



SYMMETRYS
STRUCTURAL / CIVIL ENGINEERS

139 CRANLEY GARDENS

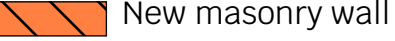
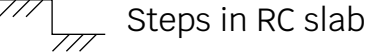
APPENDIX A

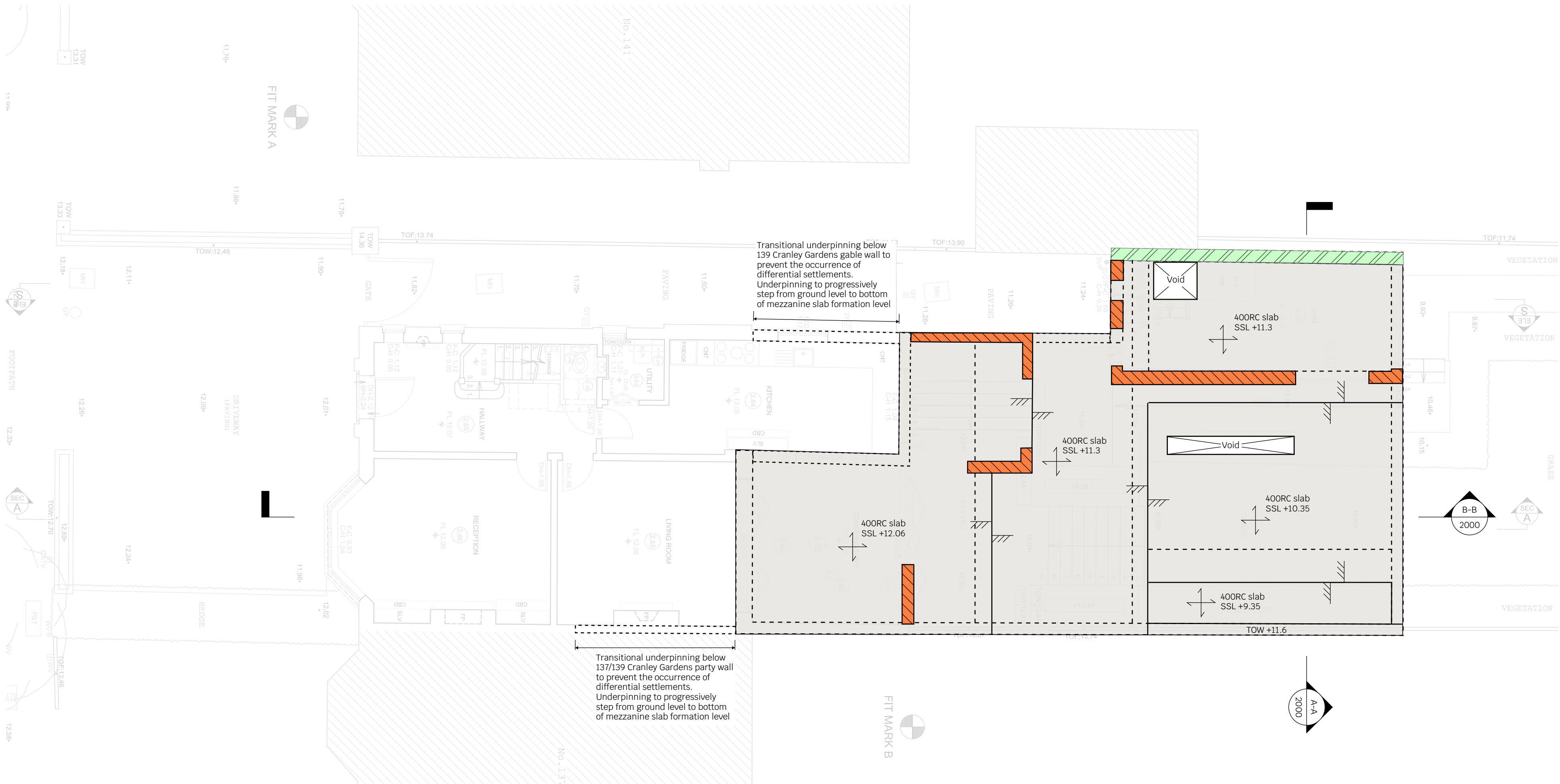
STAGE 2 DRAWINGS

Notes

- Refer to architects drawings for all setting out details, insulation, ventilation and waterproofing details.
- Location of existing and proposed drain runs are to be confirmed by the service engineer.
- Refer to the architects drawings for all fire protection to structural elements.
- All element sizes shown are for planning purposes.
- The contractor shall be responsible for the design, installation, and sequence of all temporary works and must ensure that the stability of the structure is not compromised during the works.

Key

-  RC slab
-  Existing RC slab
-  Existing masonry wall
-  New masonry wall
-  Existing wall to be removed
-  Steps in RC slab



Ground floor plan

Notes

- Refer to architects drawings for all setting out details, insulation, ventilation and waterproofing details.

- Location of existing and proposed drain runs are to be confirmed by the service engineer.

- Refer to the architects drawings for all fire protection to structural elements.

- The contractor shall be responsible for the design, installation, and sequence of all temporary works and must ensure that the stability of the structure is not compromised during the works.

