



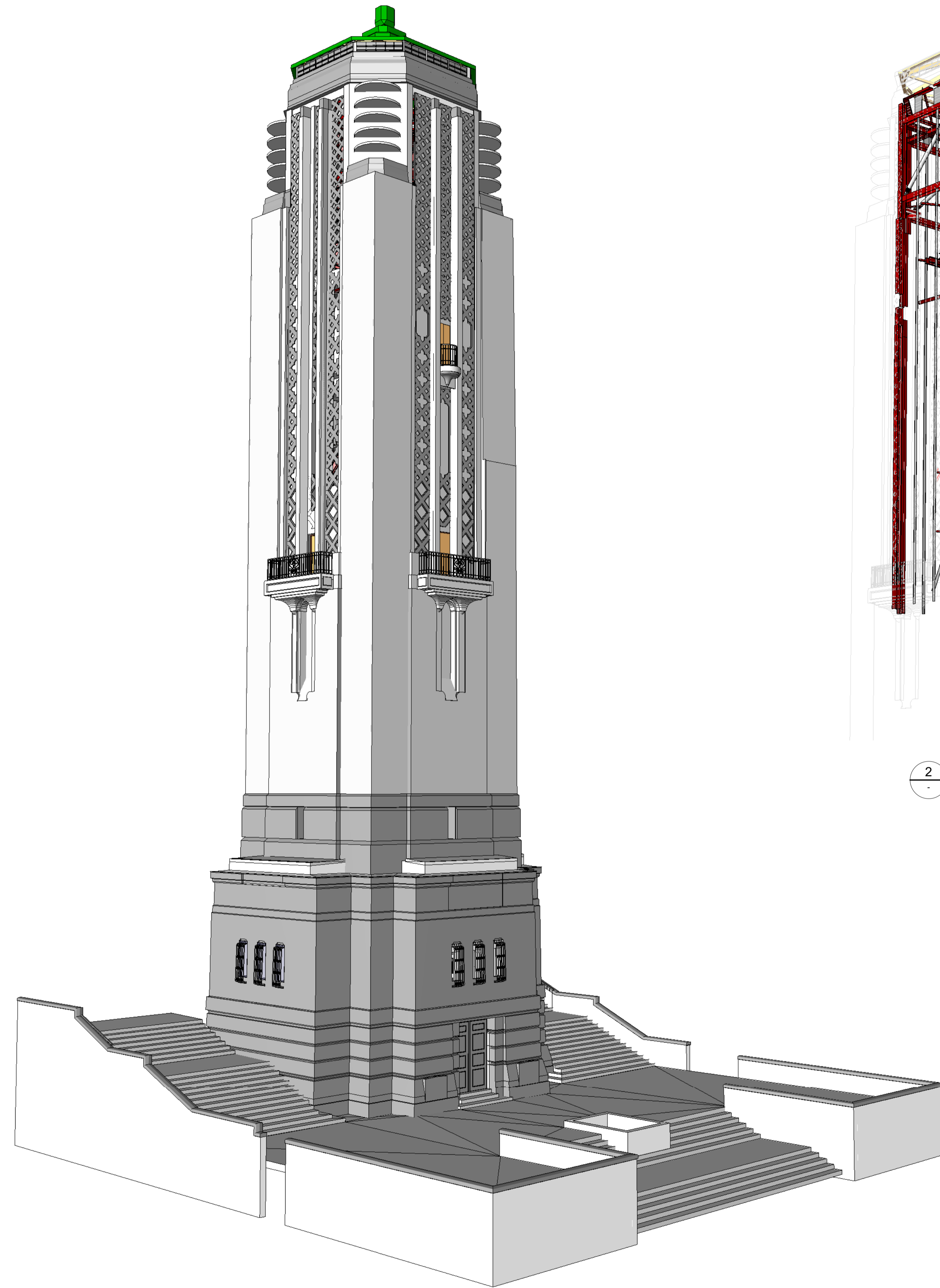
**NATIONAL WAR MEMORIAL
CARILLON TOWER**



Project 144373.13

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1 NE Perspective view
n.t.s.

2 proposed structure
n.t.s.

F	01/03/24	RAB	building consent
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NATIONAL WAR
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CARILLON TOWER

Drawn SMP Scale n.t.s. (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
drawing index

Job Number	Sheet Number	Rev
144373.13	S00-01	F

general notes:

- All drawings to be read in conjunction with the Holmes Structural Specification.
- Refer to Architects & Services Engineers drawings for all setout dimensions, reduced levels, opening sizes, slab setdowns, falls, rebates & edge details, cast-in Architectural items, cast-in services fixtures & services penetrations.
- Refer to Architects drawings and specification for all waterproofing details & requirements.
- Temporary propping indicated in this drawing set is not exhaustive. Unless specifically noted on the drawings, the design, location and layout of temporary propping is the responsibility of the contractor.
-  This drawing set contains colour. All reproduction to be in colour.
- All condition survey works, (including concrete repair and steel corrosion), not shown in this set.
- Levels shown on these drawings are provided by onsite survey and shall be verified before fabrication of elements.
- Structural elements are required to pass through existing walkway platforms and access ladders and the like. These elements will require make-good works after structural installation including but not limited to additional steel supports and minor relocation. Extent to be confirmed on site.
- For all existing brick walls allow to timber frame and helifix to the walls, or remove completely. Refer architect.
- Allow to isolate existing reinforced concrete braces behind latticework refer detail 4/S06-03.

abbreviations:

alt Alternate.
 approx Approximate.
 arch(s) Architect(s).
 assy Assembly.
 btm Bottom.
 Bb Bottom bottom (reinf).
 Bt Bottom top (reinf).
 BOS Bottom of steel.
 bldg Building.
 c.f Concrete filled.
 CHS Circular hollow section.
 CL Centre line.
 col Column.
 crs Centres.
 c.o.s Check on site.
 conc Concrete.
 c.j Contraction joint.
 cont Continuous.
 cnr Corner.
 cvr Cover.
 D Deformed reinforcing (300E).
 DPC Damp proof course.
 DPM Damp proof membrane.
 Ø Diameter.
 dp Deep.
 diag Diagonal.
 dwg Drawing.
 embed Embedment.
 extg Existing.
 EA Equal angle.
 e.f Each face.
 e.s Each side.
 e.w Each way.
 EQ Equal(s).
 f.f Far face.
 flg Flange.
 FFL Finished floor level.
 FGL Finish ground level.
 Fb Flybrace.
 galv Galvanised.
 GL Ground level.
 HB Heavy welded beam (Steltech).
 HD Holding down (bolt).
 horiz Horizontal.
 ID Inside diameter.
 kg/m3 Kilogram per cubic metre.
 kN Kilonewton.
 kPa Kilopascal.
 lg Long.
 LL Live load.
 max Maximum.
 MPa Megapascal.
 m Metre.

abbreviations:

M Metric bolt ISO.
 m.s Mild steel.
 mm Millimetre.
 min Minimum.
 n.f Near face.
 n.t.s Not to scale.
 OD Outside diameter.
 o/a Overall.
 p/c Precast concrete.
 PFC Parallel flange channel.
 PL Plate.
 R Plain round reinforcing (300E).
 rad Radius.
 RB Reidbar reinforcing.
 RL Reduced level.
 reinf Reinforcing.
 req'd Required.
 RHS Rectangular hollow section.
 RSJ Rolled steel joist.
 S Snug fit bolt.
 SB Standard welded beam (Steltech).
 SDL Superimposed dead load.
 SFL Structural floor level.
 sim Similar.
 sp Splice.
 spec Specification.
 sq Square.
 SHS Square hollow section.
 stgd Staggered.
 ss Stainless steel.
 stiff Stiffener.
 str(s) Starter(s).
 stp(s) StIRRup(s).
 Tb Top bottom (reinf).
 TB Tension bearing bolt.
 t.b.a To be advised.
 t.b.c To be confirmed.
 TF Tension friction bolt.
 Tt Top top (reinf).
 thk Thick.
 TOS Top of steel.
 typ Typical.
 UA Unequal angle.
 u.n.o Unless noted otherwise.
 u/s Underside.
 UB Universal beam.
 UC Universal column.
 UDL Uniformly distributed load.
 Vert Vertical.
 WB Welded beam (Steltech).
 WP Weld plate.
 XD Deformed reinforcing (500E).
 XR Plain round reinforcing (500E).

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NATIONAL WAR MEMORIAL CARILLON TOWER

Drawn SMP Scale n.L.S. (at A1)

Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title

notes

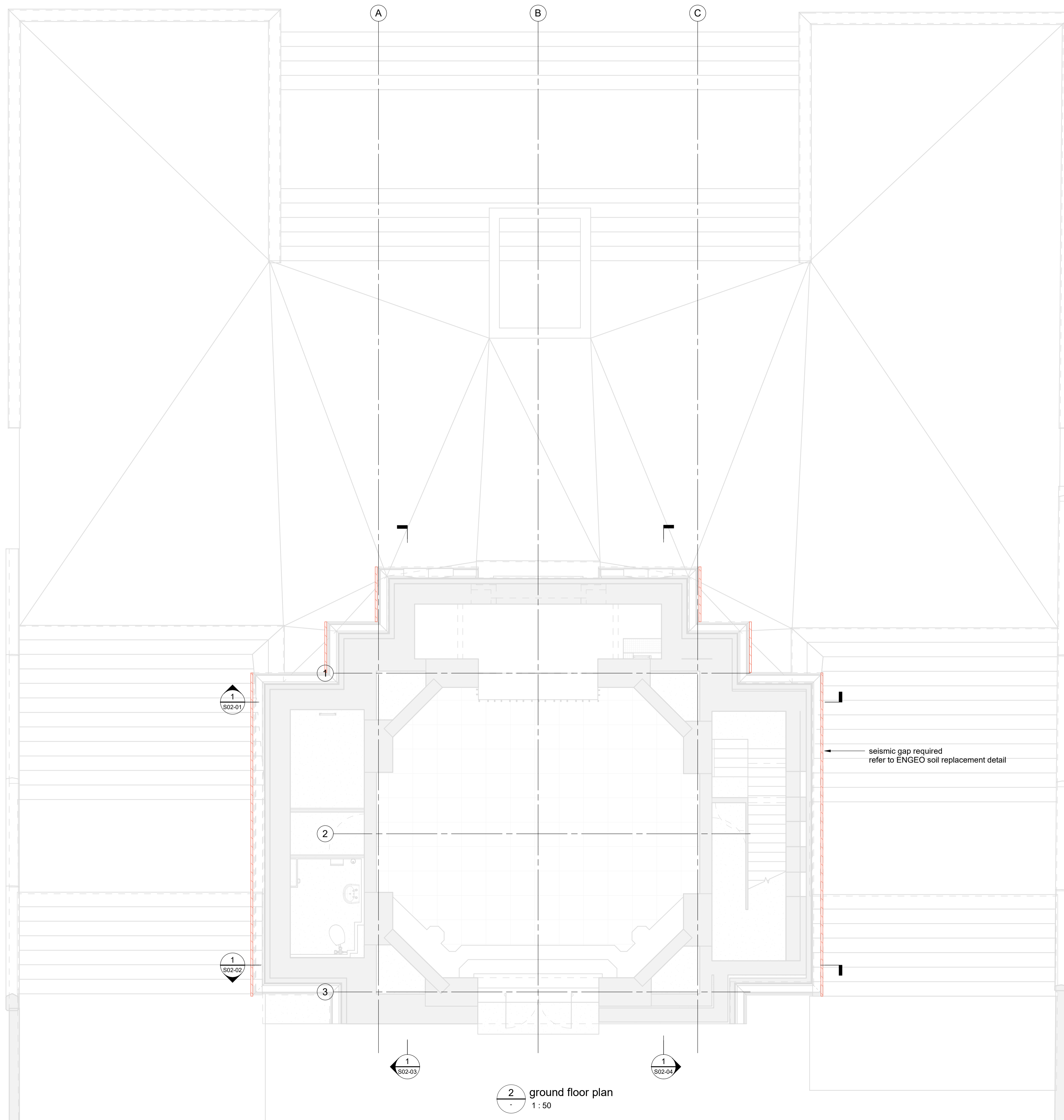
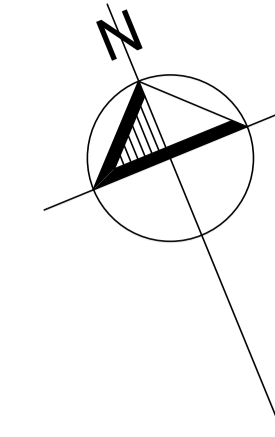
Job Number Sheet Number Rev

144373.13 S00-02 F

All dimensions to be verified on site before making any shop drawings or commencing any work. The copyright of this drawing remains with Holmes NZ LP.

notes:

1. Refer to S00 series for all general notes.



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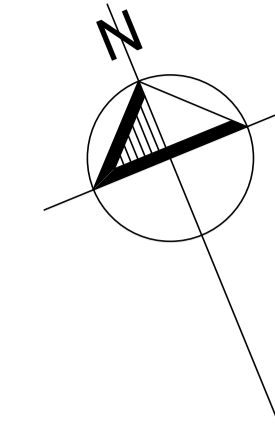
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Sheet Title

ground floor plan

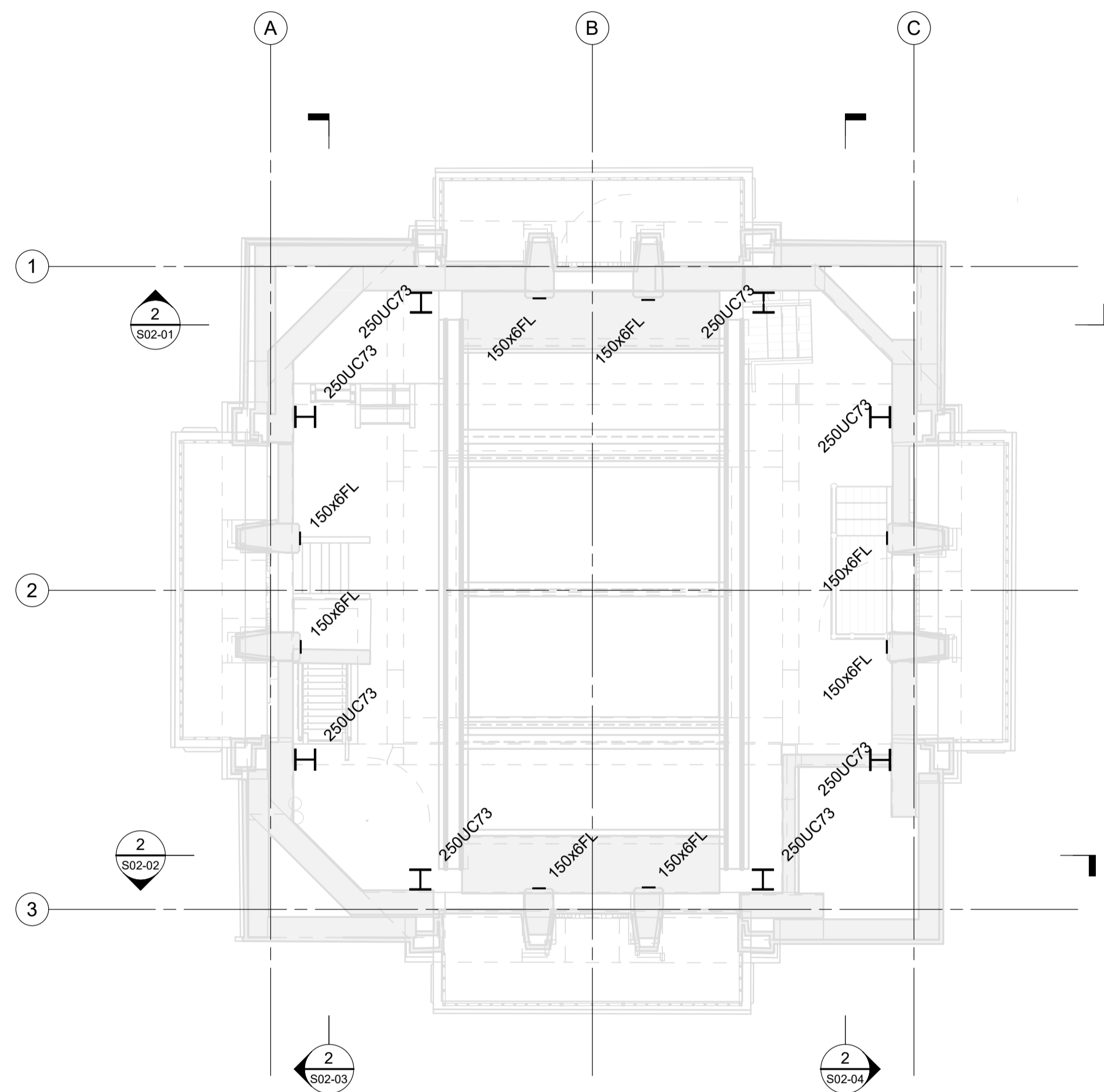
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144373.13 S01-01 F

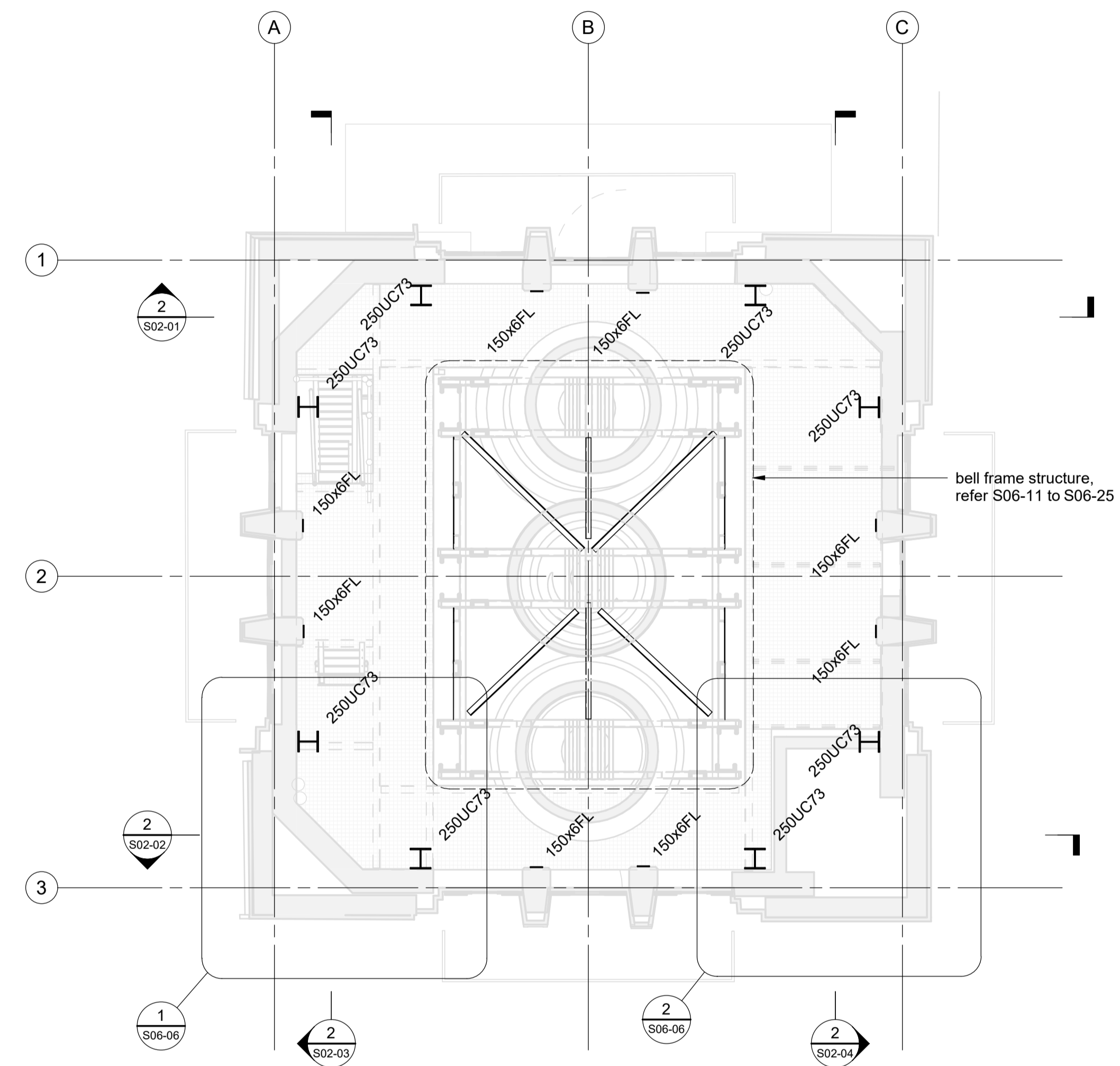


notes:

1. Refer to S00 series for all general notes.



1 fifth floor
1 : 50



2 5A floor plank walk
1 : 50

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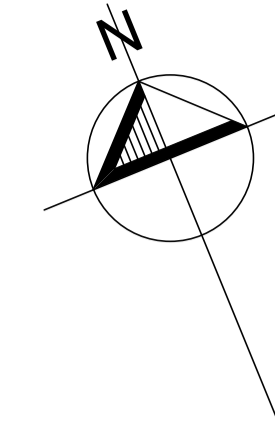
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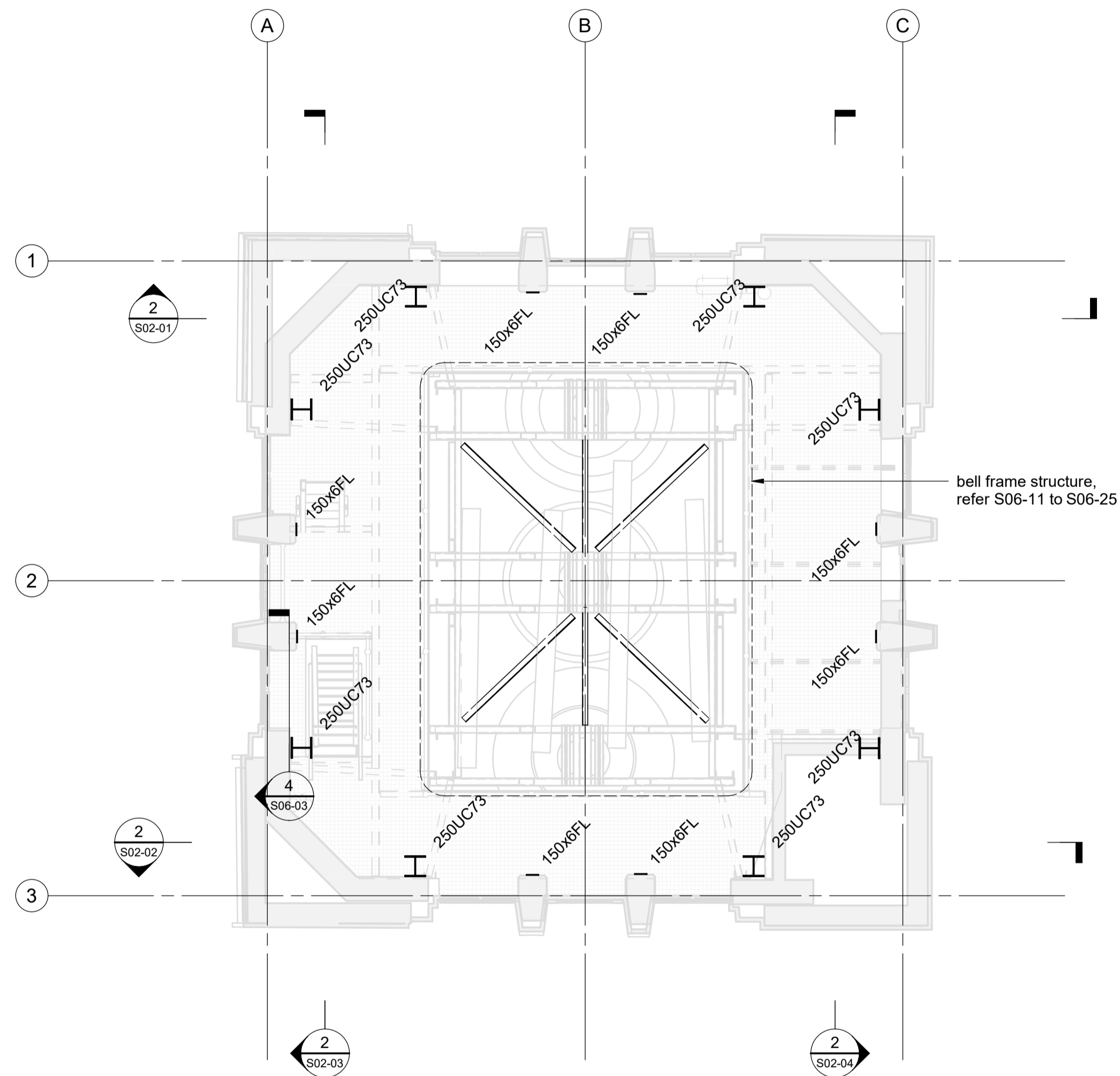
Sheet Title
levels 5-5A floor plans

Job Number Sheet Number Rev
144373.13 S01-02 F

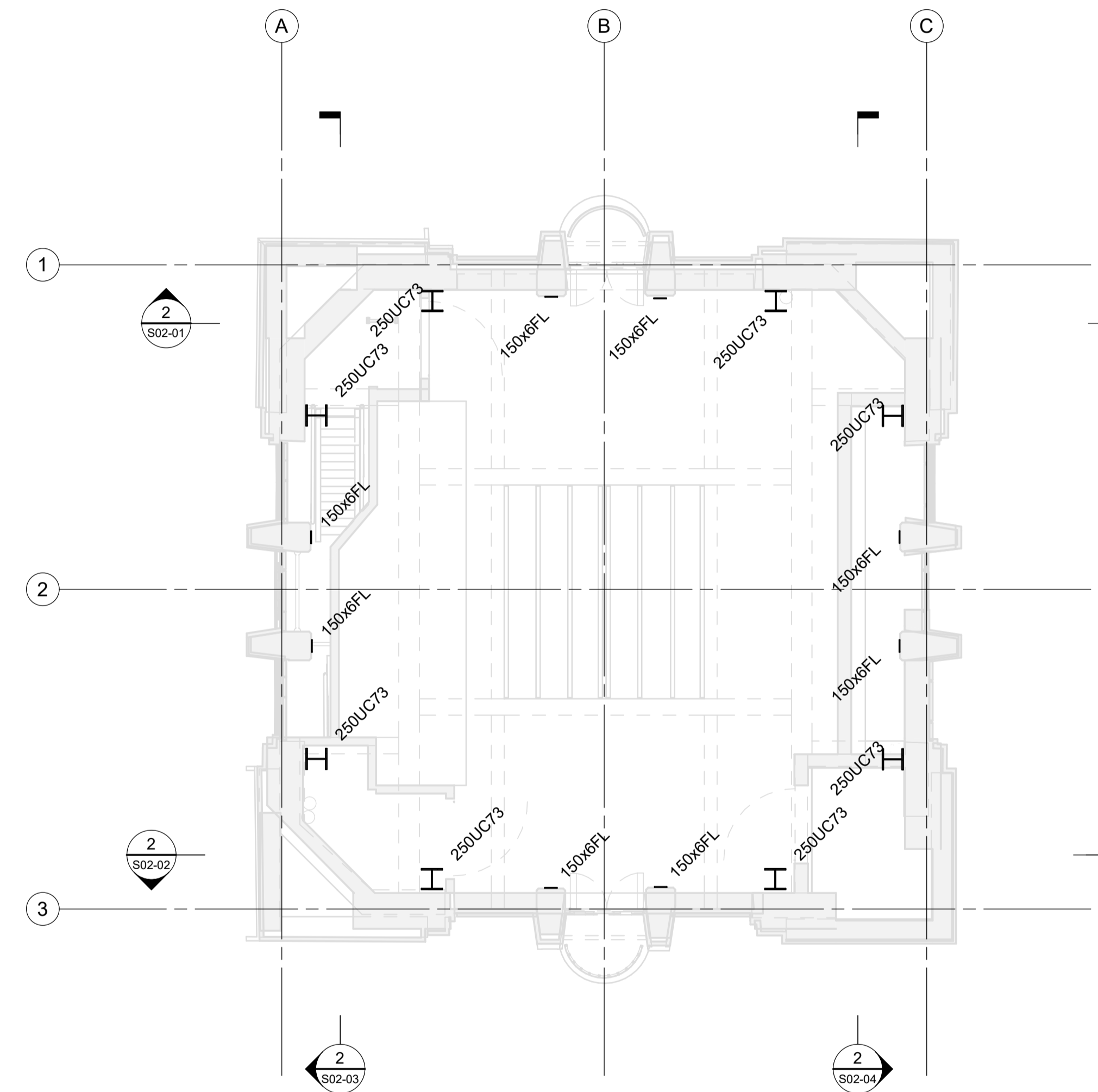


notes:

1. Refer to S00 series for all general notes.



1 5B tomb light
1 : 50



2 sixth floor
1 : 50

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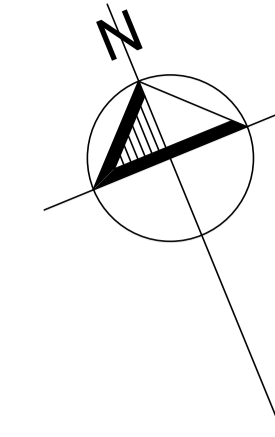
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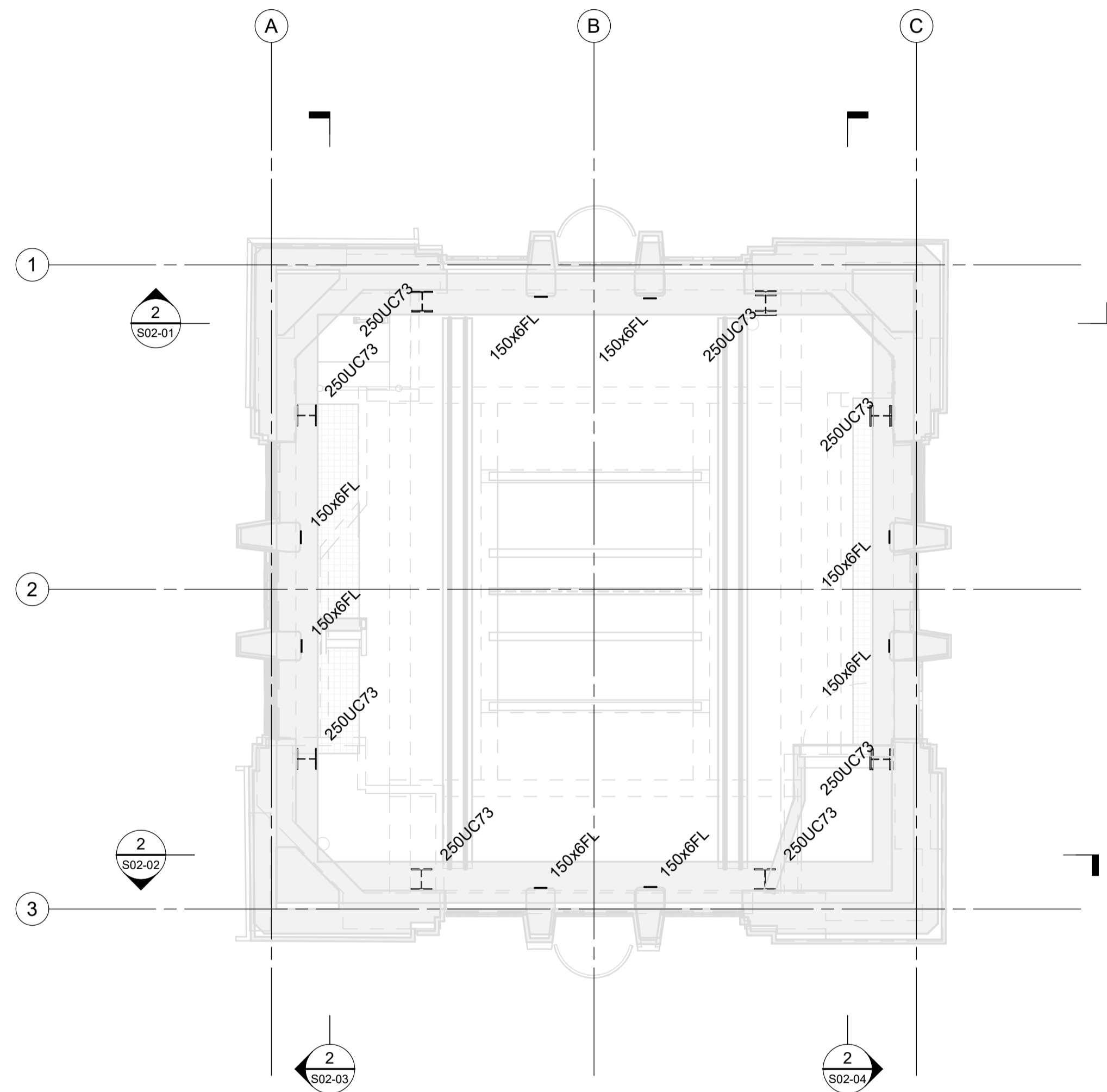
Sheet Title
levels 5B-6 floor plans

Job Number Sheet Number Rev
144373.13 S01-03 F

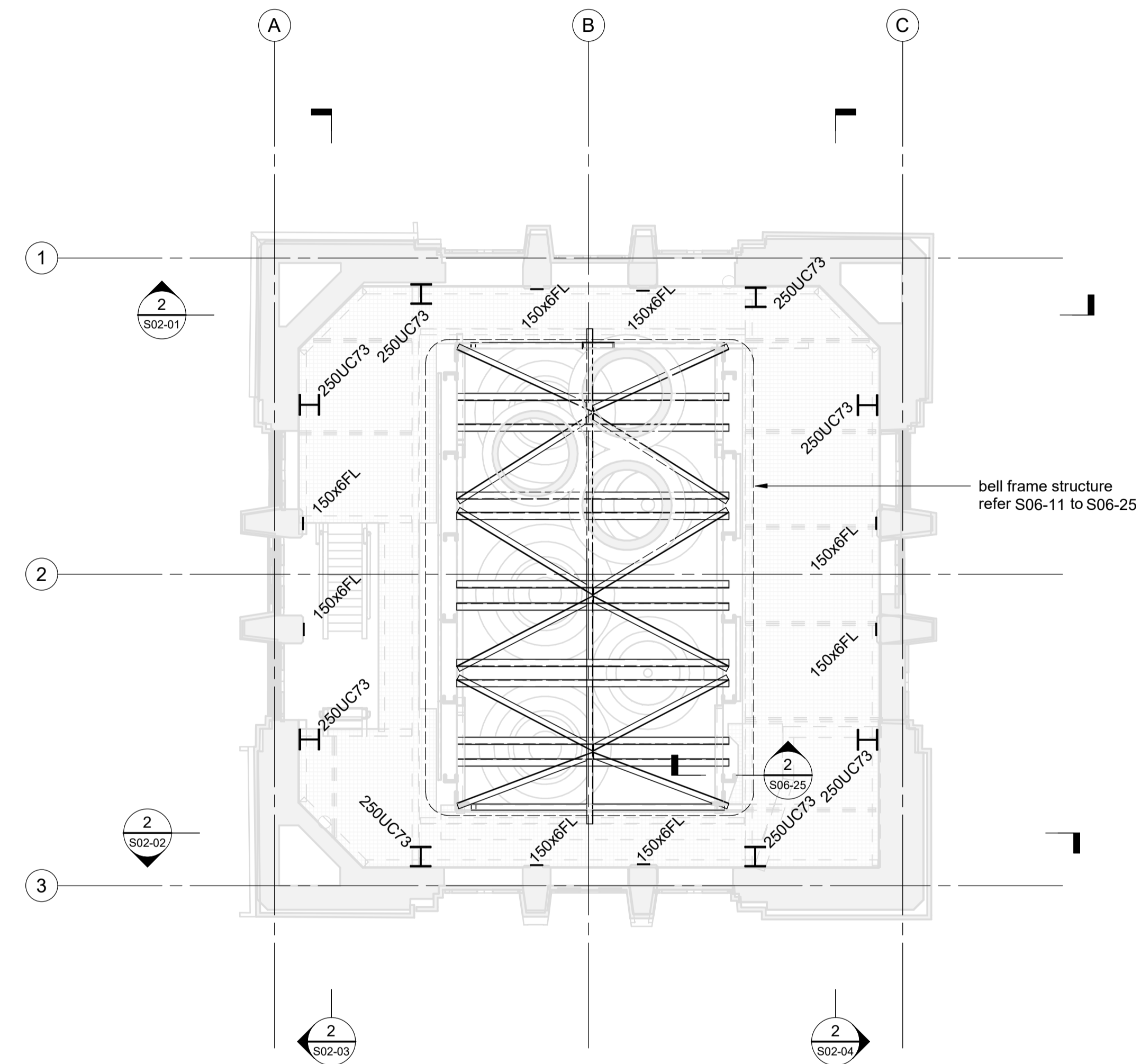


notes:

1. Refer to S00 series for all general notes.



1 seventh floor- upper bell
1 : 50



2 7A lower catwalk
1 : 50

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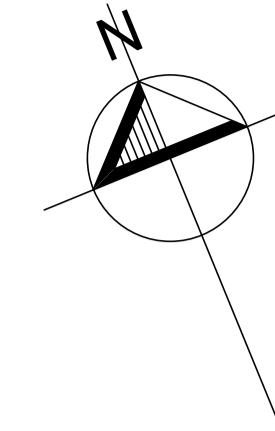
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Sheet Title
levels 7-7A floor plans

