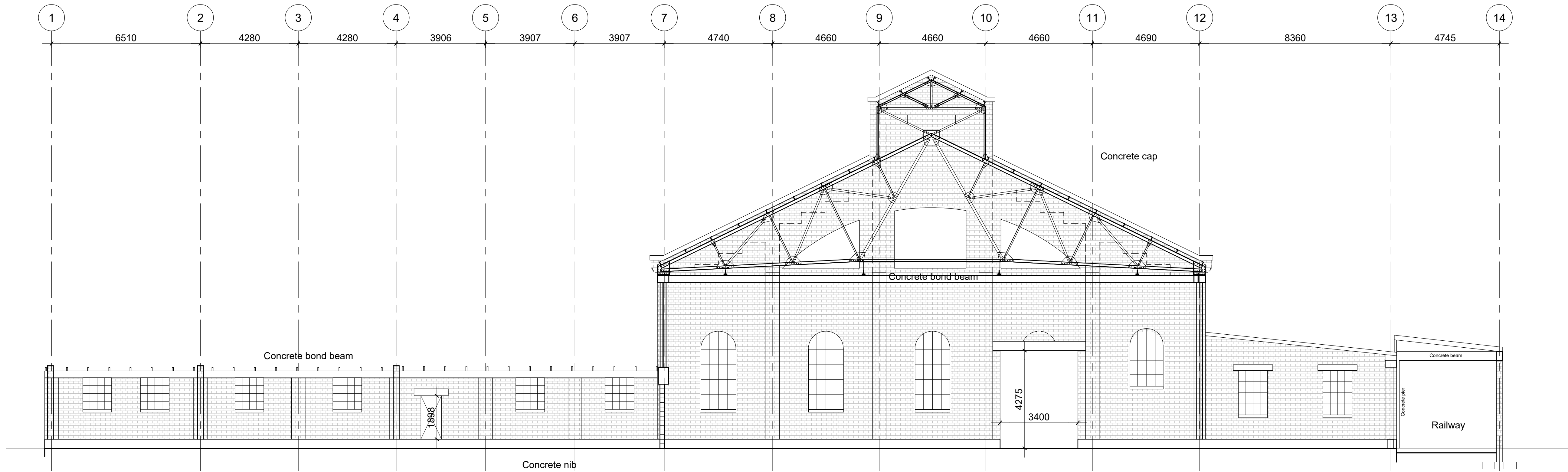


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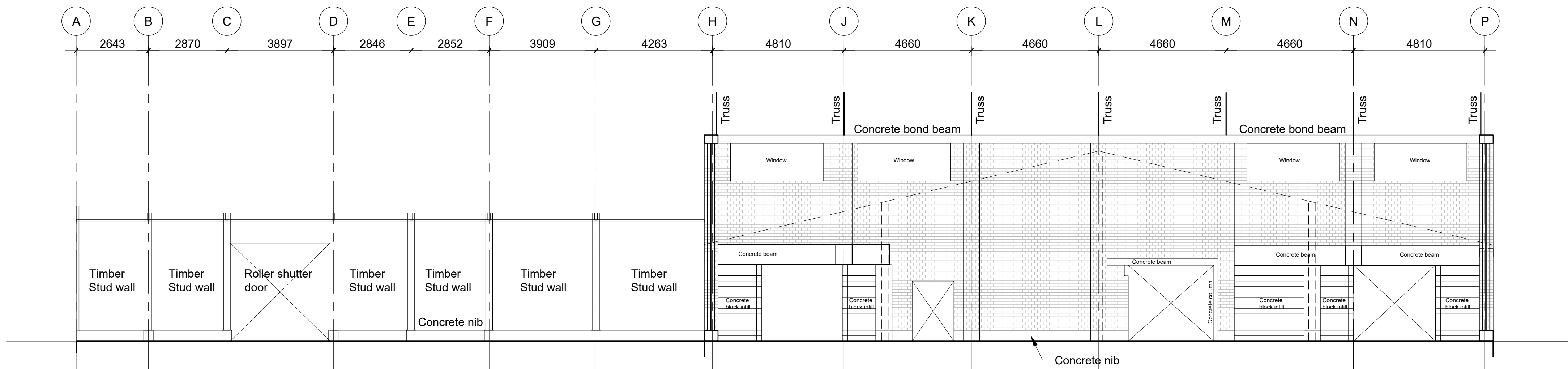
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Christchurch  
Tel: (03) 963 1025  
Email: admin@bonniface.com

Job No.	1712	Drg. No.	<b>S-02</b>	Rev.	C
Designed	D.B.				
Drawn	John Wilson				
Scales	1:150 (A1) 1:300 (A3)				