Key



RC slab

Existing RC slab/wall

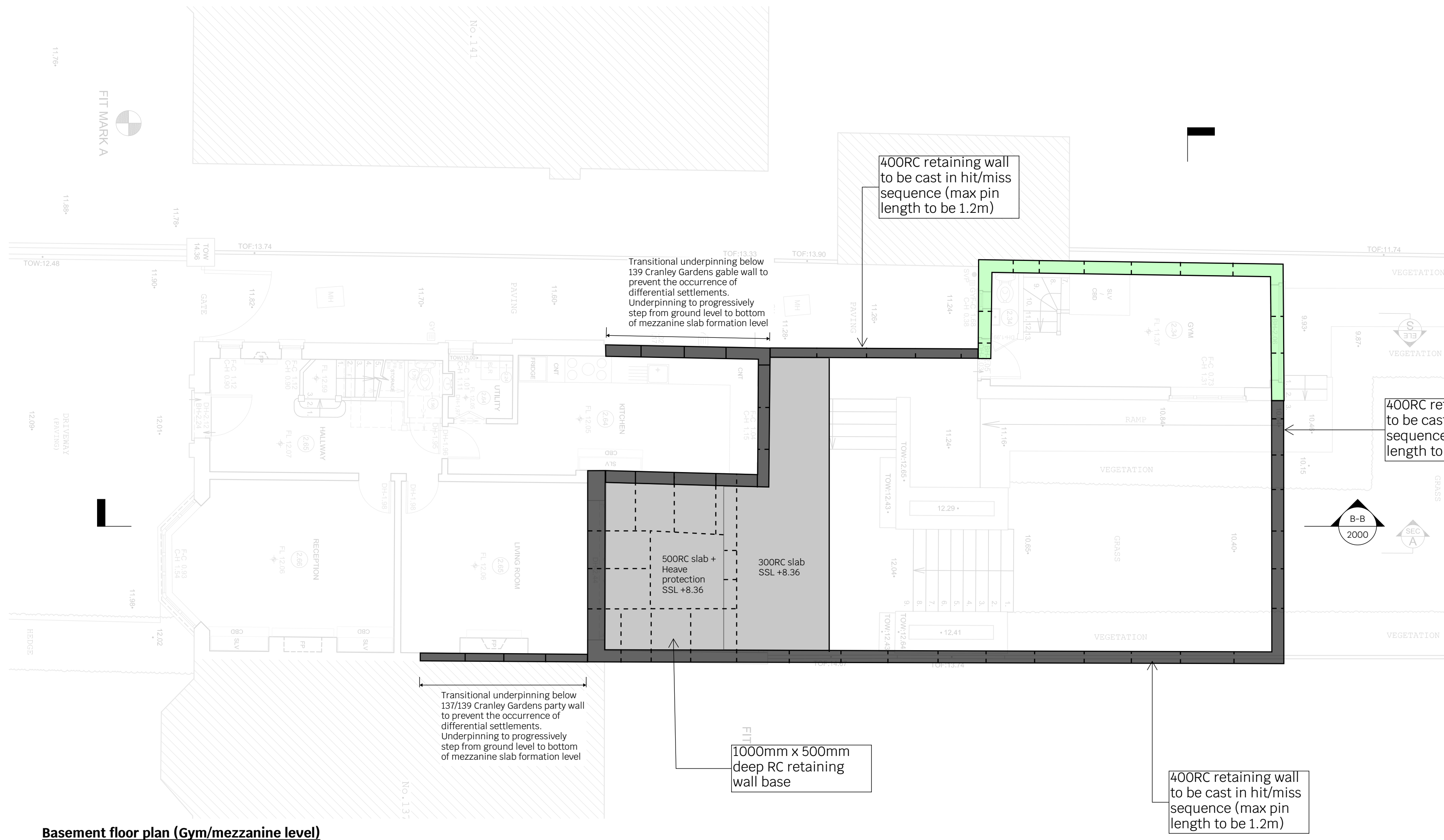
 Existing masonry wal

 New masonry wall

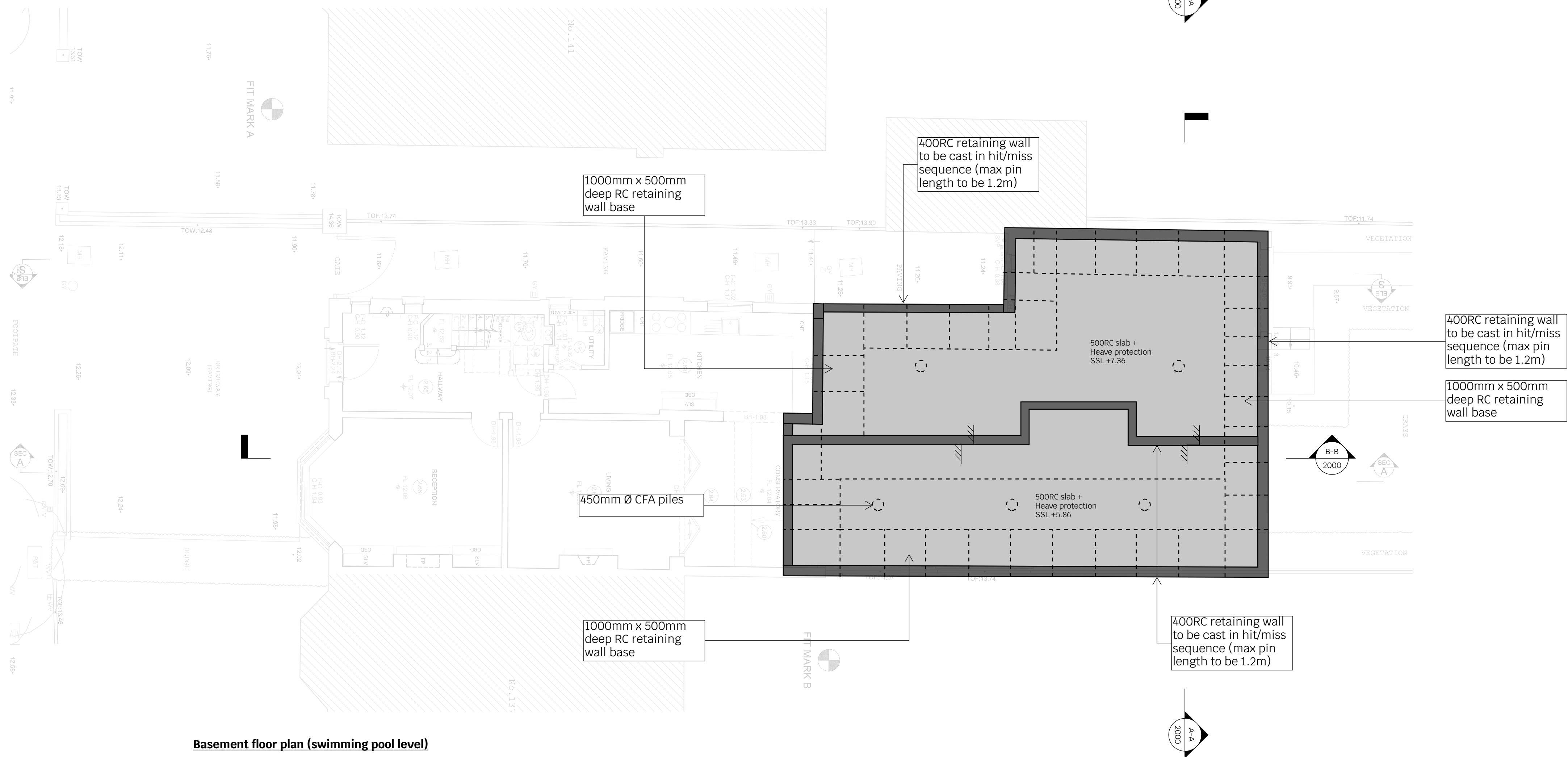
 Existing wall to be removed



Steps in RC slab



Basement floor plan (Gym/mezzanine level)



Basement floor plan (swimming pool level)



21066-SYM-XX-XX-SK-S-0900-REV P1
Structural scheme for planning
Basement floor level
139 Cranley Gardens, London N10 3AH
SB
28-07-2023

- The contractor shall be responsible for the design, installation, and sequence of all temporary works and must ensure that the stability of the structure is not compromised during the works.