Job Number Sheet Number Rev
144373.13 S01-04 F

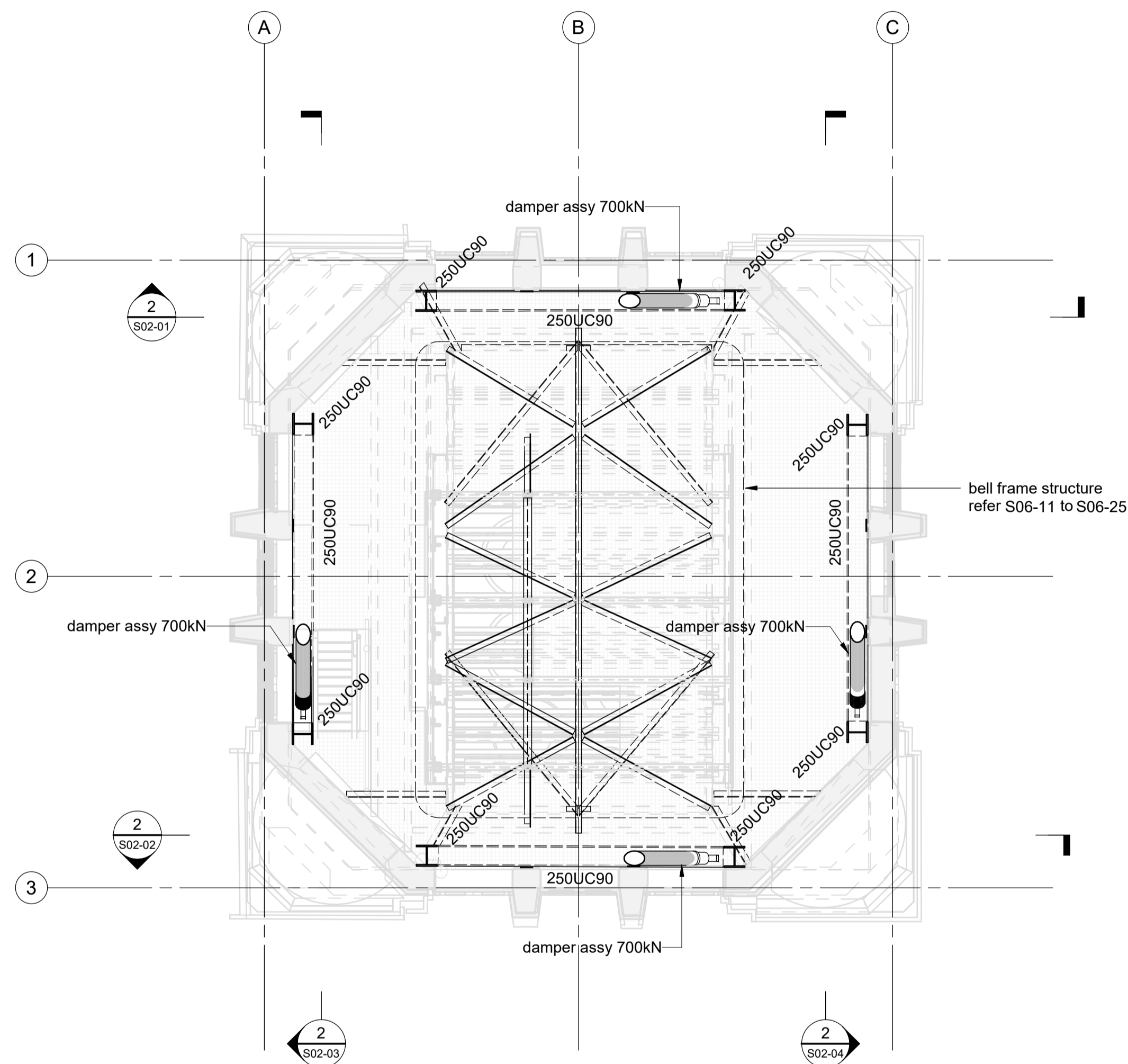


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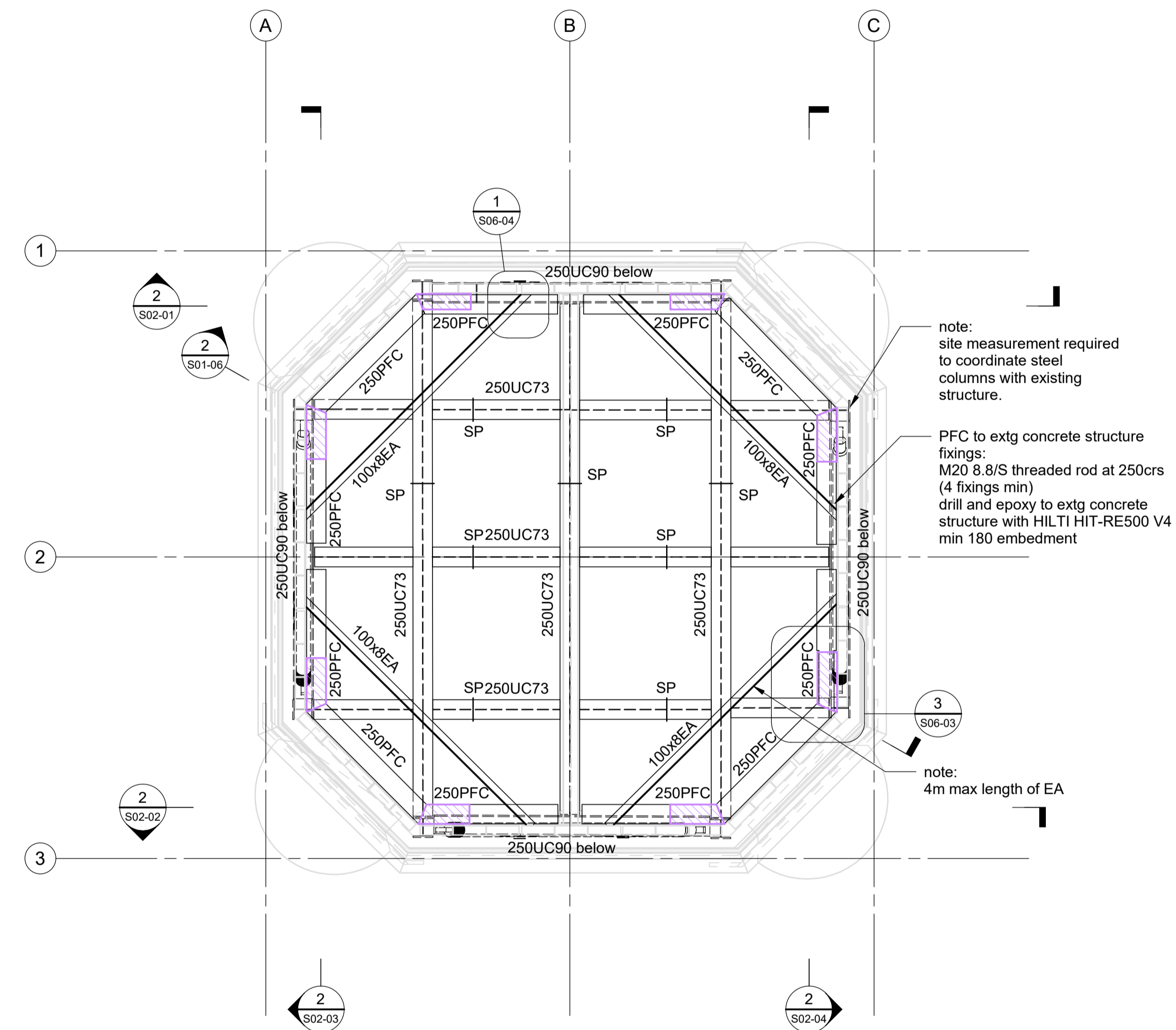
1. Refer to S00 series for all general notes.

legend:

- sp Denotes splice. For detail refer to 2/S06-04
- purple regions denote clear zones with 195x8PL and trimmed PFC flanges refer 3/S06-03



1 7B upper catwalk
1 : 50



2 eighth floor
1 : 50

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Sheet Title
levels 7B-8 floor plans

Job Number	Sheet Number	Rev
144373.13	S01-05	F

notes:

1. Refer to S00 series for all general notes.

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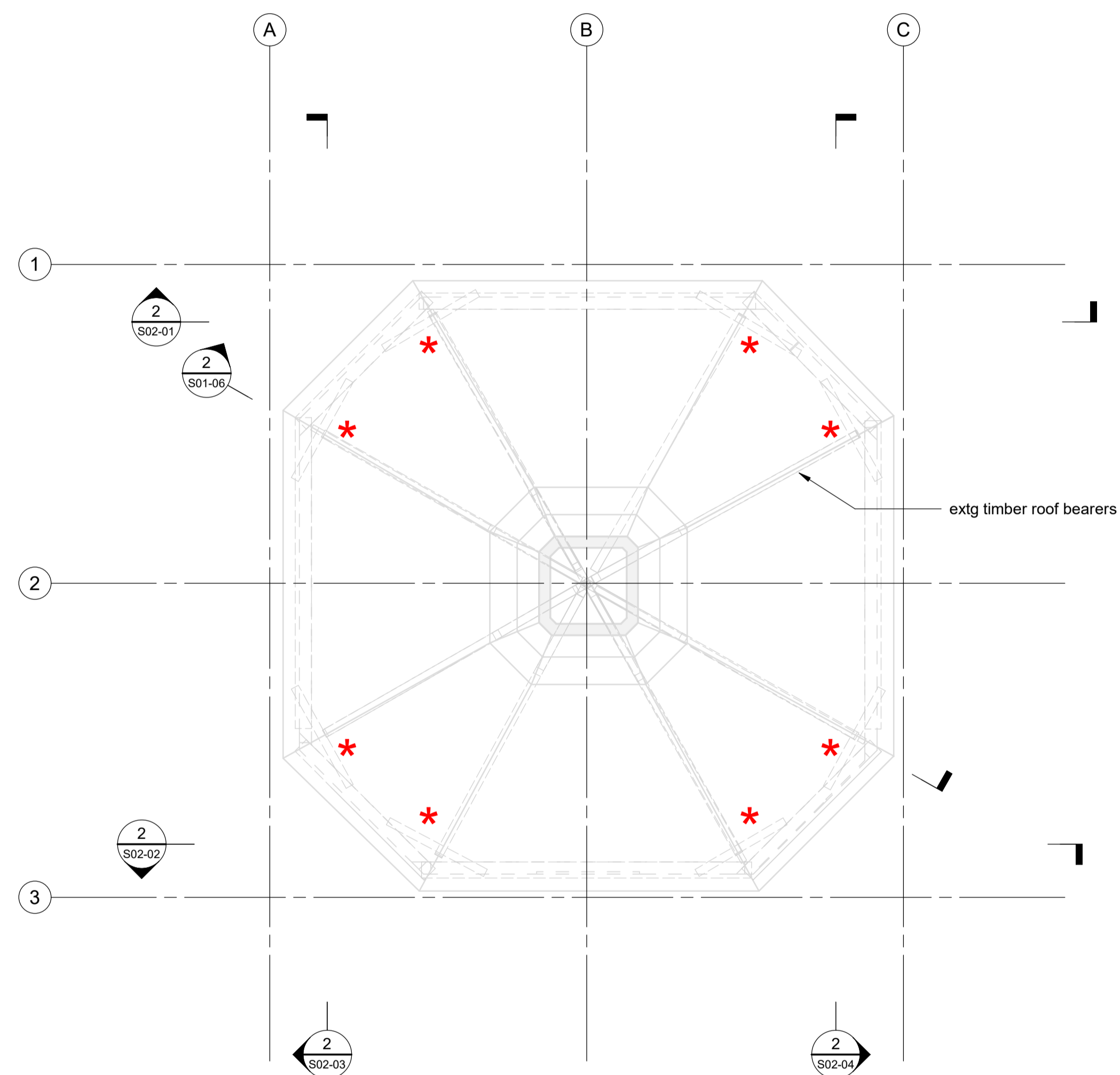
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Sheet Title

roof plan

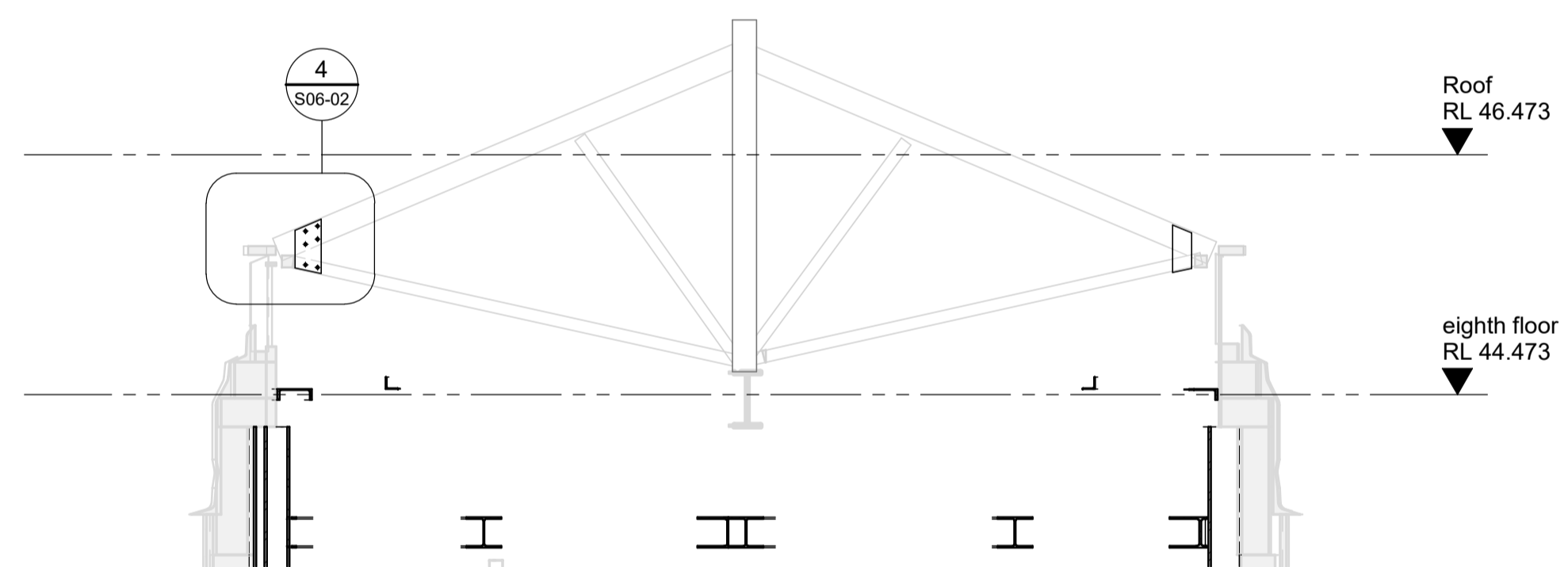
Job Number Sheet Number Rev

144373.13 S01-06 E



* denotes locations of fixing brackets refer detail 4/S06-02

1 roof plan
 1:50



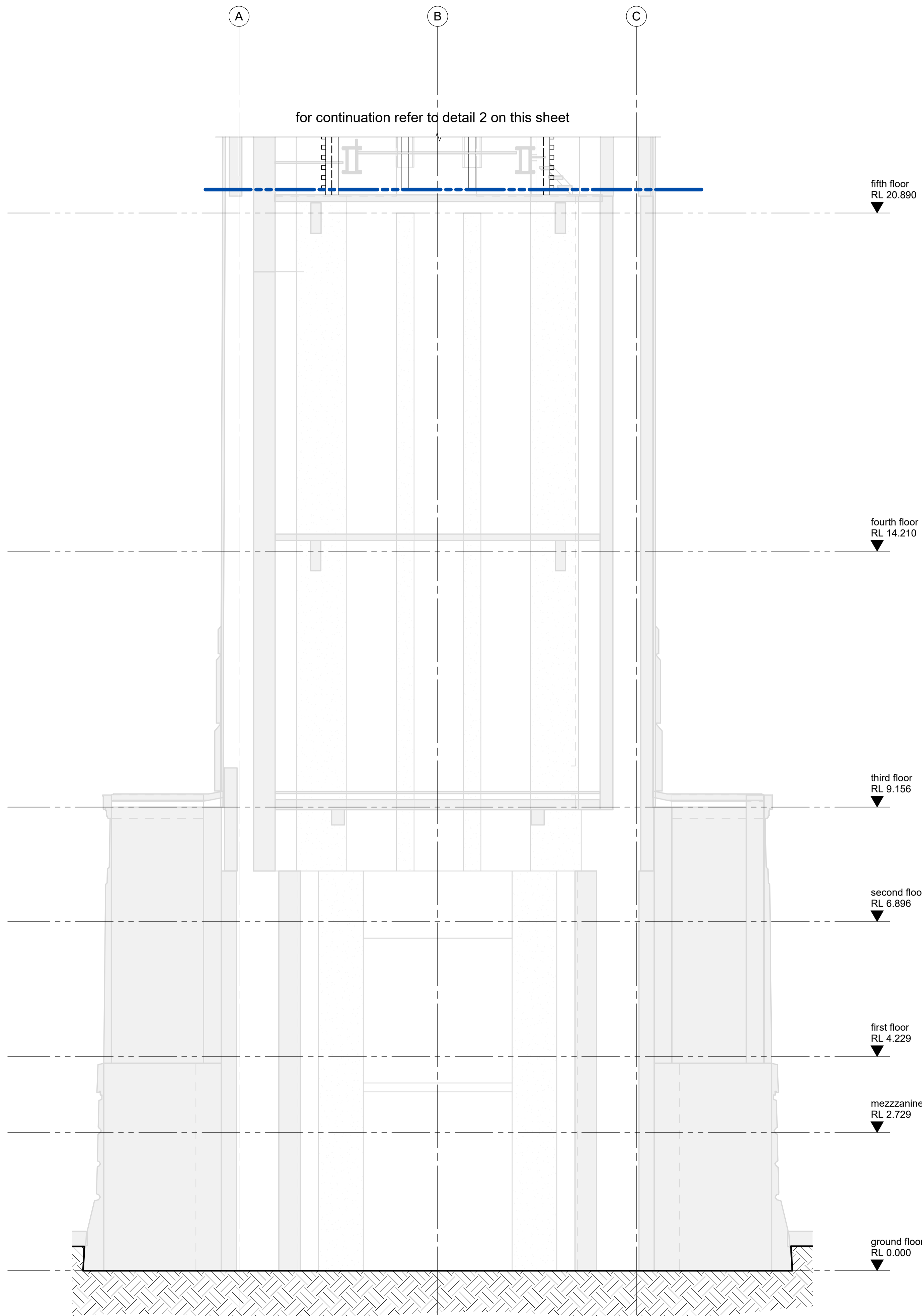
2 diagonal cross section at roof
 1:50

notes:

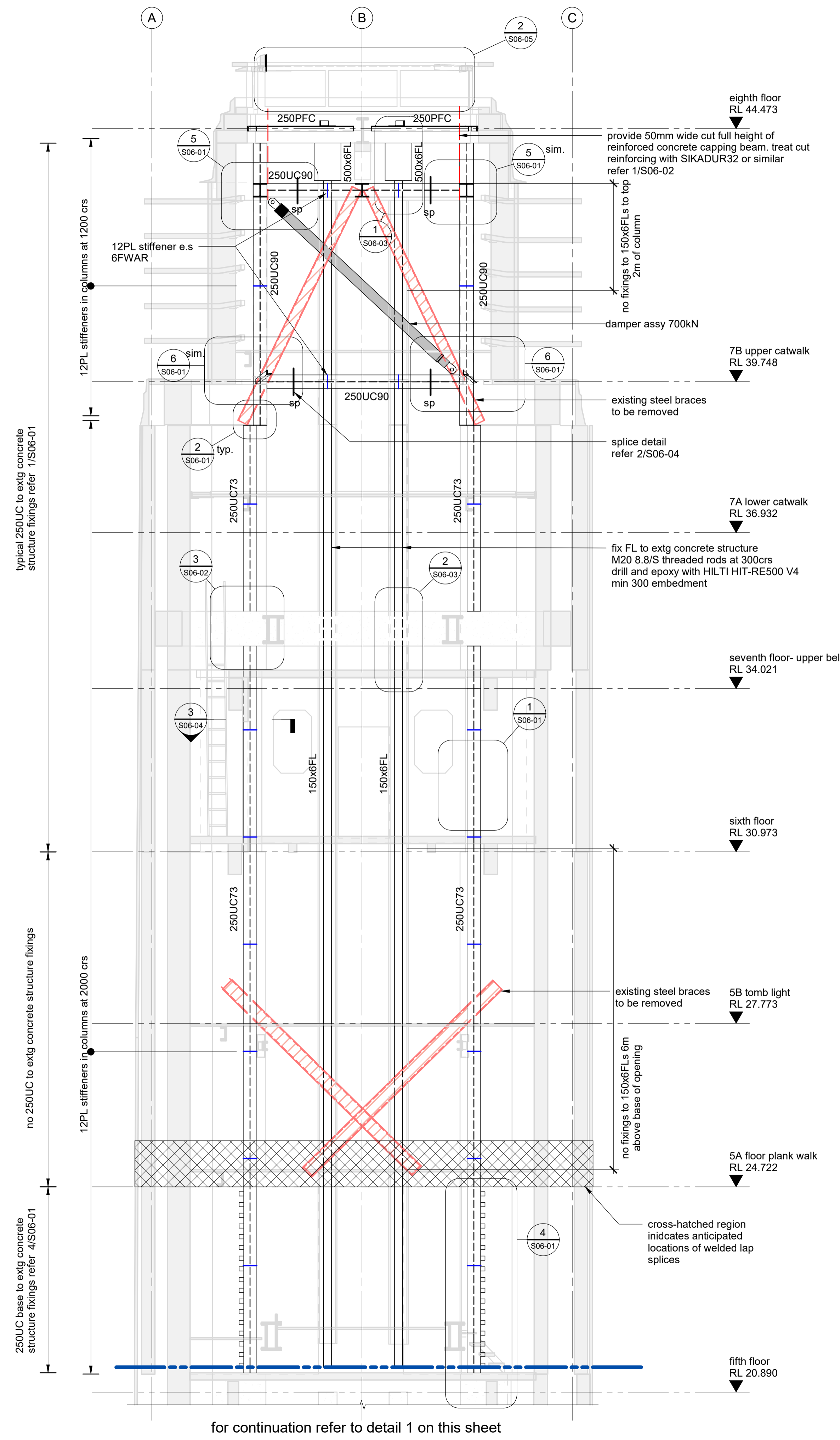
1. Refer to S00 series for all general notes.
2. Splice locations to be determined by Contractor and submitted for review.
3. Refer to 4/S06-04 for 150FL splice details.

legend:

— sp Denotes splice. For detail refer to 2/S06-04



1
1:50



2
1:50

Rev	Date	Appd	Reason
G	01/03/24	RAB	building consent
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Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
grid 1 elevation

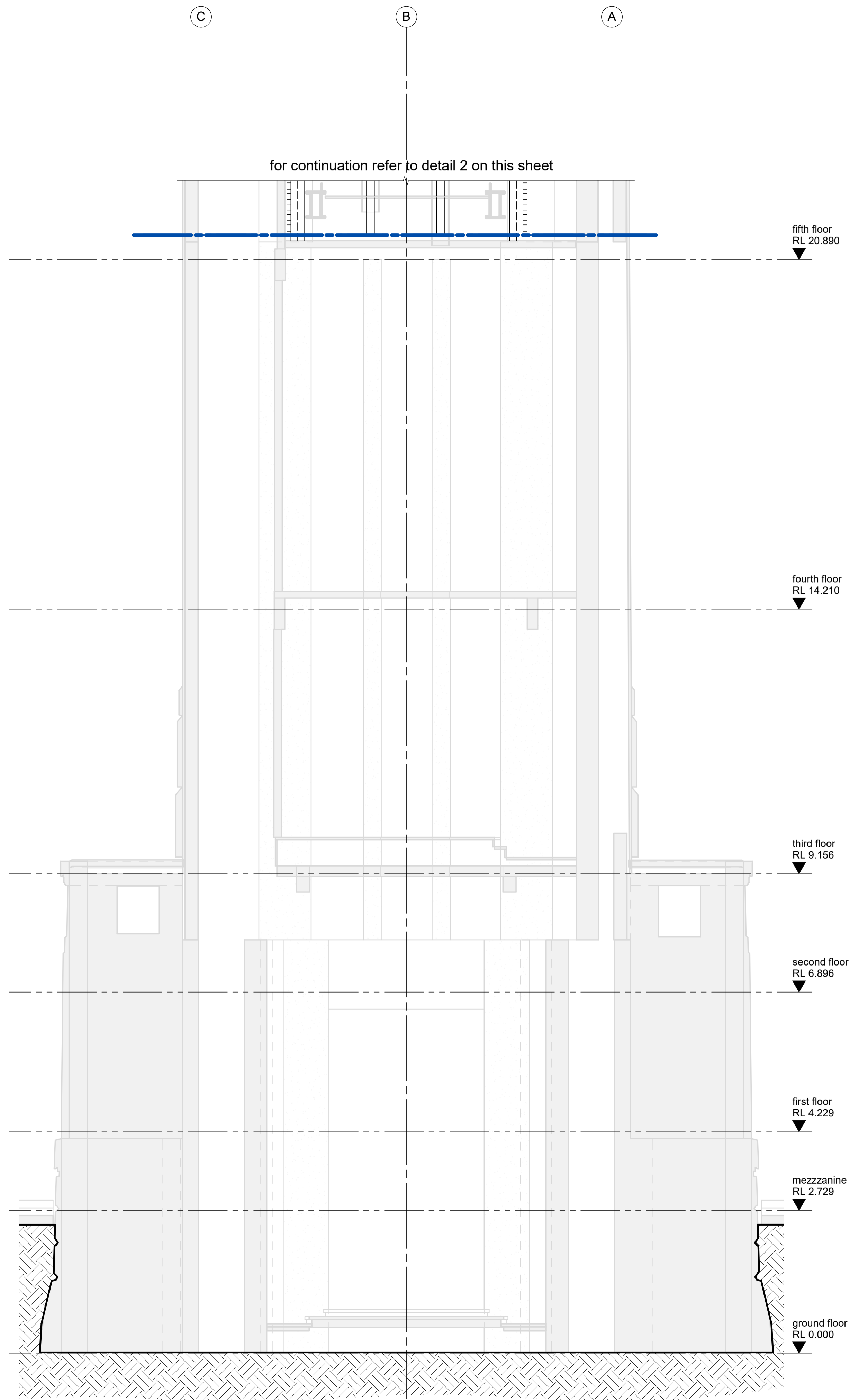
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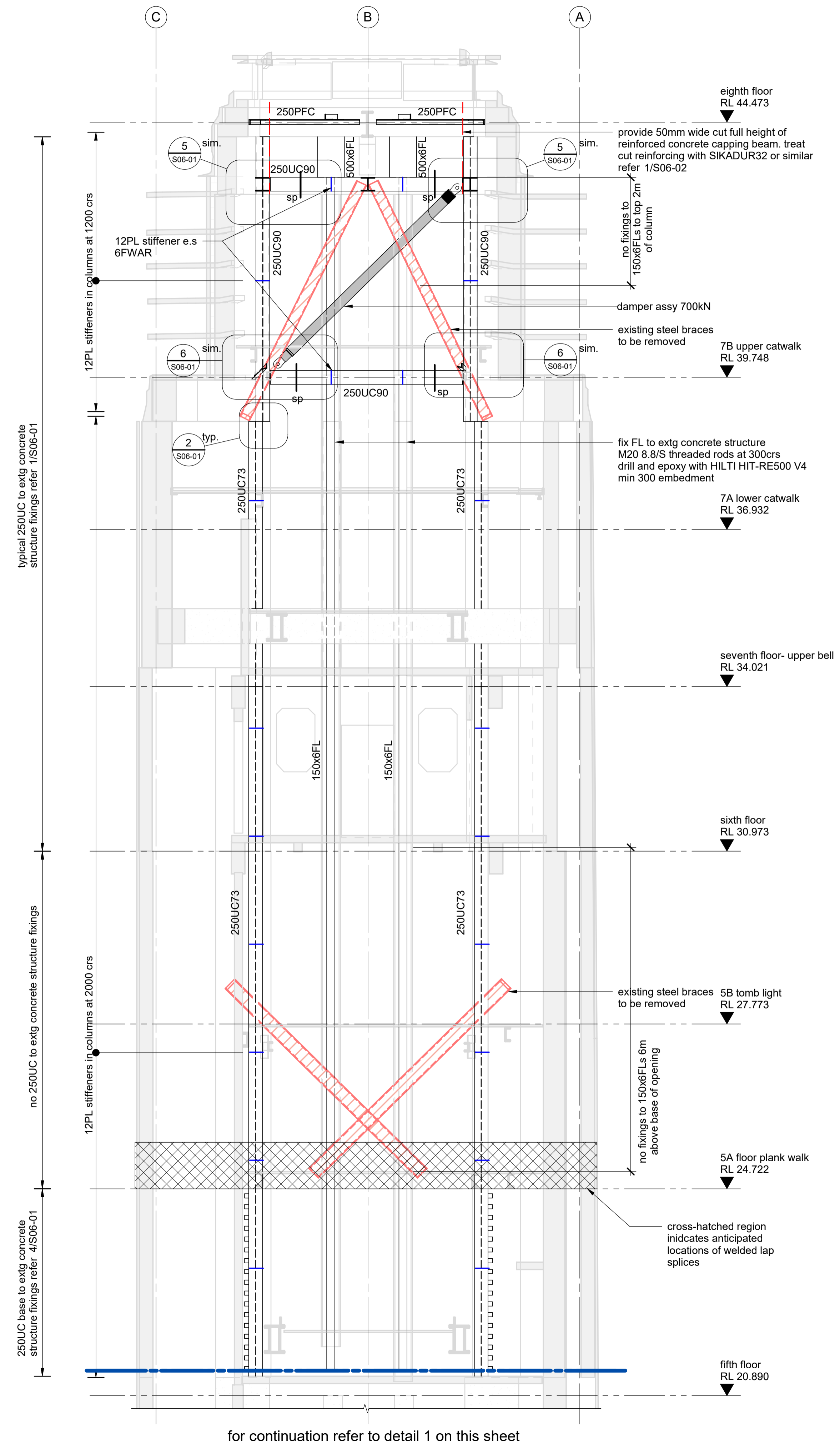
1. Refer to S00 series for all general notes.
2. Splice locations to be determined by Contractor and submitted for review.
3. Refer to 4/S06-04 for 150FL splice details.

legend:

— sp Denotes splice. For detail refer to 2/S06-04



1
1:50



2
1:50

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 Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
grid 3 elevation

Job Number 144373.13 Sheet Number S02-02 Rev G

notes:

1. Refer to S00 series for all general notes.
2. Splice locations to be determined by Contractor and submitted for review.
3. Refer to 4/S06-04 for 150FL splice details.

legend:

— sp Denotes splice. For detail refer to 2/S06-04

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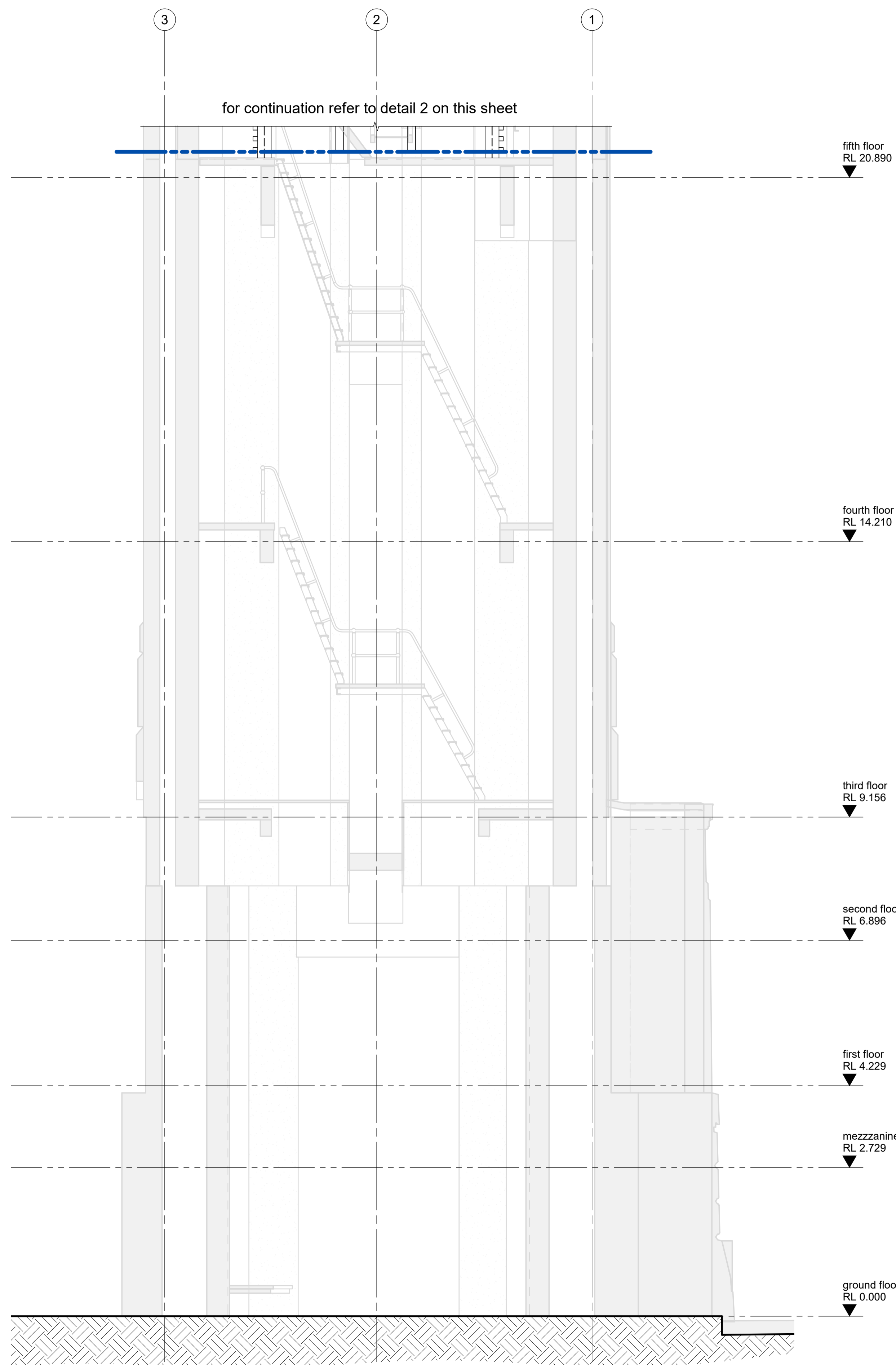
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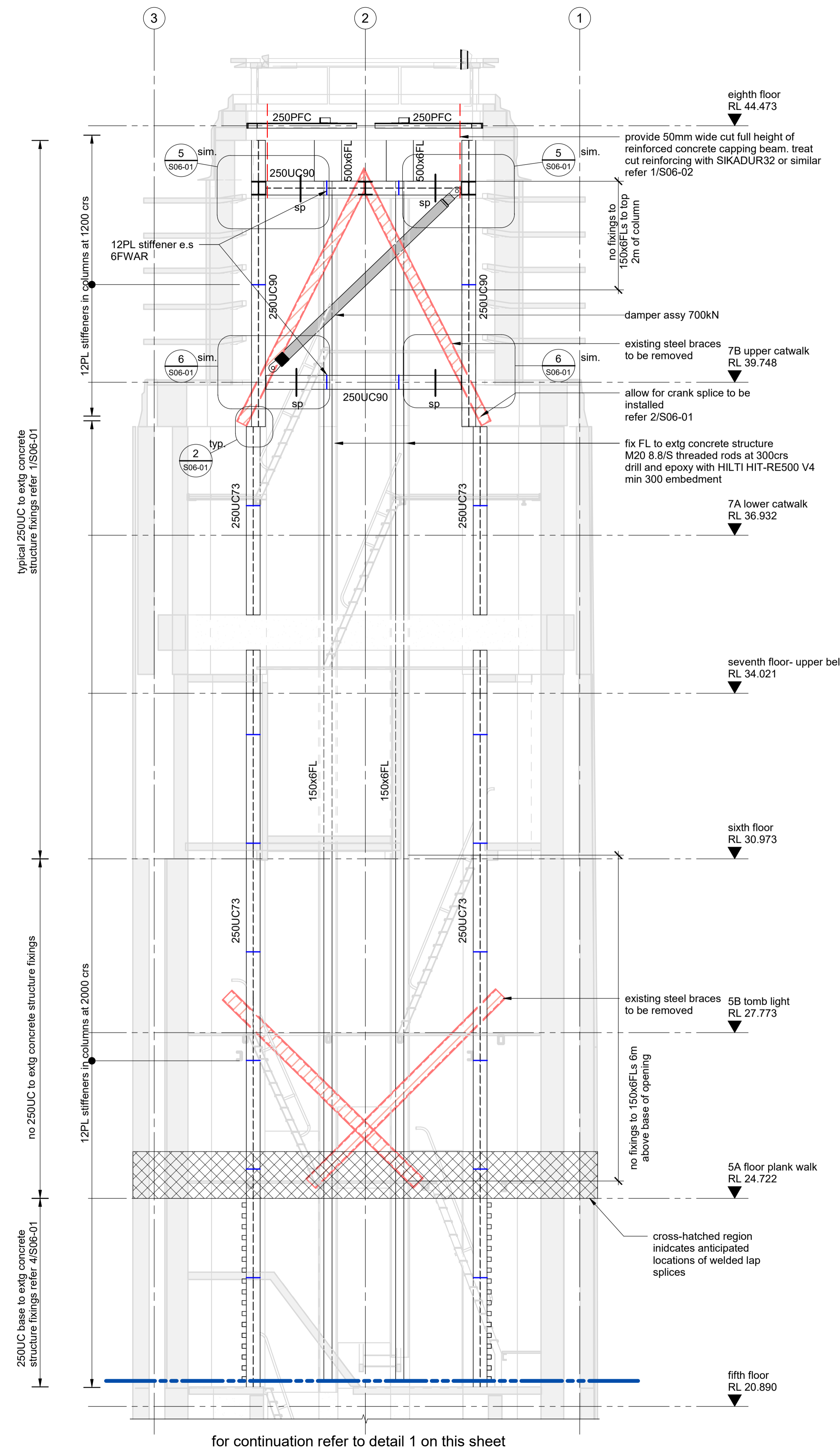
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Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
grid A elevation