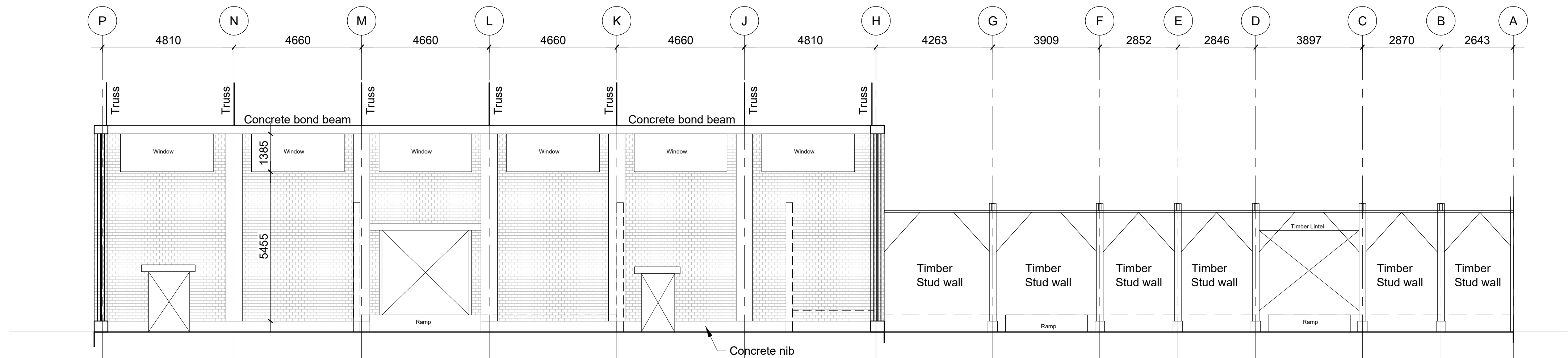
**Roof Framing Plan**  
1:150



Grid P Wall Elevation  
1:100

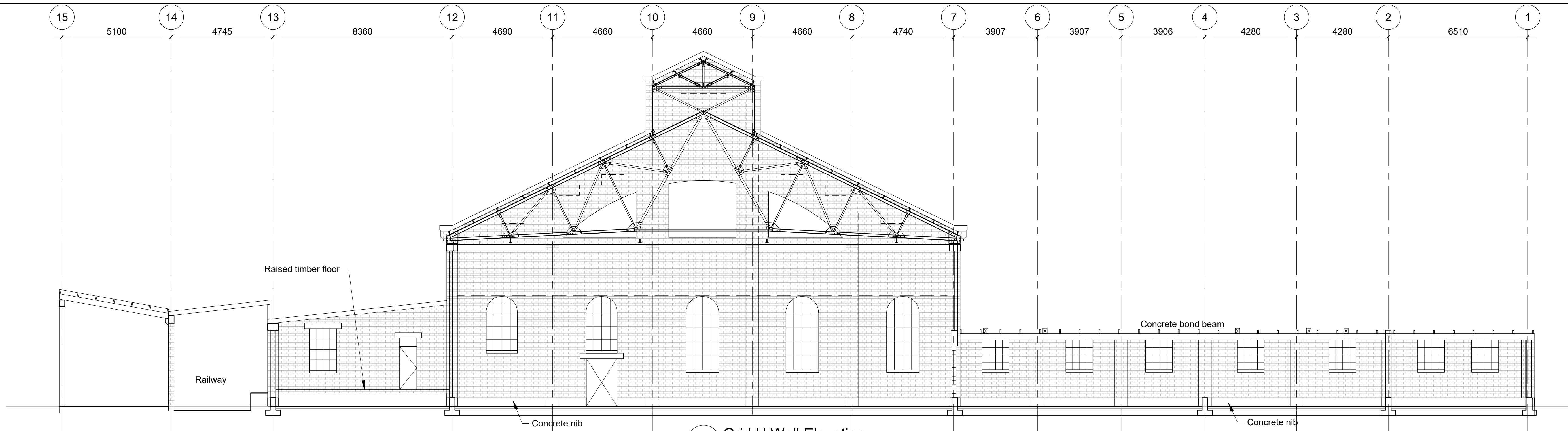


Foundations to be confirmed  
Grid 7 Wall Elevation  
1:100

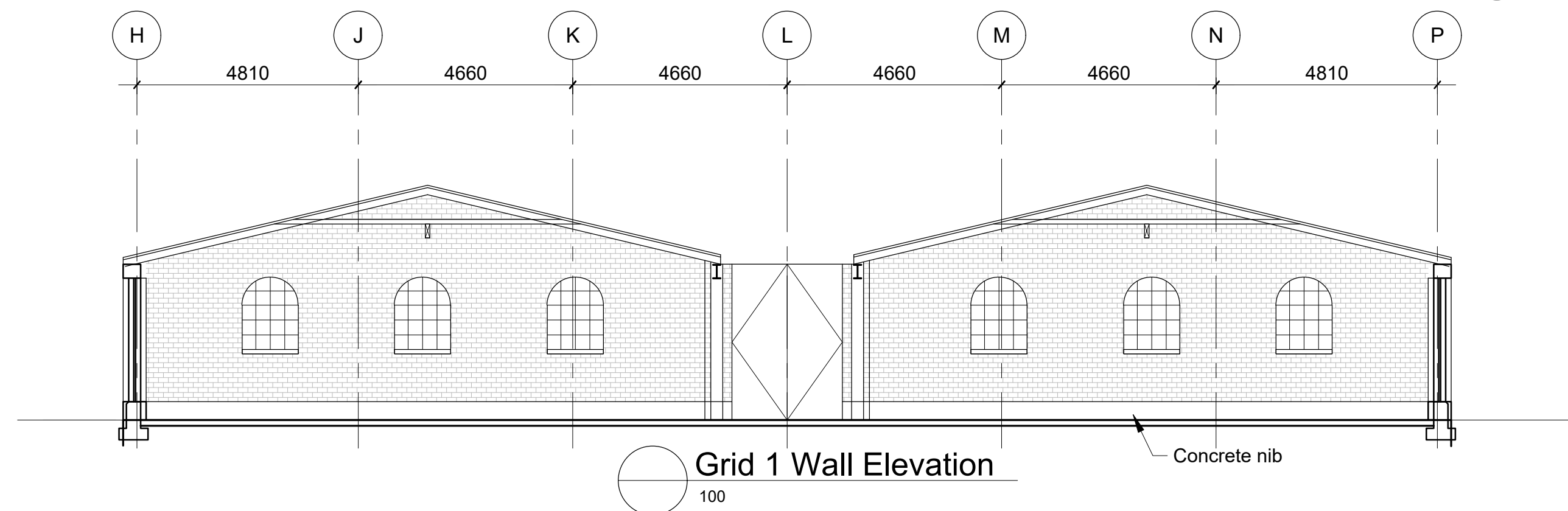


Grid 12 Wall Elevation  
1:100

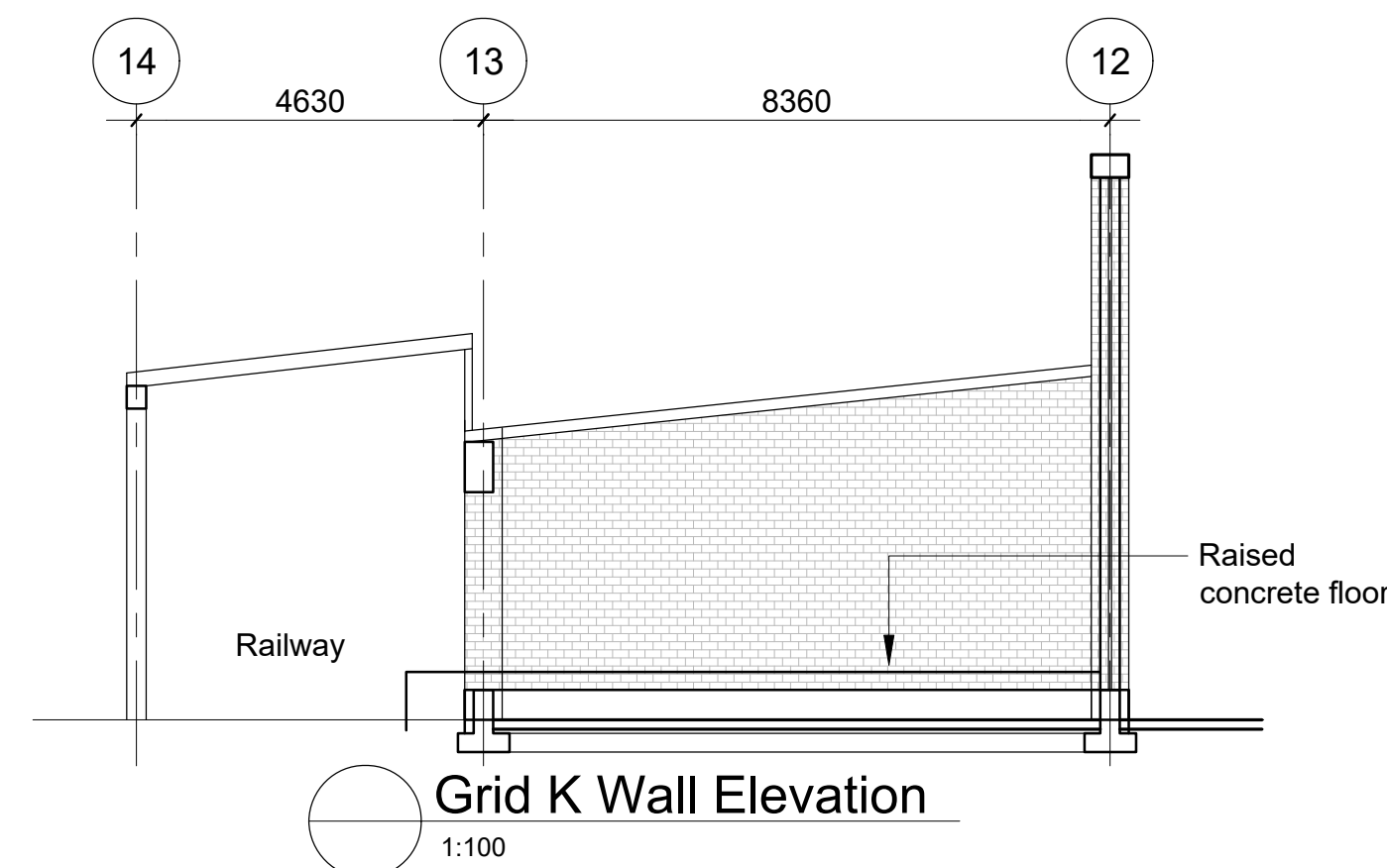
C	DSA Report	18-03-24
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Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
EXISTING WALL ELEVATIONS GRID P, 7, 12		
Bonniface Consulting Structural Engineers		
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Job No.	1712	Drng. No.
Designed	D.B.	S-03
Drawn	John Wilson	
Scales	1:100 (A1) 1:200 (A3)	Rev. C