RC slab

Existing RC slab/wall

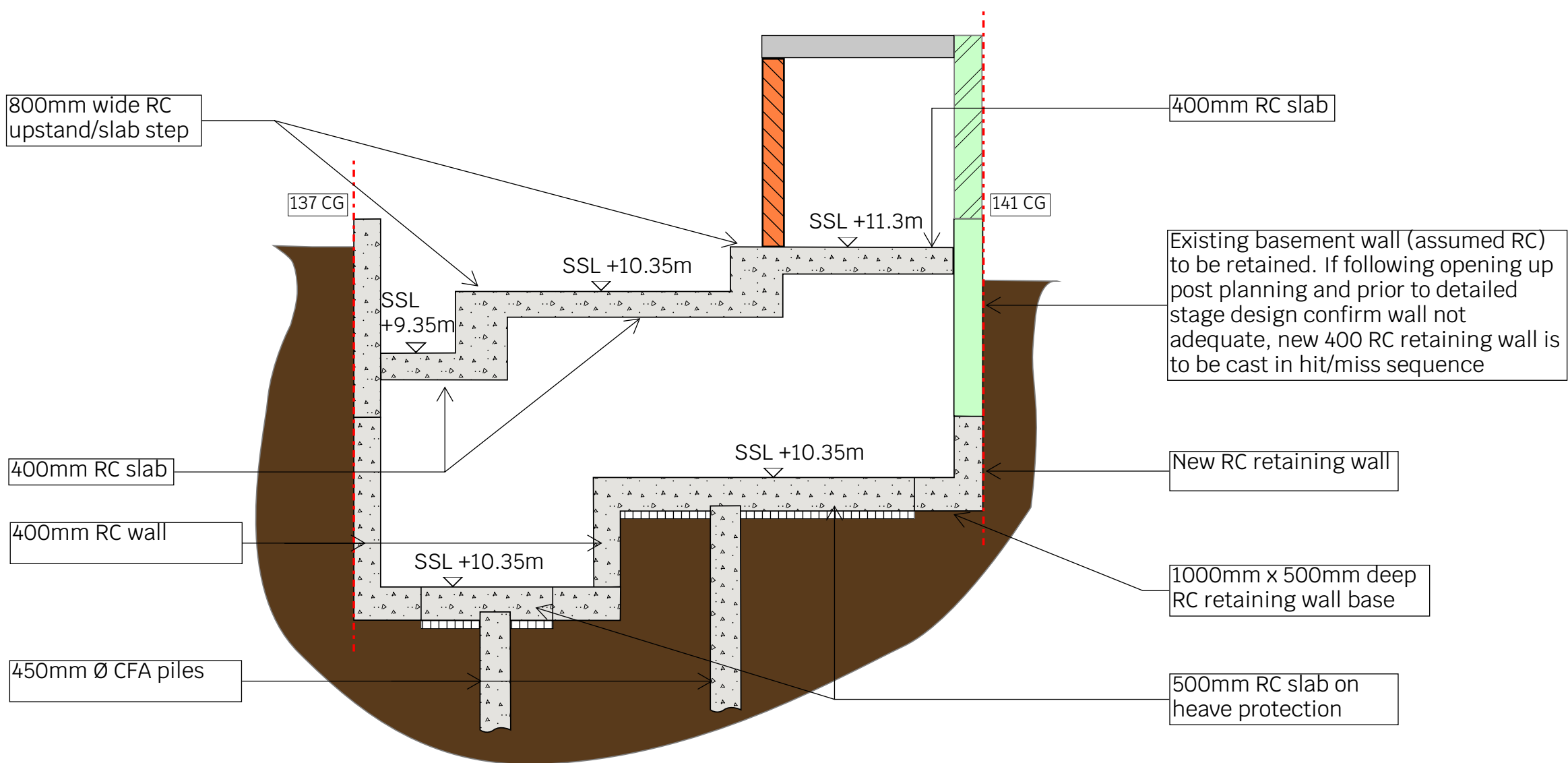
 Existing masonry wal

 New masonry wall

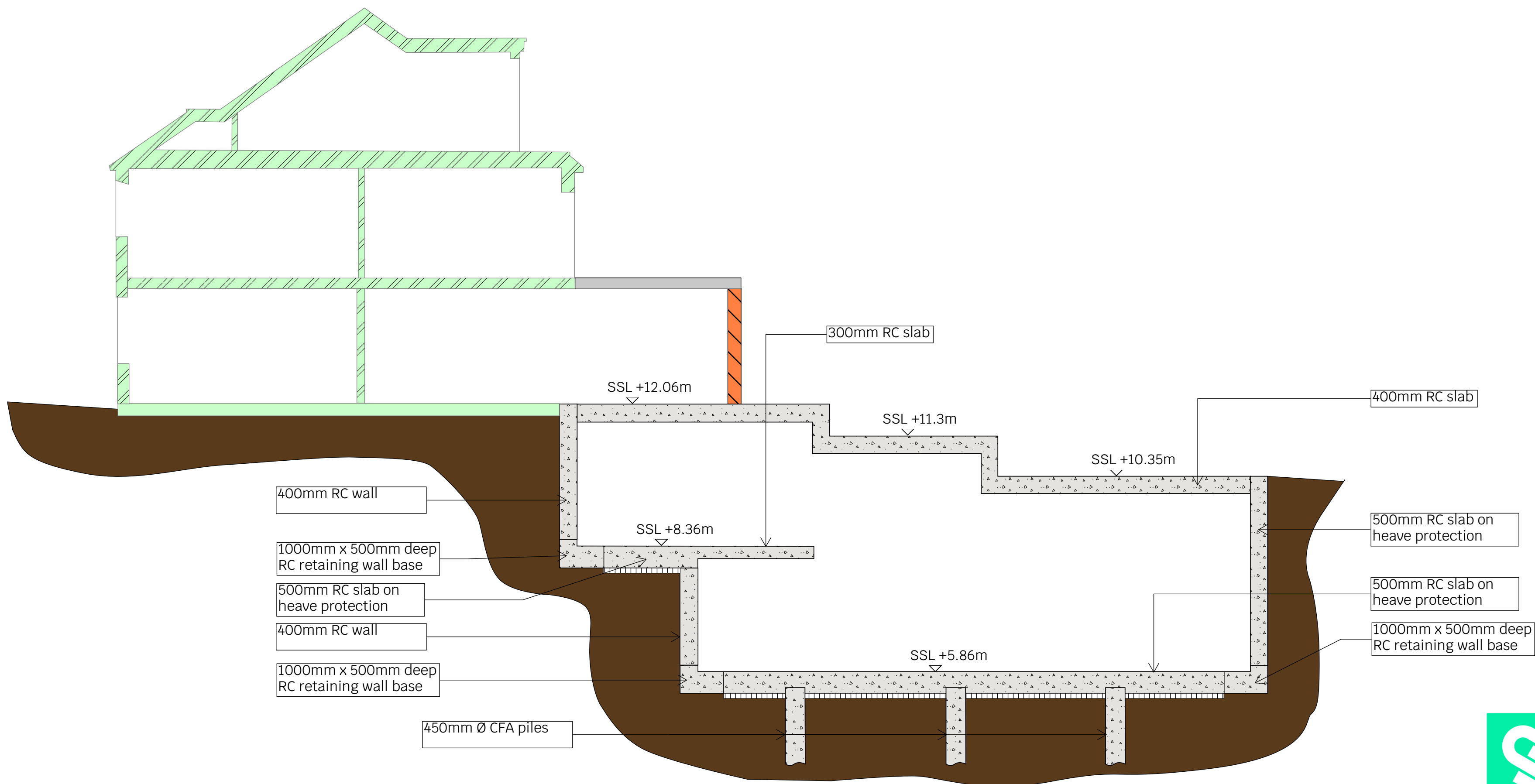
 Existing wall to be removed



Steps in RC slab



Section A-A



Section B-B

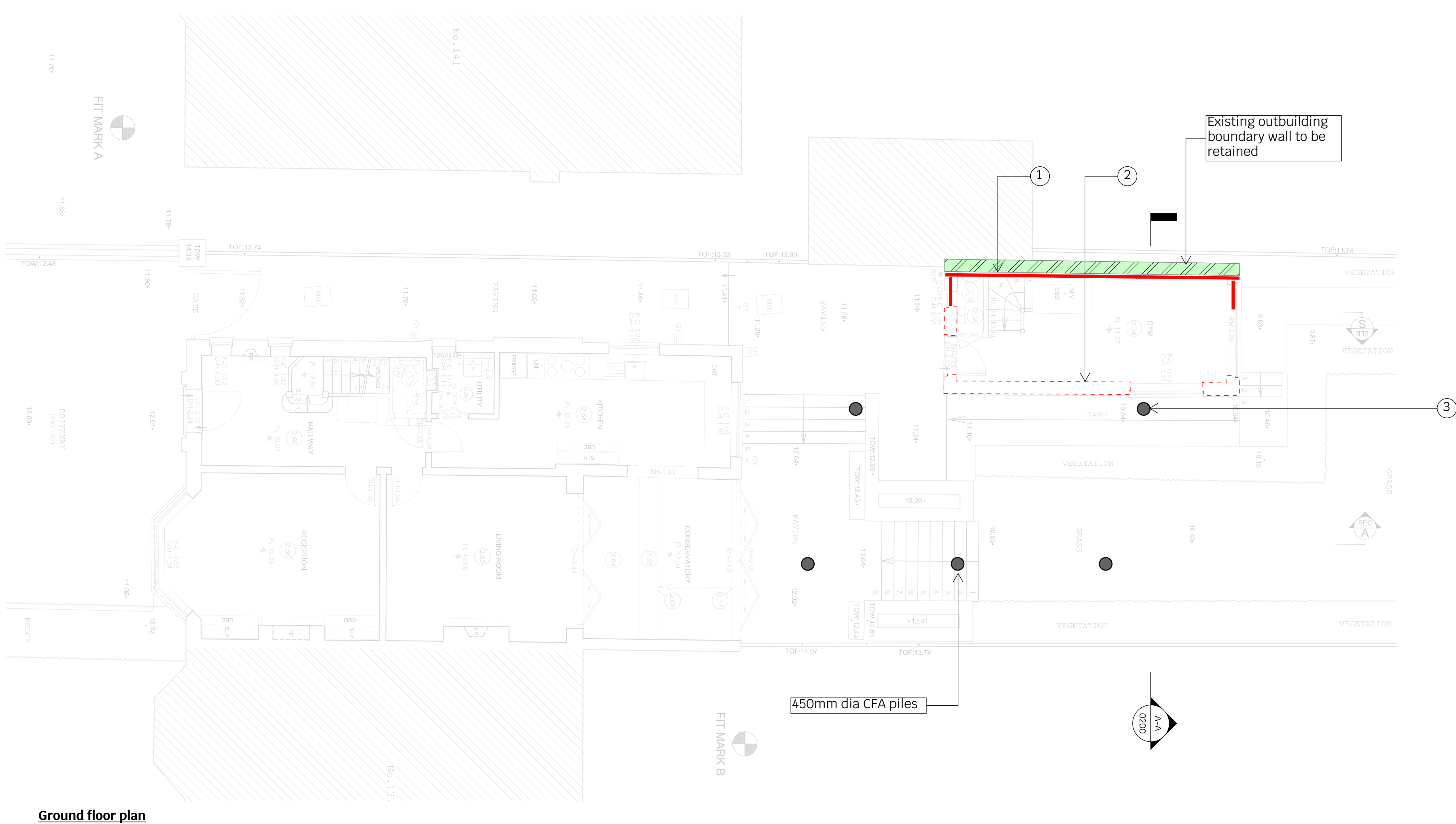


SYMMETRYS

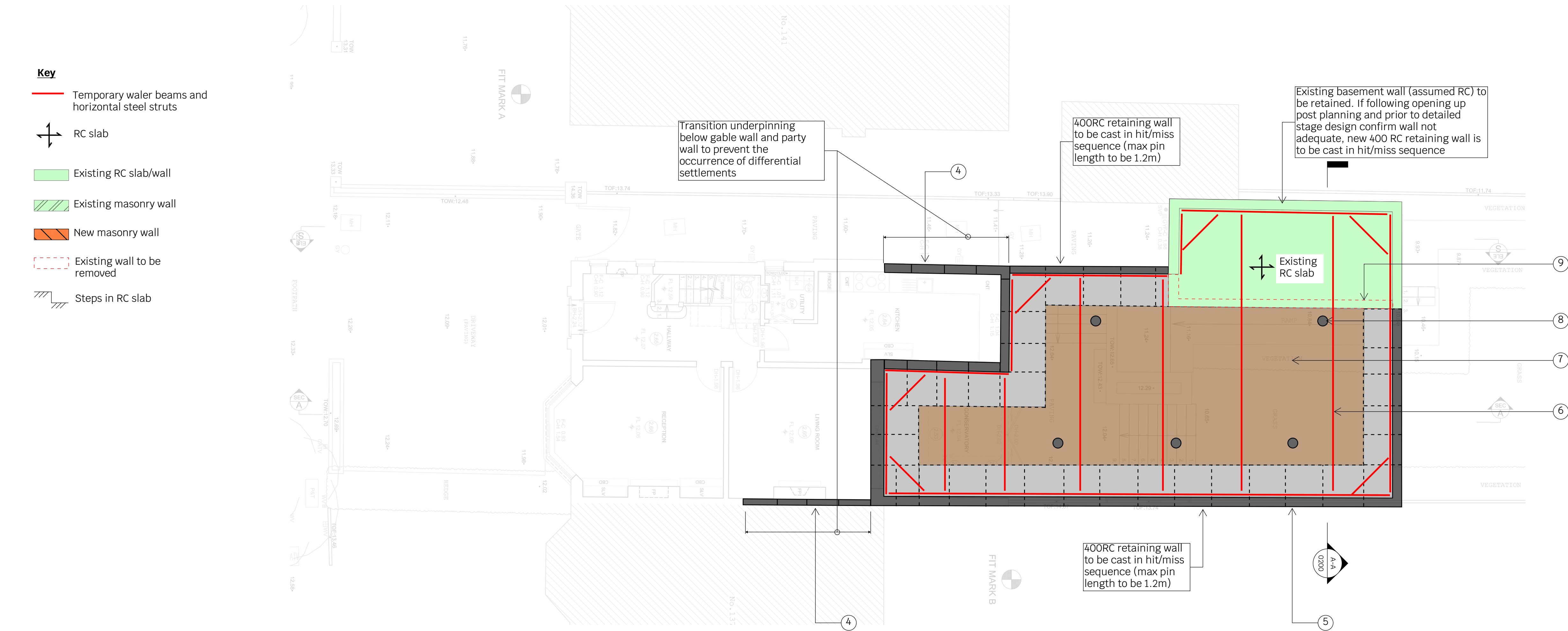
STRUCTURAL / CIVIL ENGINEERS

21066-SYM-XX-XX-SK-S-2000-REV P1
Structural scheme for planning
Sections
139 Cranley Gardens, London N10 3AH
SB
28-07-2023

- Proposed sequence of works (**):
- 1 - Temporary prop boundary wall of existing outbuilding.
 - 2 - Demolish existing outbuilding except propped boundary wall.
 - 3 - Install CFA piles.
 - 4 - Install transitional underpinning below 139 Cranley Gardens gable wall and 137/139 Cranley Gardens party wall to prevent the occurrence of differential settlements.
 - 5 - Underpin in hit/miss sequence existing building walls where located above the proposed basement footprint, and install retaining walls in underpinning (hit/miss) sequence down to proposed mezzanine / existing outbuilding basement level (*).
 - 6 - Install temporary struts and walers to allow soil level to be reduced (*).
 - 7 - Excavate proposed basement area down to proposed mezzanine / existing outbuilding basement level.
 - 8 - Cut piles to proposed mezzanine / existing outbuilding basement slab cut-off level.
 - 9 - Demolish existing outbuilding walls at basement level.
 - 10 - Cast second stage underpinning to reach pool side formation level and swimming pool structure formation level (*).
 - 11 - Excavate to proposed poolside and swimming pool level.
 - 12 - Cut piles to proposed pool side formation level and swimming pool slab cut-off levels.
 - 13 - Cast RC slab above heave protection at basement mezzanine level (including suspended slab above swimming pool), at pool side formation level and at swimming pool structure formation level.
 - 14 - Cast RC slab at ground floor level.
 - 15 - Dismantle temporary works and proceed with installation of superstructure, which steps are not covered in this section.
- (*) Sequence of works to be read in conjunction with typical multi-stage underpinning sequence highlighted in drawing 21066-SYM-XX-XX-SK-S-0201/0202/0203-REV P1
- (**) Sequence of works to be considered indicative. Temporary works design and method statement to be produced by temporary works designer and contractor post planning.