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144373.13 S02-03 G



1
1:50



2
1:50

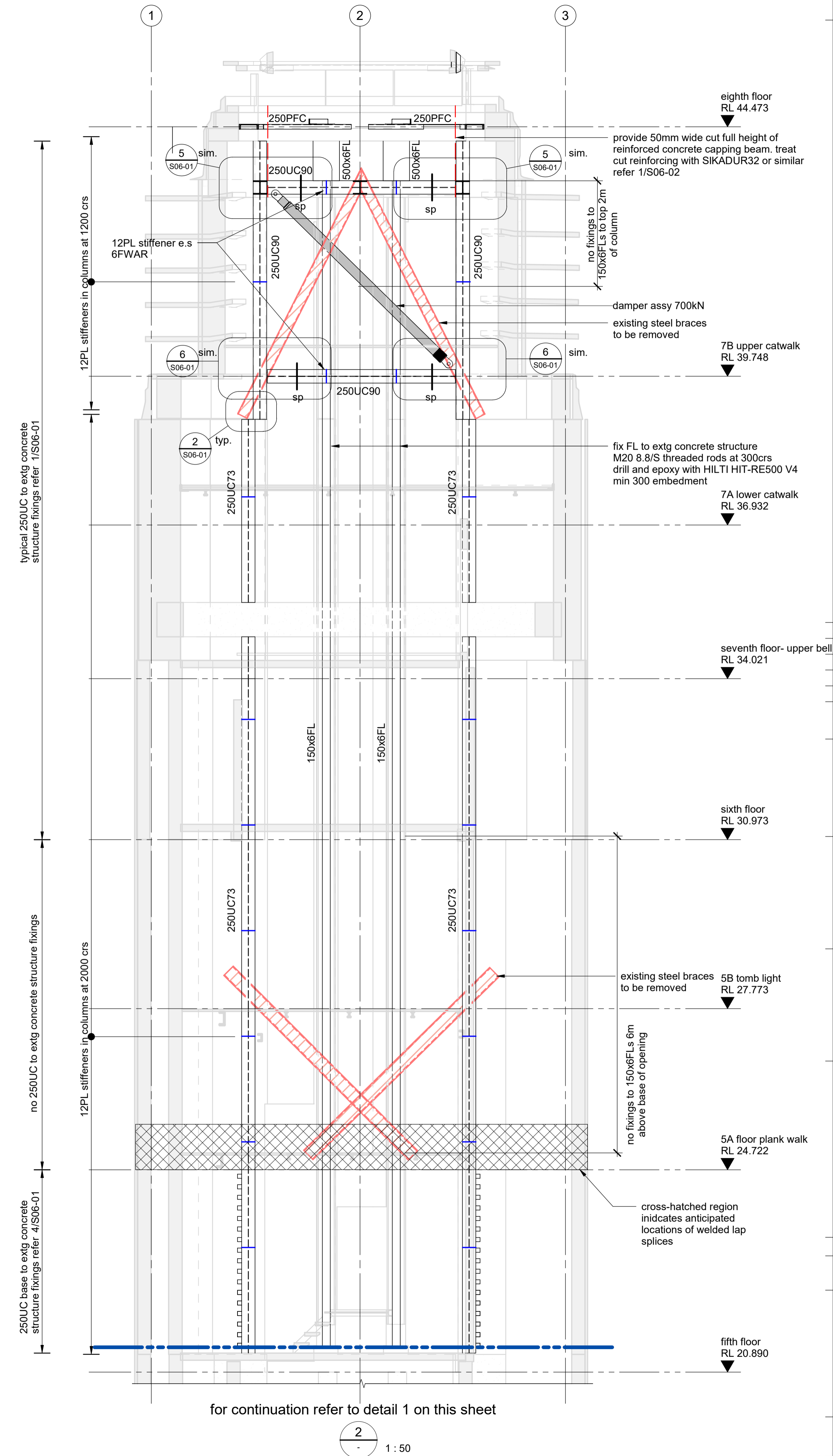
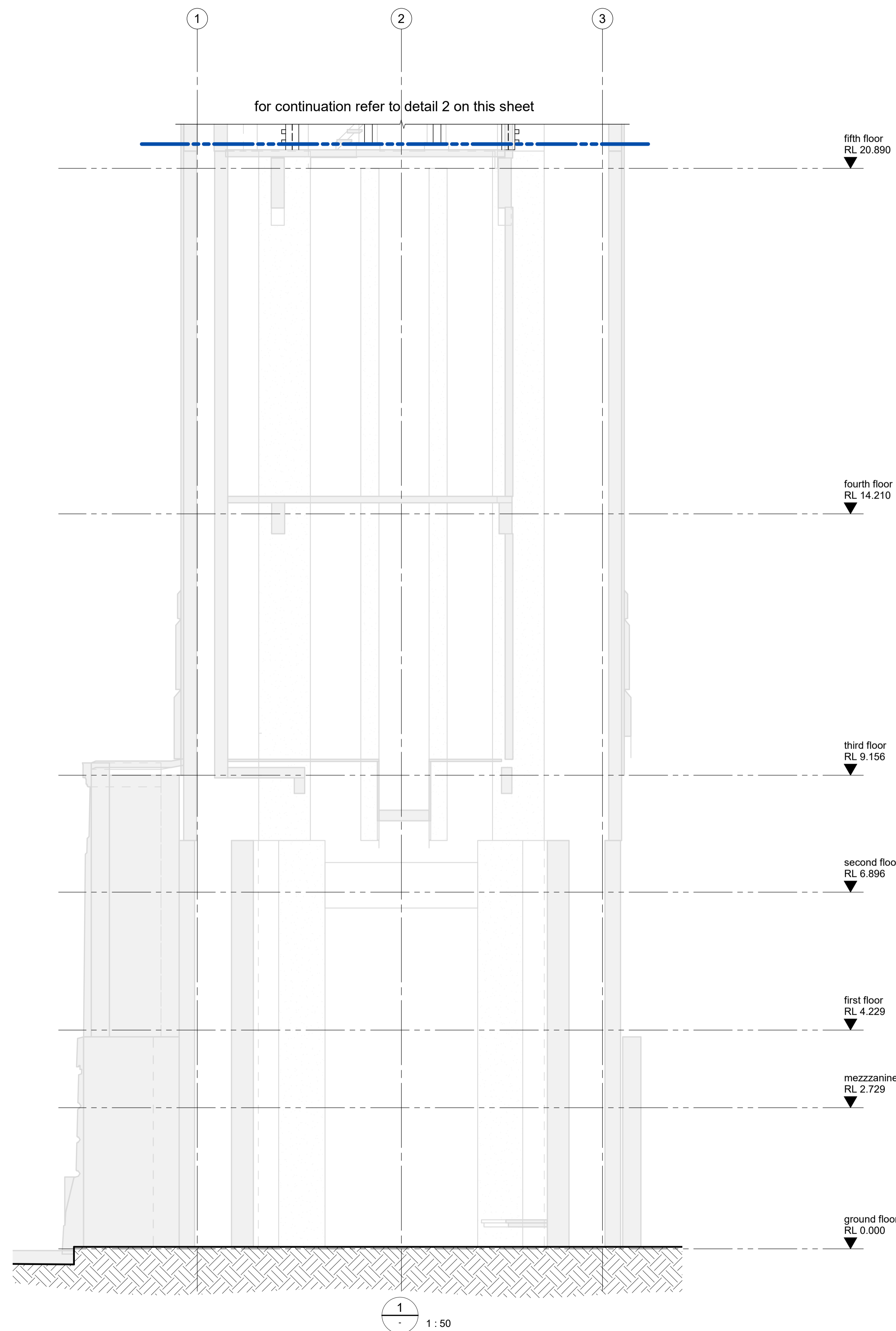
for continuation refer to detail 1 on this sheet

notes:

1. Refer to S00 series for all general notes.
2. Splice locations to be determined by Contractor and submitted for review.
3. Refer to 4/S06-04 for 150FL splice details.

legend:

— sp Denotes splice. For detail refer to 2/S06-04



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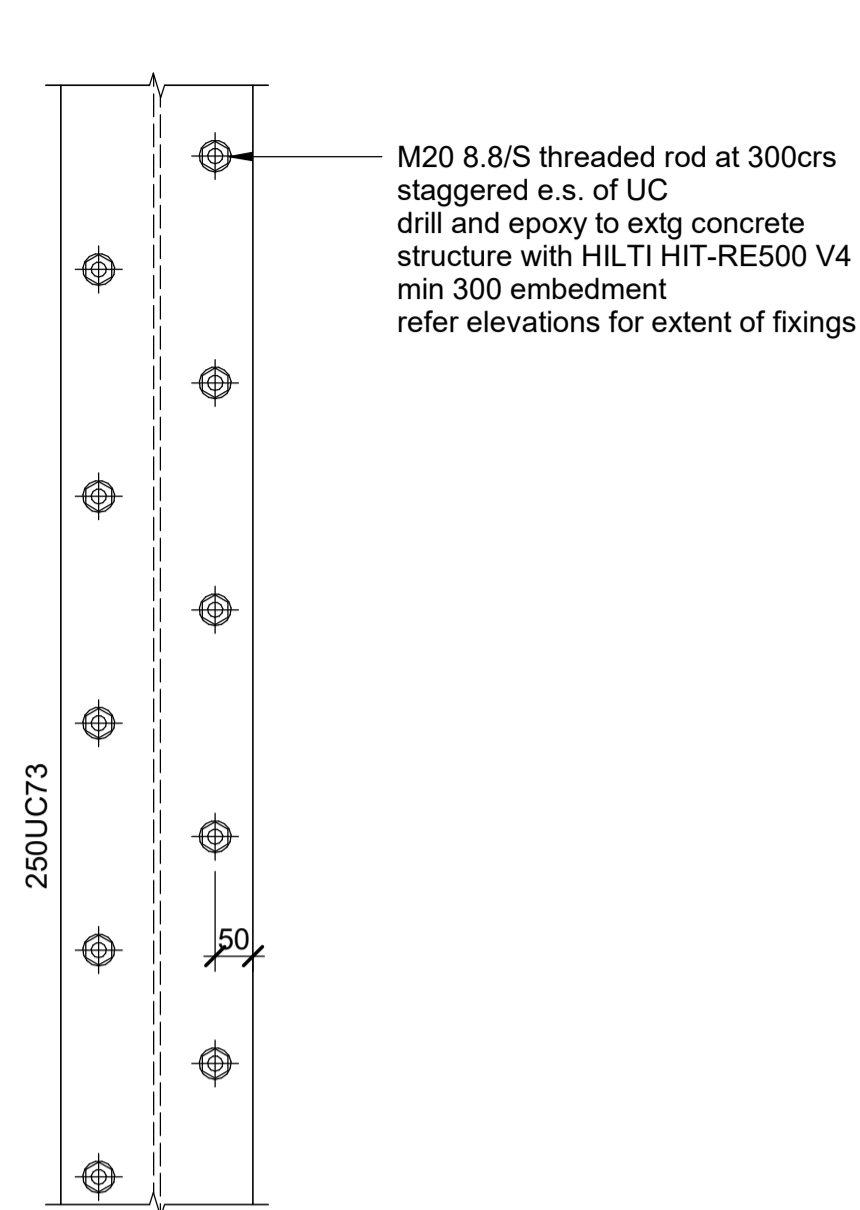
Sheet Title

grid C elevation

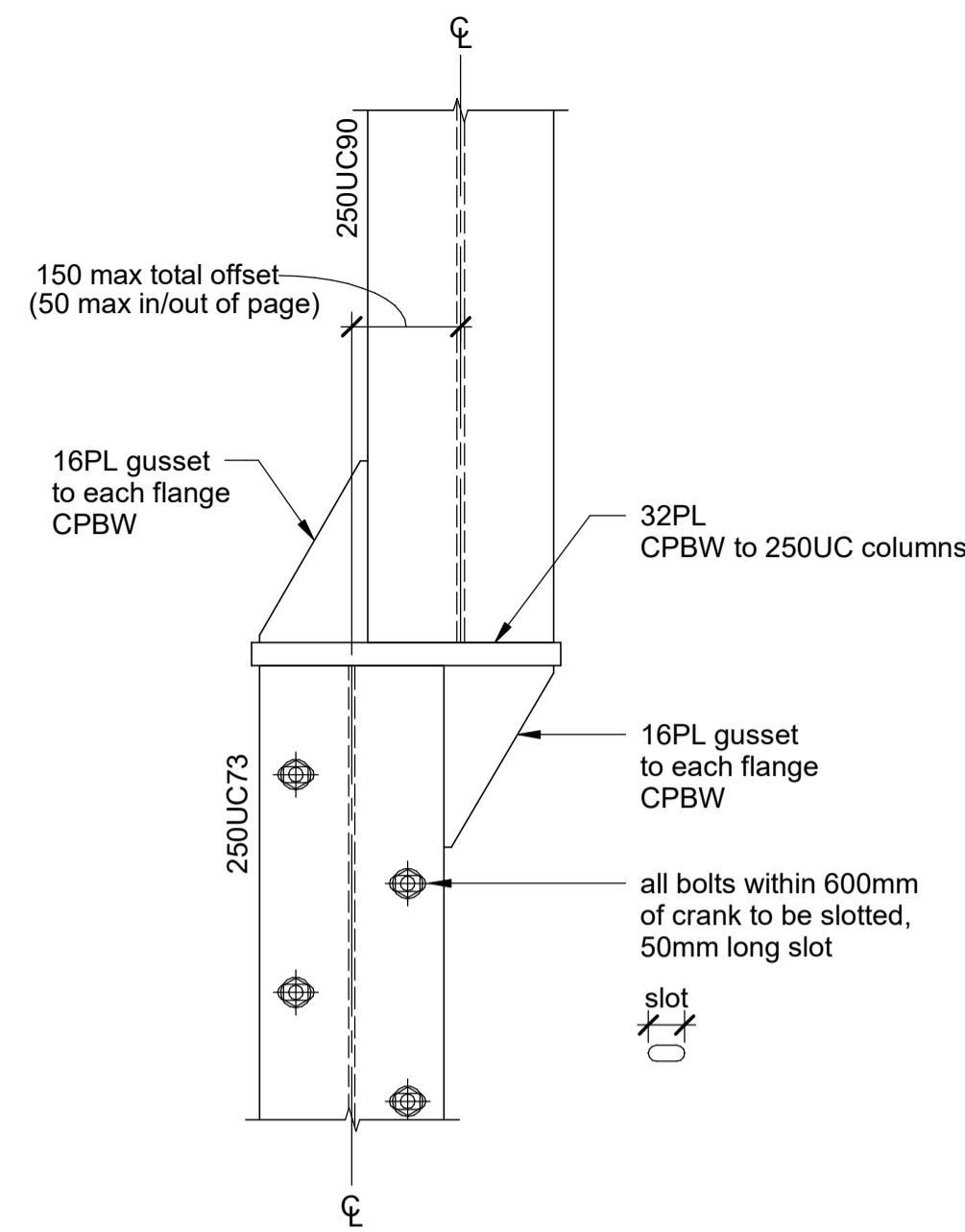
Job Number	Sheet Number	Rev
144373.13	S02-04	G

notes:

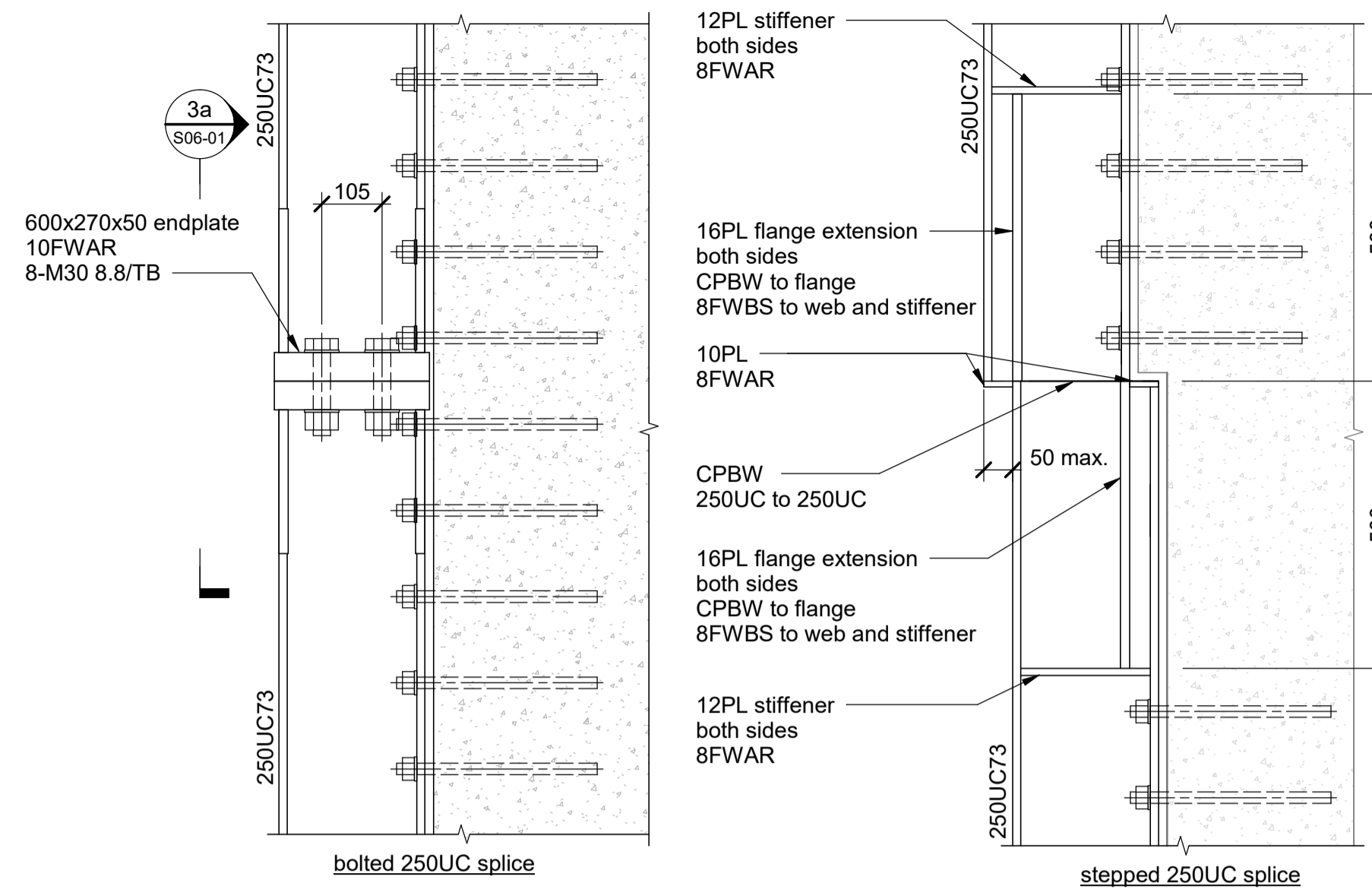
1. Refer to S00 series for all general notes.



1 typ. UC to extg concrete structure fixings
1:10

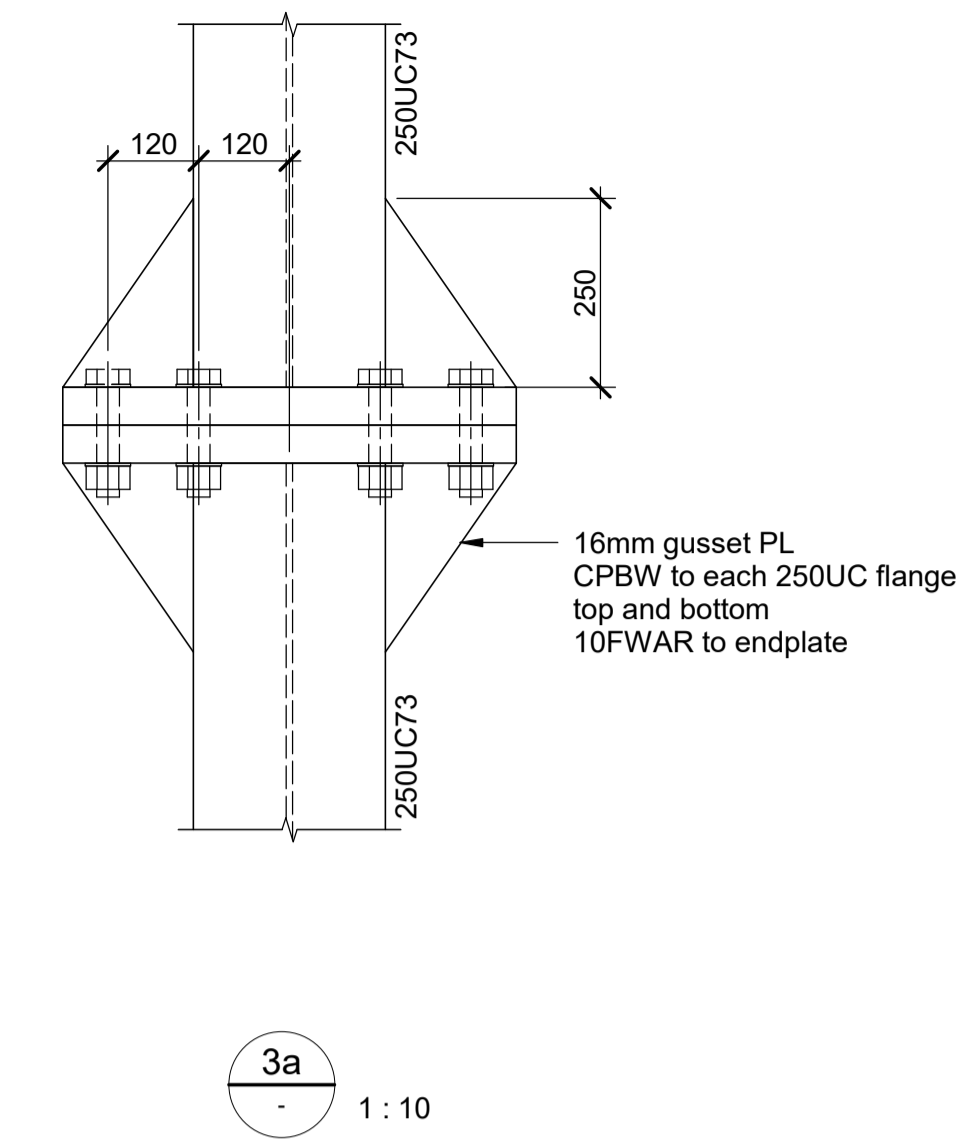


2 column crank
1:10

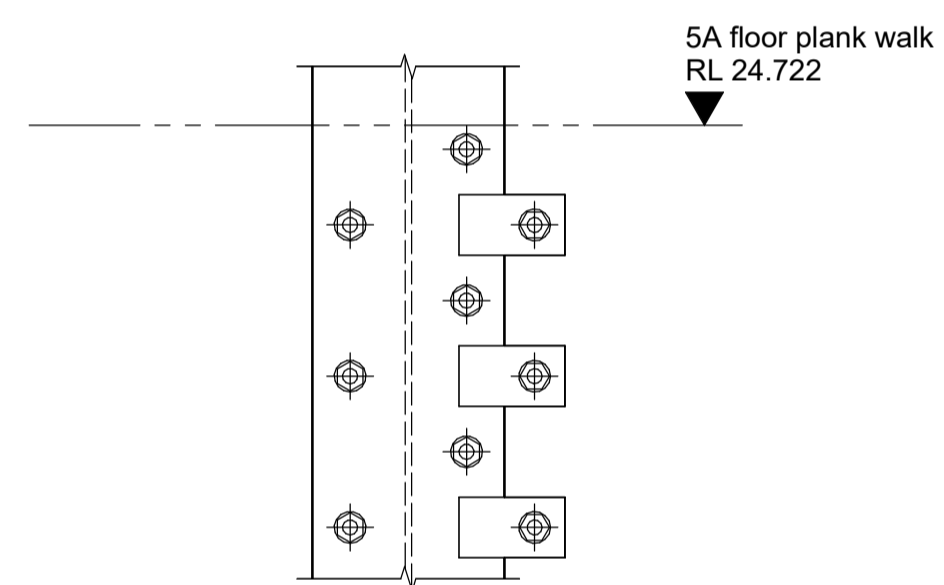


- Note:
1. Splice locations to be confirmed by Contractor.
 2. Step splice required in some locations, to be confirmed on site.

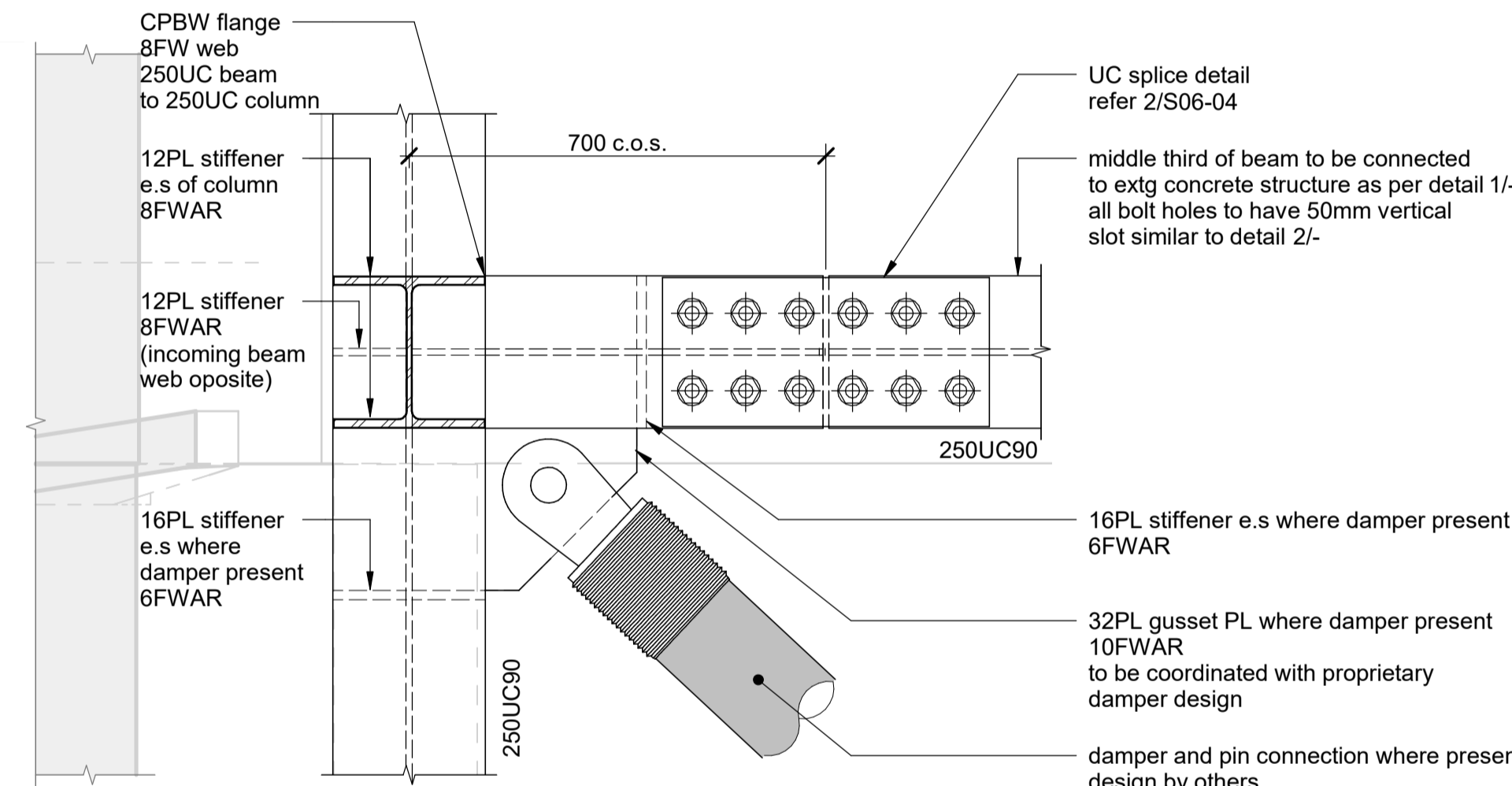
3 250UC column splice
1:10



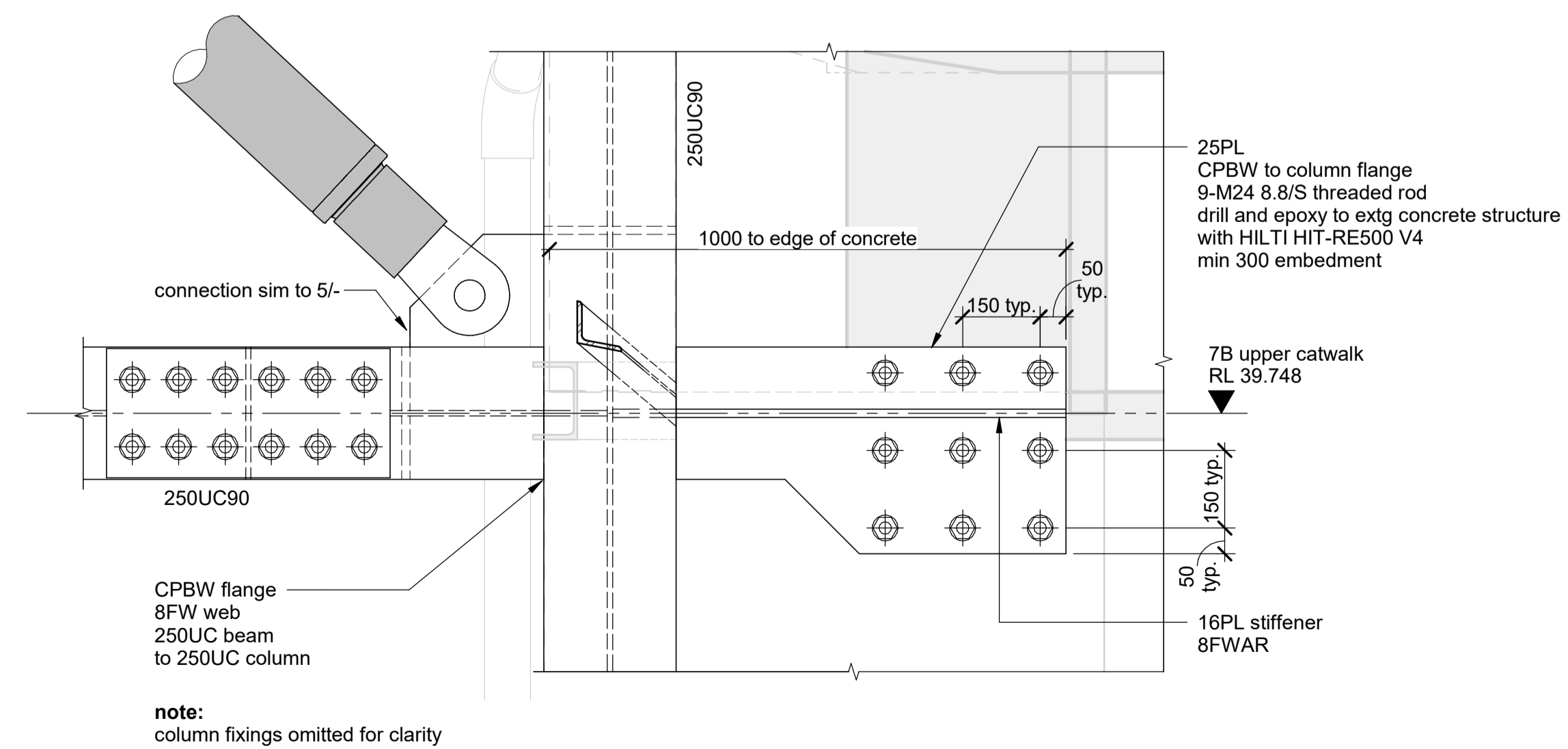
3a
1:10



4 typ. UC column base fixings
1:10



5 typ. damper frame top connection
1:10



6 typ. damper frame bottom connection
1:10

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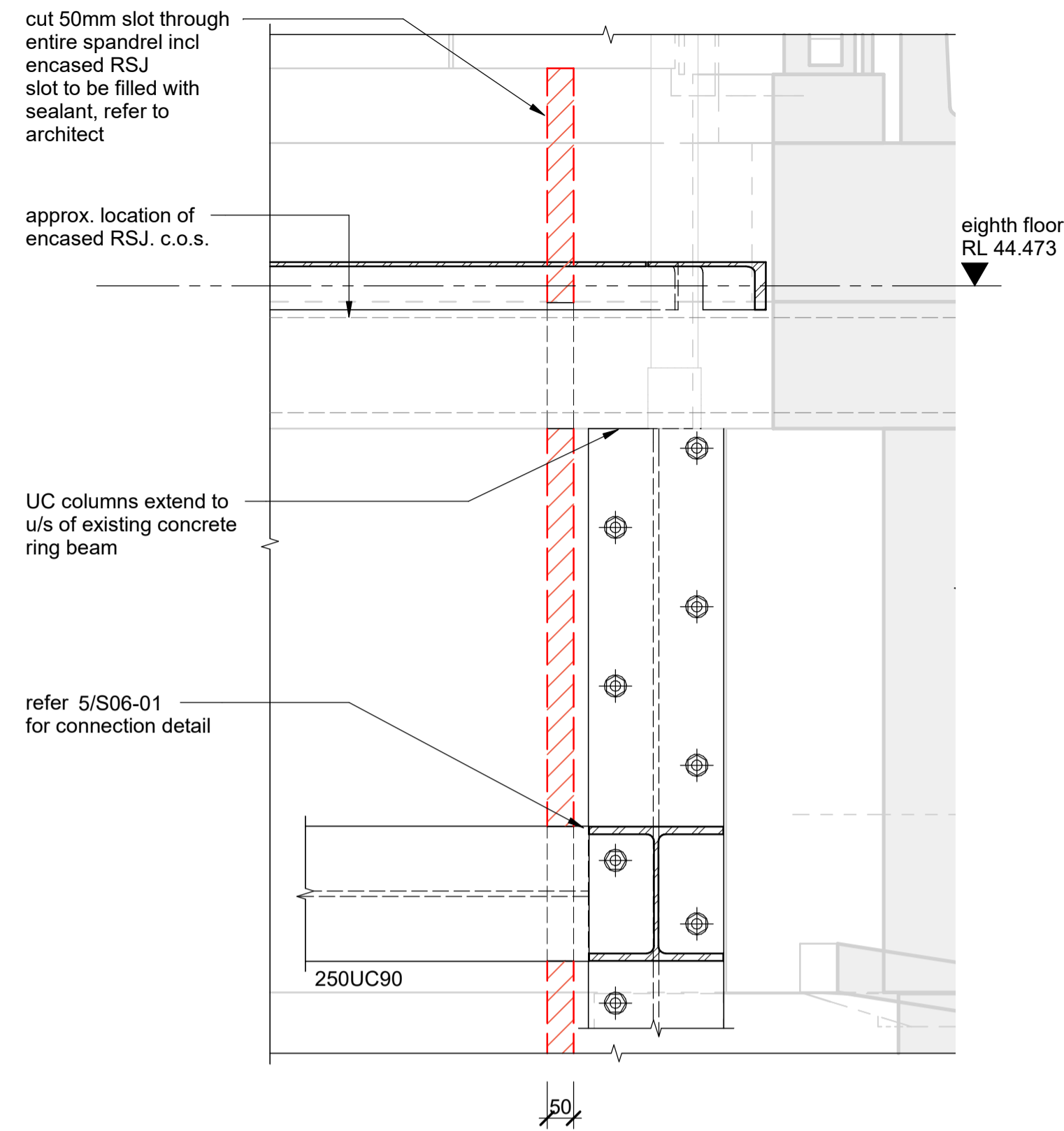
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Sheet Title