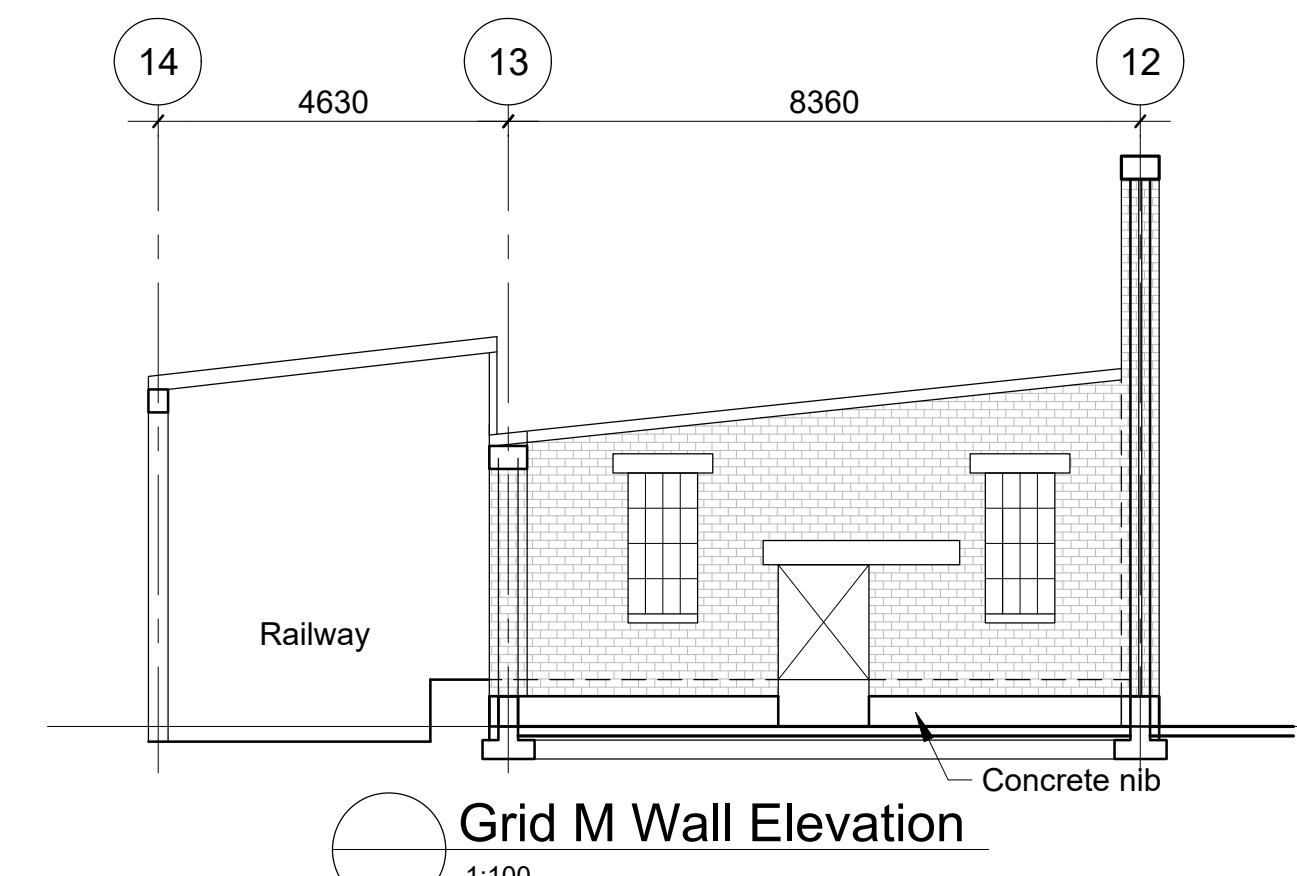
Grid H Wall Elevation  
1:100



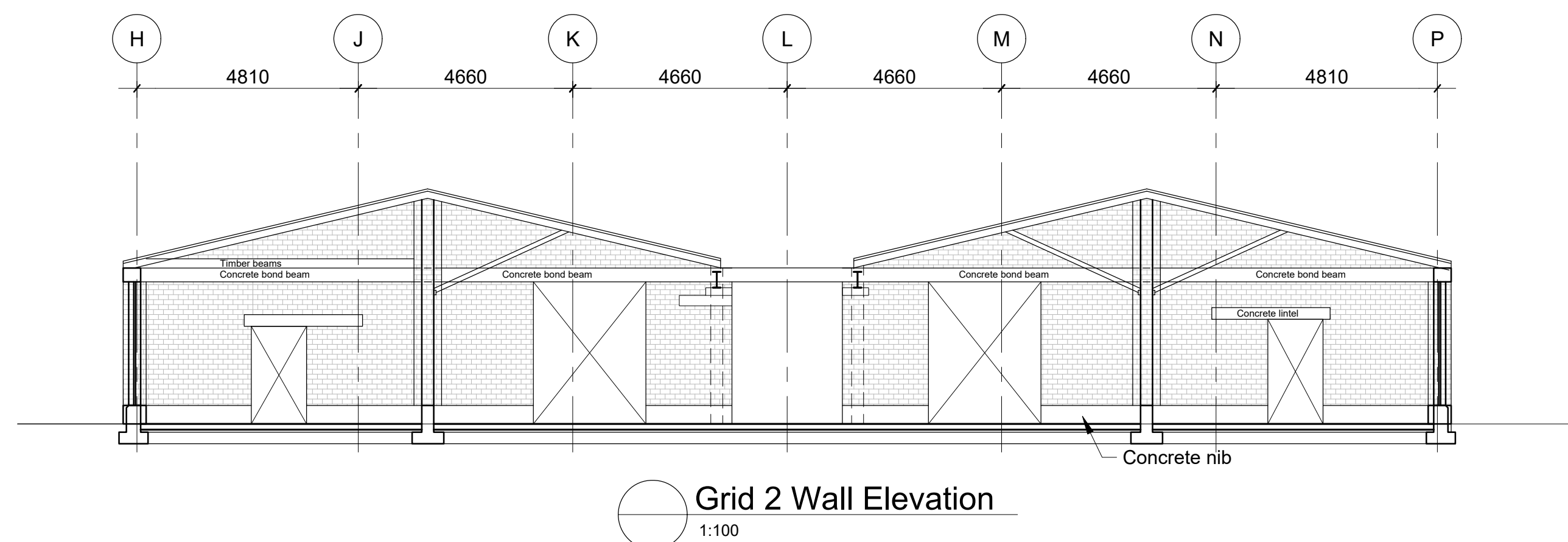
Grid 1 Wall Elevation  
1:100



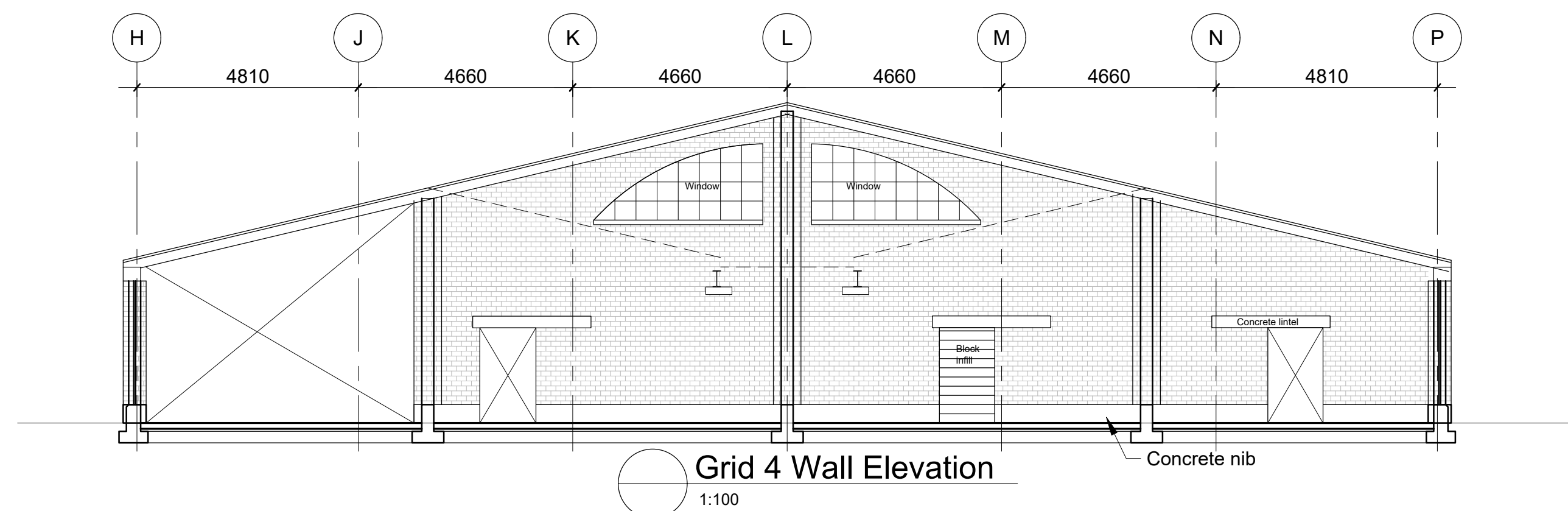
Grid K Wall Elevation  
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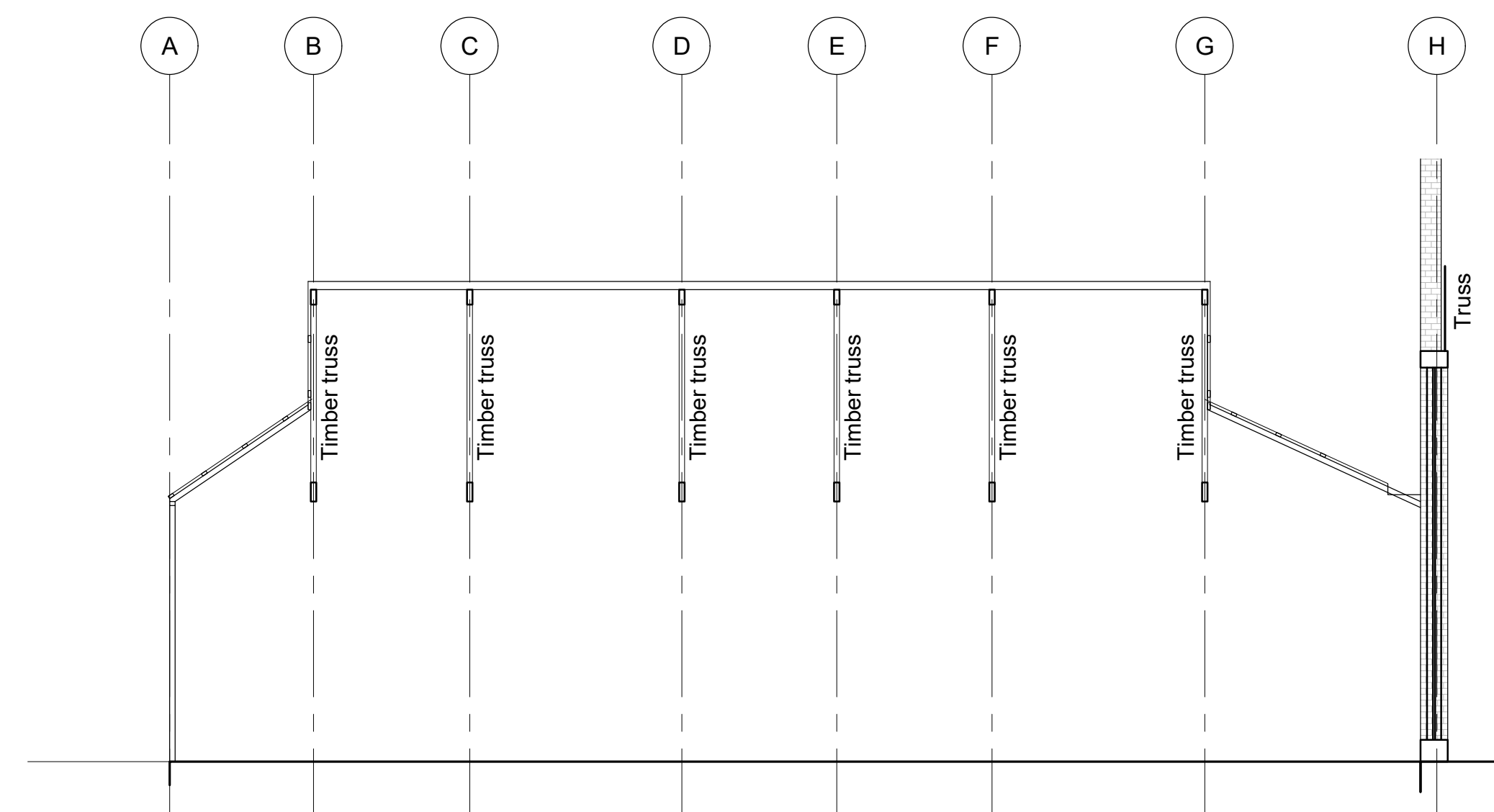
Grid M Wall Elevation  
1:100



Grid 2 Wall Elevation  
1:100



Grid 4 Wall Elevation  
1:100



Grid 9 Section  
1:100

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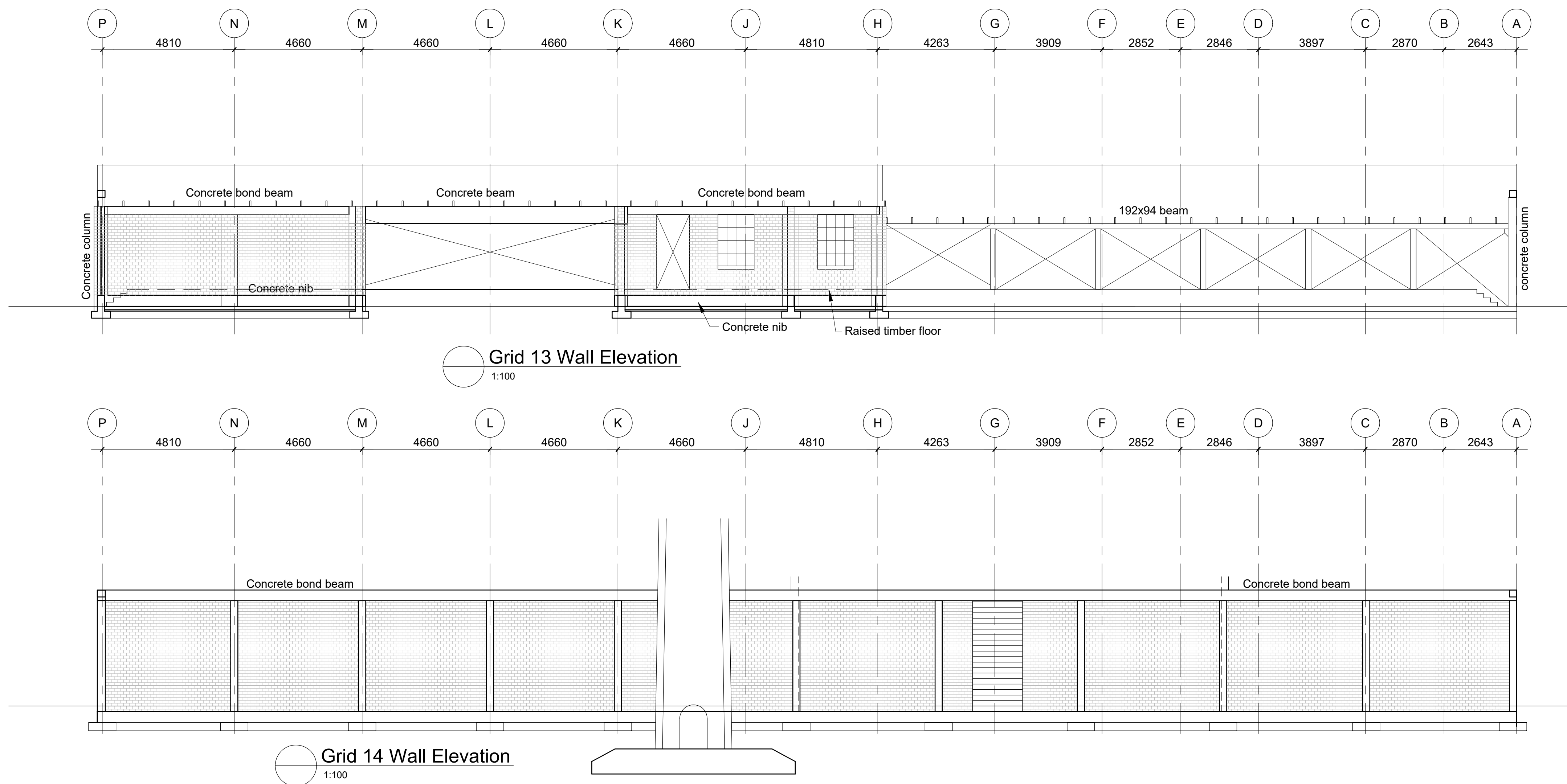
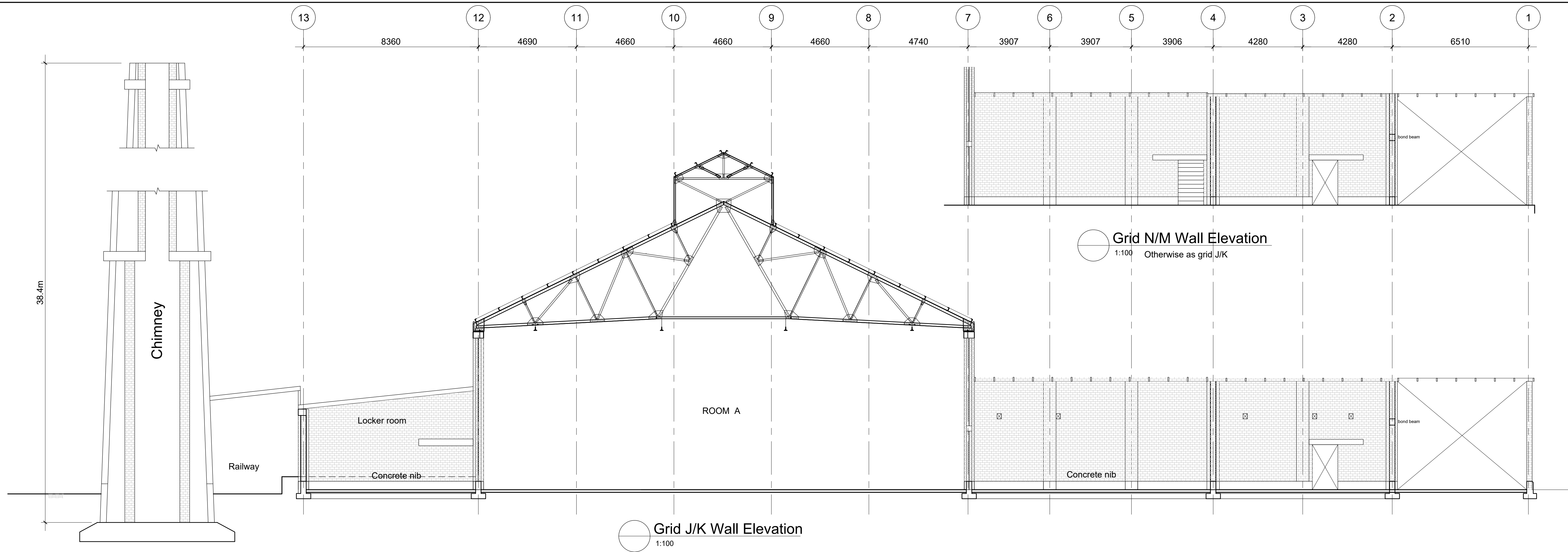
Client  
**MALTEUROP  
ASHBURTON**