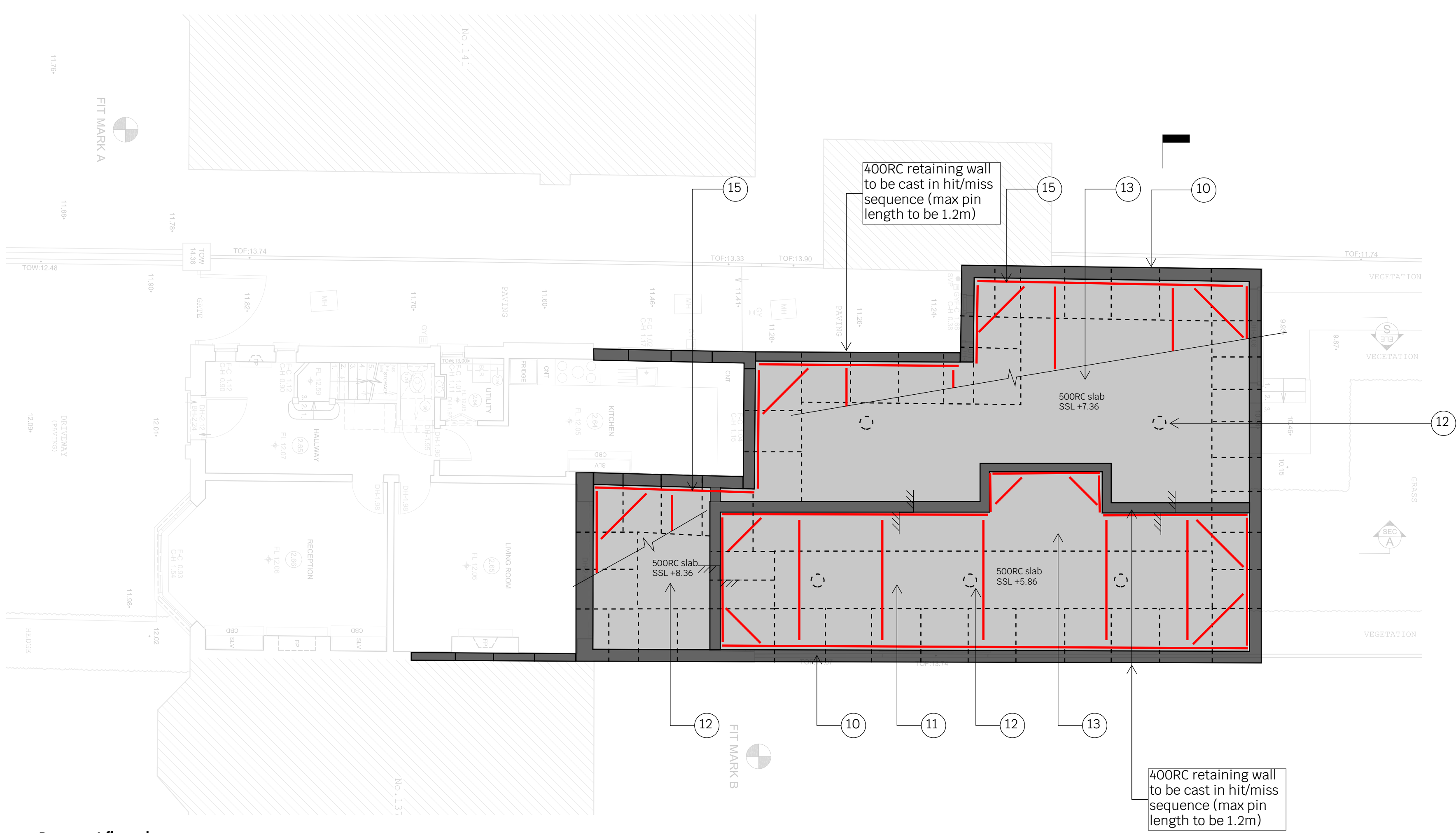


Ground floor plan

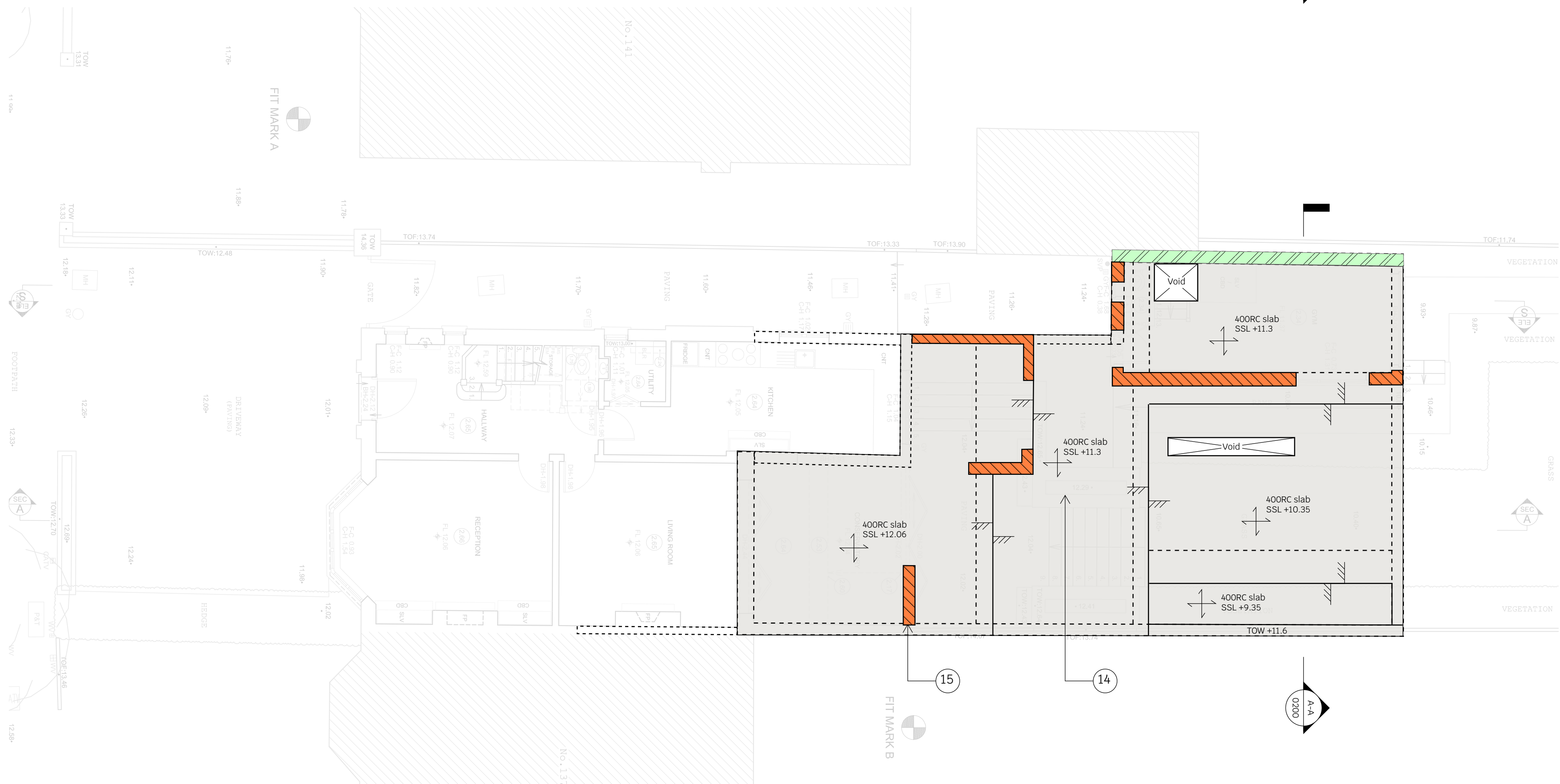


Basement floor plan (proposed mezzanine/existing outbuilding basement level)

- Proposed sequence of works (**):
- 1 - Temporary prop boundary wall of existing outbuilding.
 - 2 - Demolish existing outbuilding except propped boundary wall.
 - 3 - Install CFA piles.
 - 4 - Install transitional underpinning below 139 Cranley Gardens gable wall and 137/139 Cranley Gardens party wall to prevent the occurrence of differential settlements.
 - 5 - Underpin in hit/miss sequence existing building walls where located above the proposed basement footprint, and install retaining walls in underpinning (hit/miss) sequence down to proposed mezzanine / existing outbuilding basement level (*).
 - 6 - Install temporary struts and walers to allow soil level to be reduced (*).
 - 7 - Excavate proposed basement area down to proposed mezzanine / existing outbuilding basement level.
 - 8 - Cut piles to proposed mezzanine / existing outbuilding basement slab cut-off level.
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Basement floor plan



Ground floor plan

Key

- Temporary waler beams and horizontal steel struts
- RC slab
- Existing RC slab/wall
- Existing masonry wall
- New masonry wall
- Existing wall to be removed
- Steps in RC slab

Proposed sequence of works (**):

1 – Temporary prop boundary wall of existing outbuilding.

2 – Demolish existing outbuilding except propped boundary wall.

3 – Install CFA piles.

4 – Install transitional underpinning below 139 Cranley Gardens gable wall and 137/139 Cranley Gardens party wall to prevent the occurrence of differential settlements.

5 – Underpin in hit/miss sequence existing building walls where located above the proposed basement footprint, and install retaining walls in underpinning (hit/miss) sequence down to proposed mezzanine / existing outbuilding basement level (*).

6 – Install temporary struts and walers to allow soil level to be reduced (*).

7 – Excavate proposed basement area down to proposed mezzanine / existing outbuilding basement level.

8 – Cut piles to proposed mezzanine / existing outbuilding basement slab cut-off level.

9 – Demolish existing outbuilding walls at basement level.

10 – Cast second stage underpinning to reach pool side formation level and swimming pool structure formation level (*).

11 – Excavate to proposed poolside and swimming pool level.

12 – Cut piles to proposed pool side formation level and swimming pool slab cut-off levels.

13 – Cast RC slab above heave protection at basement mezzanine level (including suspended slab above swimming pool), at pool side formation level and at swimming pool structure formation level.

14 – Cast RC slab at ground floor level.

15 – Dismantle temporary works and proceed with installation of superstructure, which steps are not covered in this section.

(*) Sequence of works to be read in conjunction with typical multi-stage underpinning sequence highlighted in drawing 21066-SYM-XX-XX-SK-S-0201/0202/0203-REV P1

(**) Sequence of works to be considered indicative. Temporary works design and method statement to be produced by temporary works designer and contractor post planning.