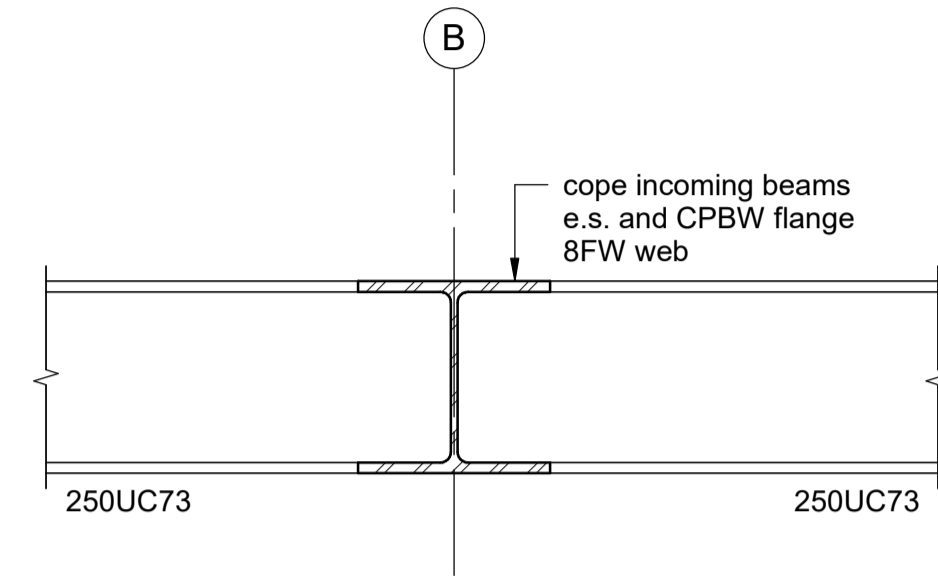
typical steel details

Job Number Sheet Number Rev

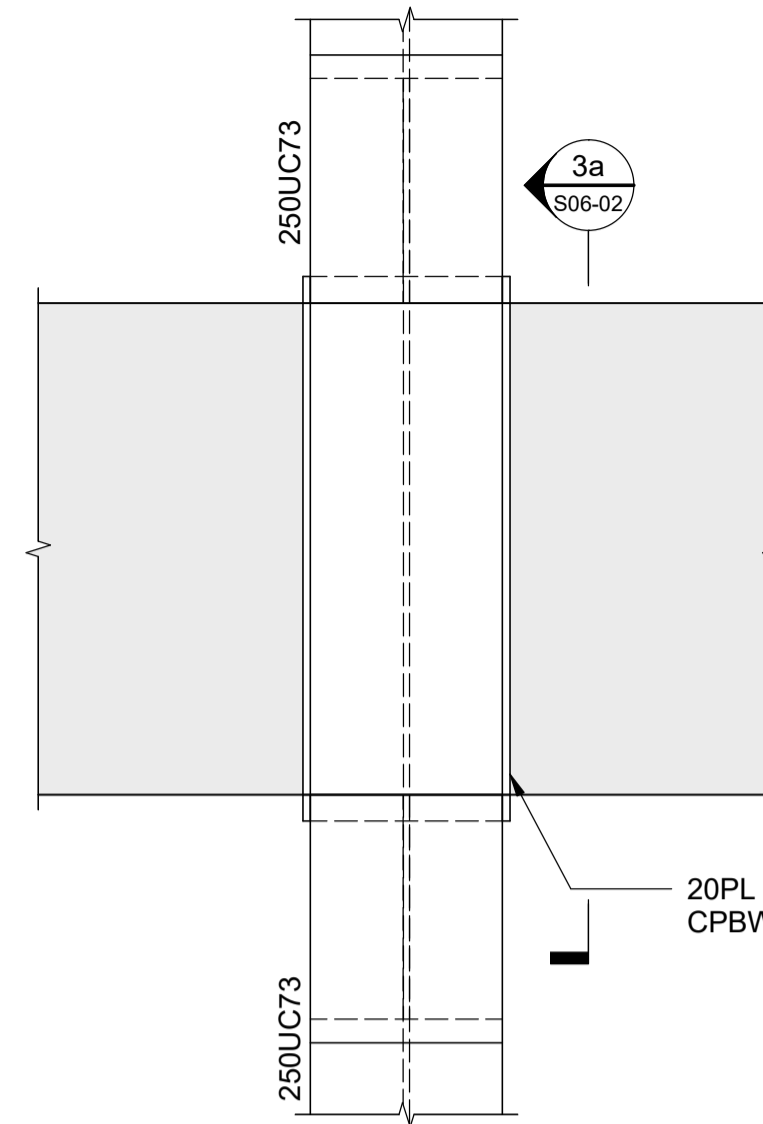
144373.13 S06-01 E



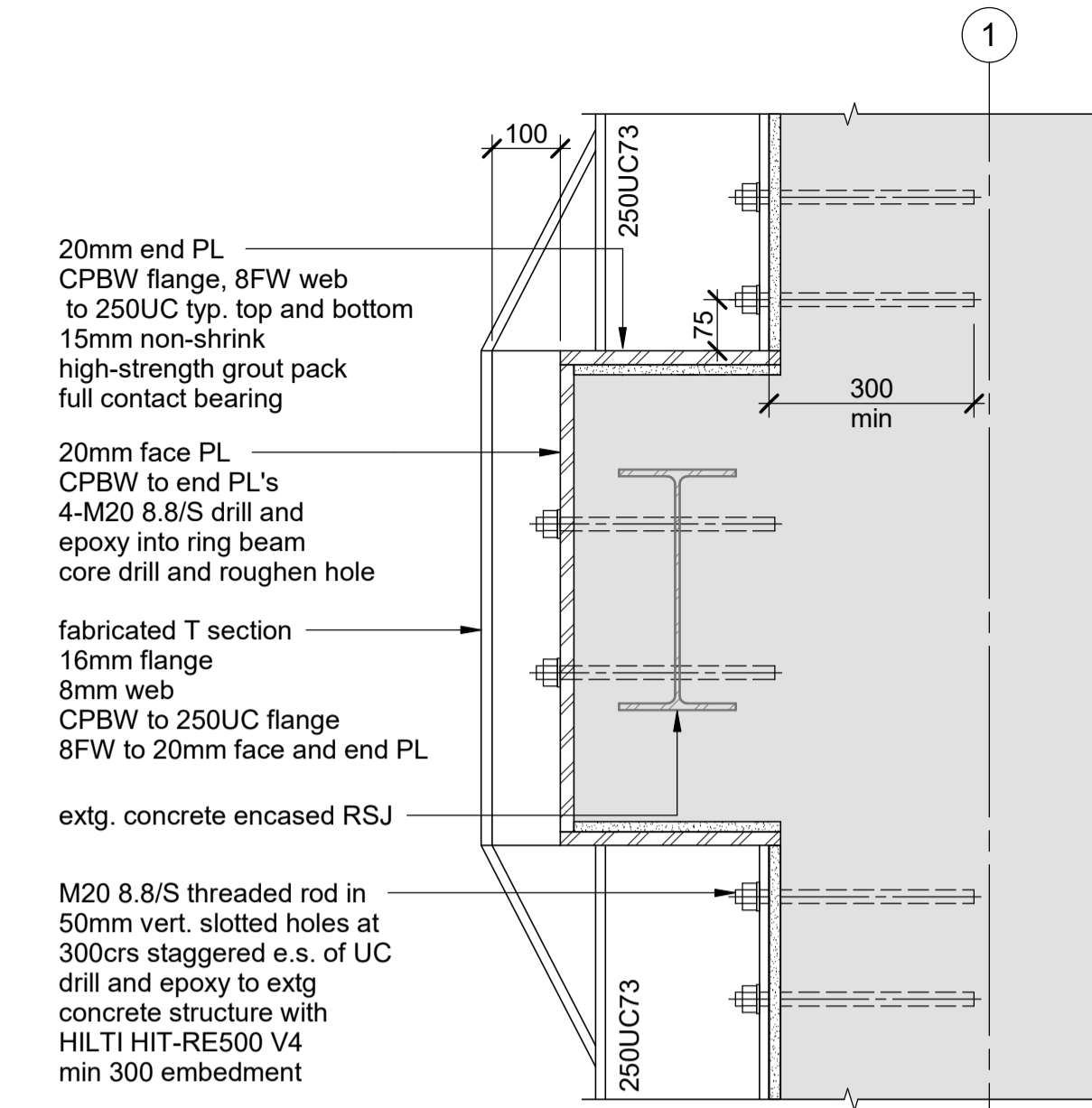
1 typ. top spandrel relief detail
1:10



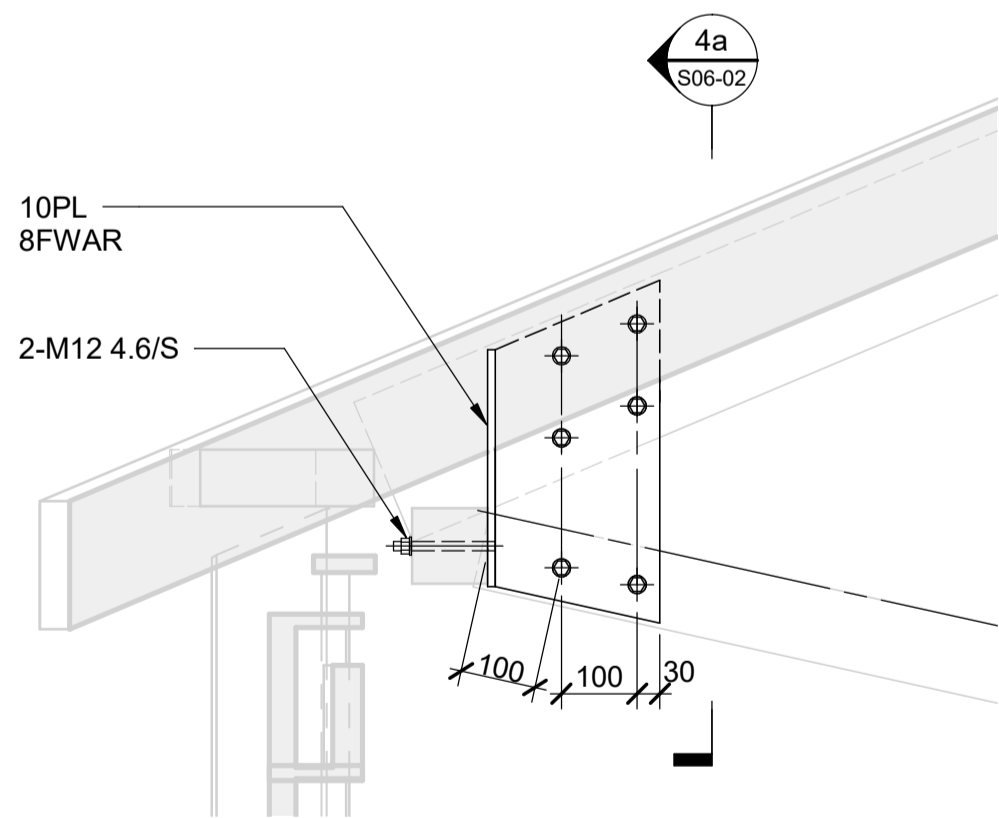
2 welded 250UC connection
1:10



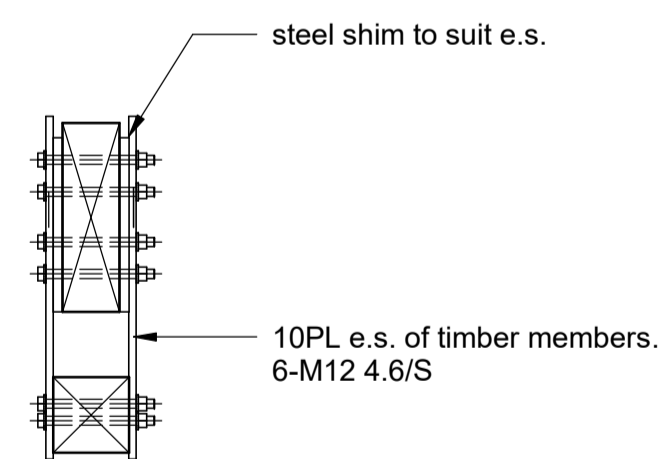
3 level 7 UC column splice and fixing
1:10



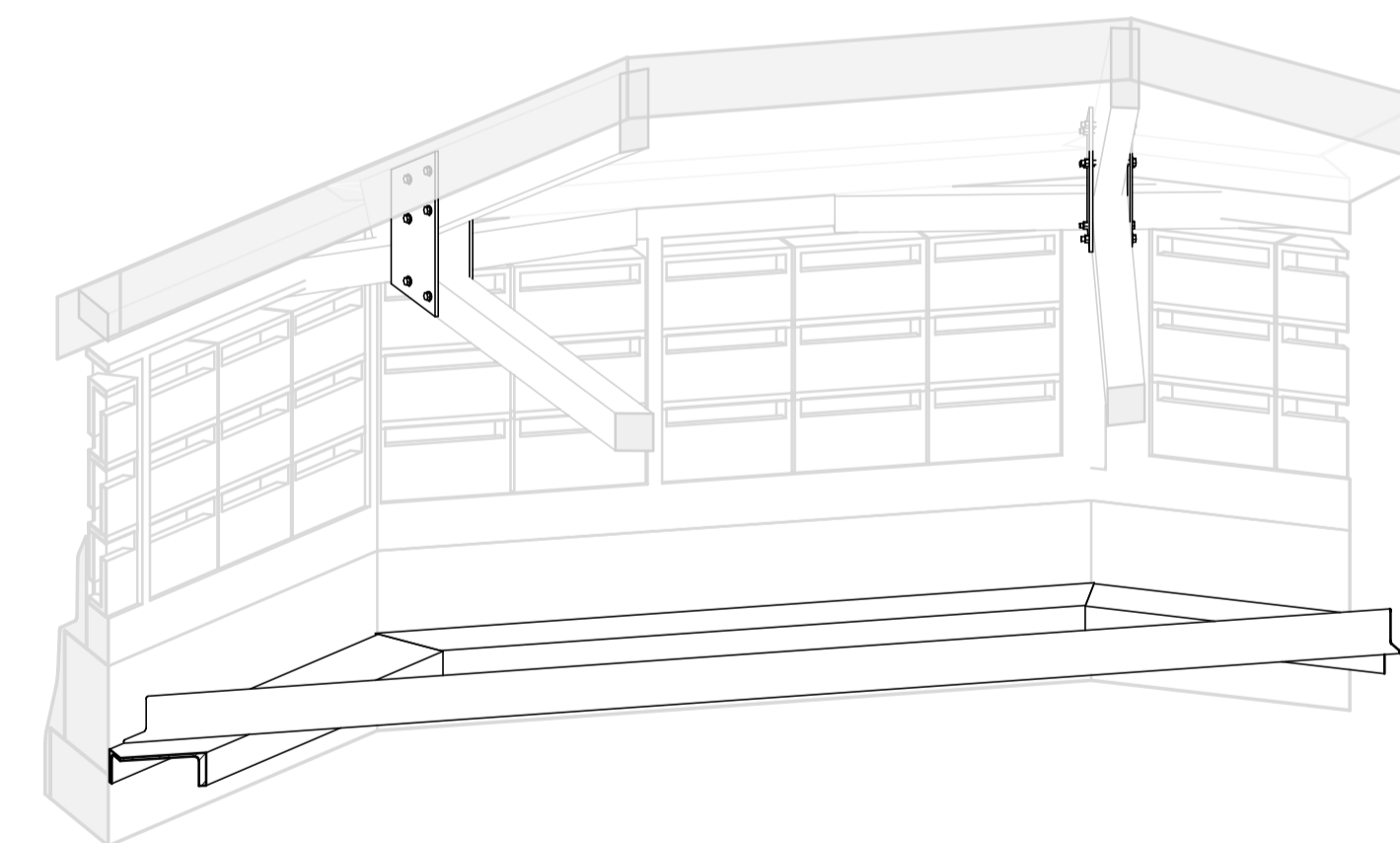
3a
1:10



4
1:10



4a
1:10



5 roof bracket isometric
n.t.s.

notes:

1. Refer to S00 series for all general notes.

Rev	Date	Appd	Reason
E	01/03/24	RAB	building consent
D	23/02/24	RAB	peer review
C	14/12/23	RAB	peer review
B	22/09/23	RAB	peer review
A	25/08/23	RAB	developed design

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NATIONAL WAR
MEMORIAL
CARILLON TOWER

Drawn SMP Scale 1:10, 1:20 (at A1)

Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title

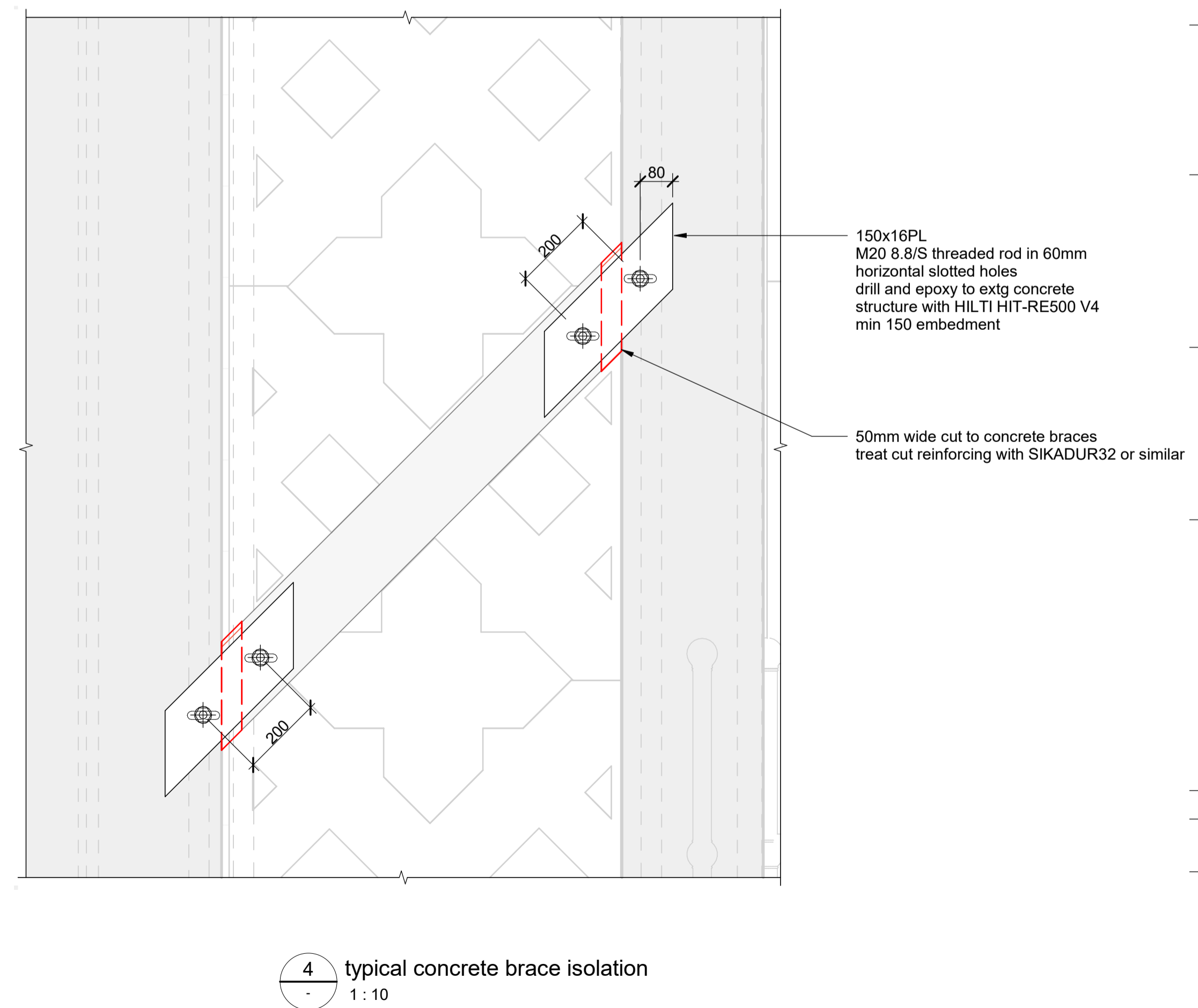
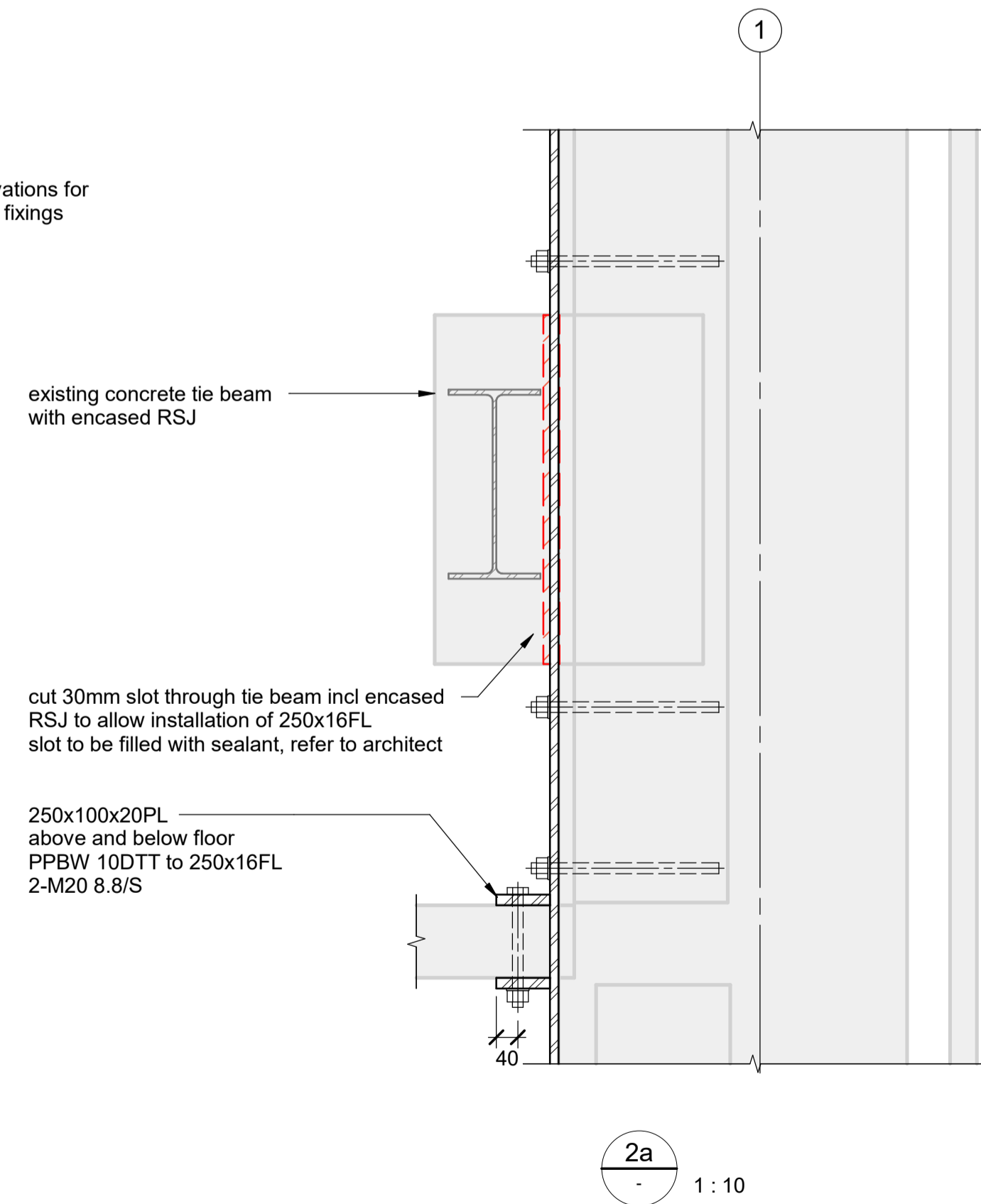
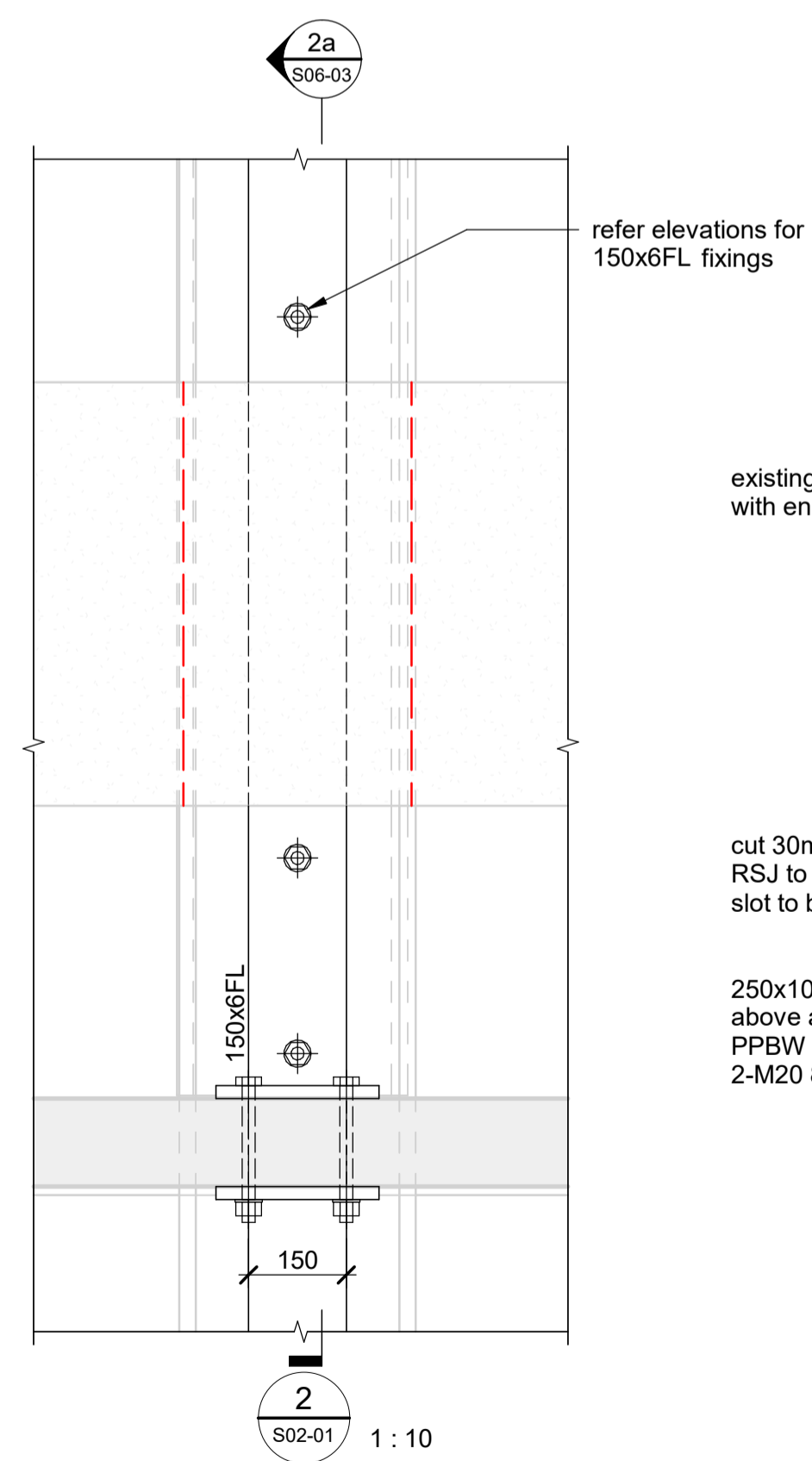
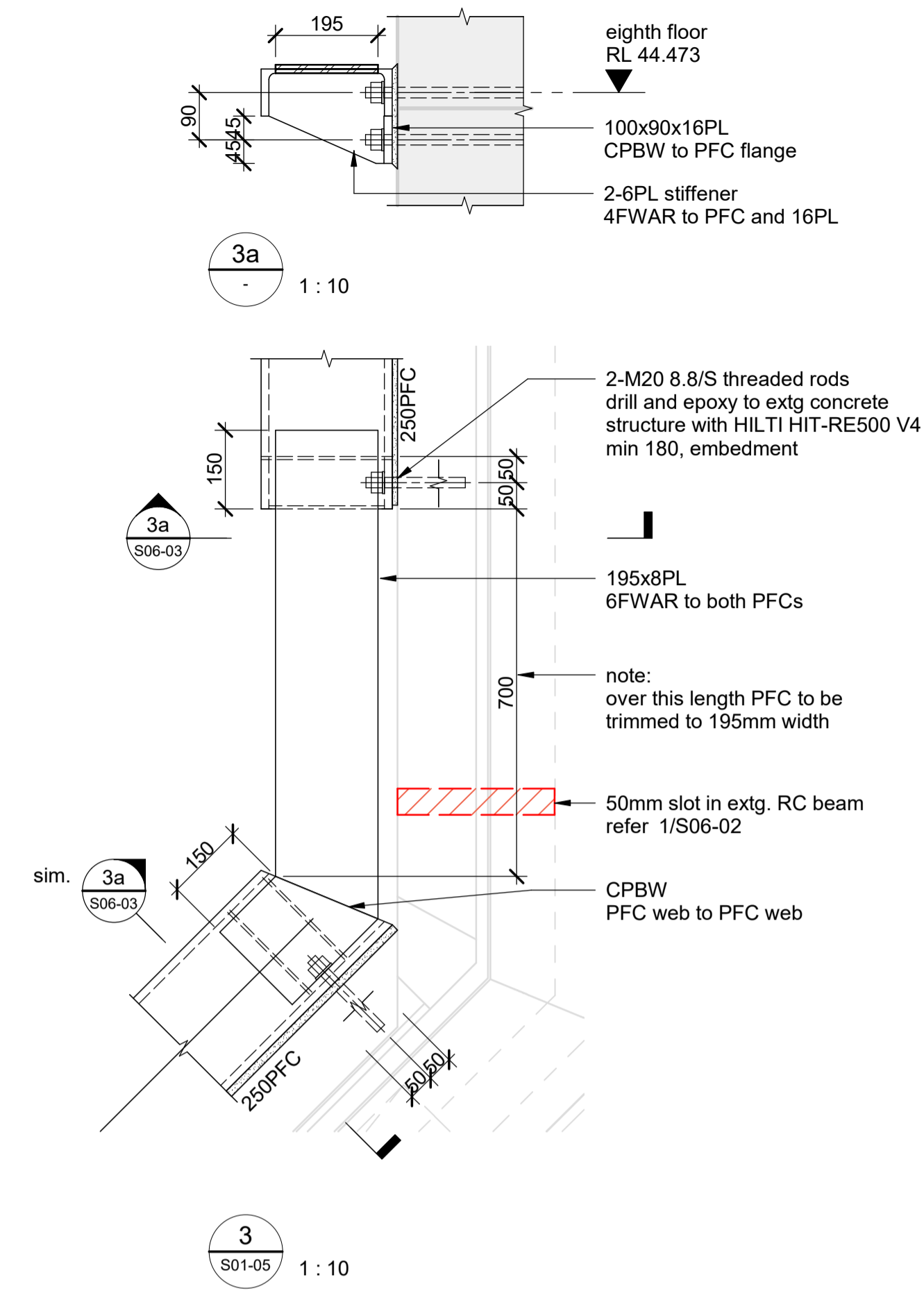
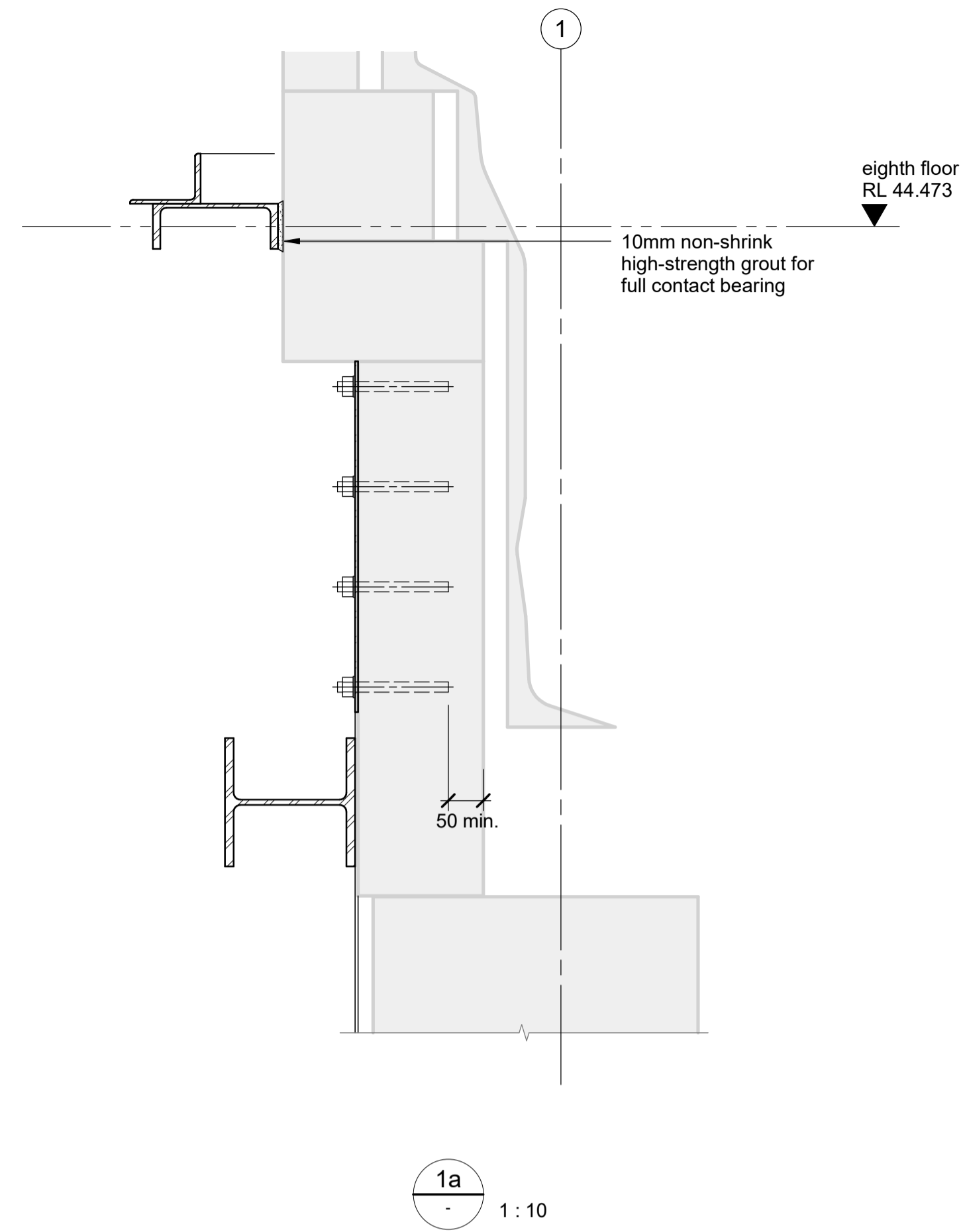
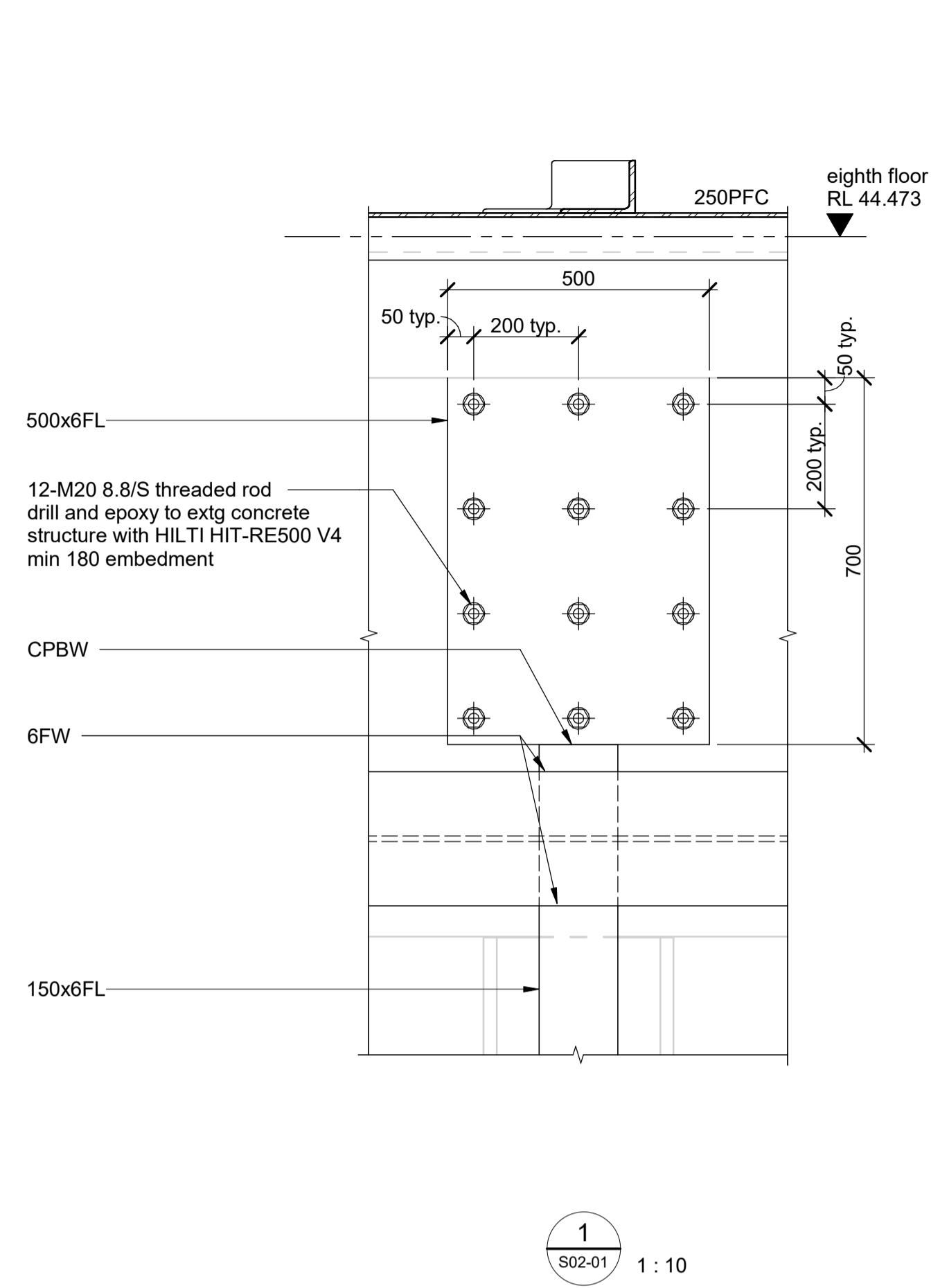
steel details

Job Number Sheet Number Rev

144373.13 S06-02 E

notes:

1. Refer to S00 series for all general notes.



Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	22/09/23	RAB	peer review

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CARILLON TOWER

Drawn SMP Scale 1:10 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

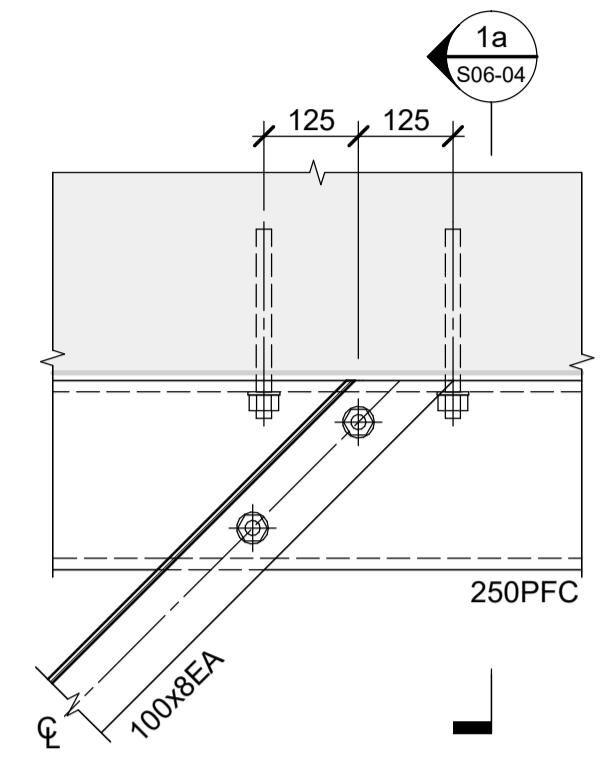
Sheet Title

steel details

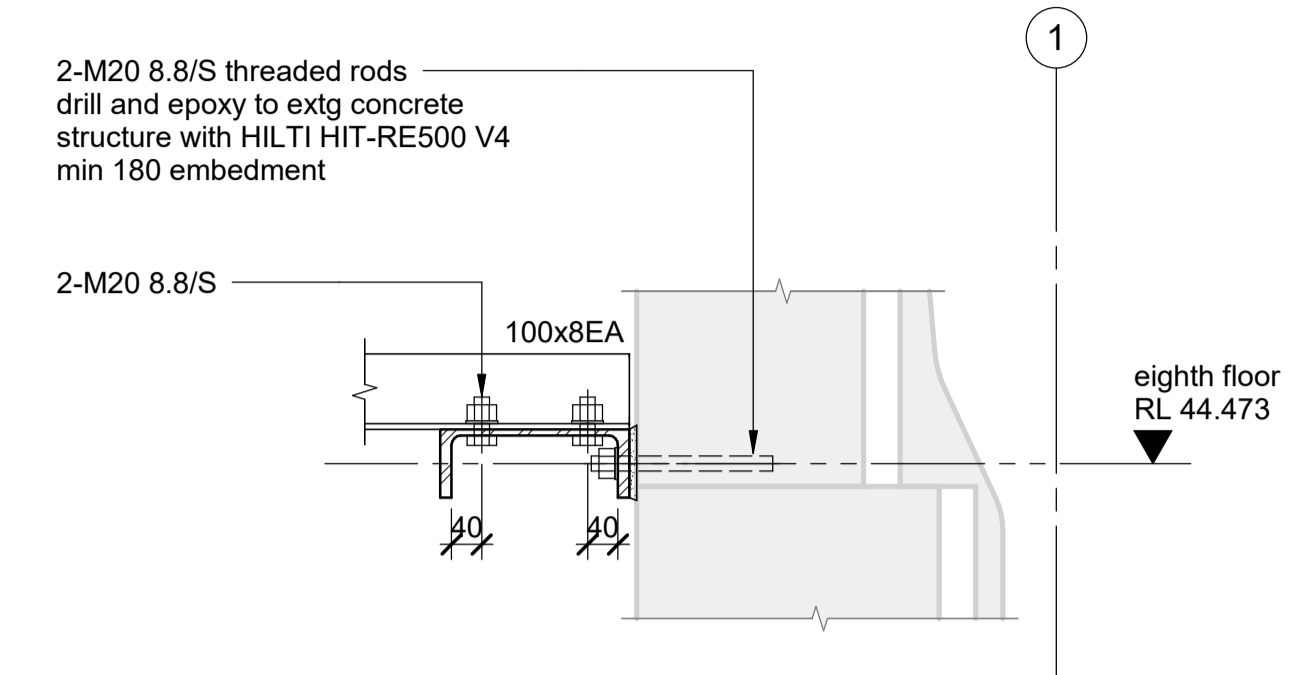
Job Number Sheet Number Rev
144373.13 S06-03 D

notes:

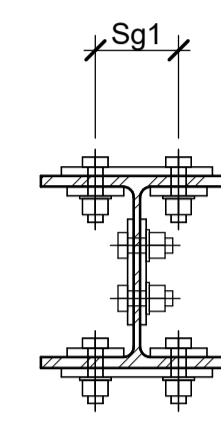
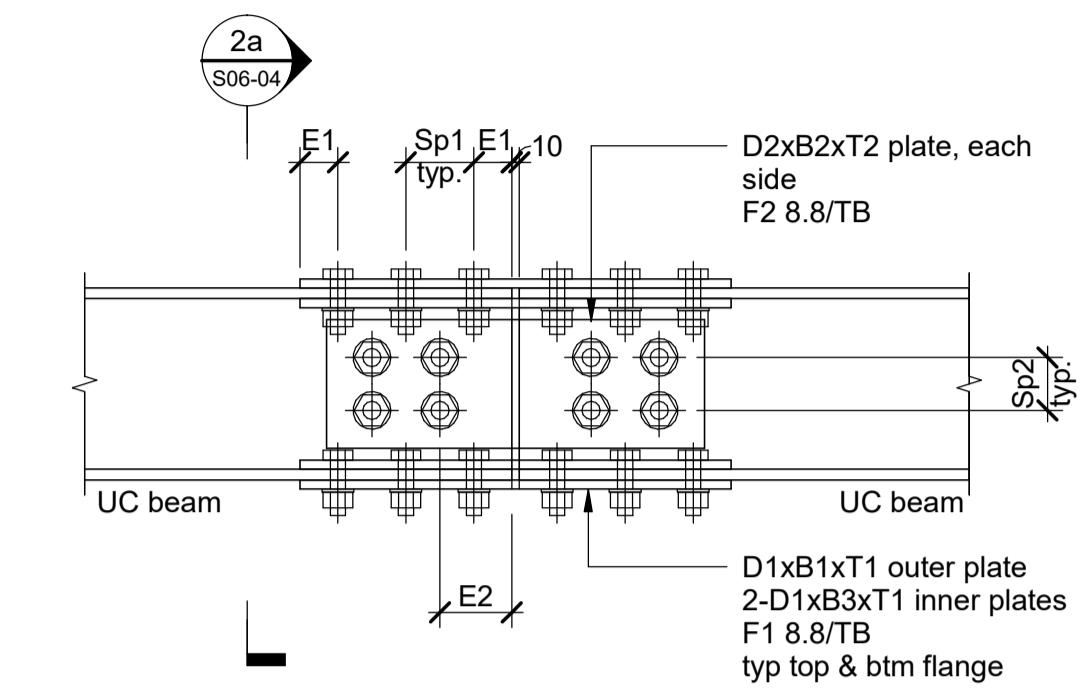
1. Refer to S00 series for all general notes.



1
S01-05 1:10



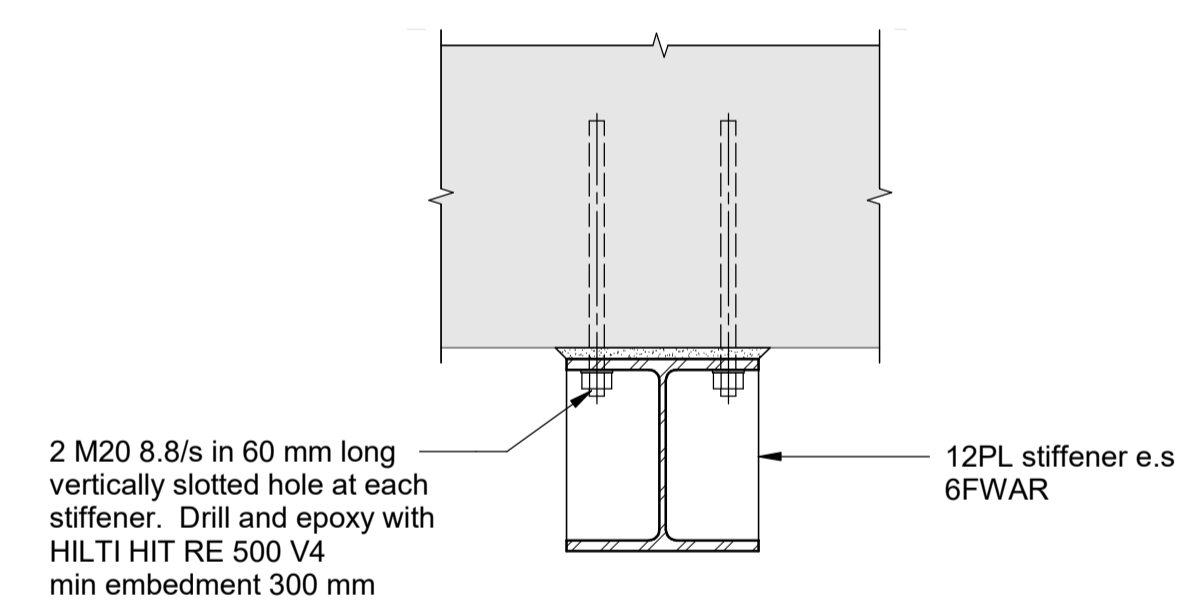
1a
- 1:10



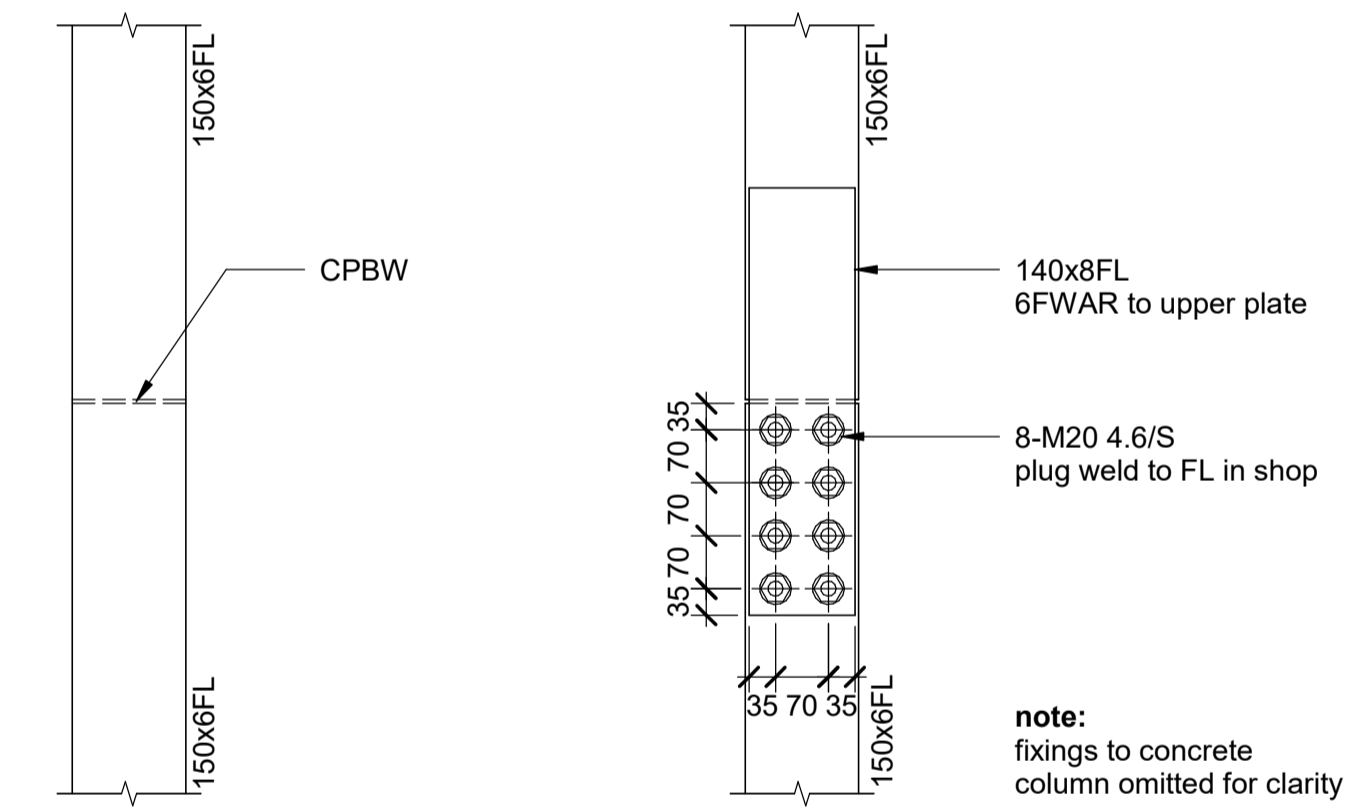
2a
- 1:10

beam	plate				bolts					
	location	length	width		thk	no.	size	gauge	pitch	edge
250UC73	flange	D1	B1	B3	T1	F1	Sg1	Sp1	E1	
	web	D2	B2		T2	F2		Sp2	E2	
250UC90	flange	570	200	75	12	12-M20	110	90	50	
	web	370	140		8	8-M20		70	50	
250UC90	flange	570	250	100	16	12-M30	130	90	50	
	web	500	170		10	8-M24		90	95	

2 typical 250UC bolted beam splice
1:10



3 typical UC Stiffener
1:10



4 150FL splice
1:10

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	21/12/23	RAB	peer review update
A	14/12/23	RAB	peer review

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**NATIONAL WAR
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CARILLON TOWER**

Drawn SMP Scale 1:10 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

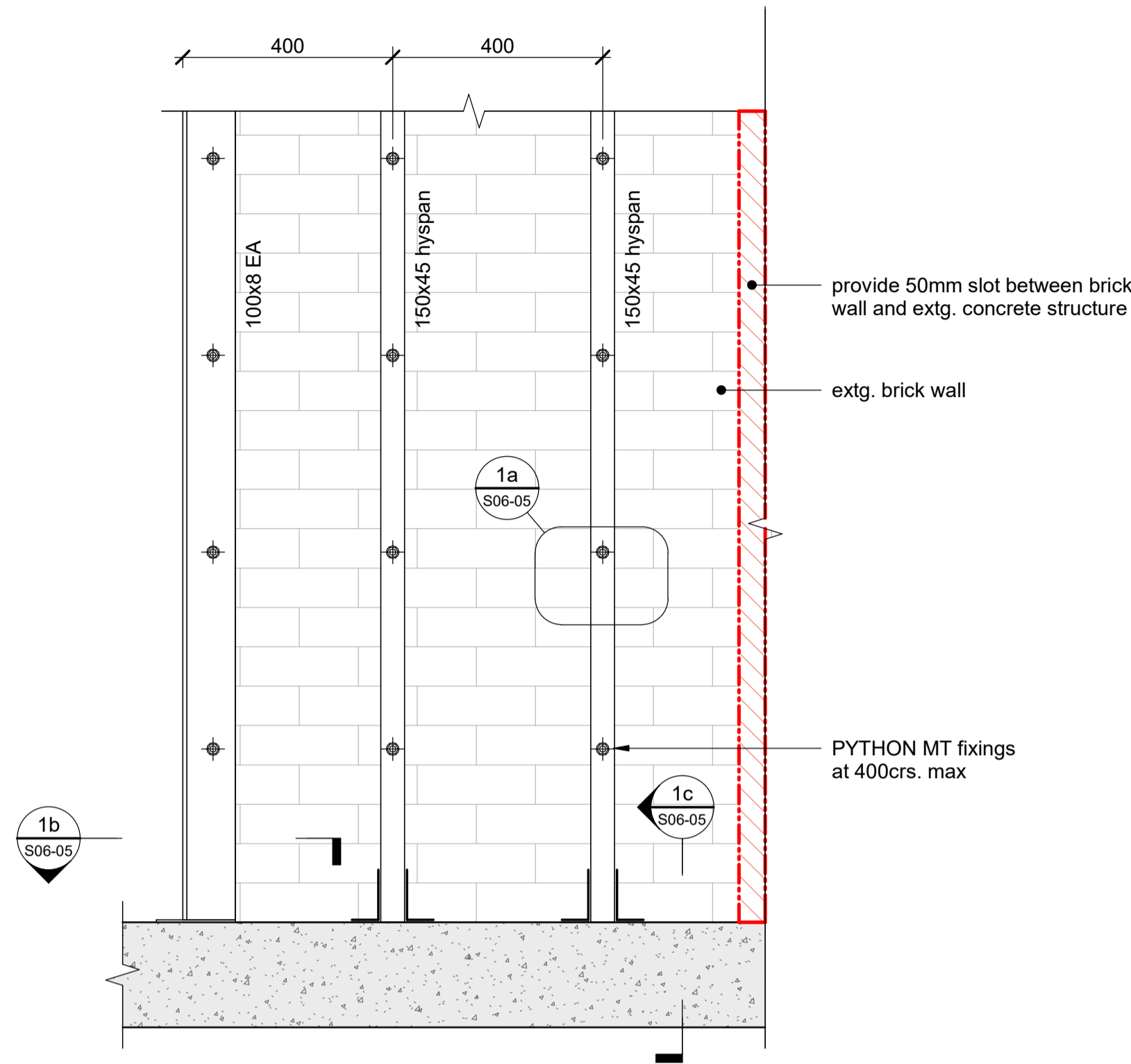
Sheet Title

steel details

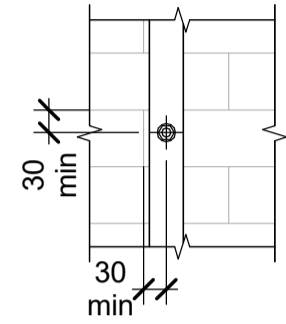
Job Number	Sheet Number	Rev
144373.13	S06-04	D

notes:

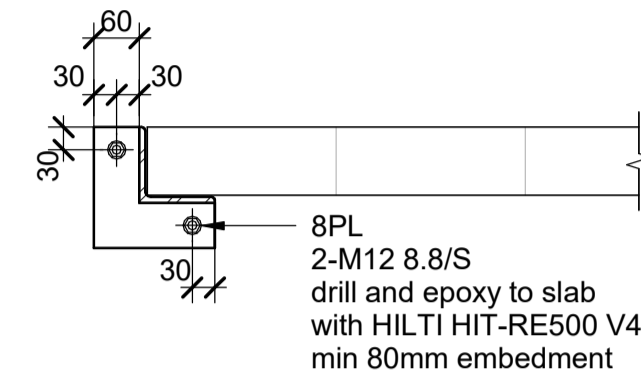
1. Refer to S00 series for all general notes.



1b
S06-05

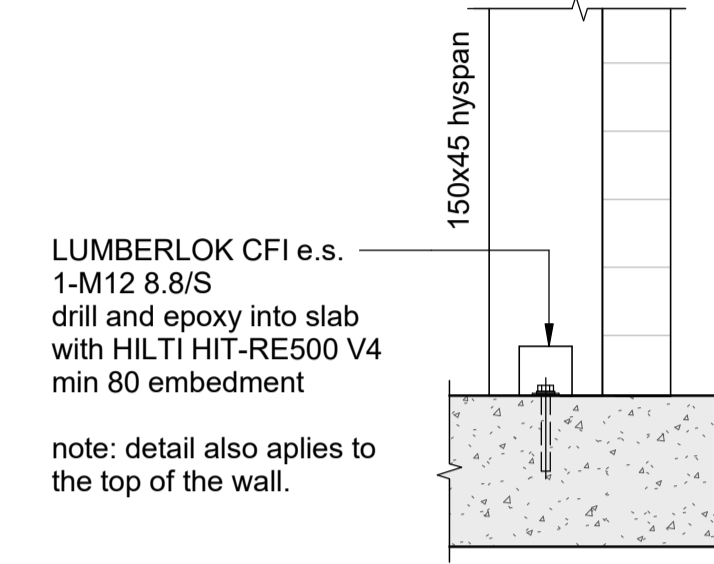


1a
1:10



note: detail also applies to the top of the wall.

1b
1:10

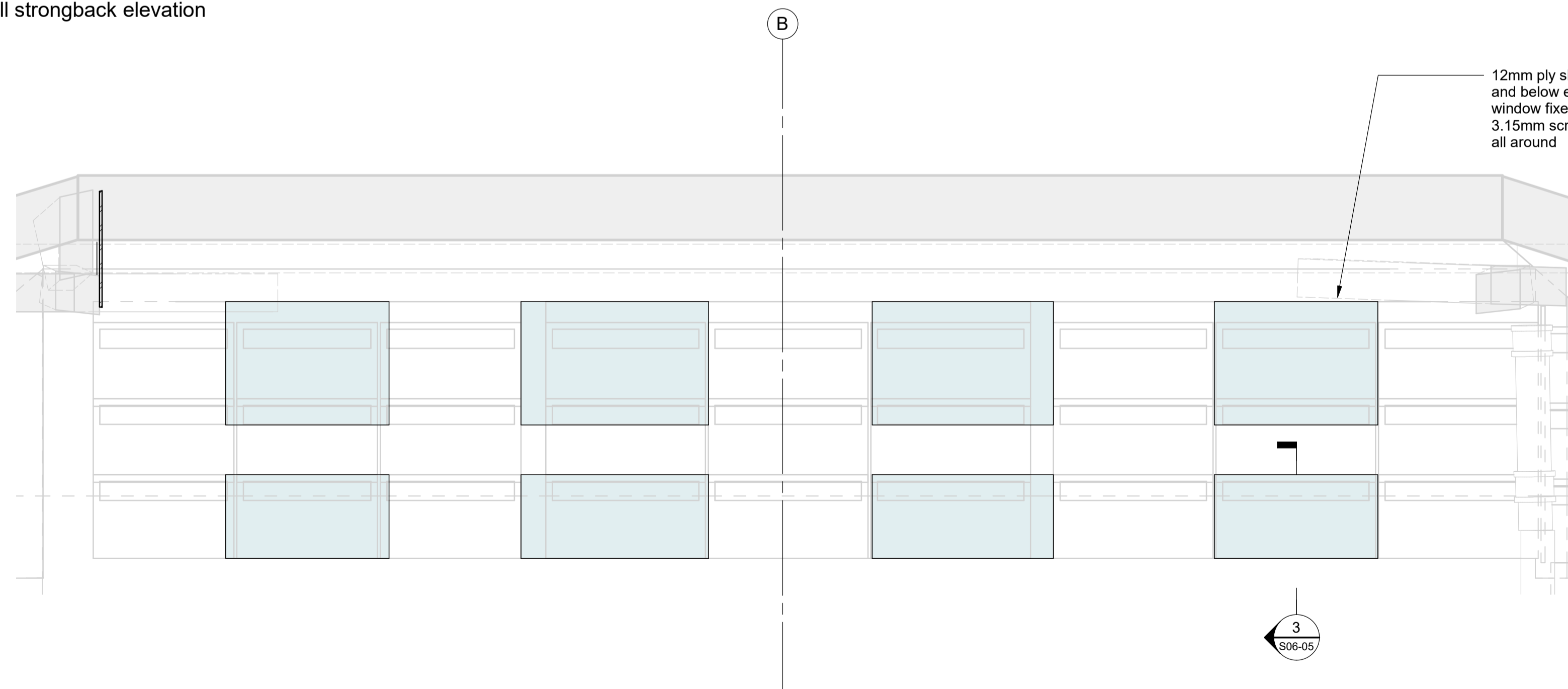


1c
1:10

Note:

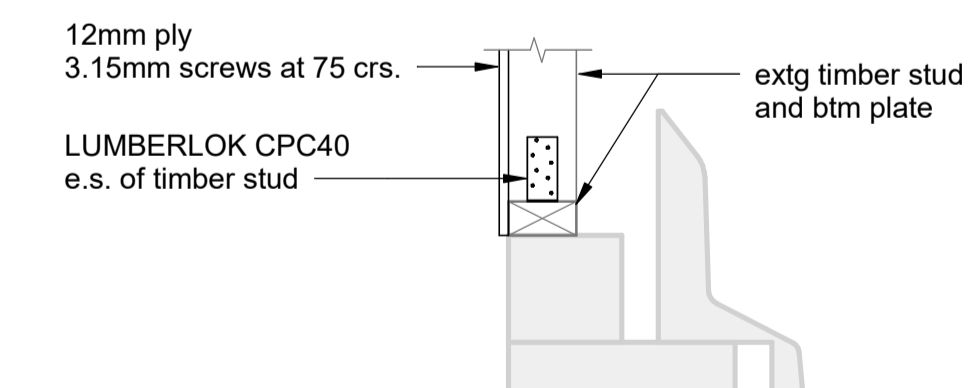
1. Refer Architect for brick walls to be retained.

1
typ. brick wall strongback elevation
1:10



3
S06-05

2
S02-01
typ. roof window strengthening
1:10



3
1:10

Rev	Date	Appd	Reason
F	01/03/24	RAB	building consent
E	23/02/24	RAB	peer review
D	21/12/23	RAB	peer review update
C	14/12/23	RAB	peer review
B	22/09/23	RAB	peer review

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**NATIONAL WAR
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CARILLON TOWER**

Drawn SMP Scale 1:10 (at A1)

Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title

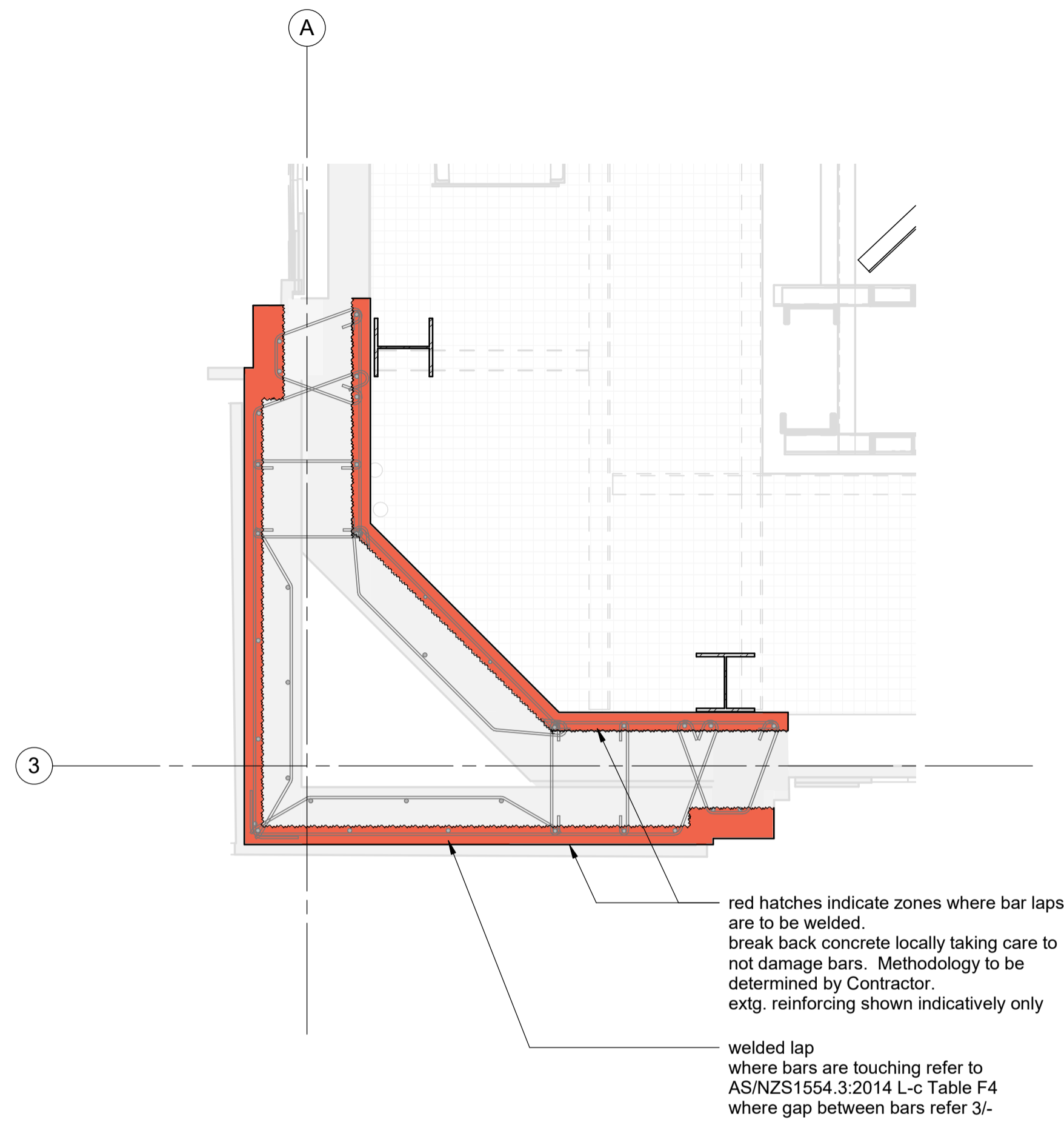
brick wall strengthening

Job Number Sheet Number Rev

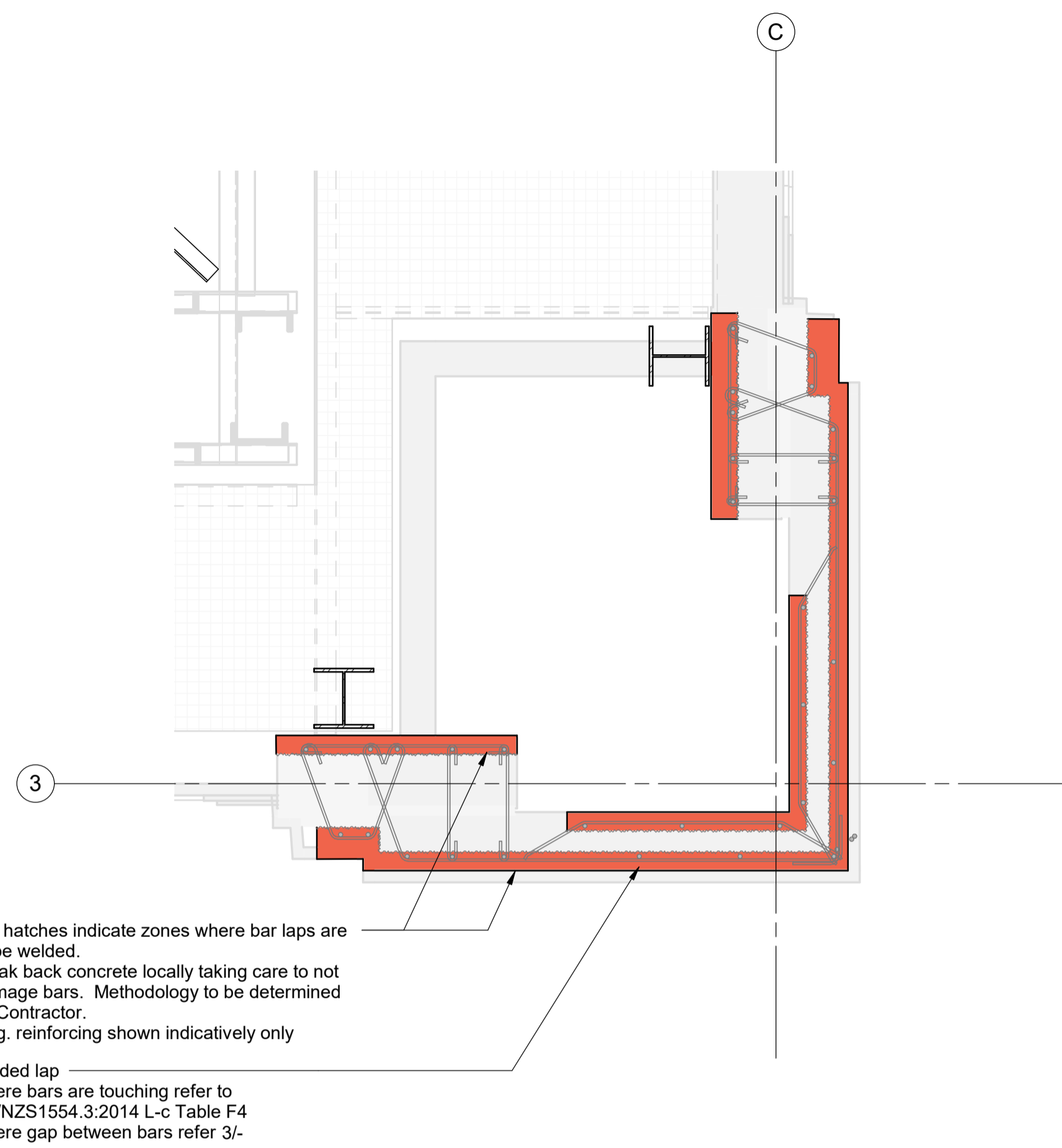
144373.13 S06-05 F

notes:

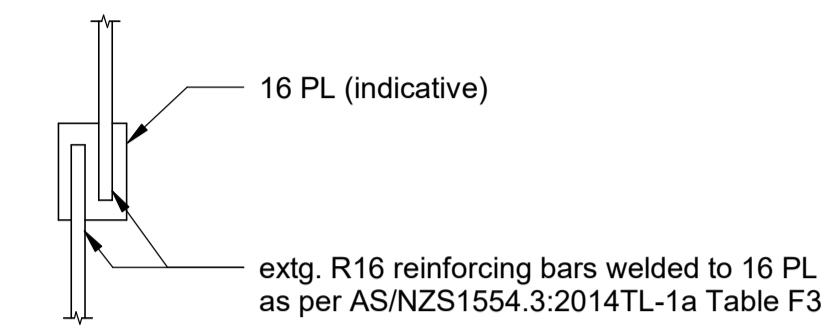
1. Refer to S00 series for all general notes.



1 typ. level 5A vertical reinforcing connection plan
S01-02 1 : 20



2 level 5A vertical reinforcing connection plan - lift shaft
S01-02 1 : 20



3 typ. lap weld with transfer plate
1 : 10

B	01/03/24	RAB	building consent
A	23/02/24	RAB	peer review
Rev	Date	Appd	Reason

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Drawn SMP Scale 1:10, 1:20 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title

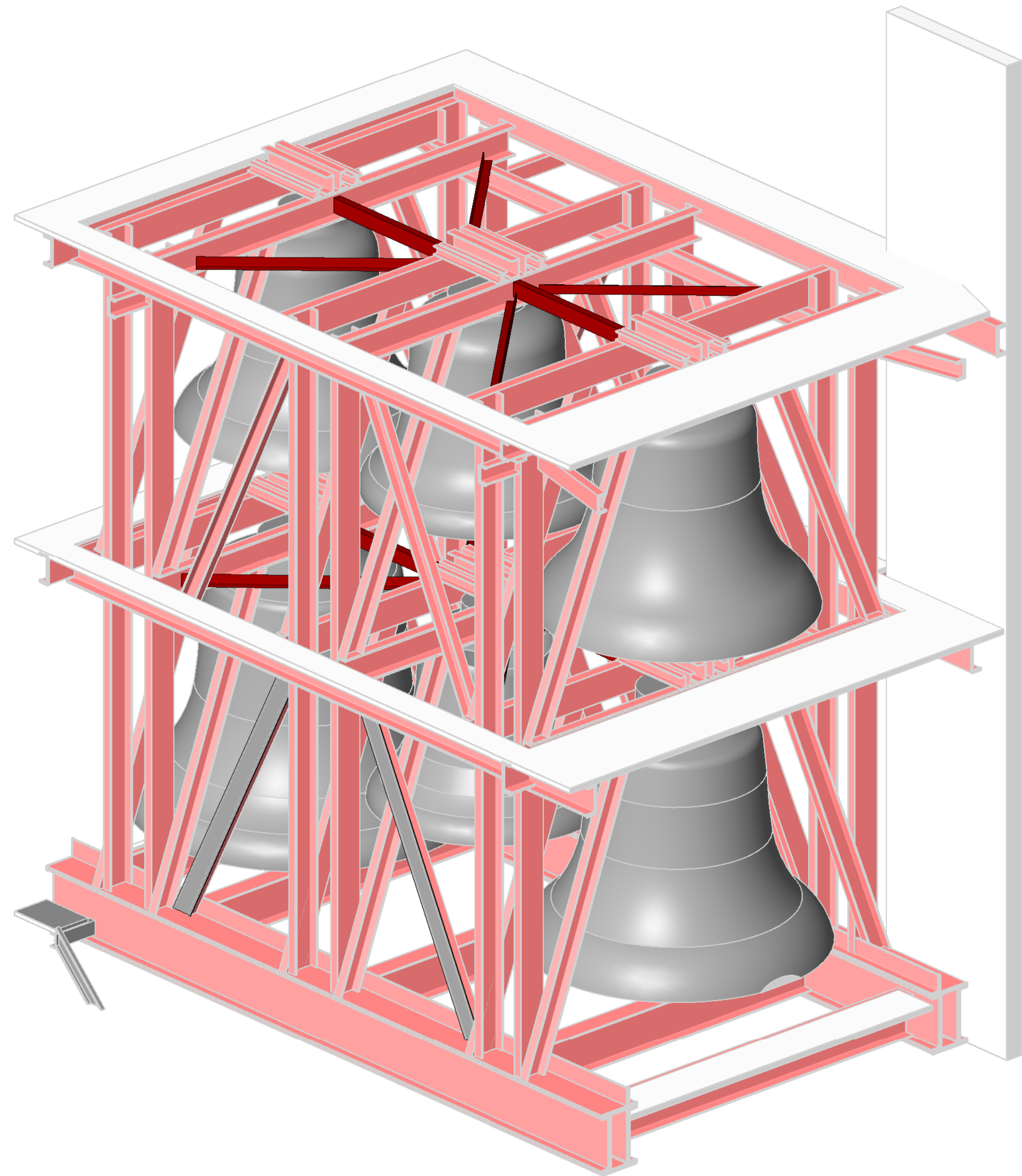
additional details

Job Number	Sheet Number	Rev
144373.13	S06-06	B

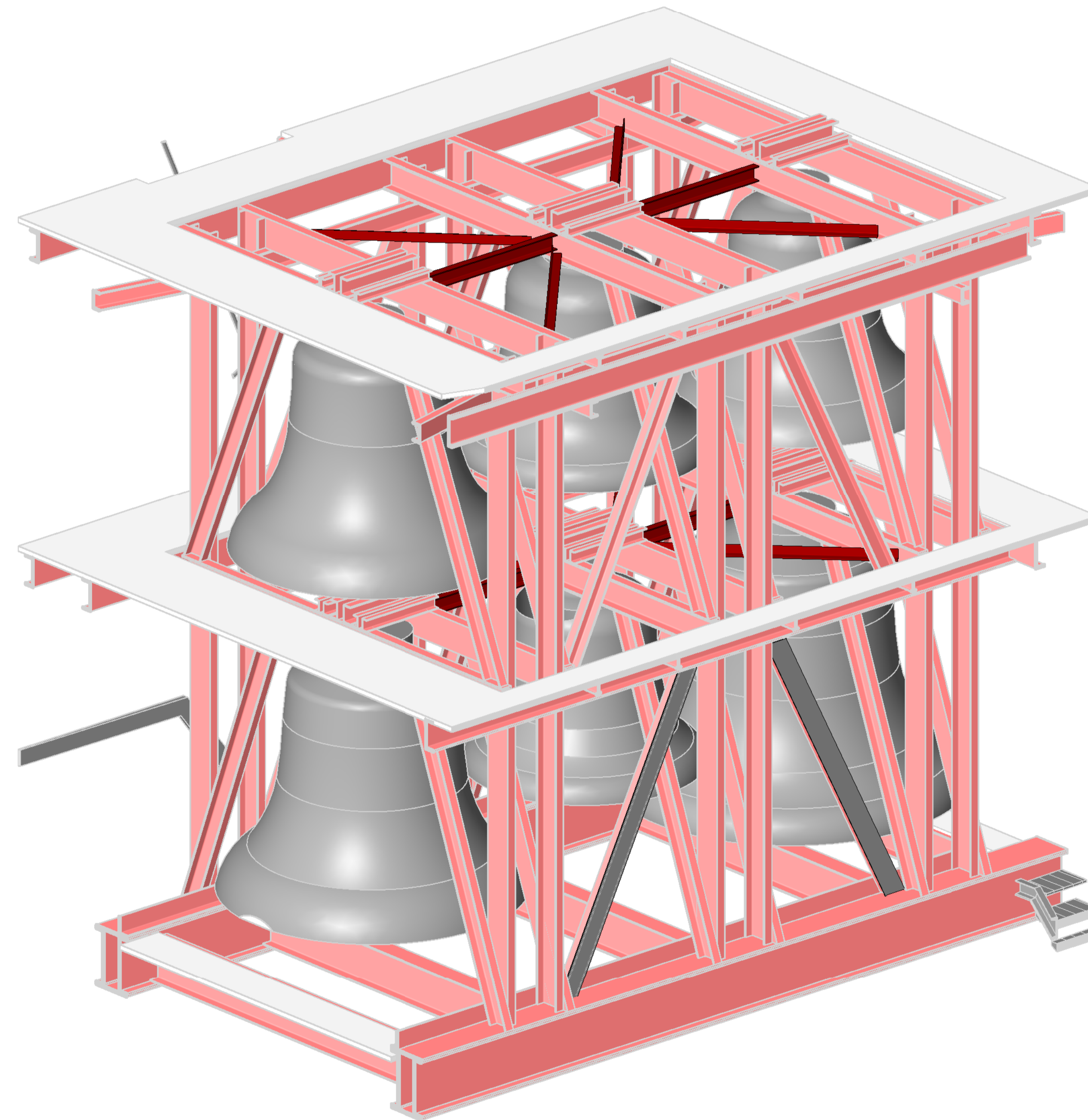
All dimensions to be verified on site before making any shop drawings or commencing any work. The copyright of this drawing remains with Holmes NZ LP.

notes:

1. Refer to S00 series for all general notes.



1 lower bell frame - SW isometric
n.t.s.