Project  
**GLASSWORKS BUILDING  
EQ STRENGTHENING  
PRELIMINARY DESIGN**

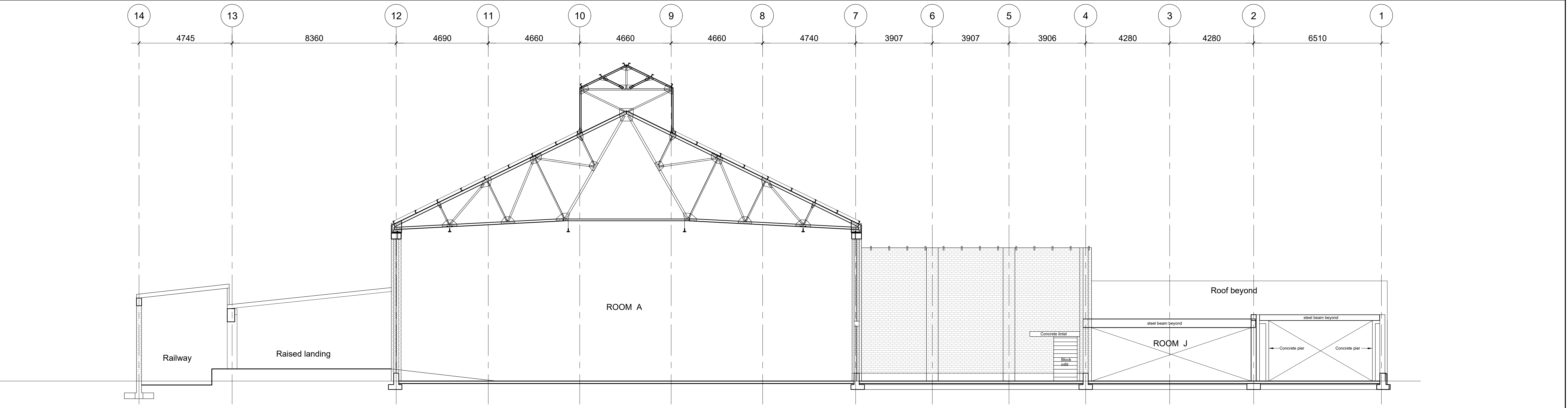
Title  
**EXISTING  
WALL ELEVATIONS  
GRIDS 1, 2, 4, H, K, M**

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Structural Engineers  
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Christchurch  
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Email: admin@bonniface.com

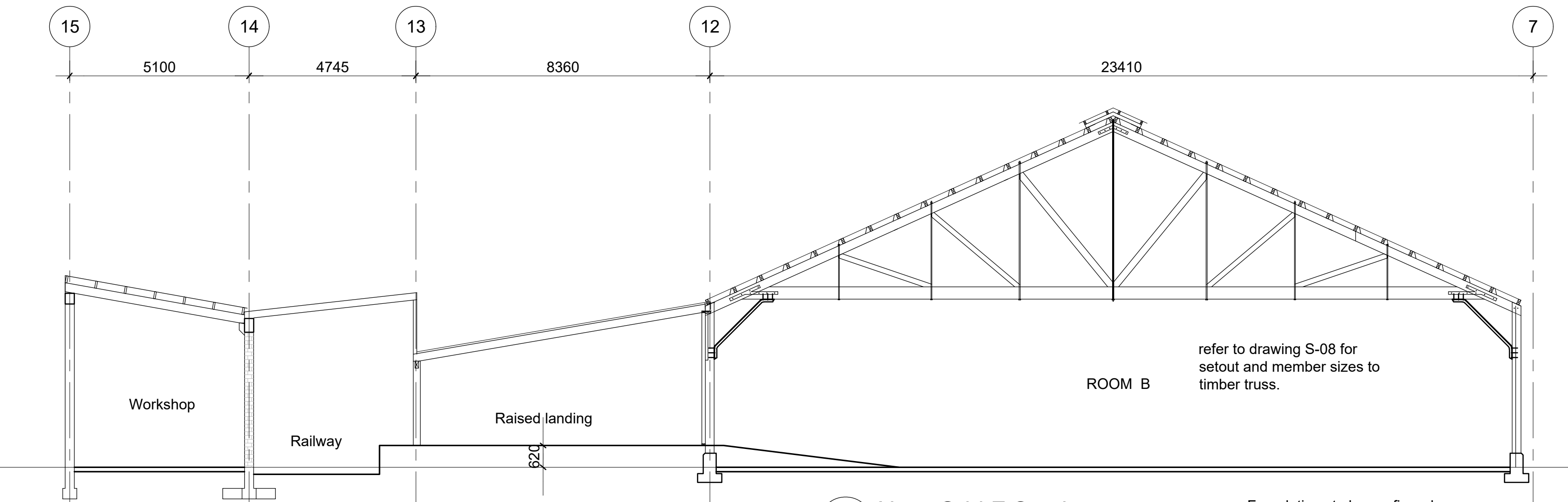
Job No.	1712	Drg. No.	<b>S-04</b>
Designed	D.B.		
Drawn	John Wilson		
Scales	1:100 (A1) 1:200 (A3)	Rev.	C



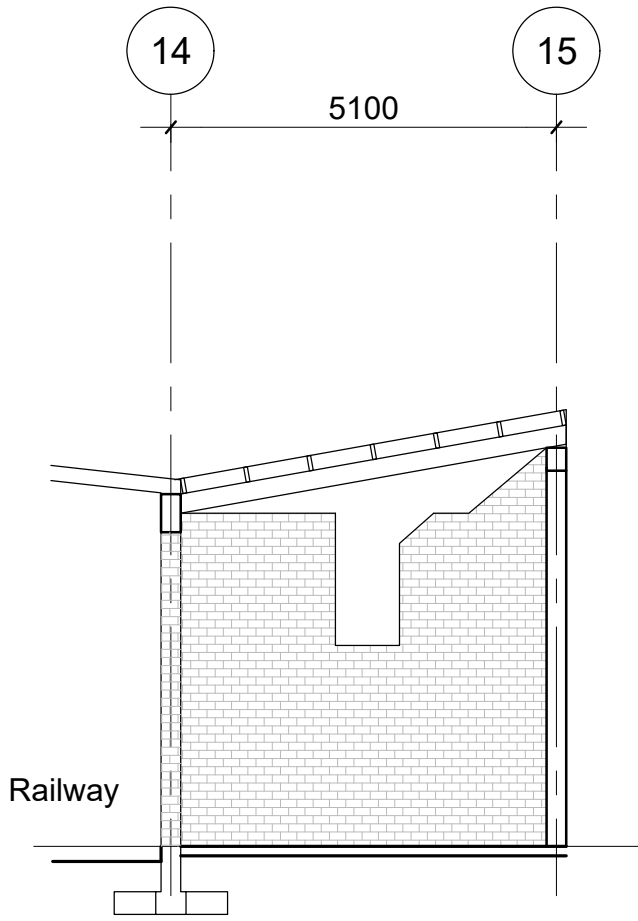
C	DSA Report	18-03-24
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A	Preliminary	07-12-23
Rev.	Description of Issue / Revision	Date
Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
EXISTING WALL ELEVATIONS GRIDS 13, 14, J/K, N/M		
Bonniface Consulting Ltd 3/202 Woodbridge Road P.O. Box 39131 Christchurch Tel: (03) 963 1025 Email: admin@bonniface.com		
Job No.	1712	Drg. No.
Designed	D.B.	S-05
Drawn	John Wilson	
Scales	1:100 (A1) 1:200 (A3)	Rev. C