Section A-A (sequence 1 to 9)

Section A-A (sequence 10 to 12)

Section A-A (sequence 13 to 14)

Section A-A (sequence 15)

- Key
- Temporary waler beams and horizontal steel struts

RC slab

Existing RC slab/wall

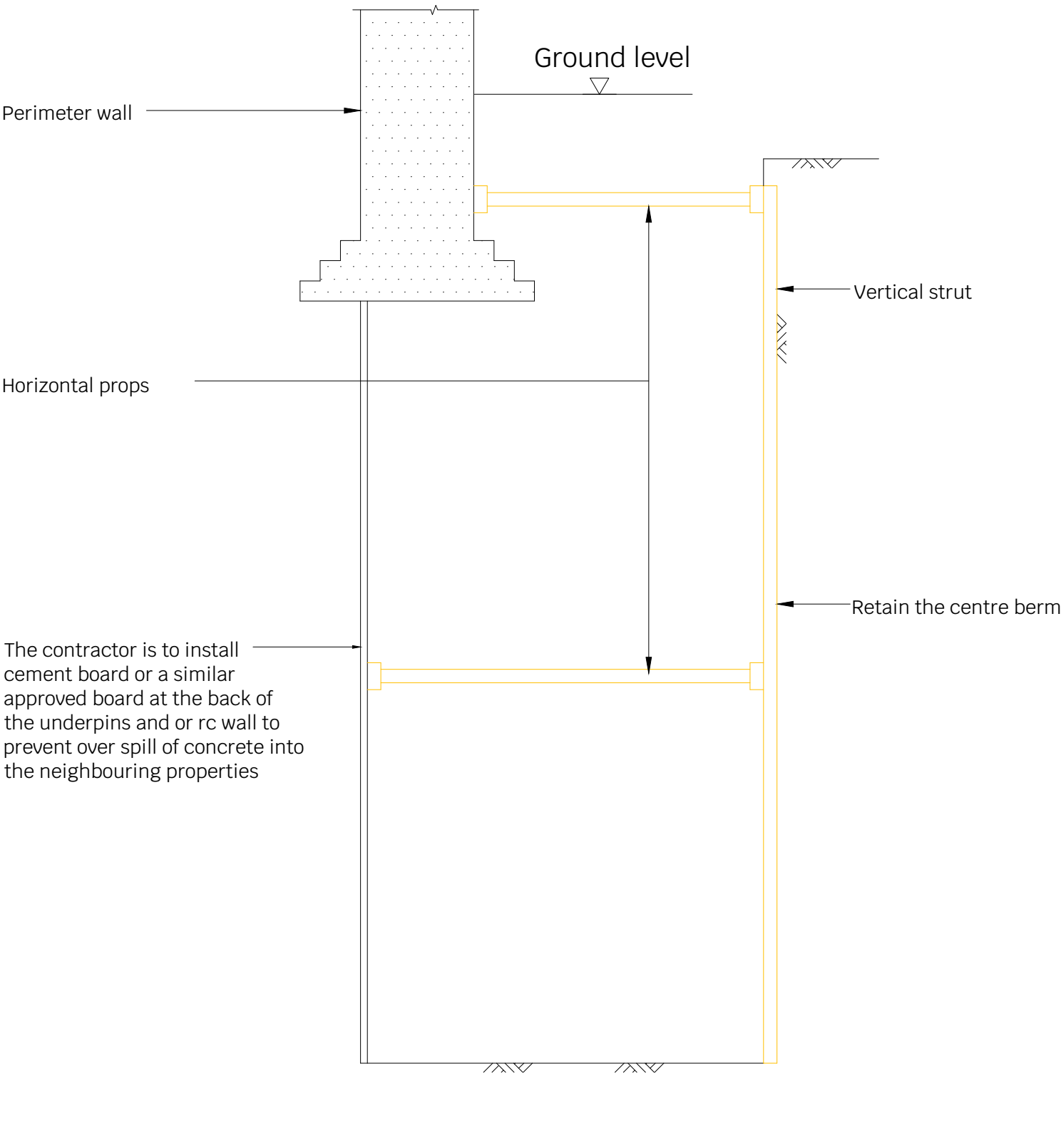
Existing masonry wall

New masonry wall

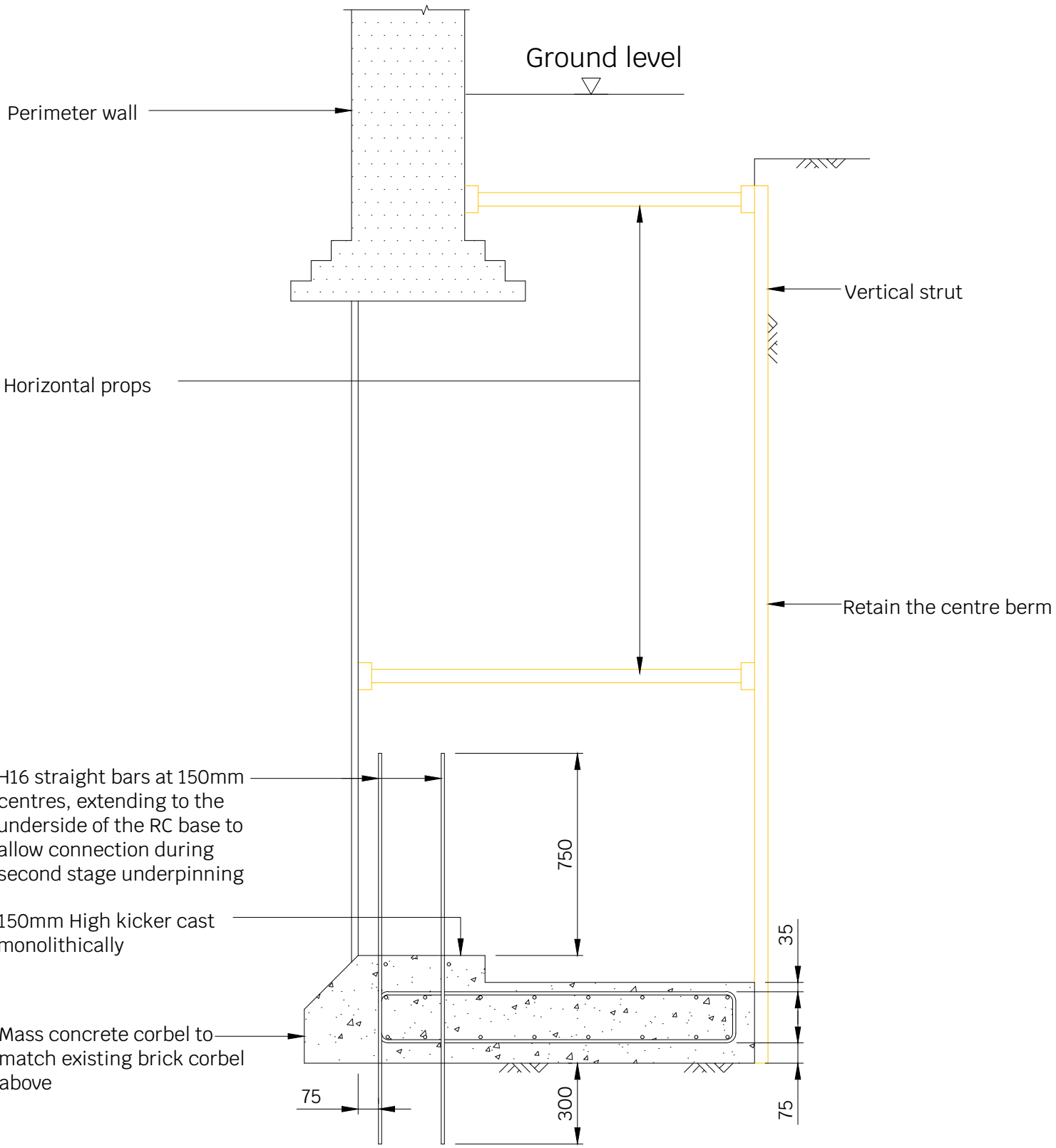
Existing wall to be removed

Steps in RC slab

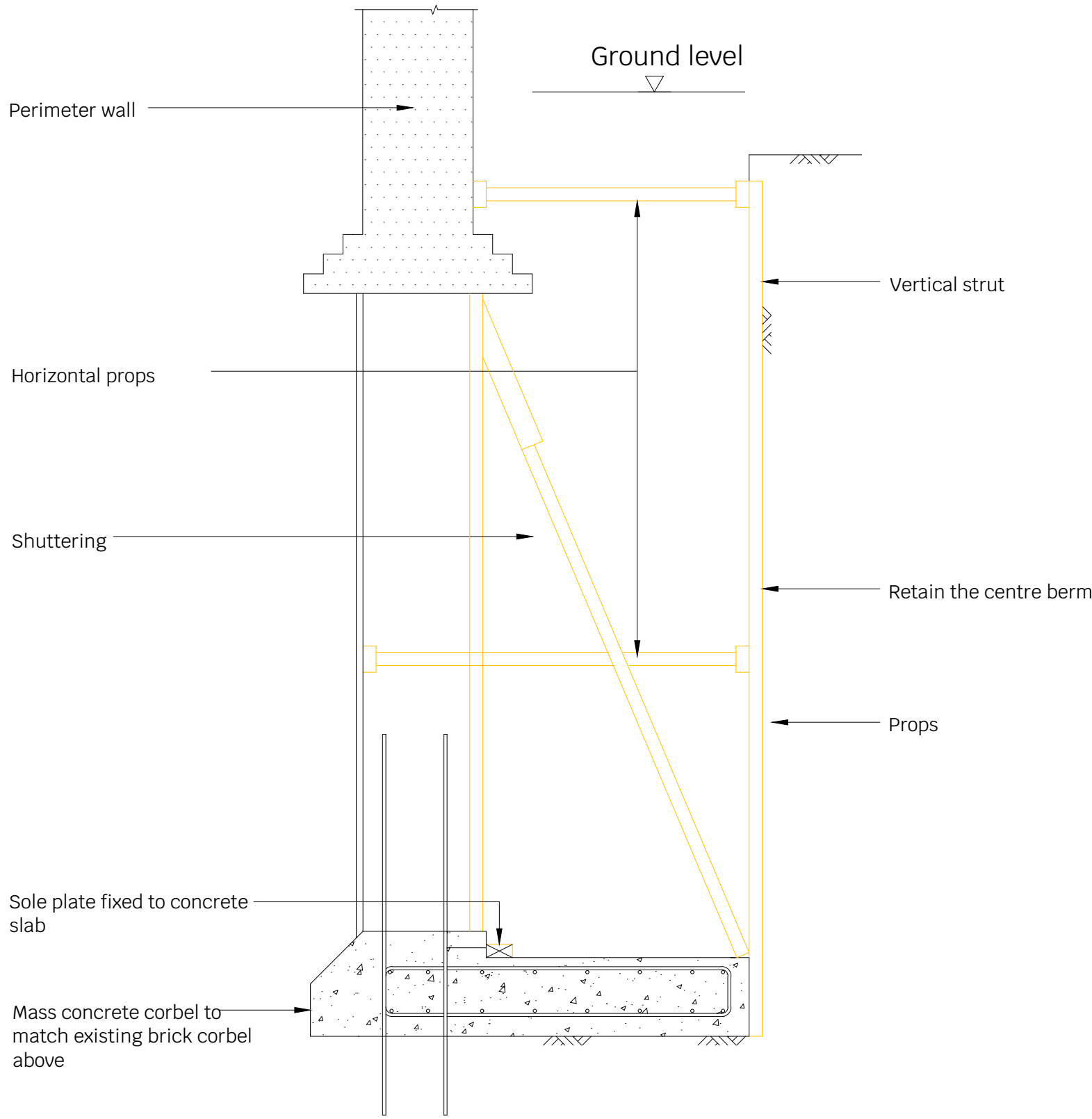
Note:
- Where no existing perimeter wall is present, board at the back to the underpins to extended to and propped at ground level, and perimeter wall to be ignored from the construction sequence.
- Underpins at each stage to be offset horizontally to avoid a continuous bottom to top vertical joint.