2 lower bell frame - SE isometric
n.t.s.

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

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Drawn SMP Scale n.L.S. (at A1)

Filename 144373.13_STR_Carillon tower_R22.rvt

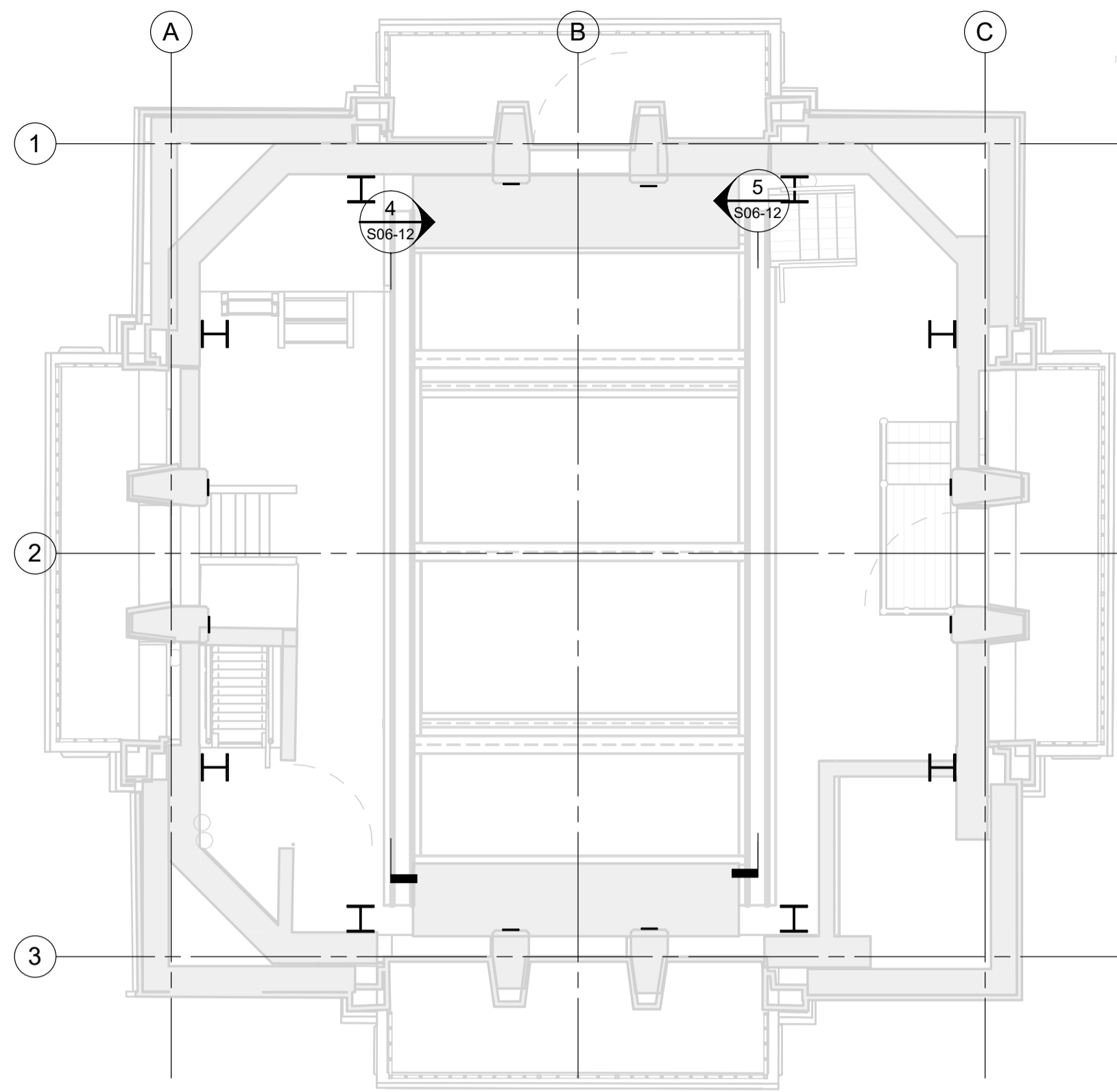
Sheet Title

lower bell frame
isometric

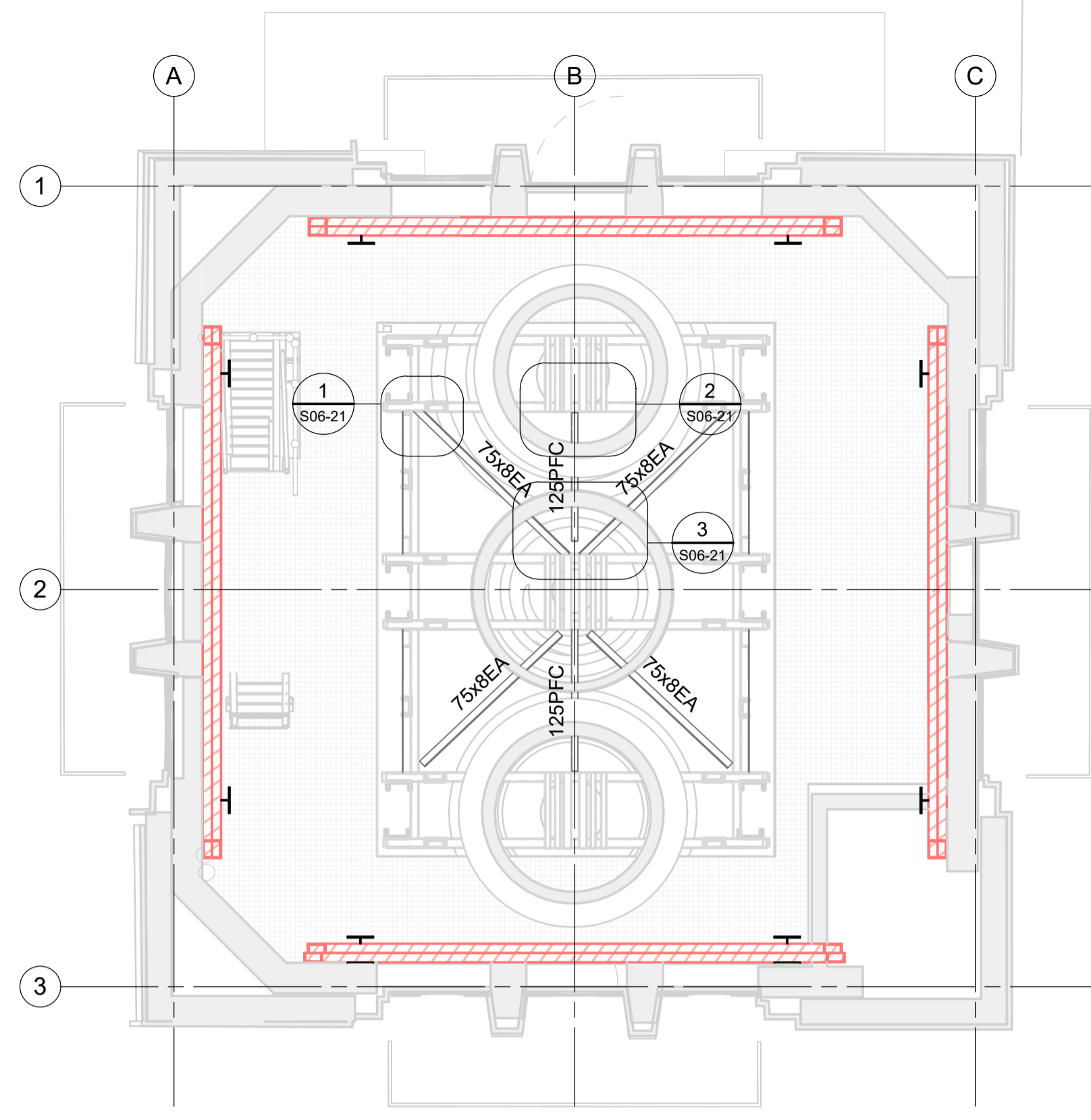
Job Number	Sheet Number	Rev
144373.13	S06-11	D

notes:

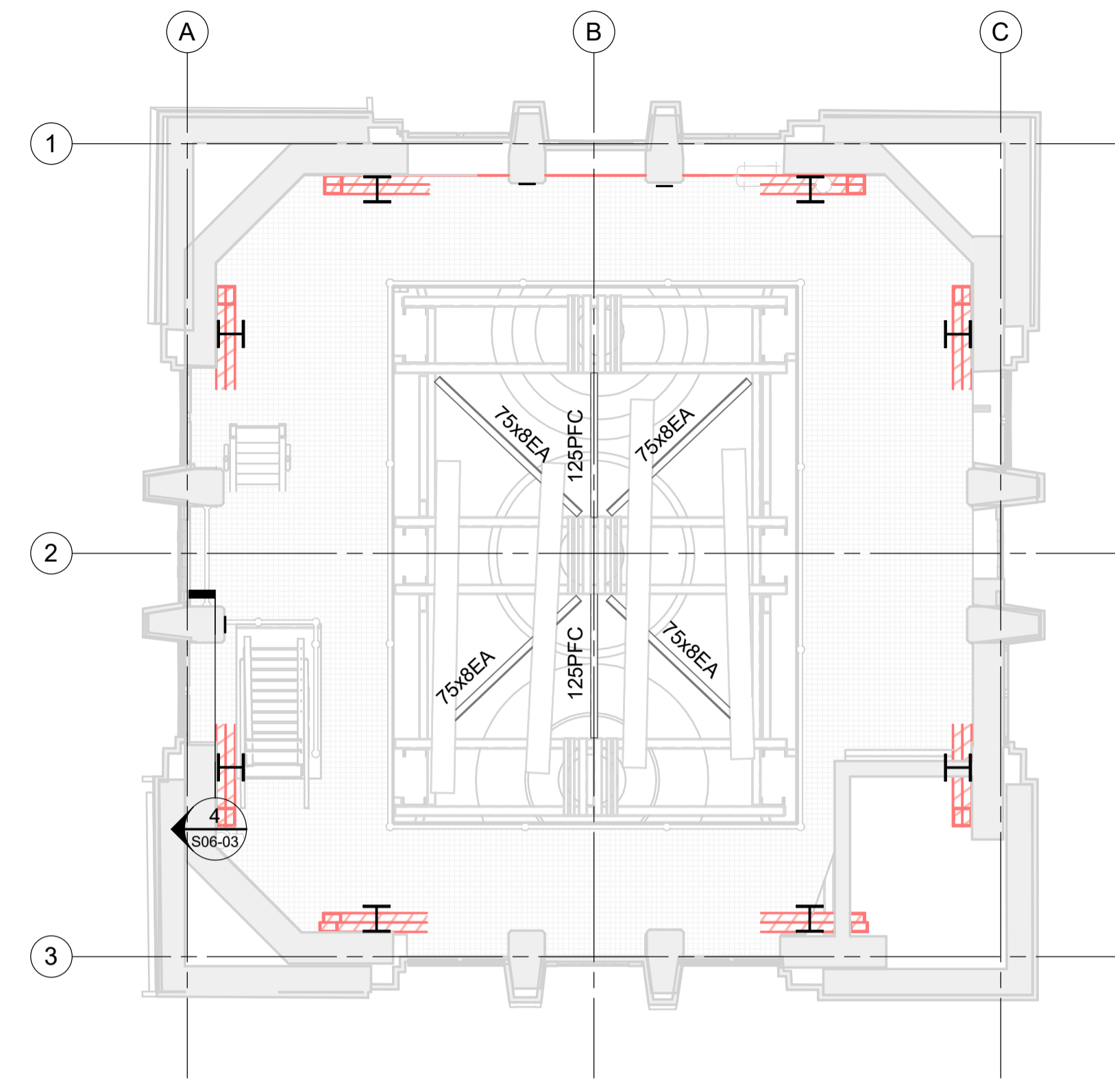
1. Refer to S00 series for all general notes.



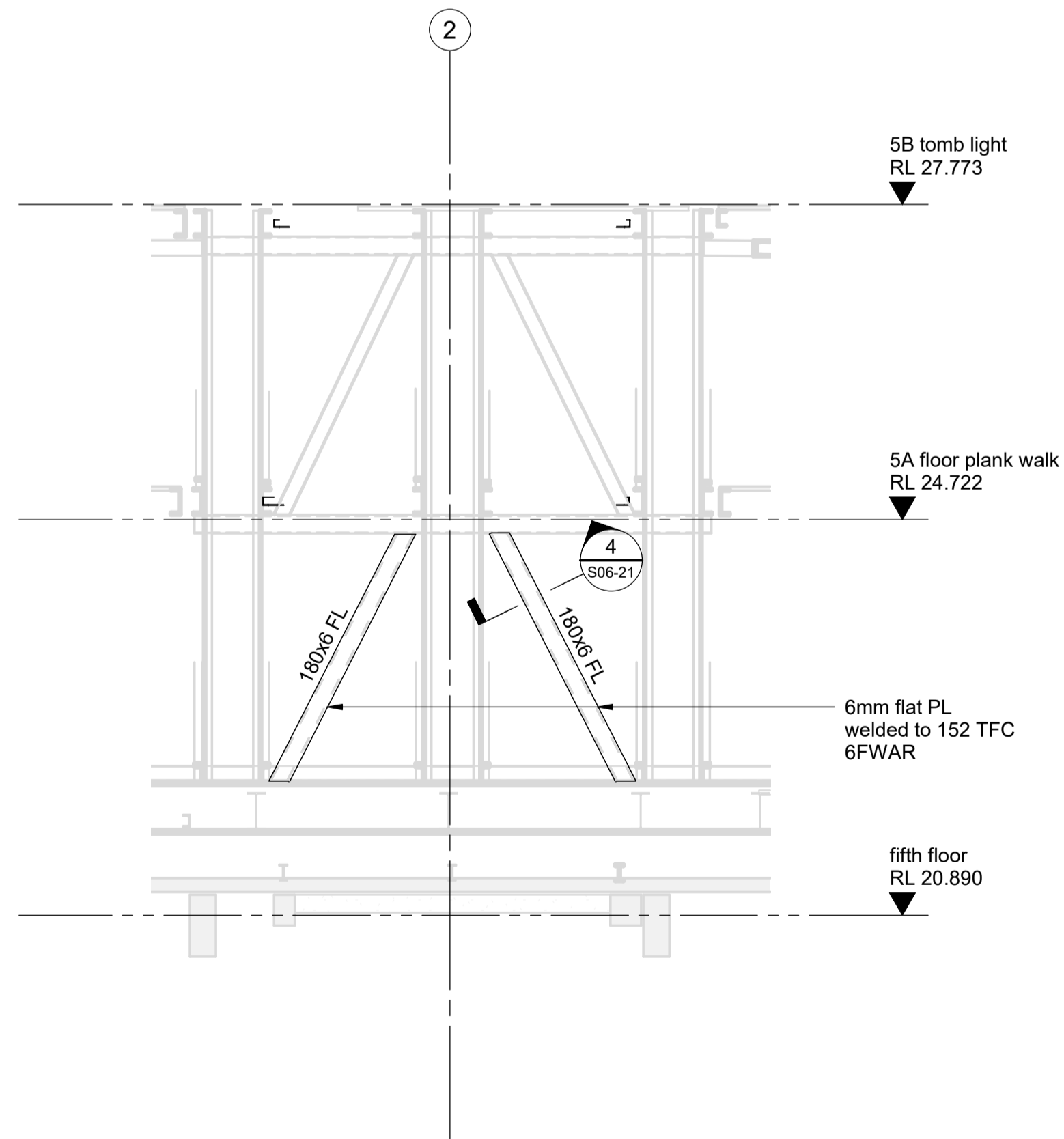
1 lower bell frame - fifth floor
S02-01 1:50



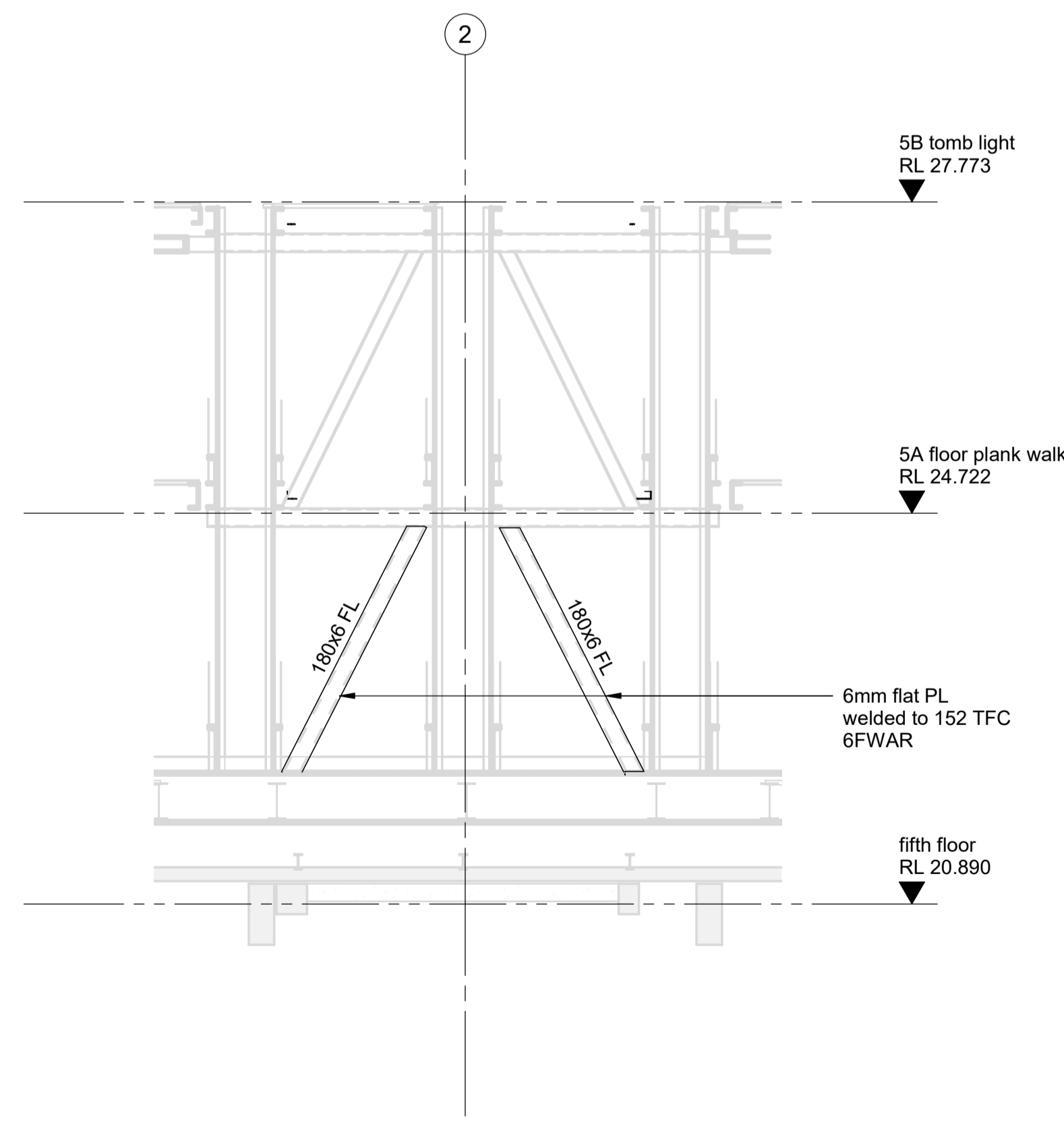
2 lower bell frame - 5A floor plank walk
S02-01 1:50



3 lower bell frame - 5B tomb light
S02-01 1:50



4 east elevation
S06-12 1:50



5 west elevation
S06-12 1:50

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

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NATIONAL WAR
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CARILLON TOWER

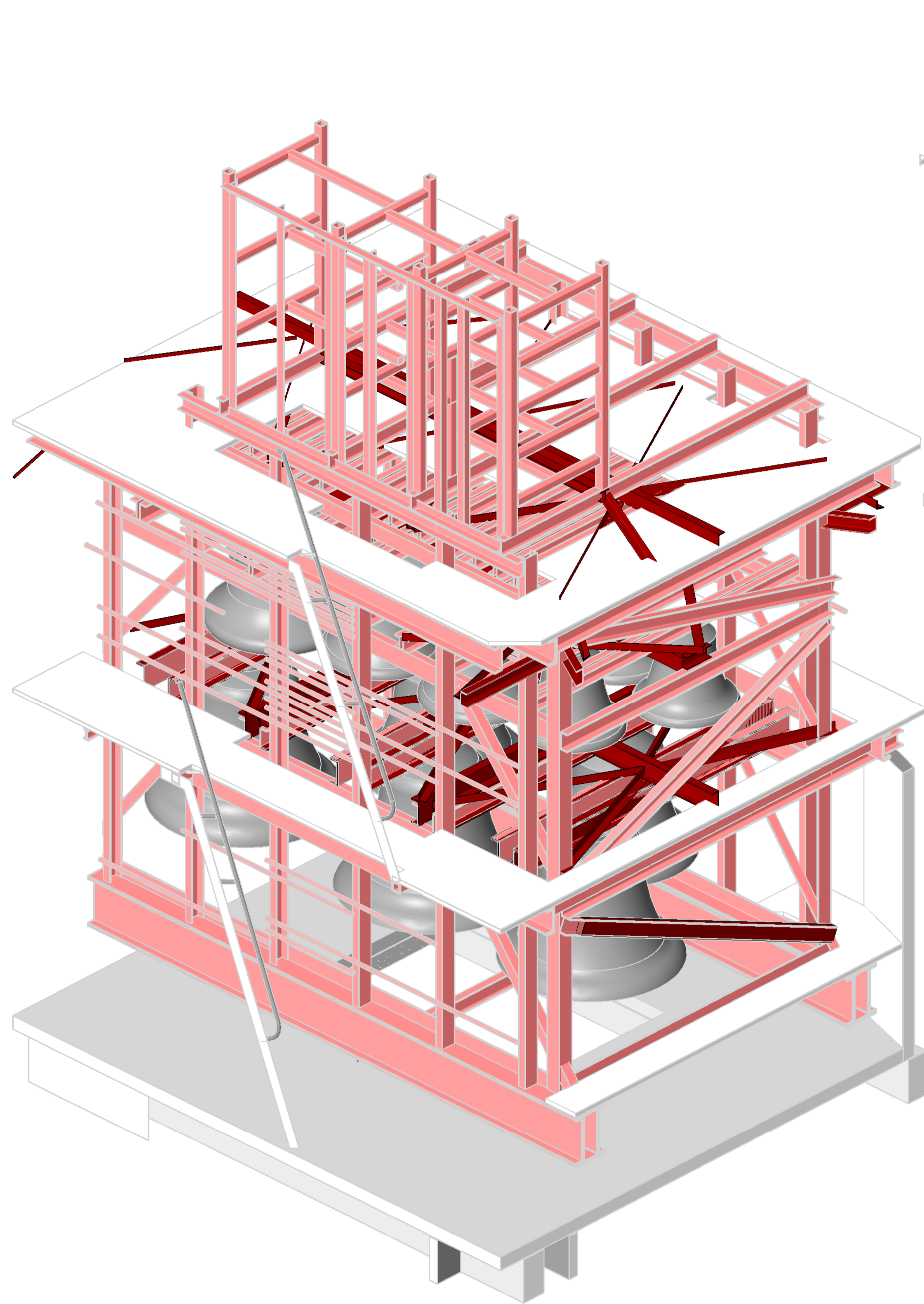
Drawn SMP Scale 1:50 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
lower bell frame plans
and elevations

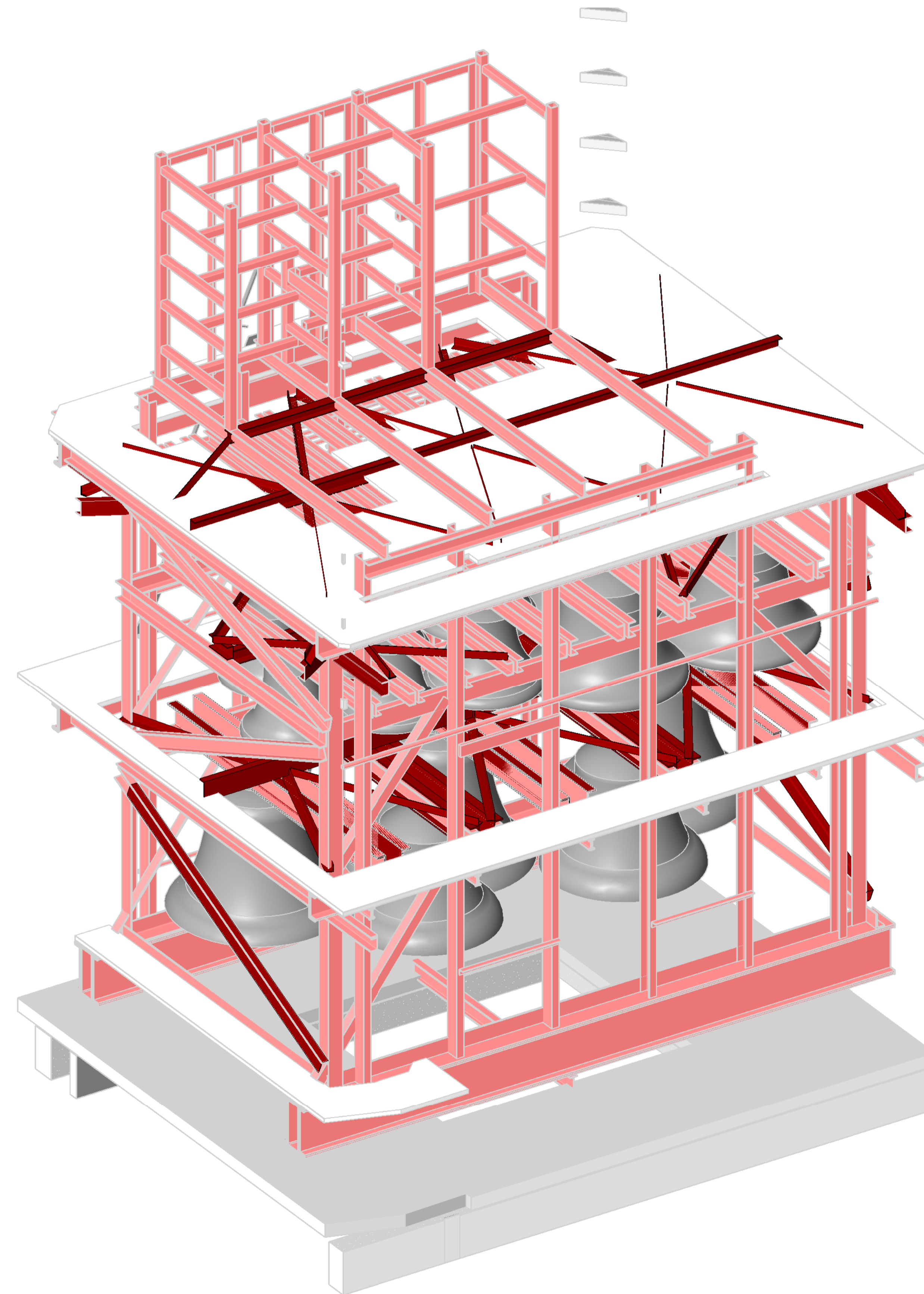
Job Number Sheet Number Rev
144373.13 S06-12 D

notes:

1. Refer to S00 series for all general notes.



1 upper bell frame - SW isometric
n.t.s.



2 upper bell frame - SE isometric
n.t.s.

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

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Drawn SMP Scale n.t.s. (at A1)

Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title

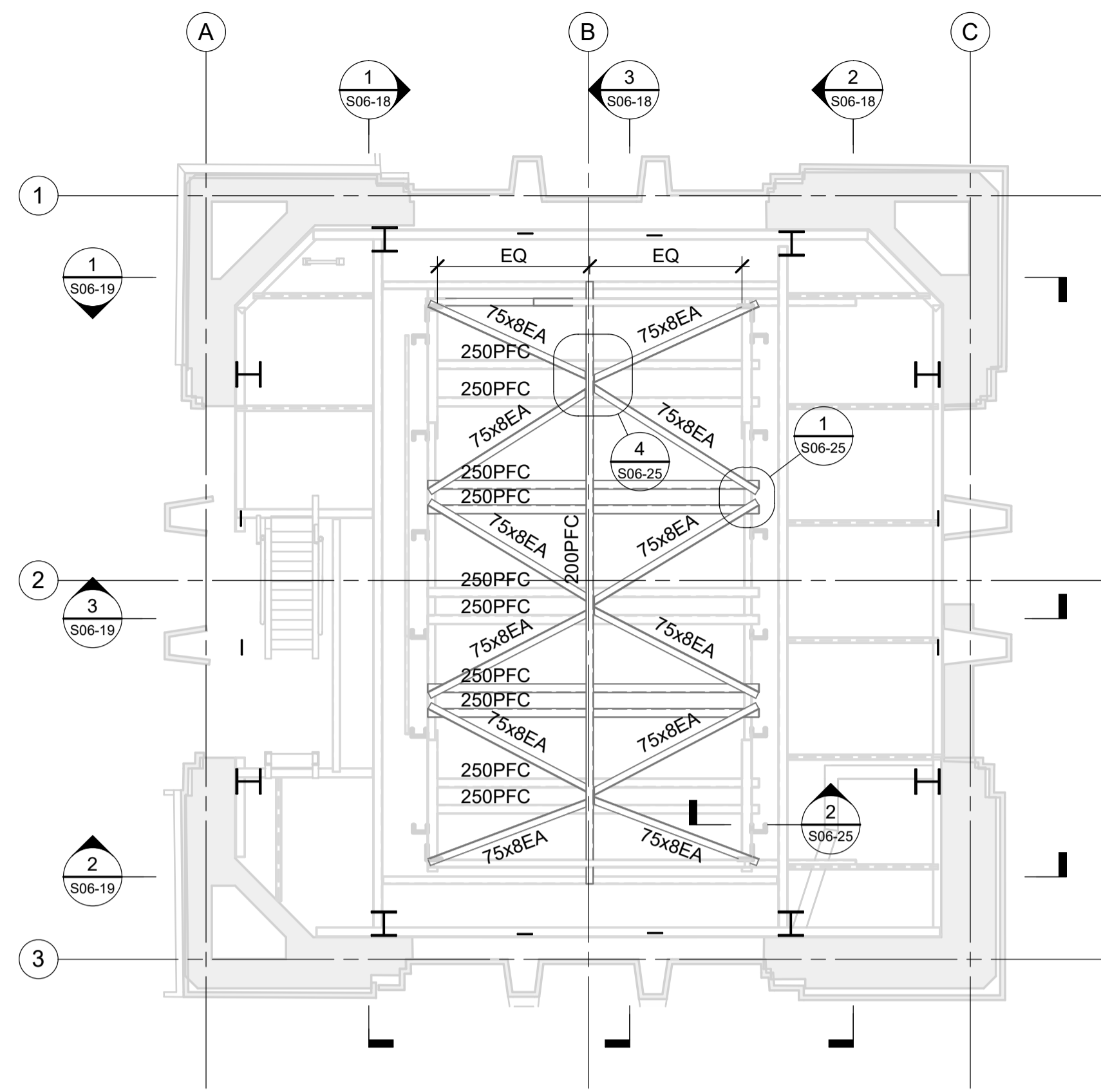
upper bell frame
isometric

Job Number Sheet Number Rev

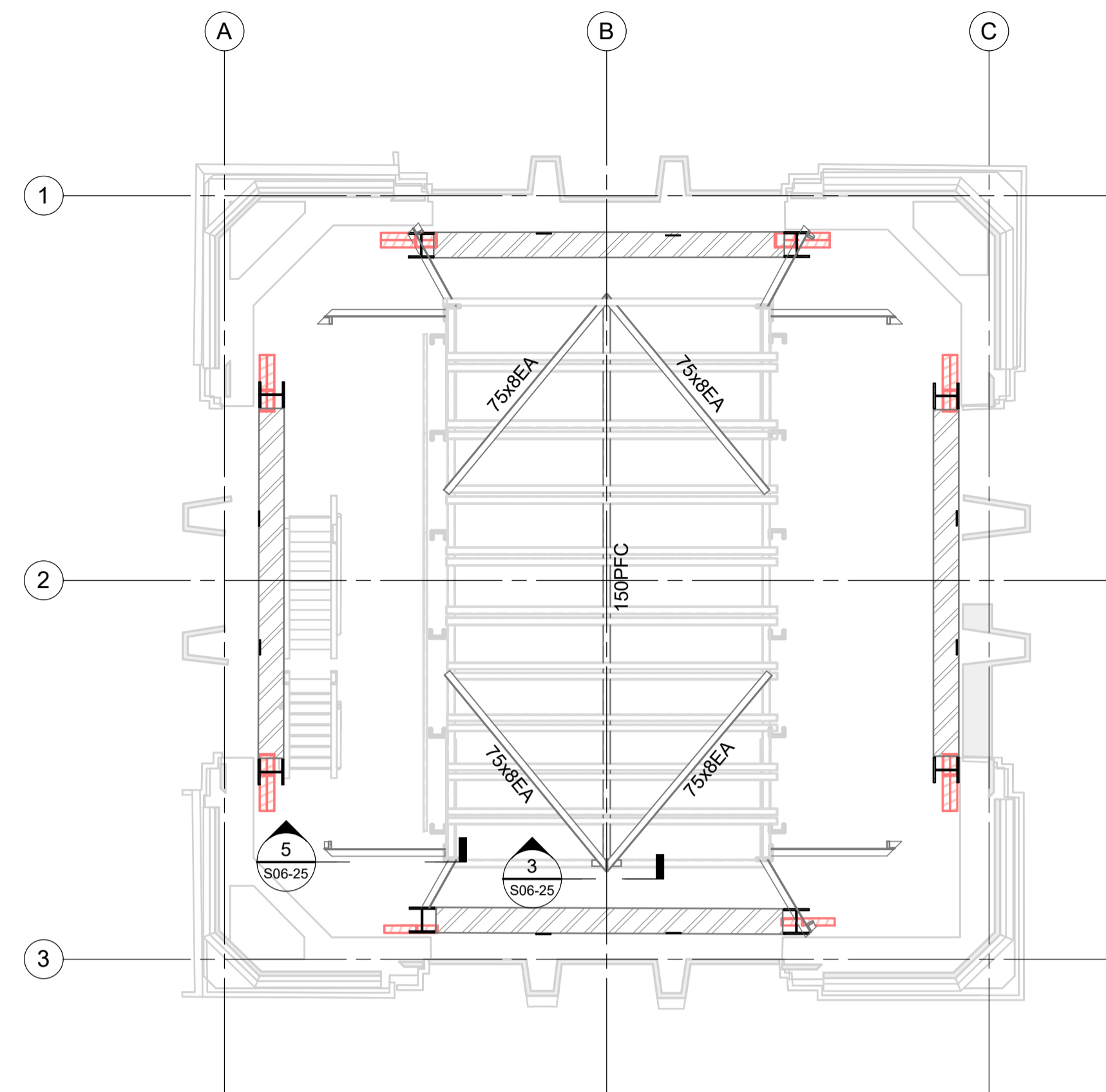
144373.13 S06-15 D

notes:

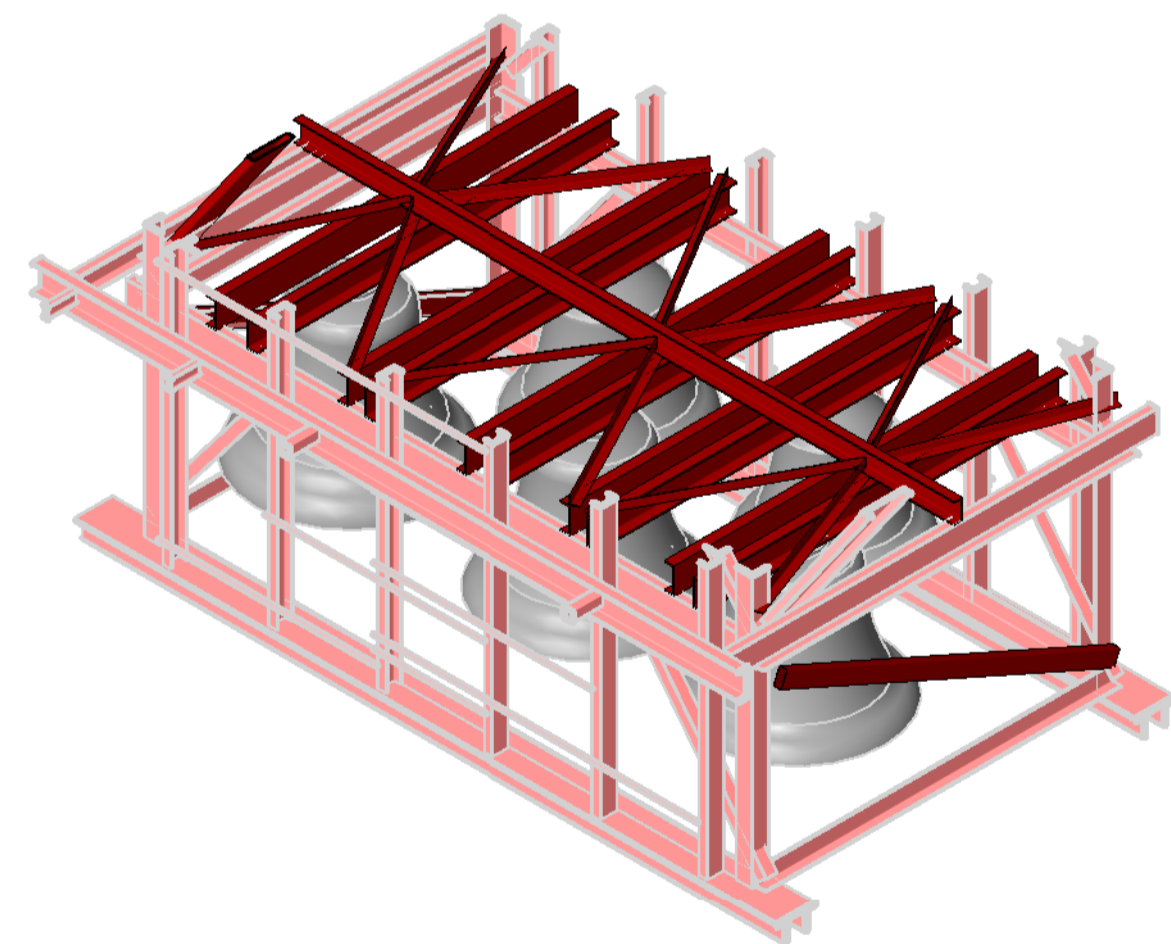
1. Refer to S00 series for all general notes.