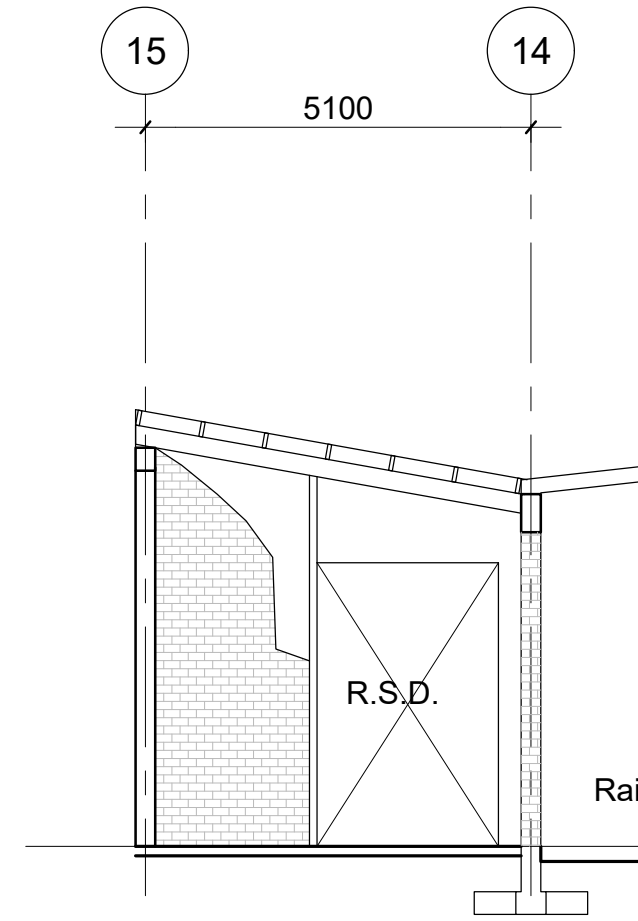
Grid L Wall Elevation  
1:100



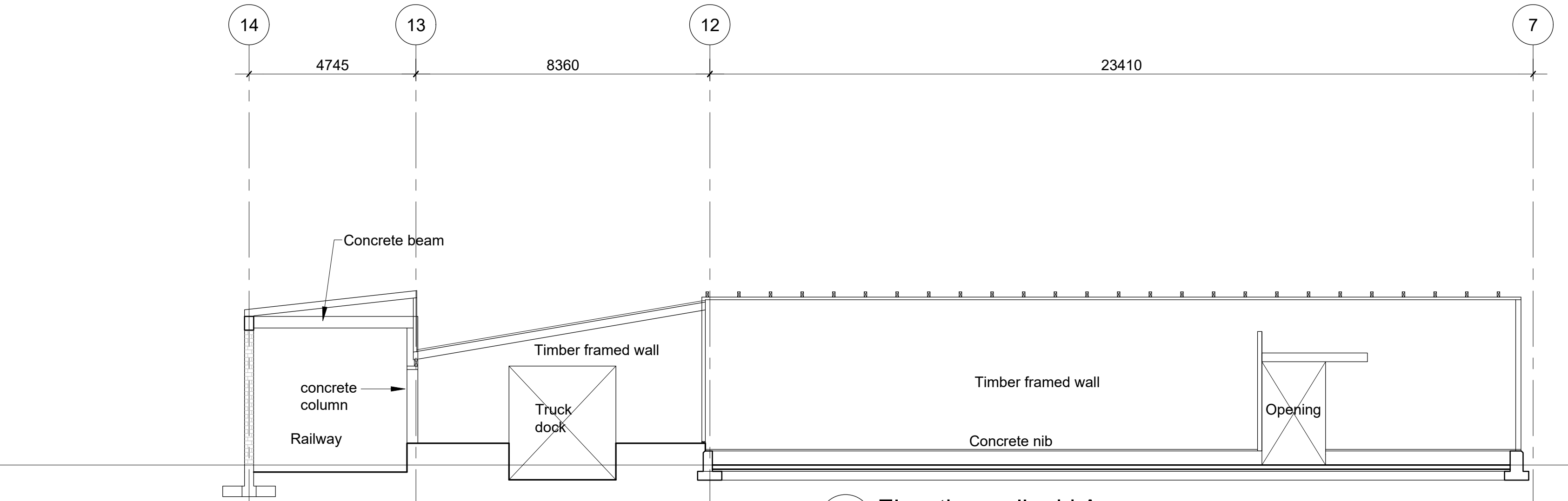
Near Grid F Section  
1:100



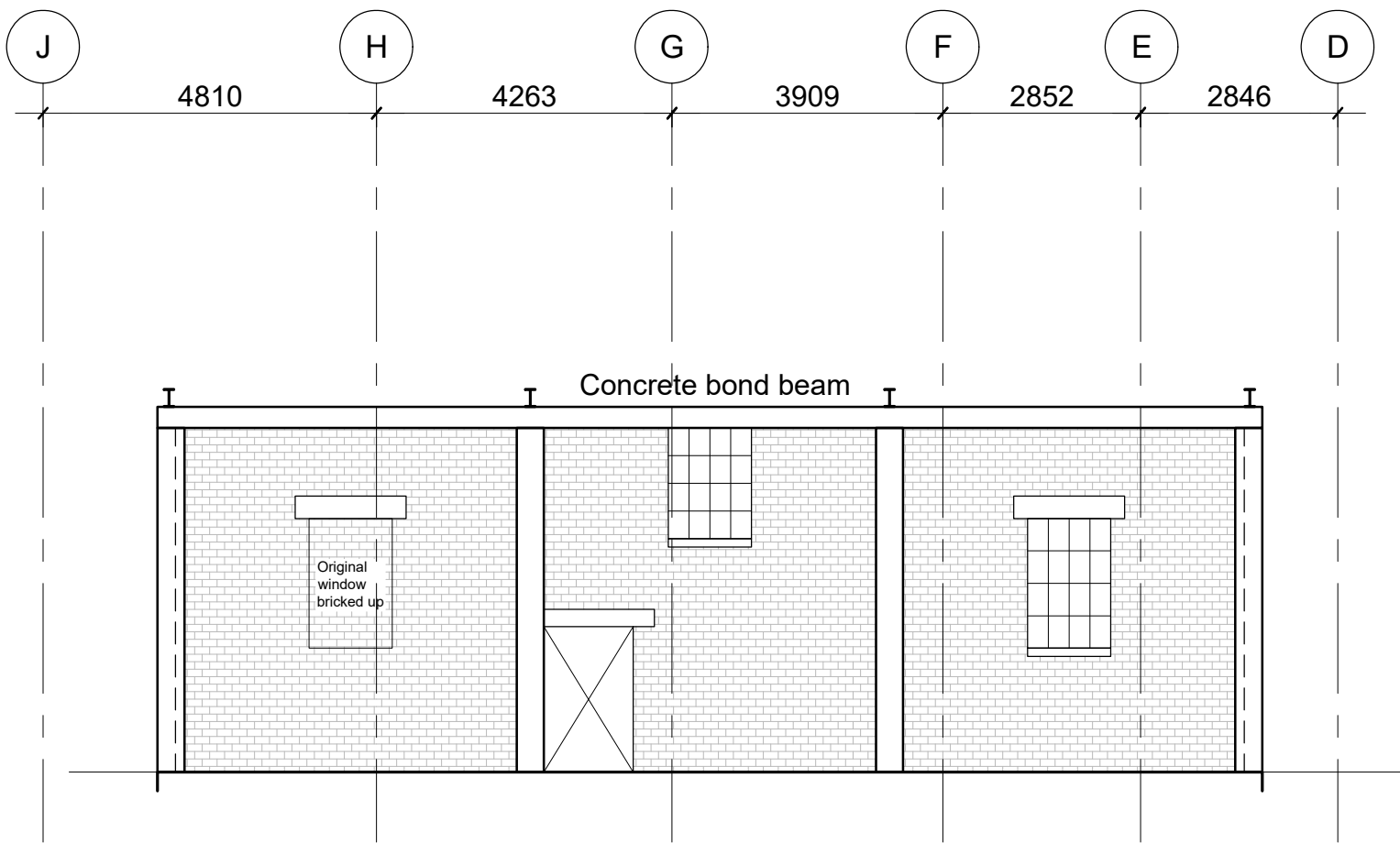
Near Grid J Wall Elevation  
1:100 WORKSHOP



Near Grid D Wall Elevation  
1:100 WORKSHOP



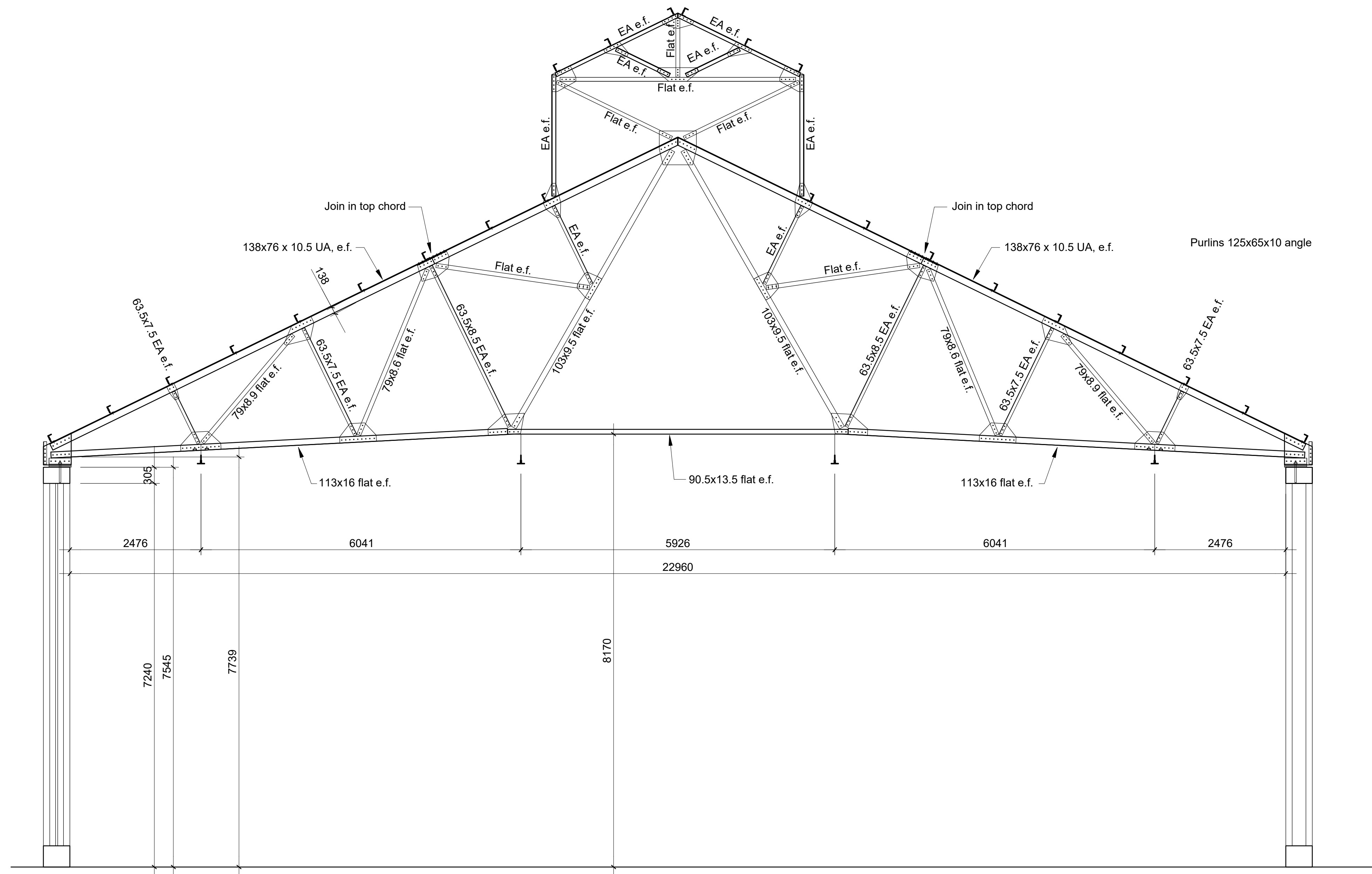
Elevation wall grid A  
1:100



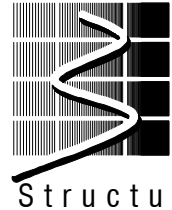
Grid 15 Wall Elevation  
1:100 WORKSHOP

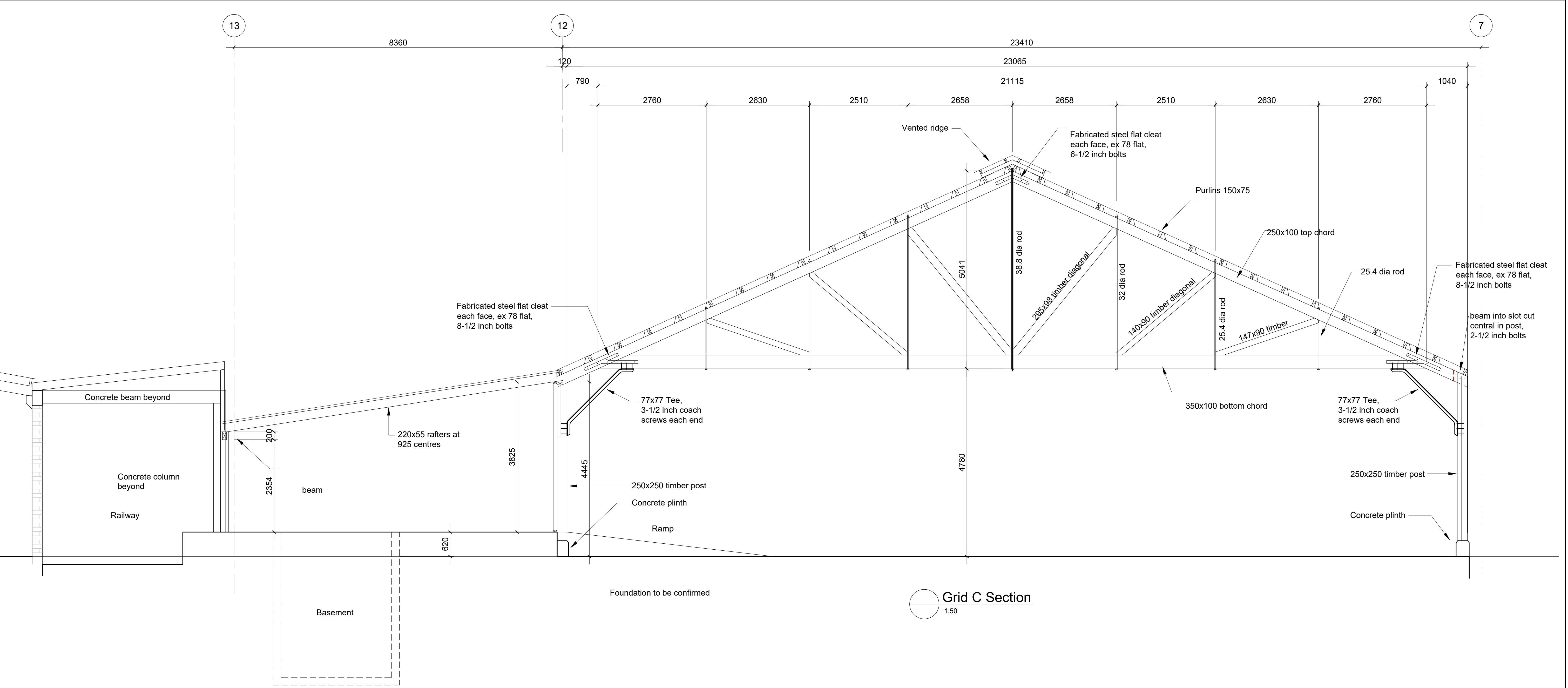
C	DSA Report	18-03-24
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Rev.	Description of Issue / Revision	Date
Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
EXISTING WALL ELEVATIONS / SECTIONS GRID 15, A, D, F, J, L		
Bonniface Consulting Structural Engineers		
Bonniface Consulting Ltd 3/202 Woodbridge Road P.O. Box 39131 Christchurch Tel: (03) 963 1025 Email: admin@bonniface.com		
Job No.	1712	Drng. No.
Designed	D.B.	S-06
Drawn	John Wilson	
Scales	1:100 (A1) 1:200 (A3)	Rev. C