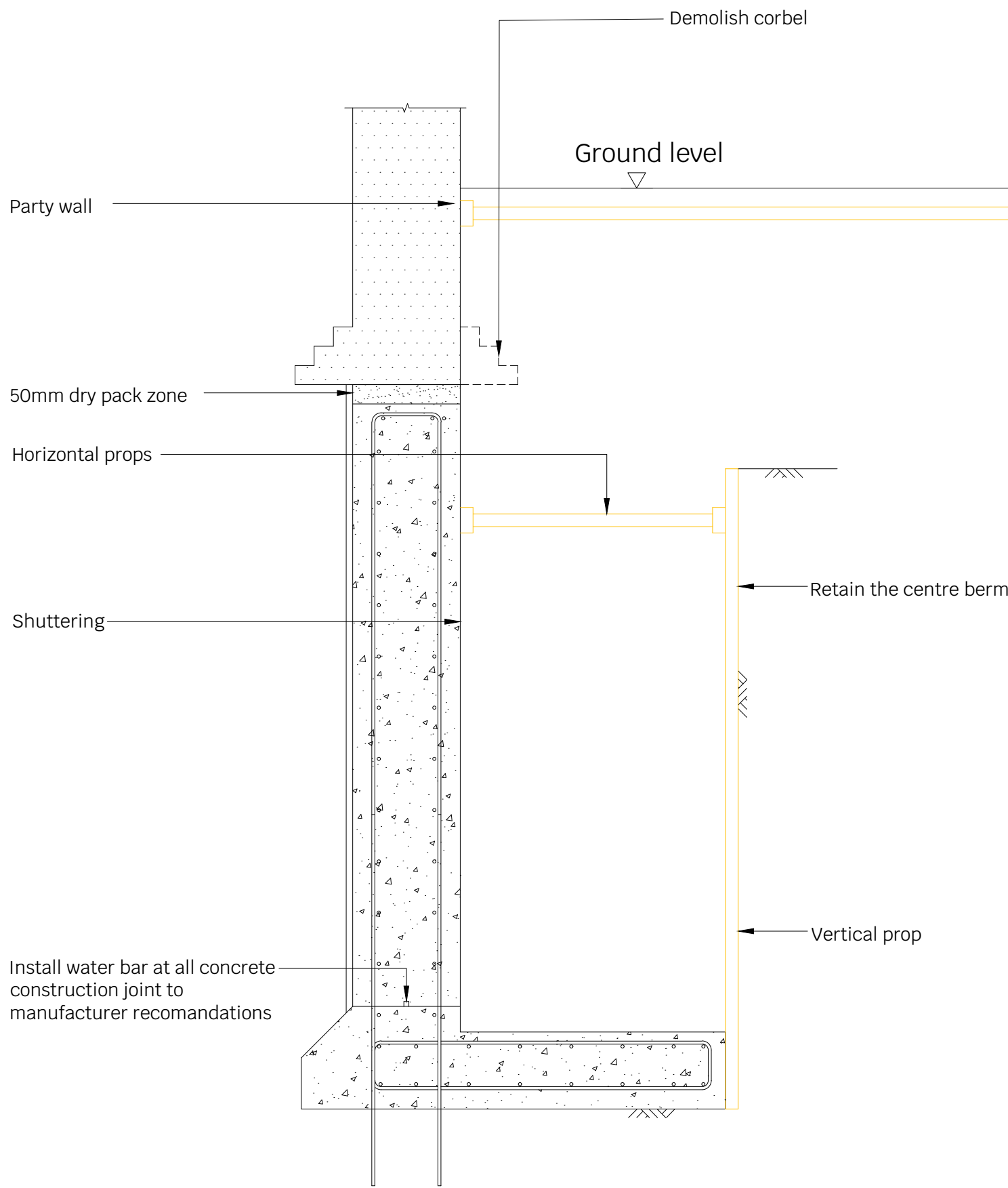
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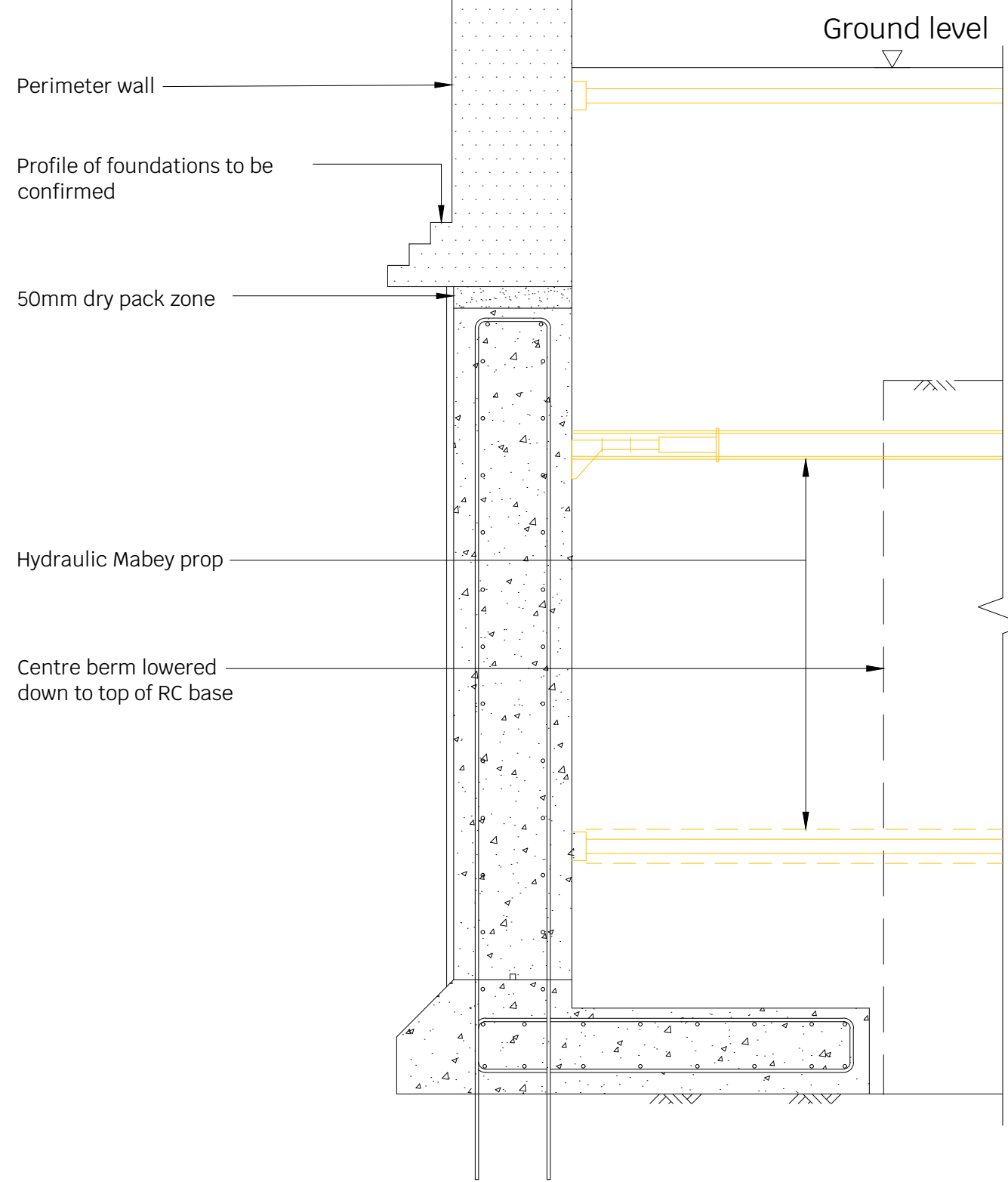
Sequence 2



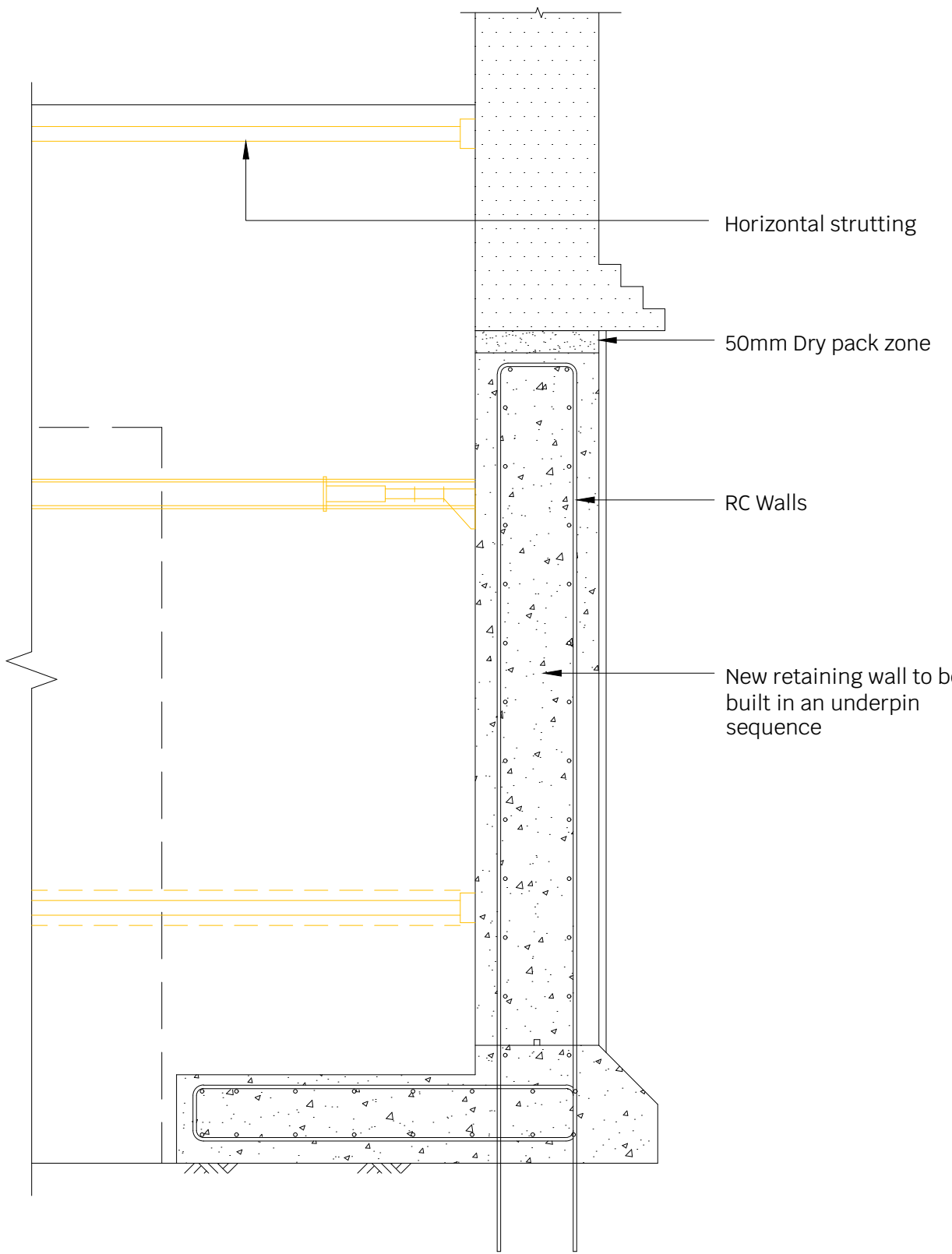
Sequence 3



Sequence 4



Sequence 5



Notes

1. This drawing is to be read in conjunction with all relevant Architects & Engineers drawings and specifications
2. Do not scale from this drawing