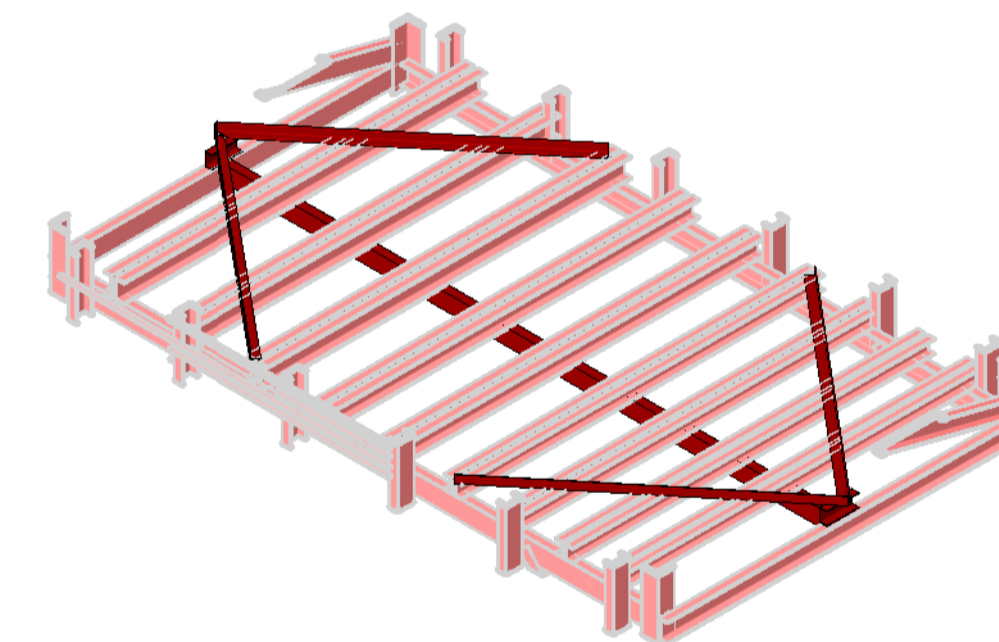
1 7A lower catwalk + 1m (Tier 1)
S02-01 1 : 50



2 7B upper catwalk - 1m (Tier 2)
S02-01 1 : 50



3 tier 1 - 3D view



4 tier 2 - 3D view

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

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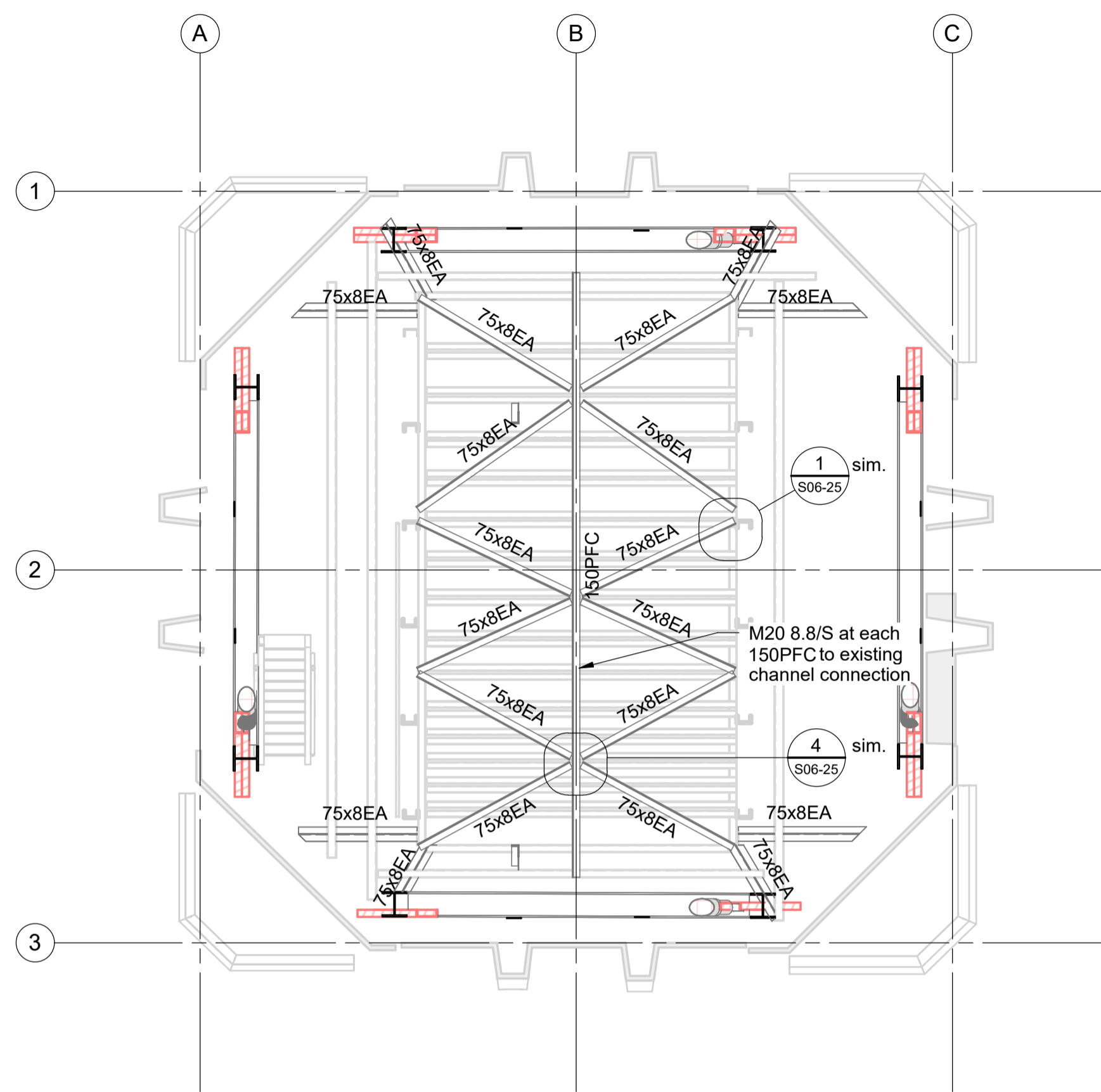
Drawn SMP Scale 1:50 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
upper bell frame plans

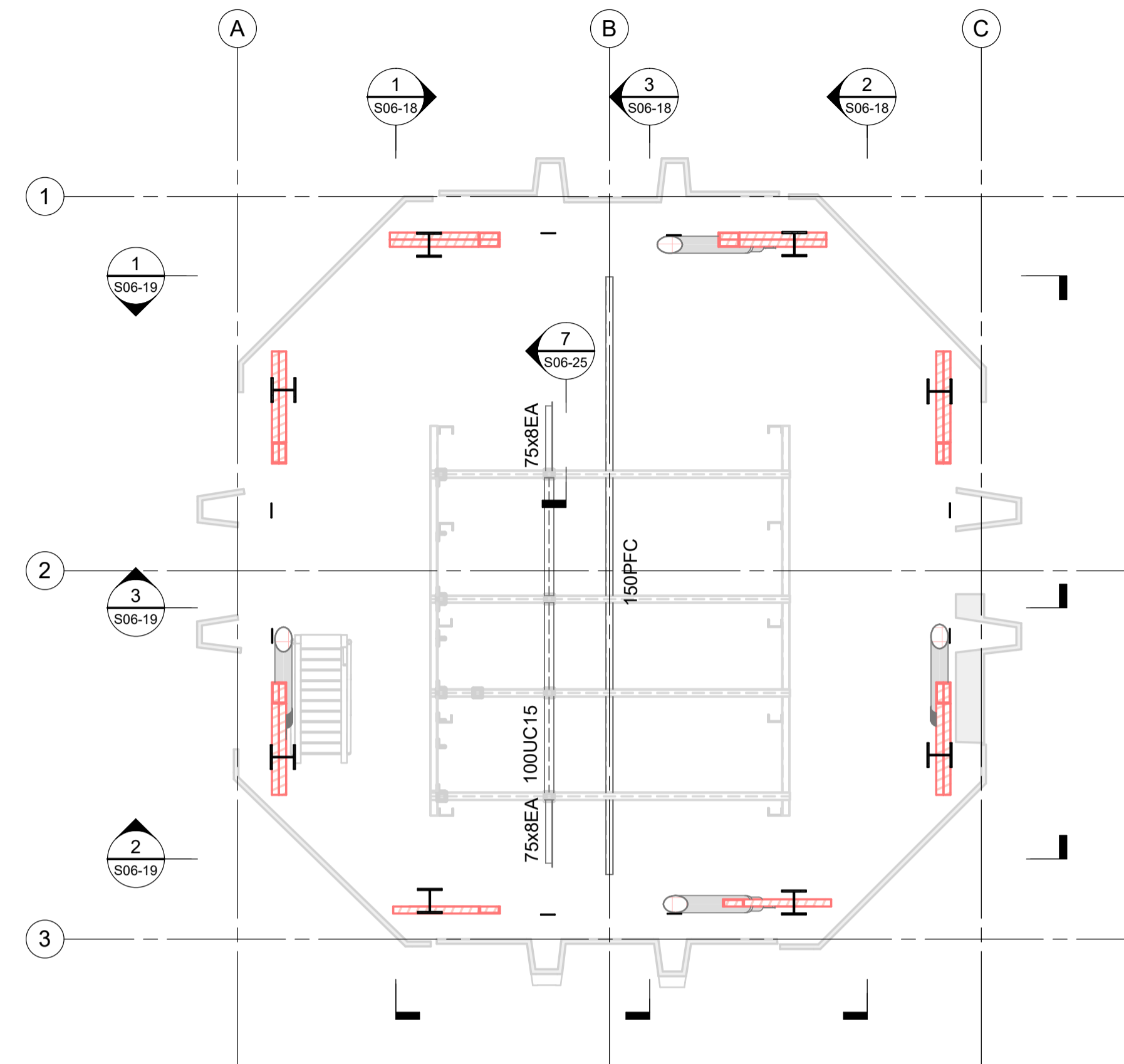
Job Number Sheet Number Rev
144373.13 S06-16 D

notes:

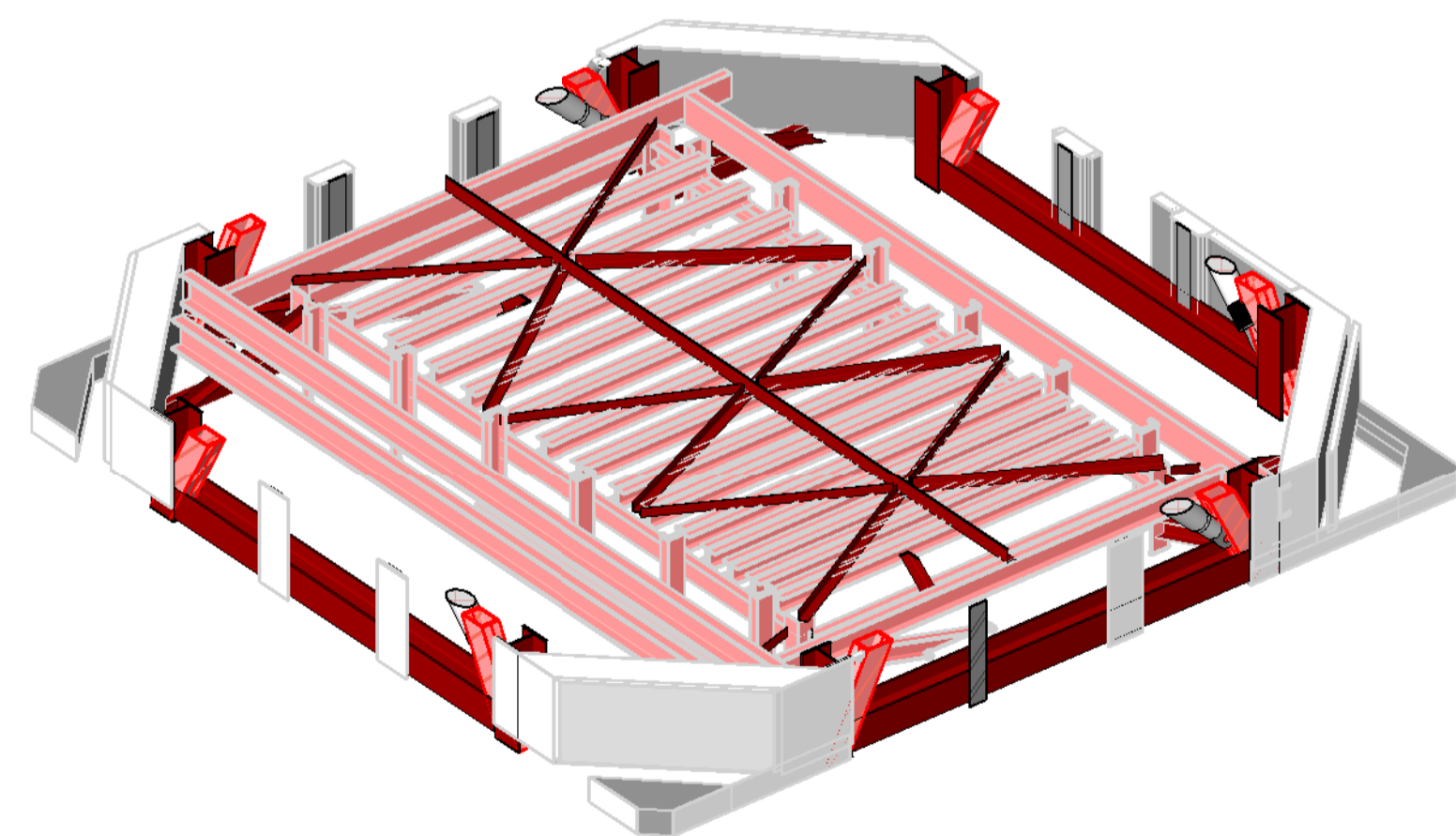
1. Refer to S00 series for all general notes.



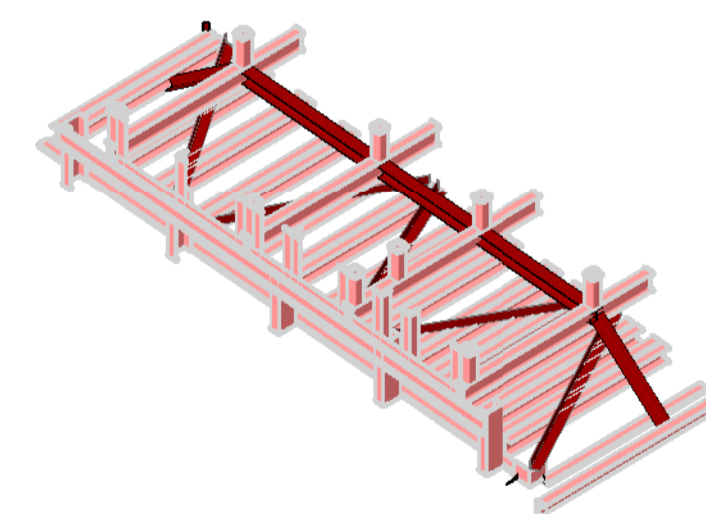
1 7B upper catwalk + 0.6m (Tier 3)
1:50



2 7B upper catwalk + 1.2m
1:50



3 tier 3 - 3D view



4 treble frame - 3D view

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

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Drawn SMP Scale 1:50 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
upper bell frame plans

Job Number Sheet Number Rev
144373.13 S06-17 D

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notes:

1. Refer to S00 series for all general notes.

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

Consultants

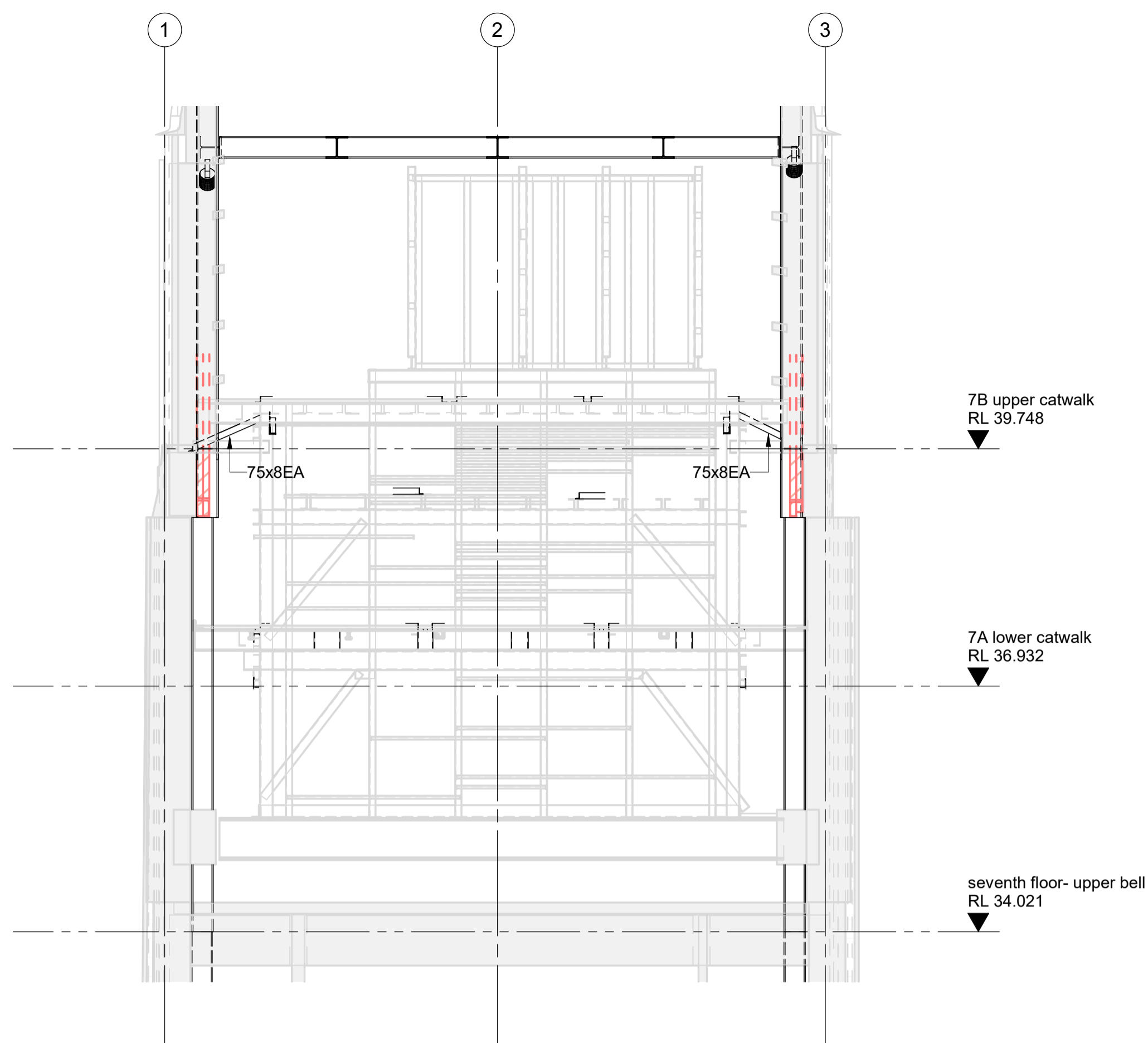
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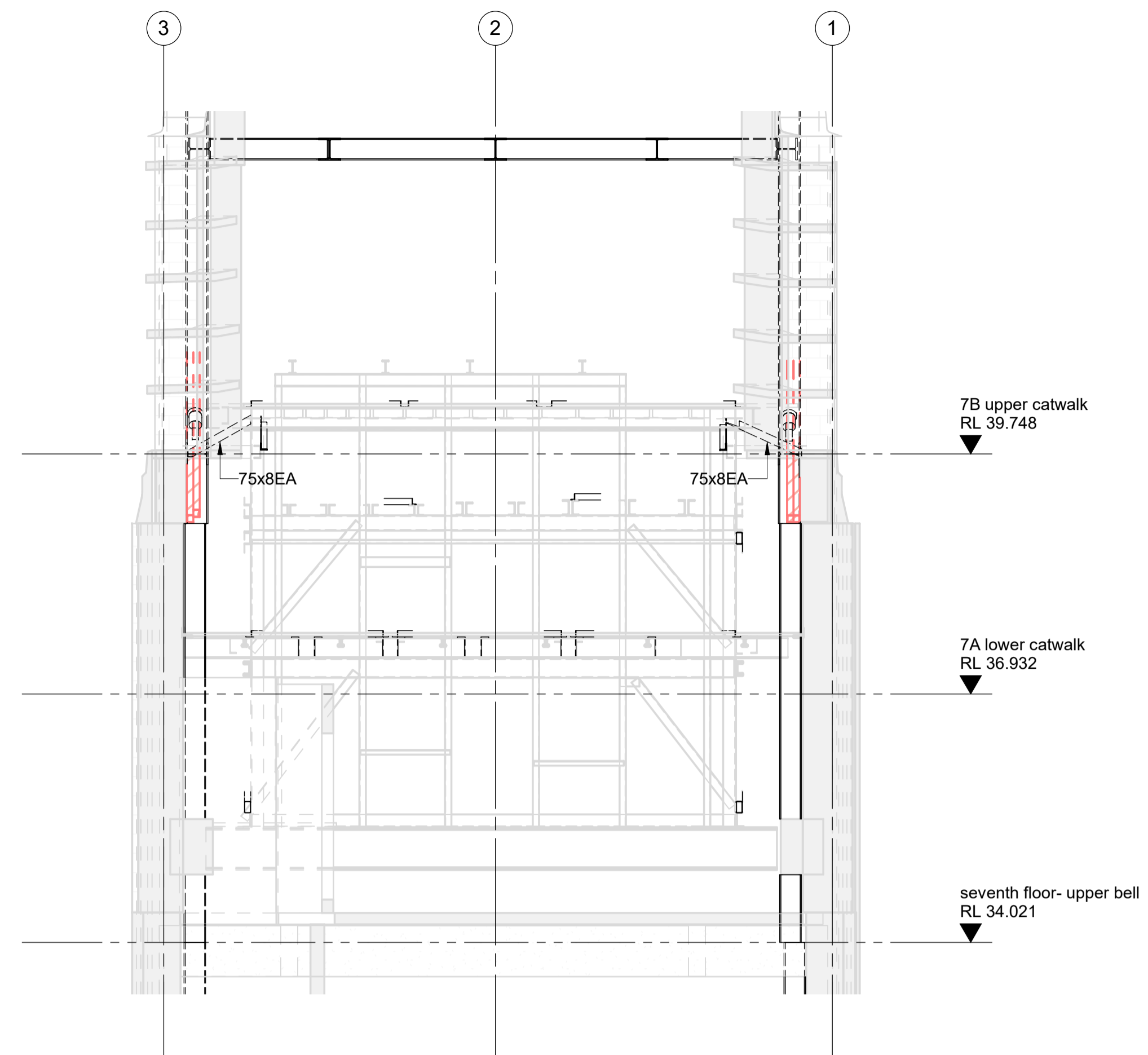
Drawn SMP Scale 1:50 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
**upper bell frame
elevations**

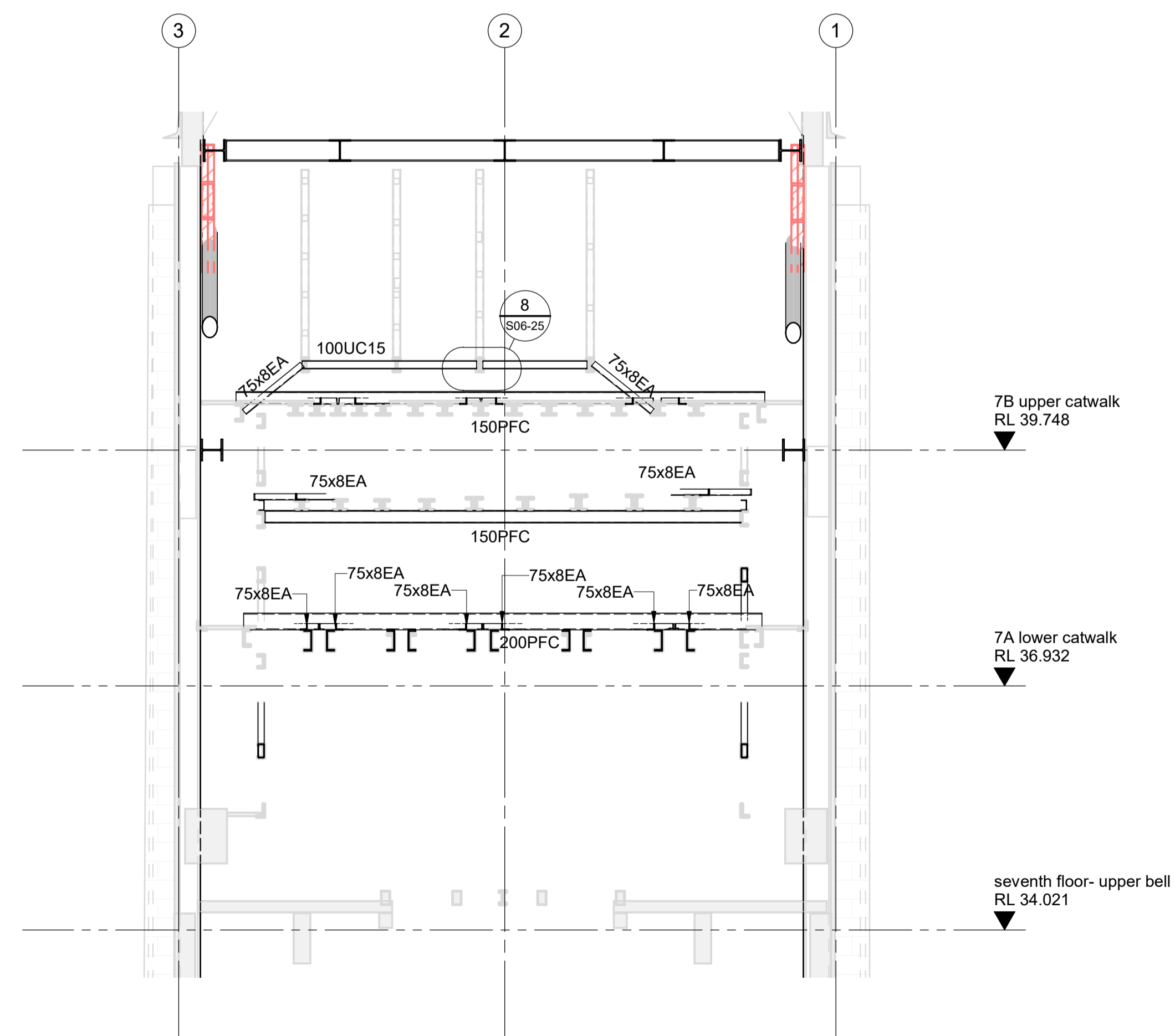
Job Number Sheet Number Rev
144373.13 S06-18 D



1 grid A.5 elevation
S06-16 1:50



2 grid B.5 elevation
S06-16 1:50



3 grid B elevation
S06-16 1:50

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notes:

1. Refer to S00 series for all general notes.

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

Consultants

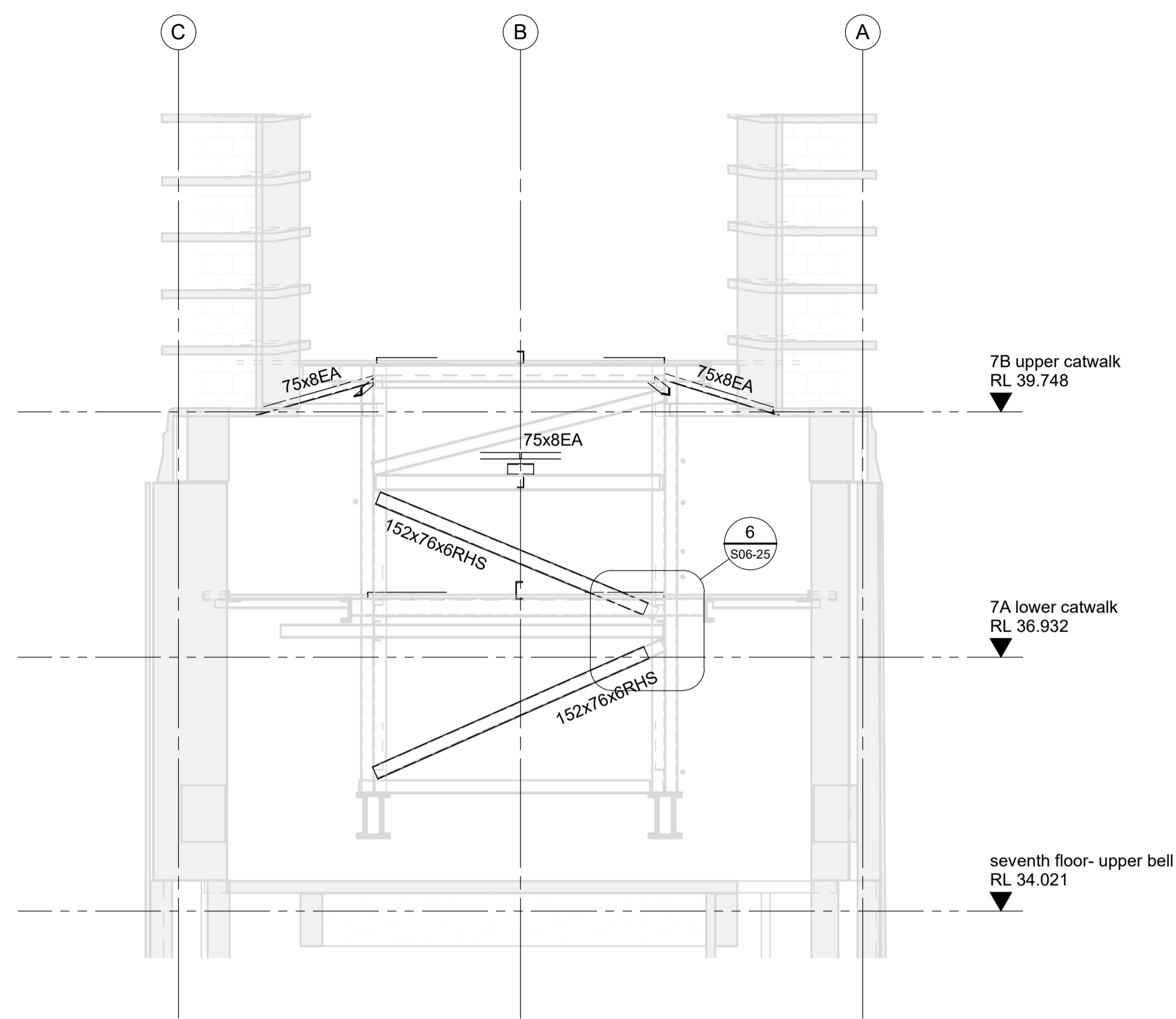
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CARILLON TOWER**

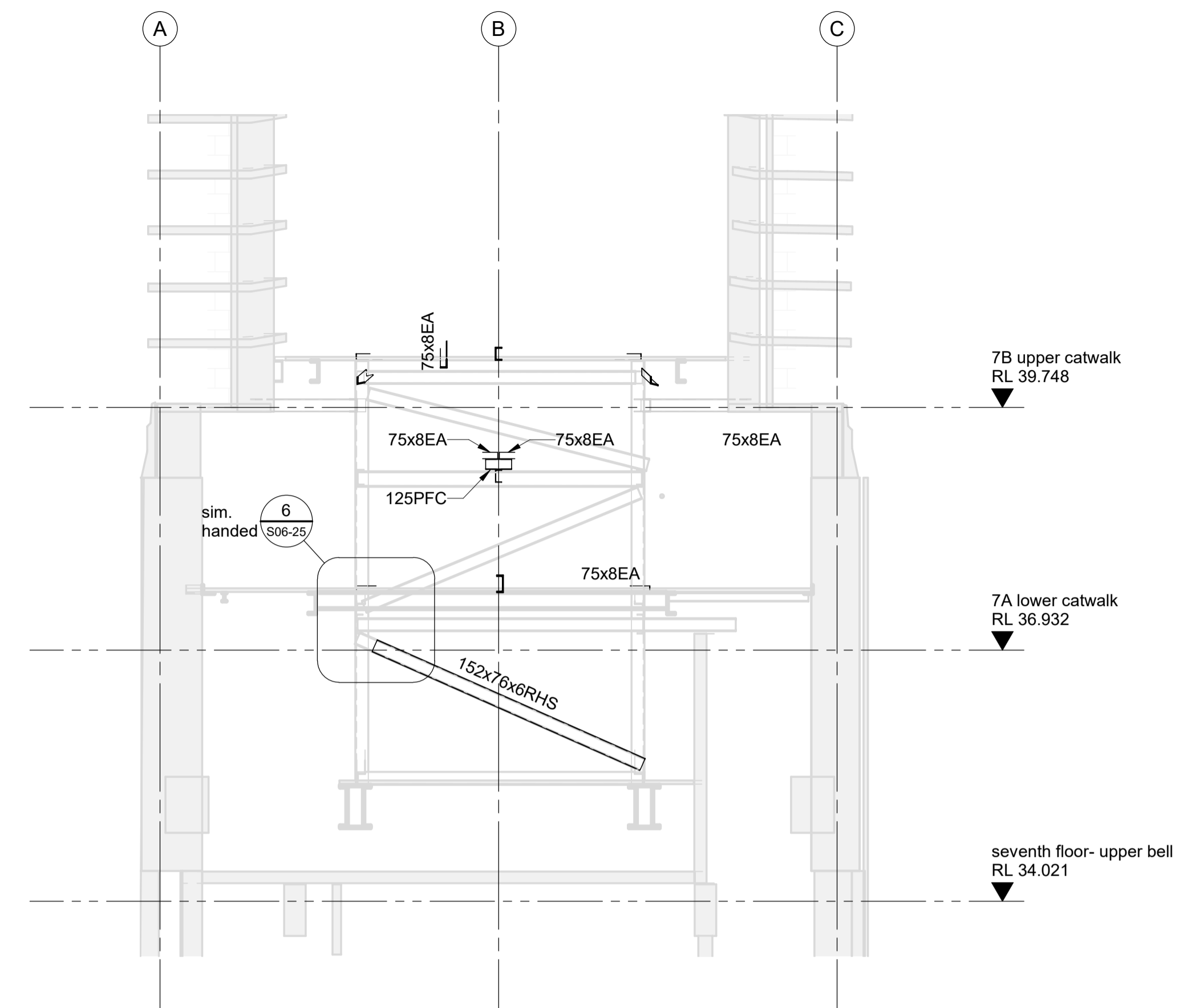
Drawn SMP Scale 1:50 (at A1)
Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title
**upper bell frame
elevations**