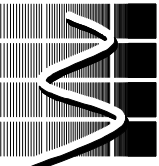


Steel Truss Elevation  
1:50

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Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
EXISTING STEEL TRUSS ELEVATION		
<div><div><div><div>Bonniface Consulting</div><div>Structural Engineers</div></div></div><div><div>Bonniface Consulting Ltd 3/202 Woodridge Road P.O. Box 39131 Christchurch Tel: (03) 963 1025 Email: admin@bonniface.com</div></div></div>		
Job No.	1712	Dr. No.
Designed	D.B.	S-07
Drawn	John Wilson	
Scales	1:50 (A1) 1:100 (A3)	Rev. C



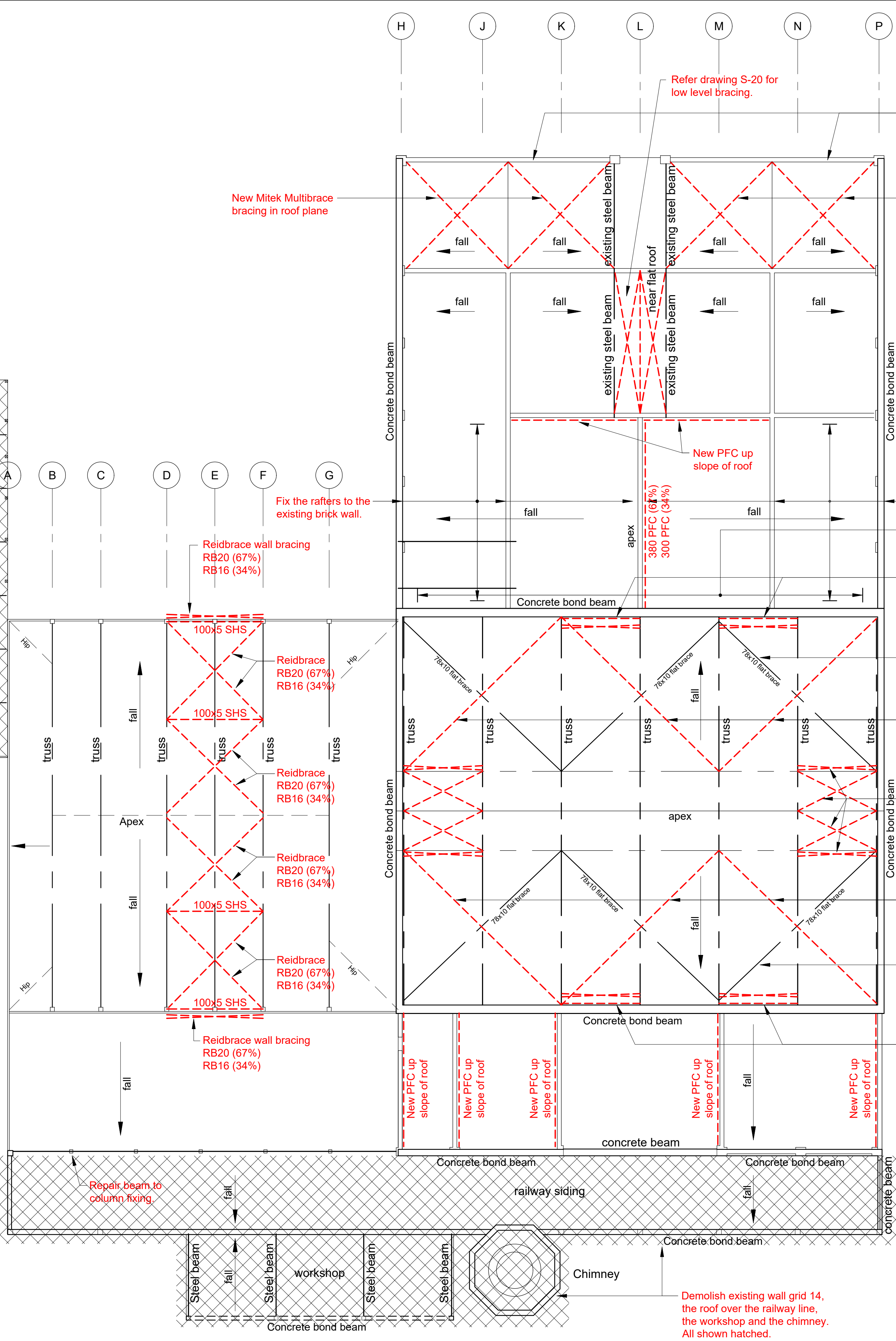
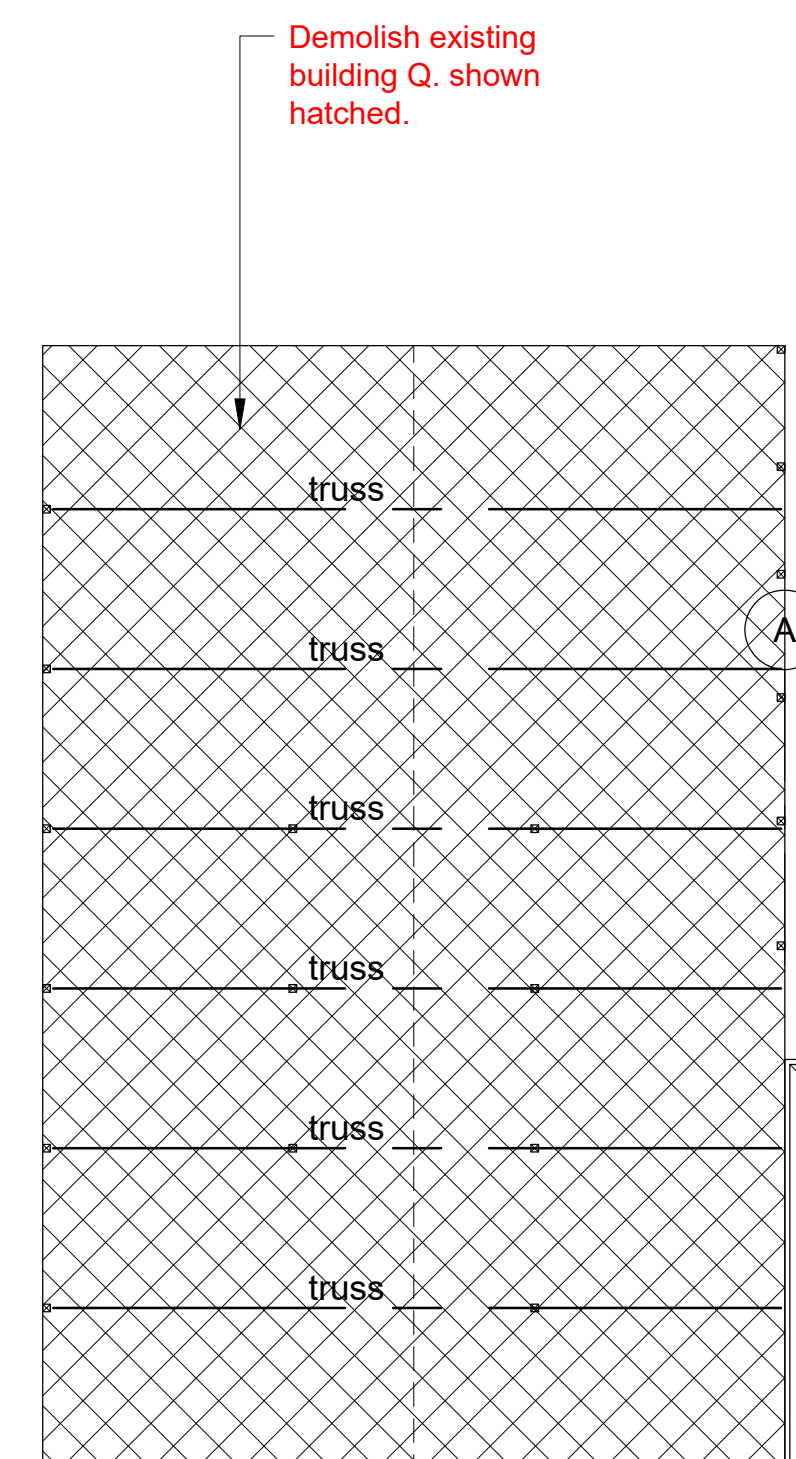
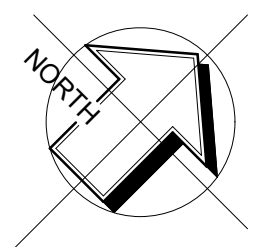
Grid C Section  
1:50

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Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
EXISTING TIMBER SHED B TRUSS ELEVATION		
<div><div><div><div>Bonniface</div><div>Consulting</div><div>Structural Engineers</div></div></div><div><div>Bonniface Consulting Ltd 3/202 Woodridge Road P.O. Box 39131 Christchurch Tel: (03) 963 1025 Email: admin@bonniface.com</div></div></div>		
Job No.	1712	Drg. No.
Designed	D.B.	S-08
Drawn	John Wilson	
Scales		Rev.
1:50 (A1) 1:100 (A3)		C









Fix the existing boundary rafter and purlins to the existing brick wall.

New Mitek Multibrace bracing in roof plane

Fix the rafters to the existing brick wall.