P1	26.04.23	SB	CA	Preliminary Issue
Rev	Date	Drwn	Chkd	Amendments

Drawing Status PRELIMINARY



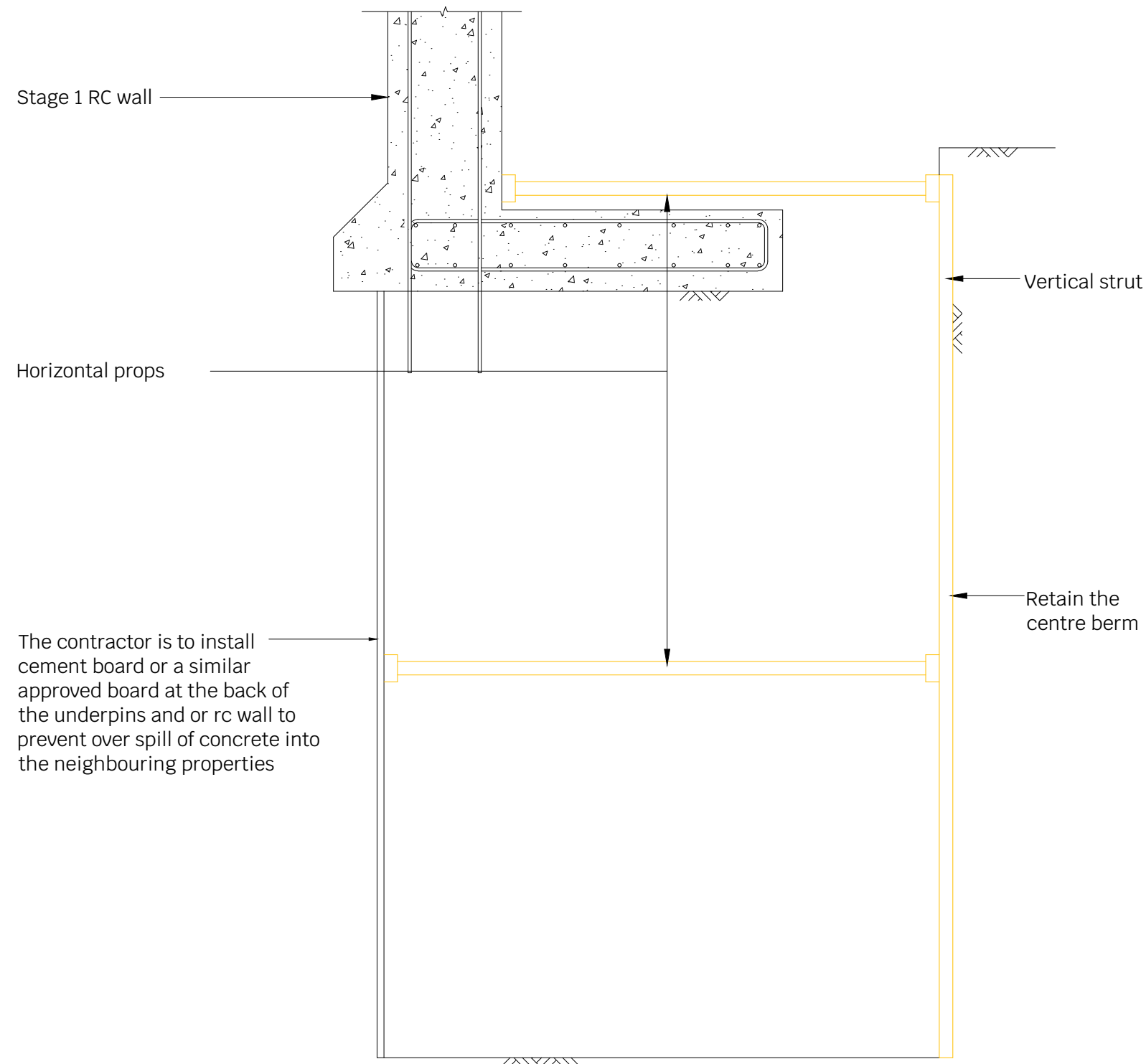
T 020 8340 4041 / E INFO@SYMMETRYS.COM / SYMMETRYS.COM / LONDON N8 8SL

Job Title
139 CRANLEY GARDENS
LONDON N10 3AH

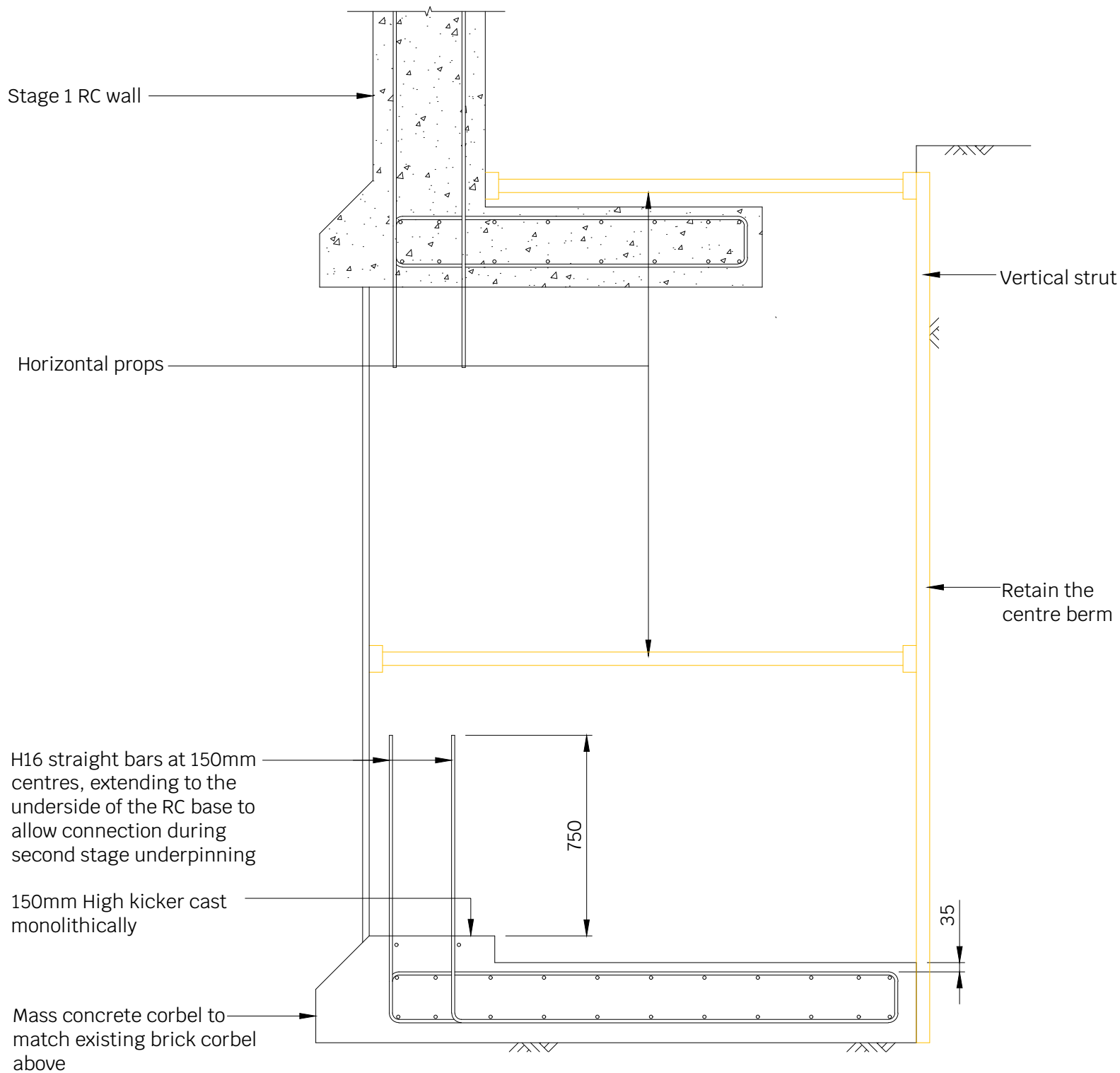
Drawing Title
TYPICAL MULTI STAGE
UNDERPINNING SEQUENCE
SHEET 1 OF 3

Project	Company	Zones	Level	Type	Role	Number
21066-	SYM	- XX	- XX	- DR	- S	- 0201
Scale: 1:20 AT A1		Drawn By: JS		Revision:		
Date: APRIL 2023		Checked By: SB		P1		