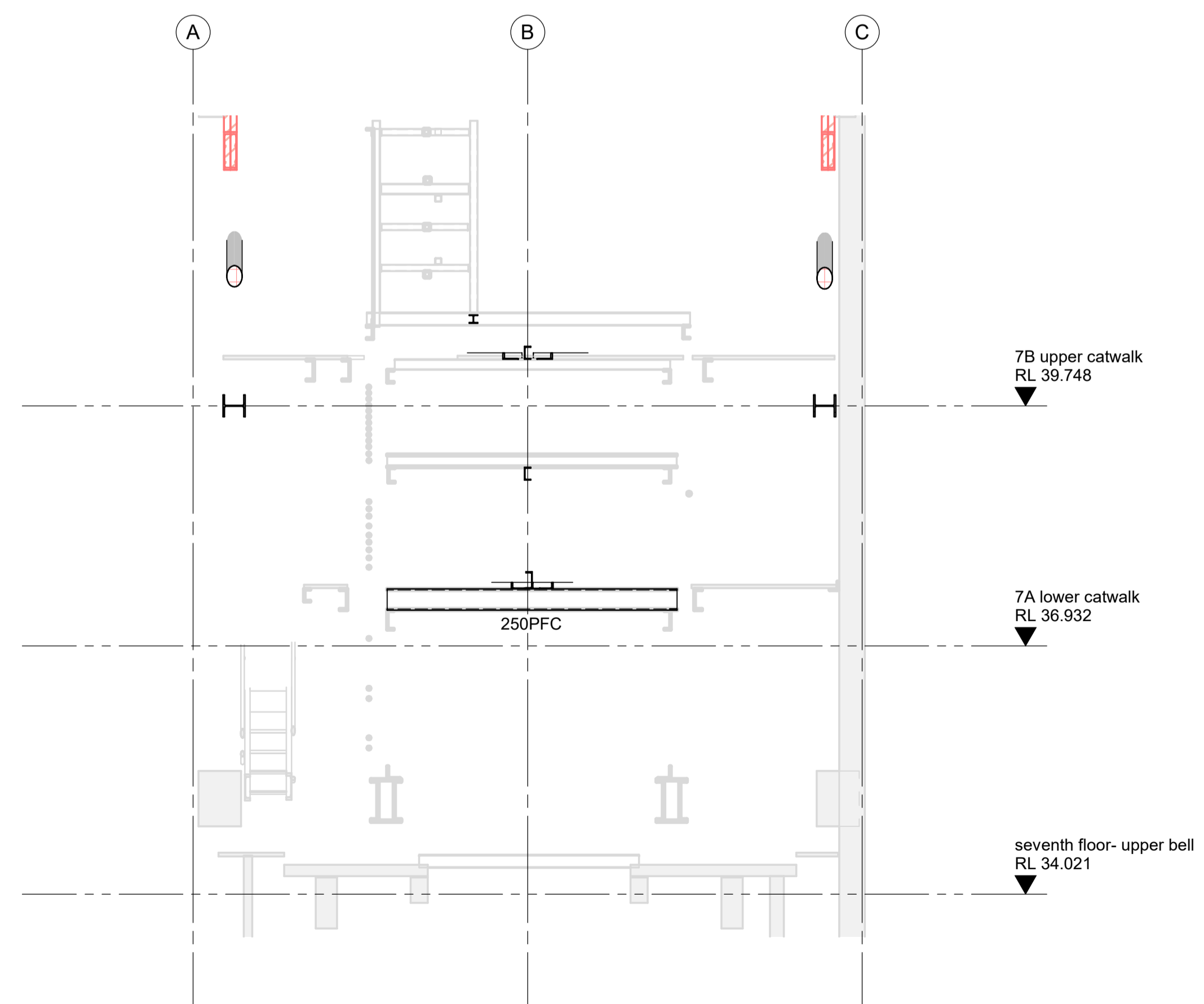
Job Number Sheet Number Rev
144373.13 S06-19 D



1 grid 1.2 elevation
S06-16 1:50



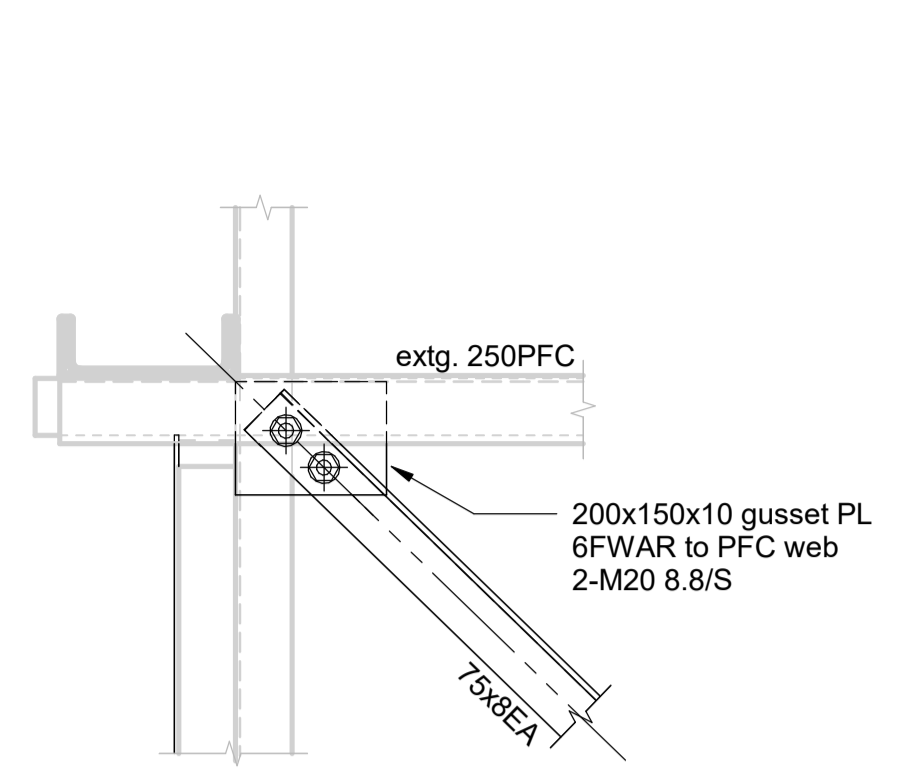
2 grid 2.8 elevation
S06-16 1:50



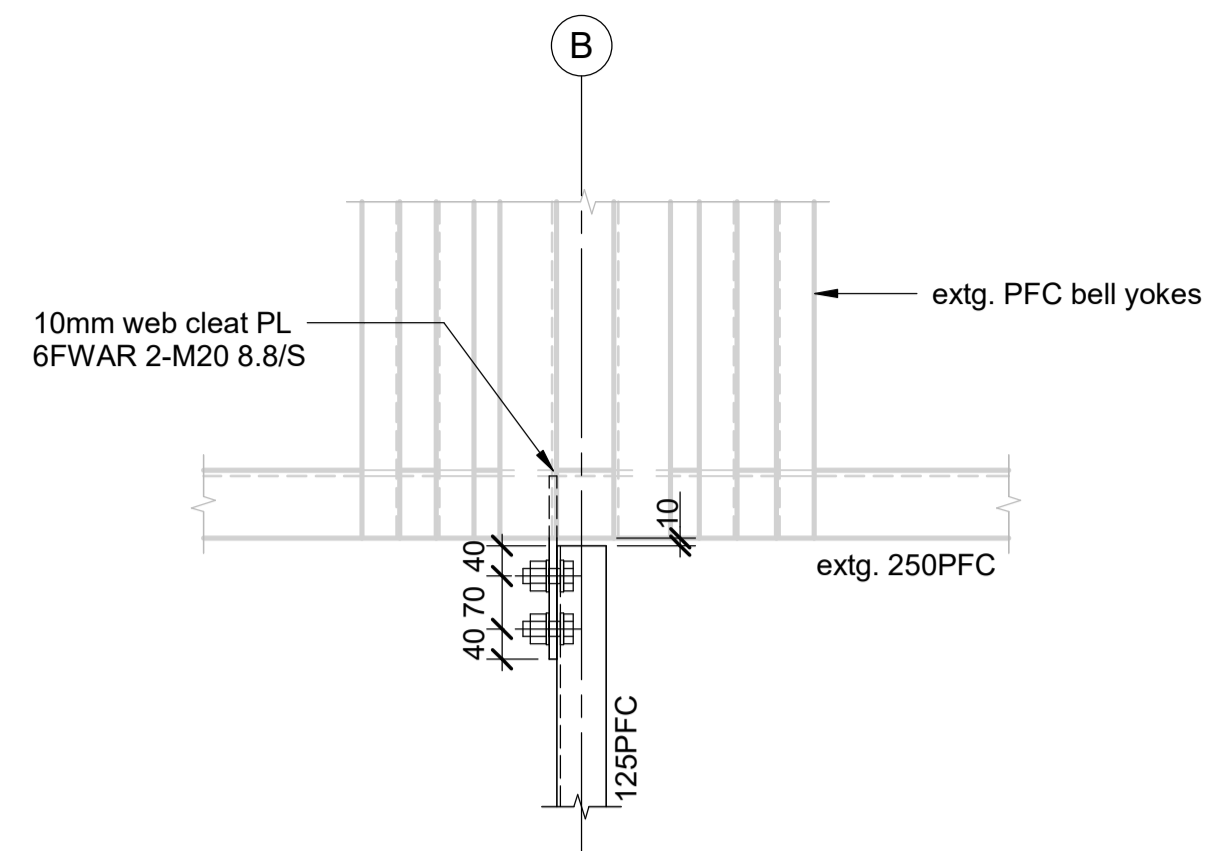
3 grid 2 elevation
S06-16 1:50

notes:

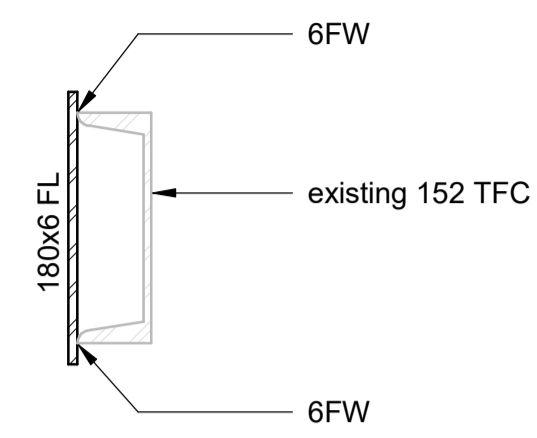
1. Refer to S00 series for all general notes.



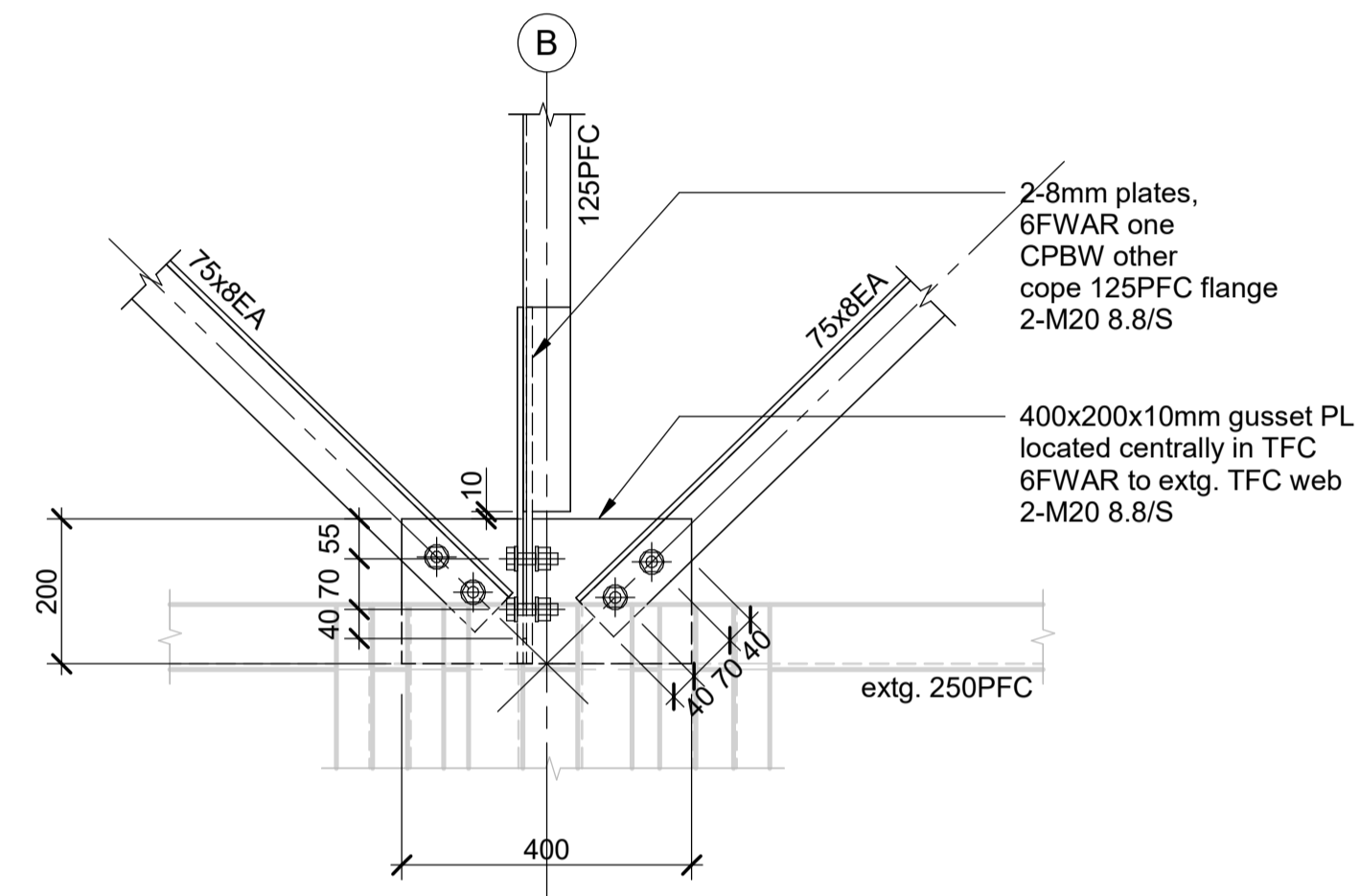
1 typ. 75EA bracket to PFC cleat connection
S06-12 1 : 10



2
S06-12 1 : 10



4
S06-12 1 : 5



3
S06-12 1 : 10

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

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MEMORIAL
CARILLON TOWER

Drawn SMP Scale 1:5, 1:10 (at A1)

Filename 144373.13_STR_Carillon tower_R22.rvt

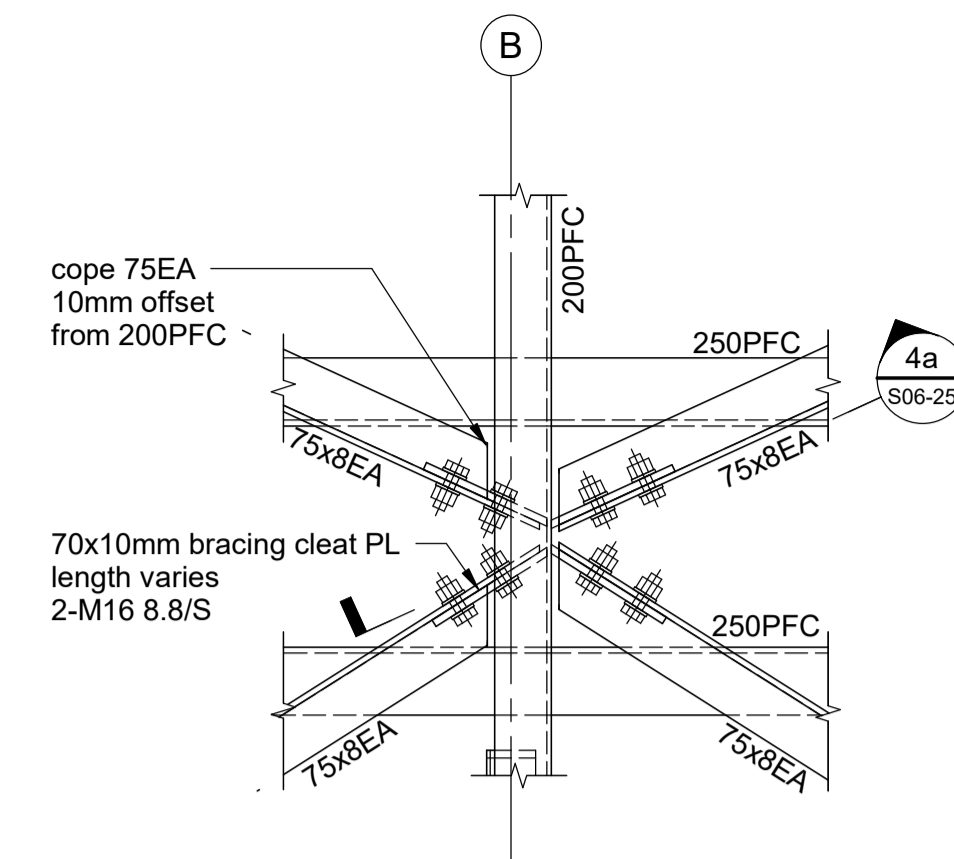
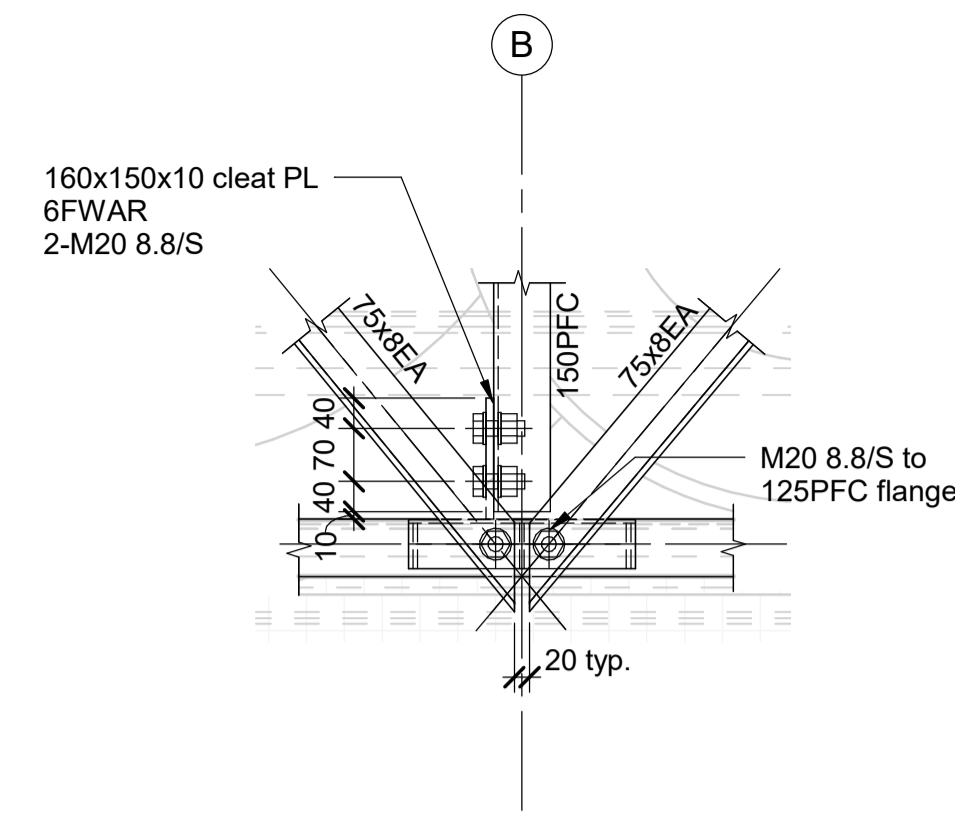
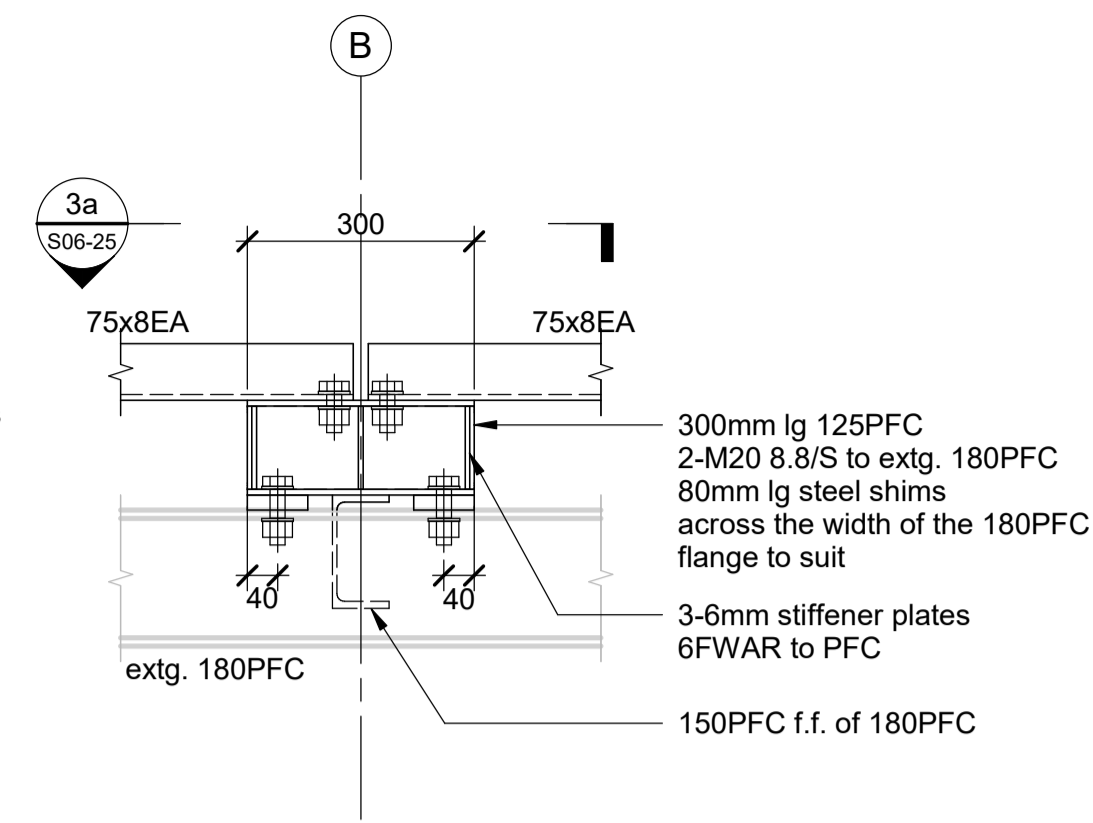
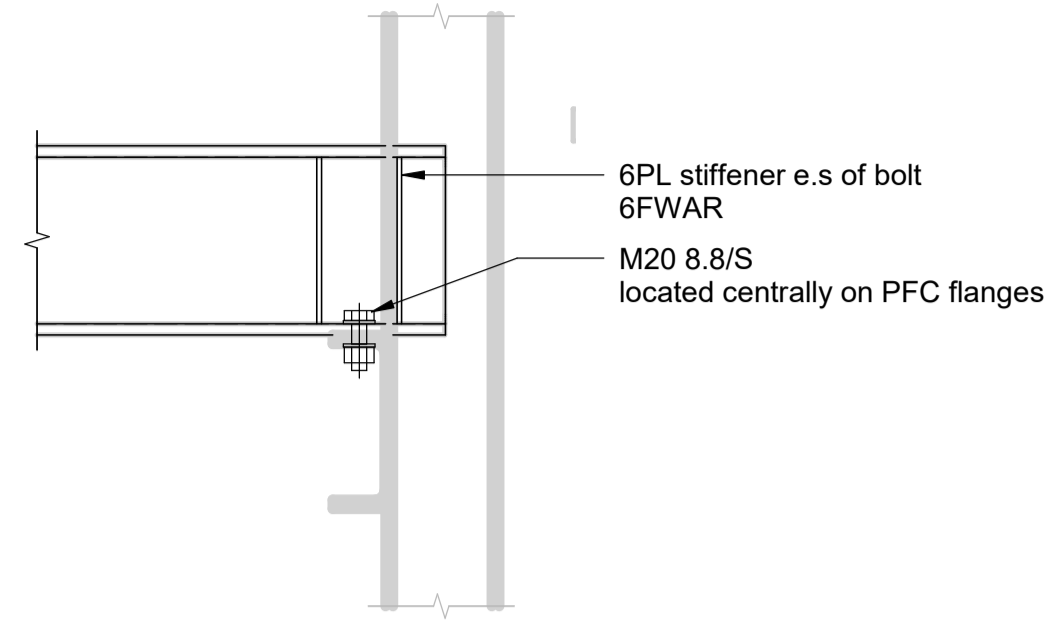
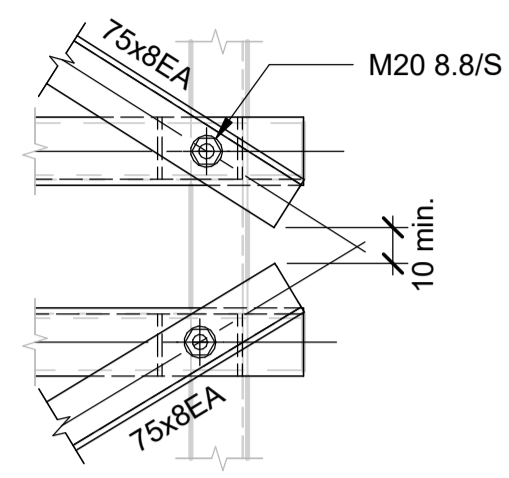
Sheet Title

lower bell frame details

Job Number	Sheet Number	Rev
144373.13	S06-21	D

notes:

- Refer to S00 series for all general notes.



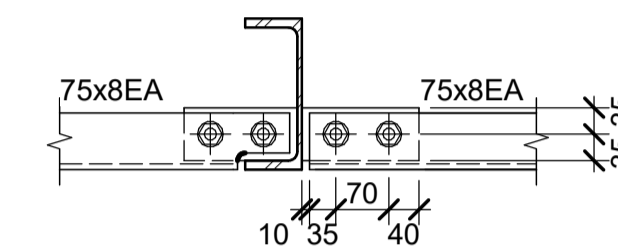
1 typ. EA horizontal braces to bell yokes connection
S06-16 1:10

2 typ. PFC yoke to extg. PFC/TFC connection
S01-04 1:10

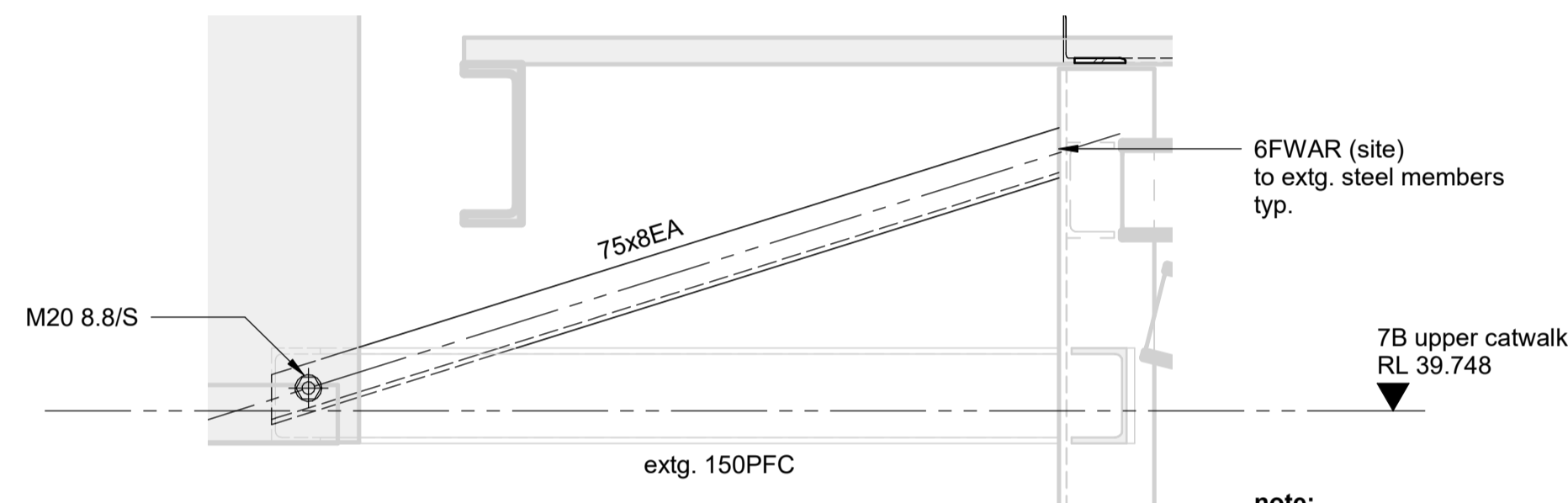
3 1:10
S06-16

3a 1:10
-

4 typ. 75EA brace to PFC bolted connections
S06-16 1:10

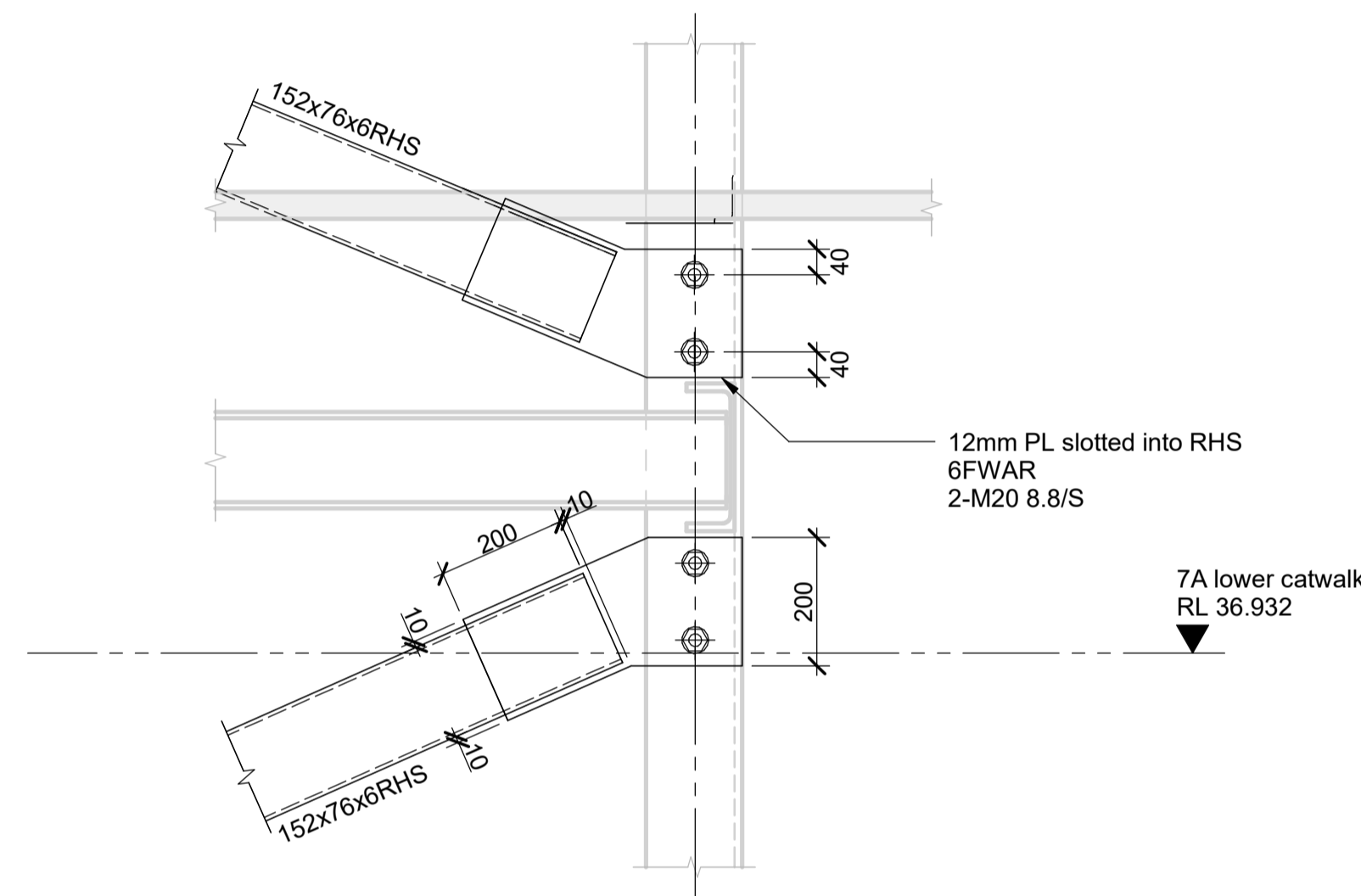


4a 1:10
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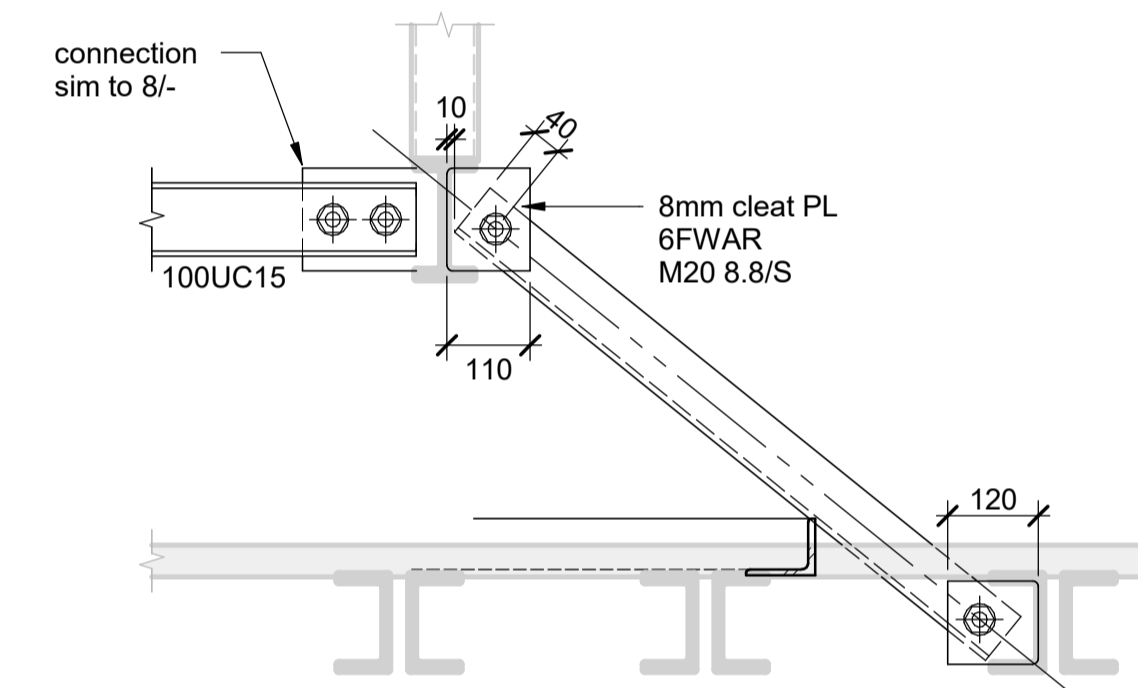


note:
Contractor to confirm 75EA flybrace geometry on site.

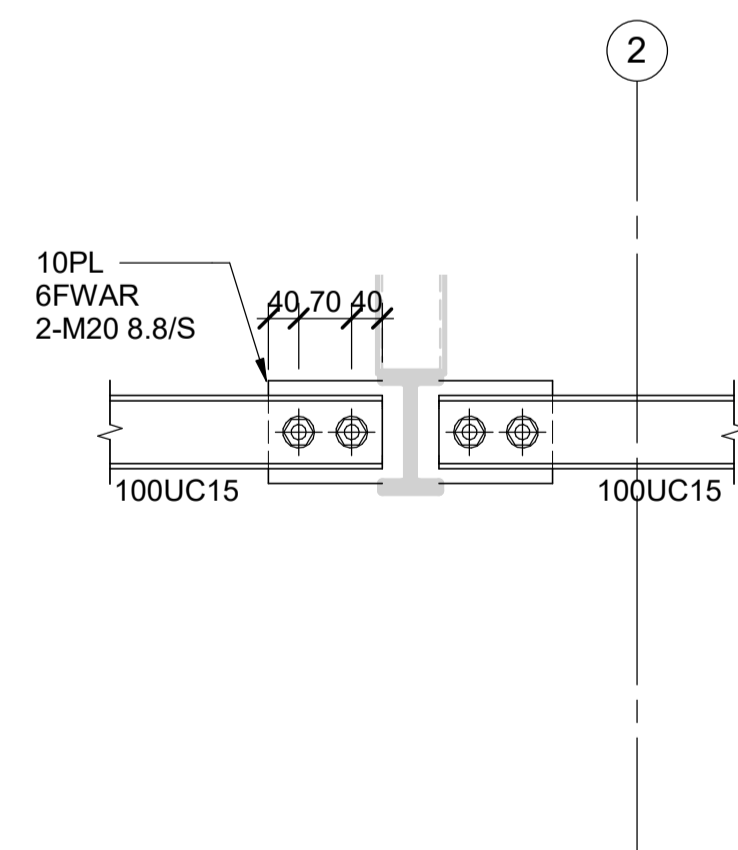
5 typ. 75EA flybrace connections
S06-16 1:10



6 typ. RHS brace connection
S06-19 1:10



7 typ. treble frame flybrace connection
S06-17 1:10



8 typ. 100UC connection
S06-18 1:10

Rev	Date	Appd	Reason
D	01/03/24	RAB	building consent
C	23/02/24	RAB	peer review
B	14/12/23	RAB	peer review
A	10/11/23	RAB	peer review

Consultants

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NATIONAL WAR
MEMORIAL
CARILLON TOWER

Drawn SMP Scale 1:10 (at A1)

Filename 144373.13_STR_Carillon tower_R22.rvt

Sheet Title

upper bell frame details

Job Number Sheet Number Rev

144373.13 S06-25 D