Reidbrace wall bracing RB20 (67%) RB16 (34%)

Reidbrace RB20 (67%) RB16 (34%)

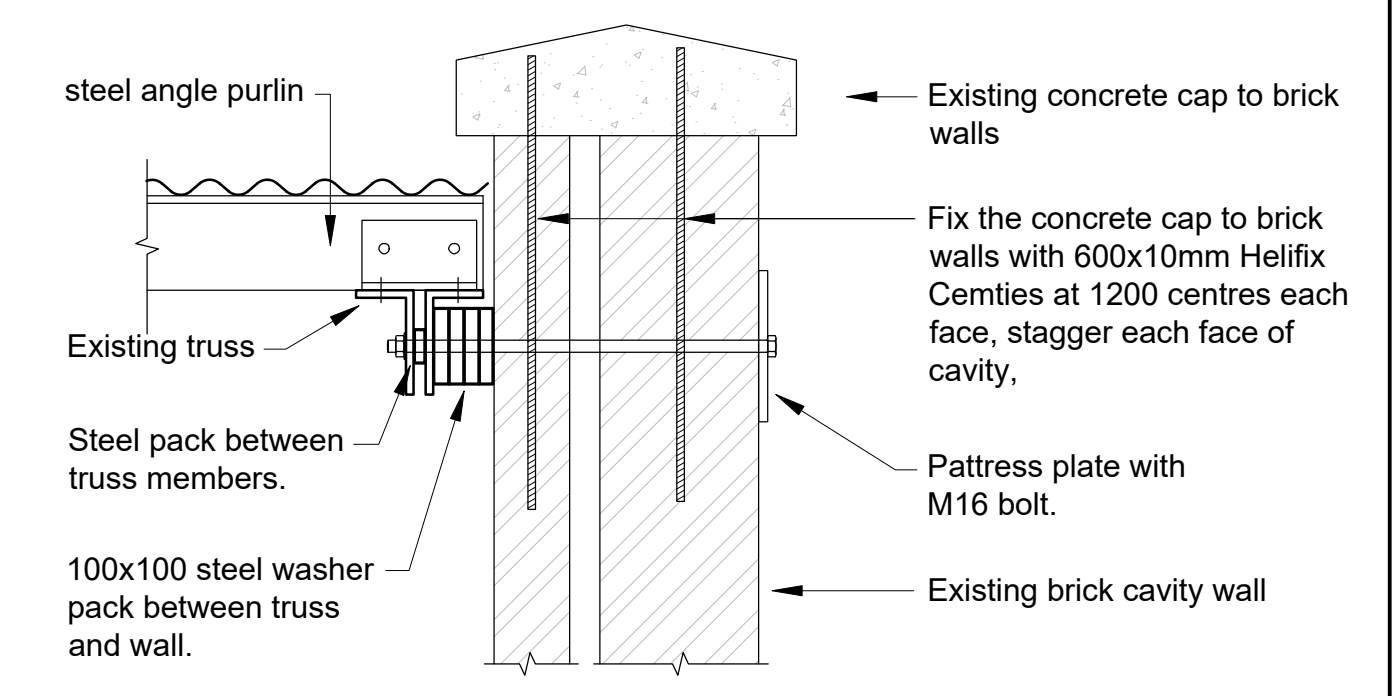
Reidbrace RB20 (67%) RB16 (34%)

Reidbrace RB20 (67%) RB16 (34%)

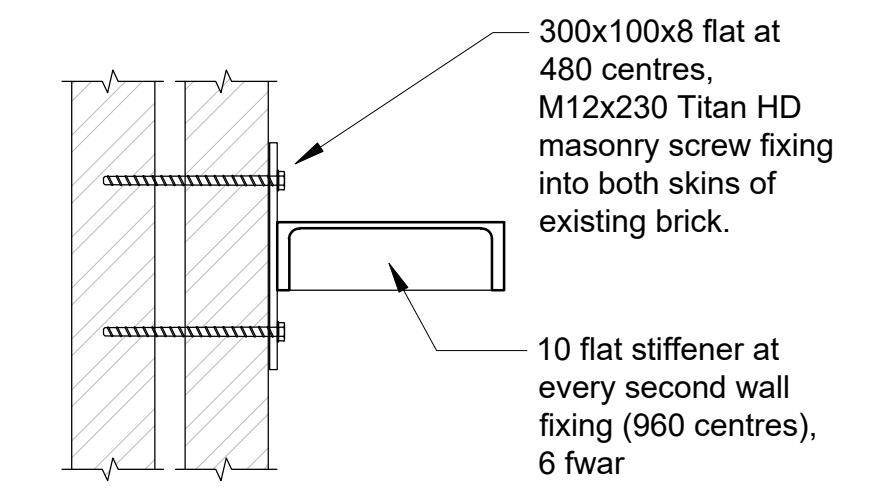
Reidbrace wall bracing RB20 (67%) RB16 (34%)

Repair beam to column fixing.

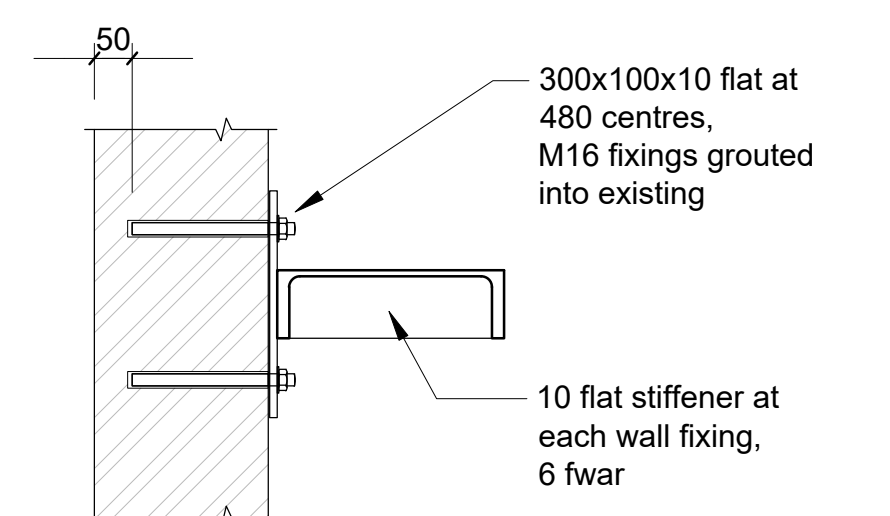
Demolish existing wall grid 14, the roof over the railway line, the workshop and the chimney. All shown hatched.



1 Wall cap detail grid H & P / 7 to 12  
1:10



2 Typical wall girt fixing to cavity brick wall  
1:10



3 Typical wall girt fixing to solid brick wall  
1:10

Fix the rafters to the existing brick wall.

Fix the rafters and purlins to the existing brick wall grid 7.

100x5 SHS prop and Reidbar wall bracing, refer to low level bracing plan.

Fully weld the existing flat steel roof bracing at end fixings, intermediate trusses and joints.

Add new 80x10 flat roof bracing to match existing.

Add new bracing up vertical face and across to apex. grid H to J similar. RB20 (67%) RB16 (34%)

Add new 80x10 flat roof bracing to match existing.

Fully weld the existing flat steel roof bracing at end fixings, intermediate trusses and joints.

100x5 SHS prop and Reidbar wall bracing, refer to low level bracing plan.

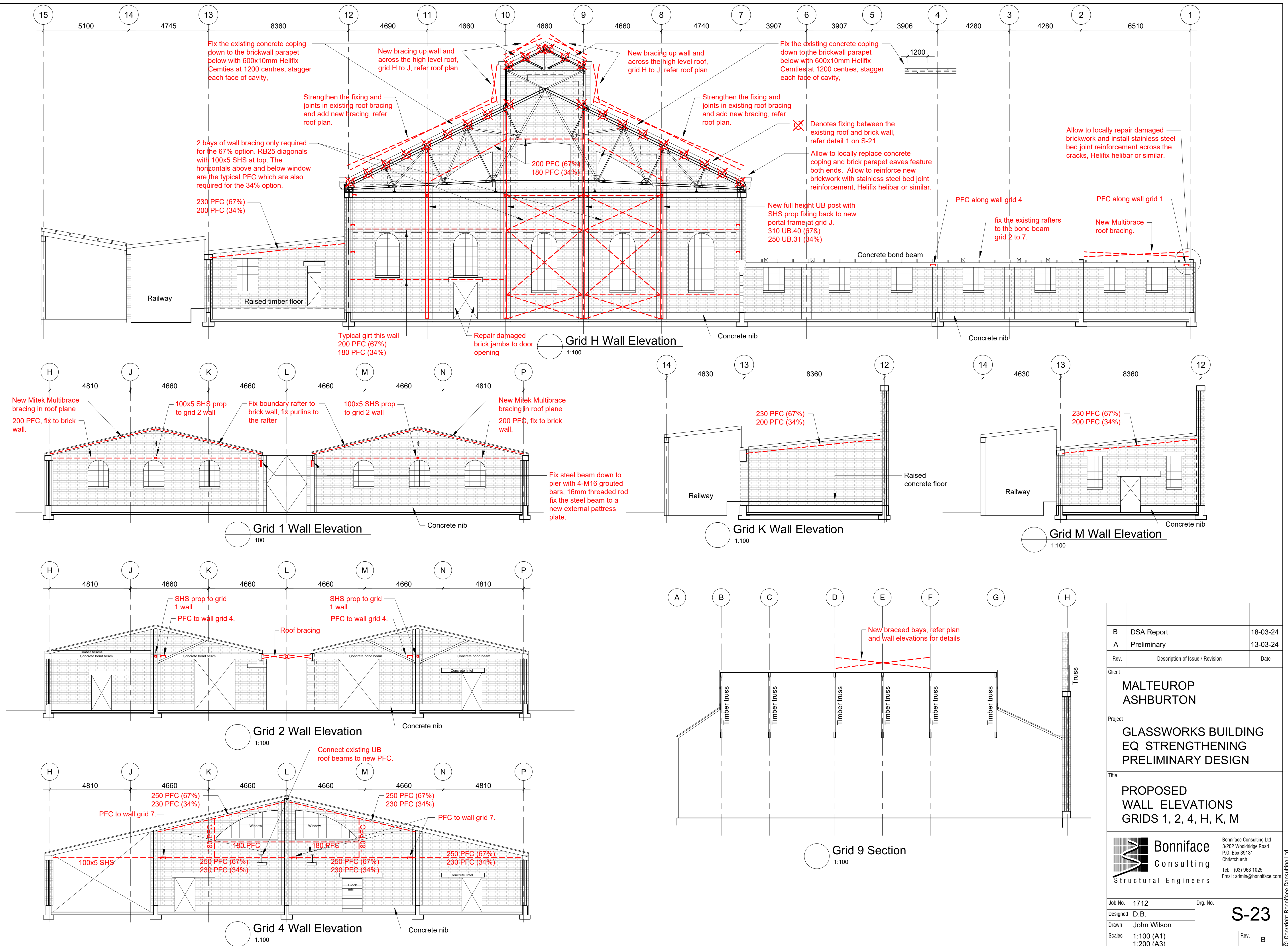
Roof Framing Plan  
1:150

B	DSA Report	18-03-24
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Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
PROPOSED ROOF FRAMING PLAN		
Bonniface Consulting Structural Engineers		
Bonniface Consulting Ltd 3/202 Woodridge Road P.O. Box 39131 Christchurch Tel: (03) 963 1025 Email: admin@bonniface.com		
Job No.	1712	Drng. No.
Designed	D.B.	S-21
Drawn	John Wilson	
Scales	1:150, 1:10 (A1) 1:300, 1:20 (A3)	Rev. B

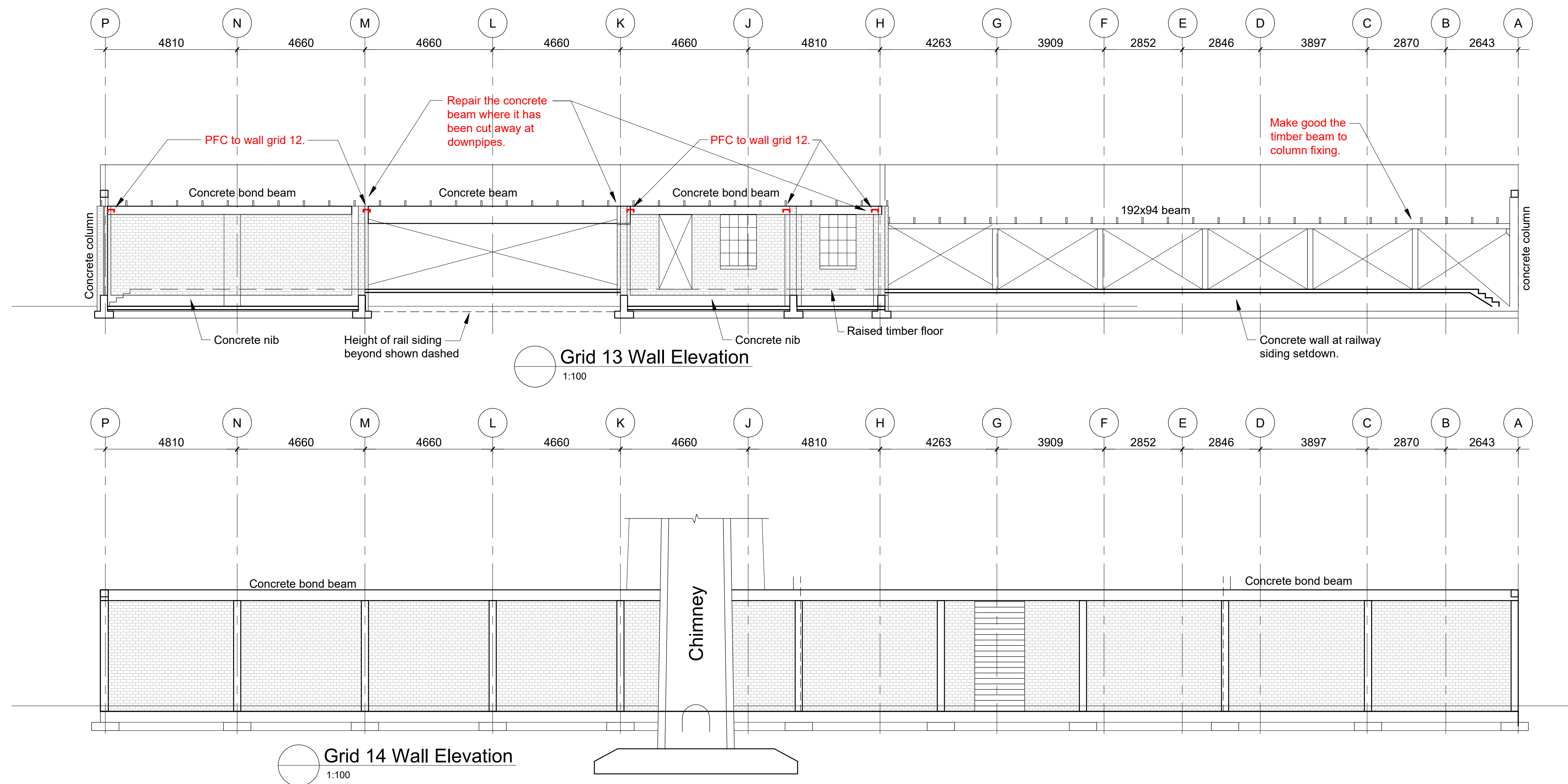
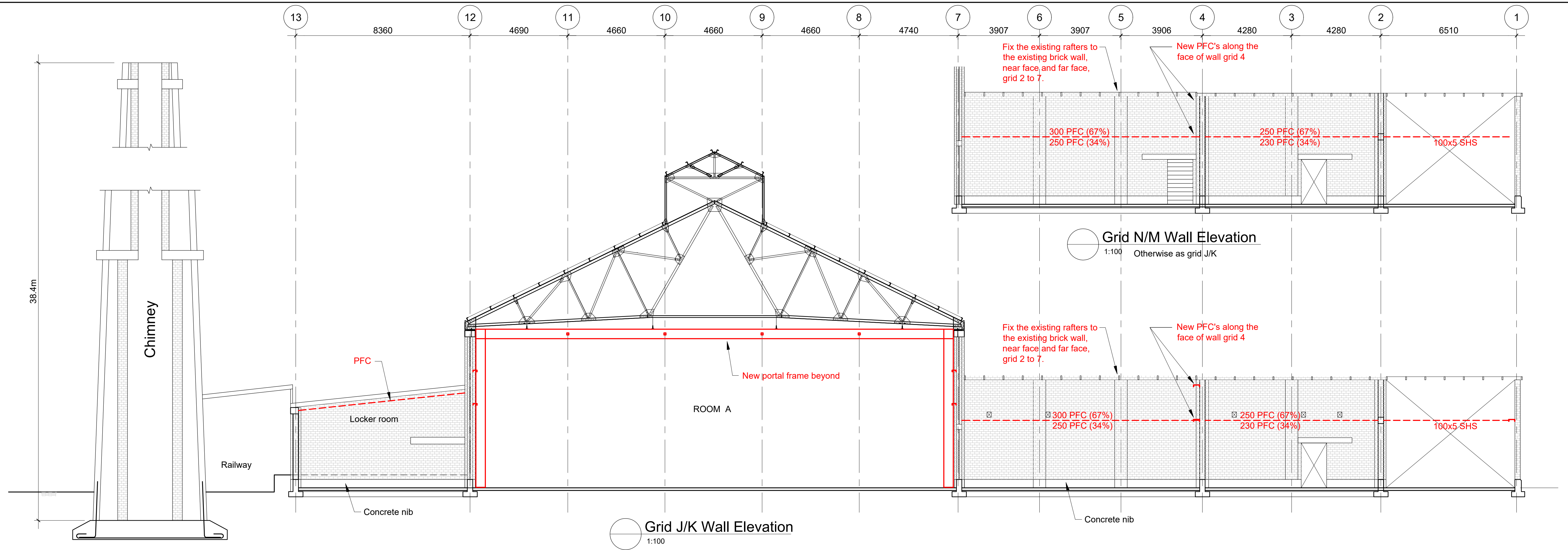


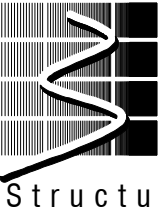


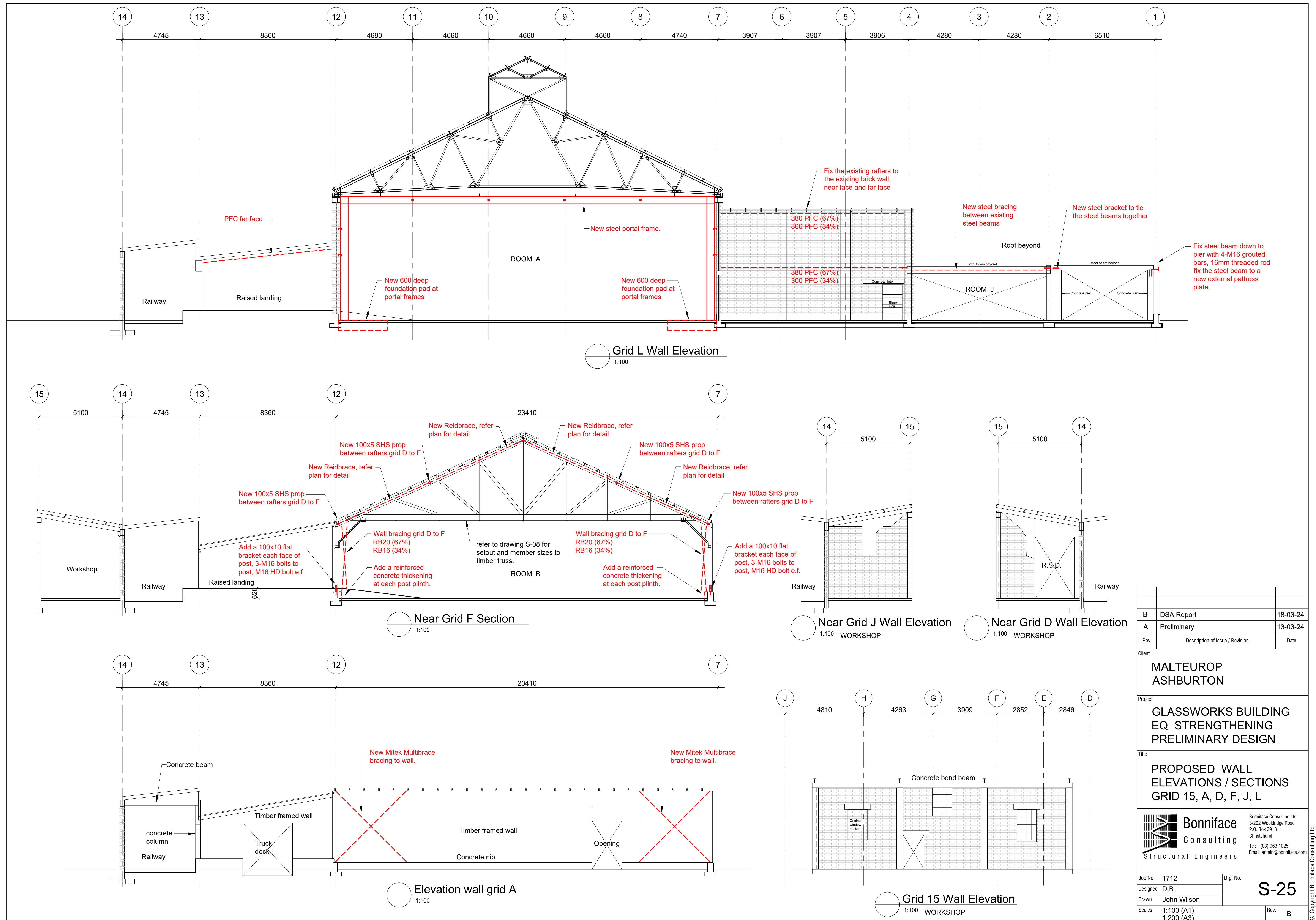








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Client		
MALTEUROP ASHBURTON		
Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
EXISTING WALL ELEVATIONS GRIDS 13, 14, J/K, N/M		
<div>  <div> <b>Bonniface</b> Consulting Structural Engineers </div> <div> <small> Bonniface Consulting Ltd  3/202 Woodbridge Road  P.O. Box 39131  Christchurch  Tel: (03) 963 1025  Email: admin@bonniface.com </small> </div> </div>		
Job No.	1712	Drg. No.
Designed	D.B.	<b>S-24</b>
Drawn	John Wilson	
Scales	1:100 (A1) 1:200 (A3)	Rev. B



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Project		
GLASSWORKS BUILDING EQ STRENGTHENING PRELIMINARY DESIGN		
Title		
PROPOSED WALL ELEVATIONS / SECTIONS GRID 15, A, D, F, J, L		
<div><div><div></div><div>Bonniface Consulting Structural Engineers</div></div><div><div>Bonniface Consulting Ltd 3/202 Woodbridge Road P.O. Box 39131 Christchurch Tel: (03) 963 1025 Email: admin@bonniface.com</div></div></div>		
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Scales	1:100 (A1) 1:200 (A3)	Rev. B