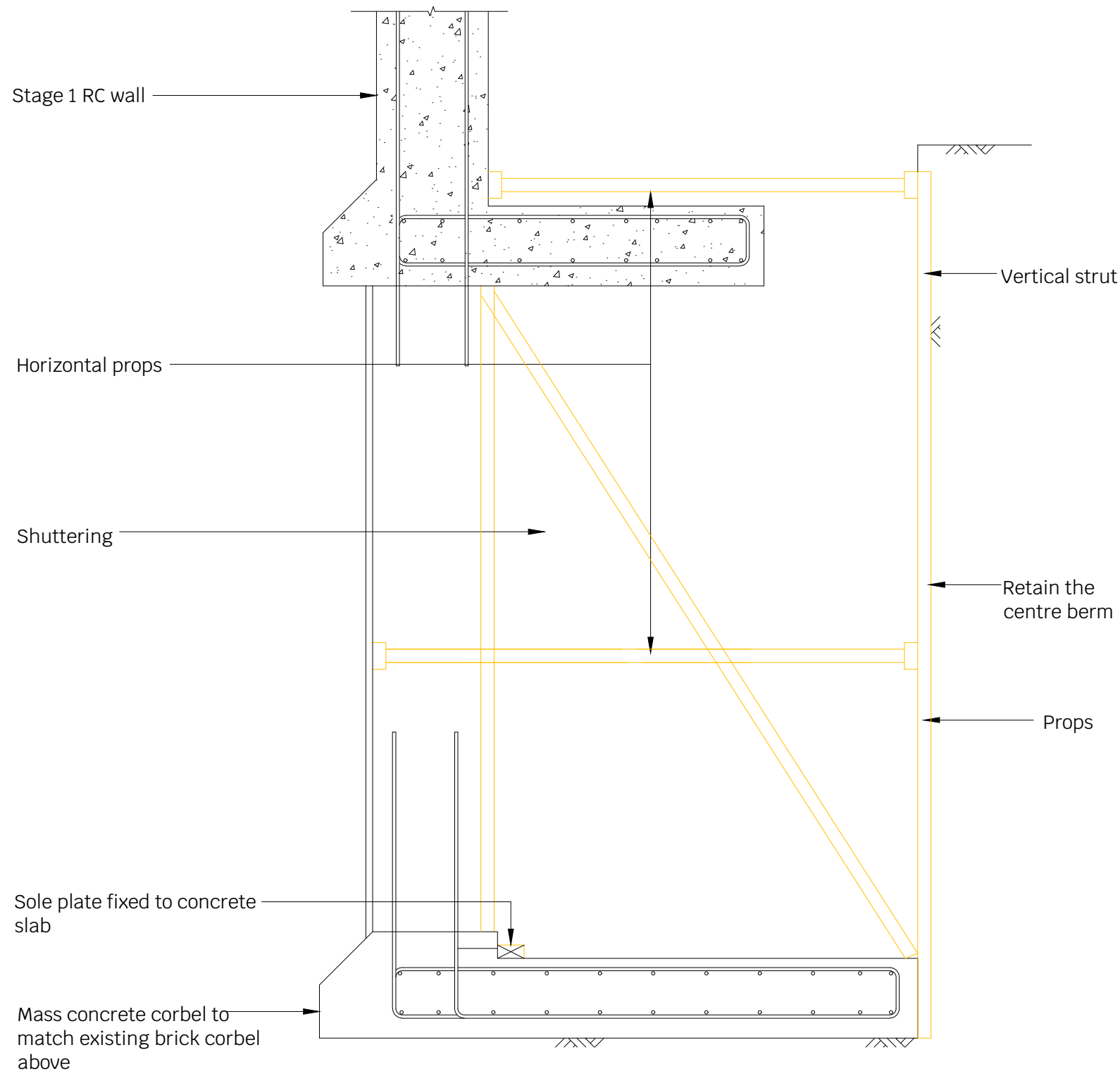
Note:
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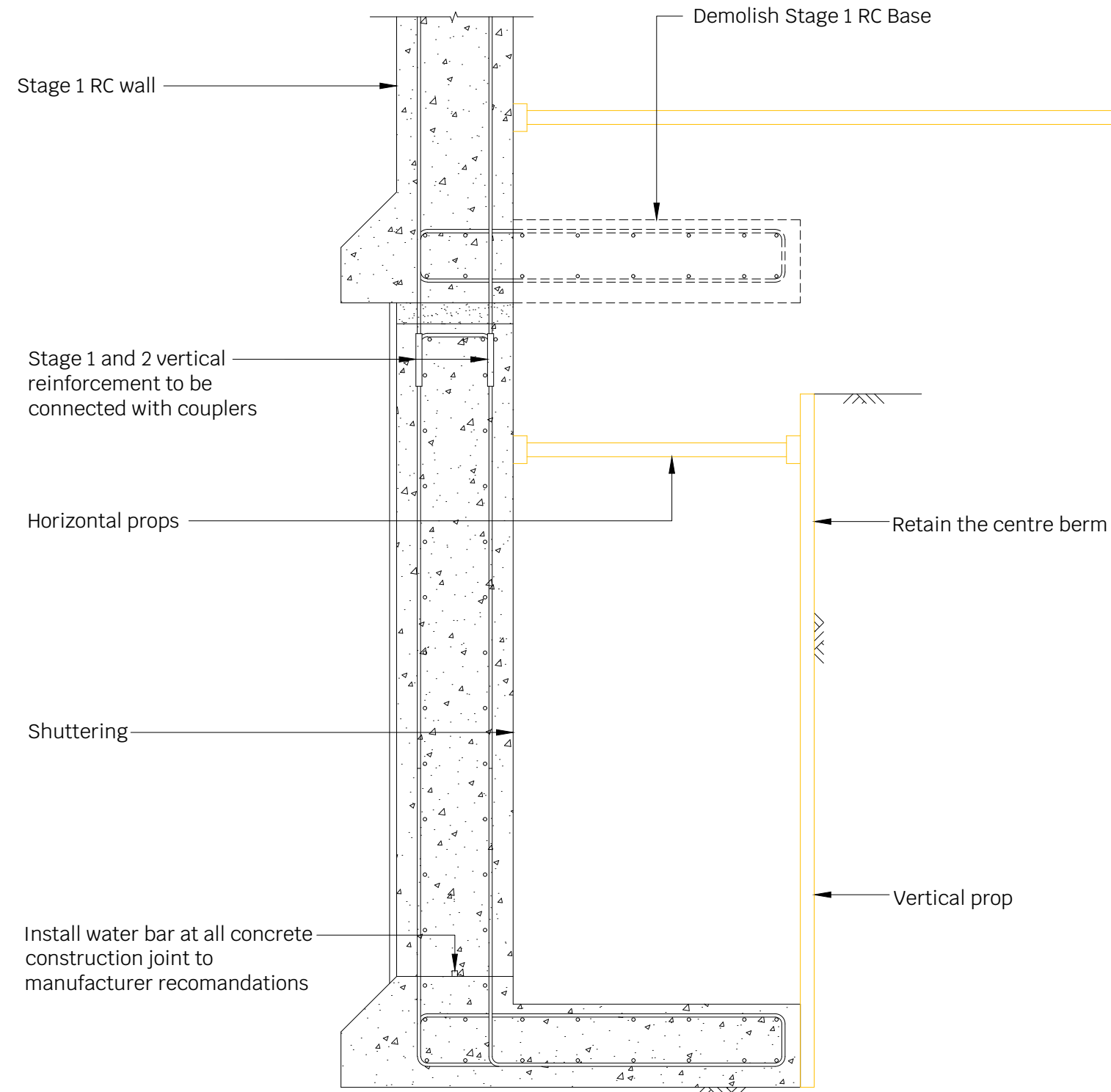
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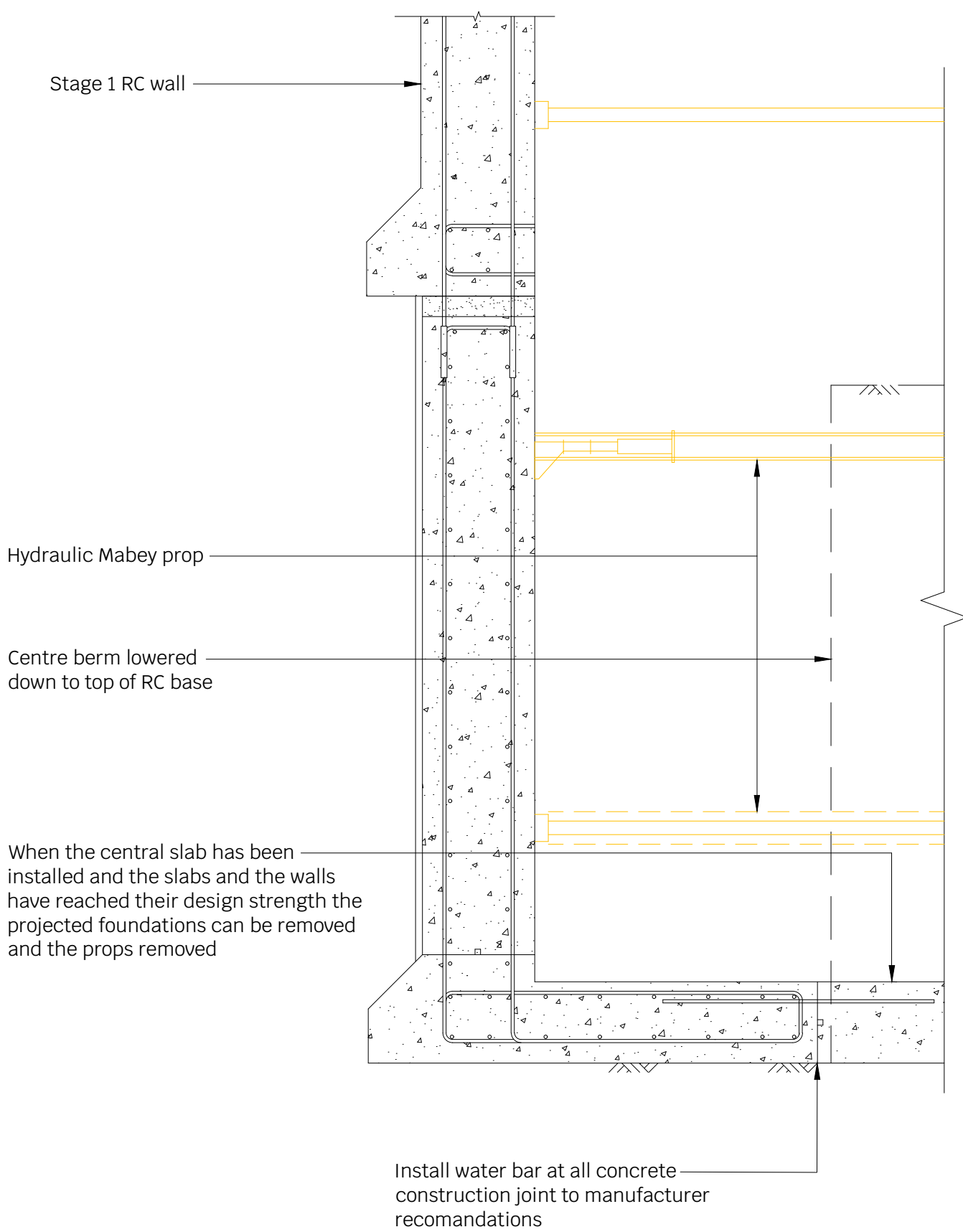
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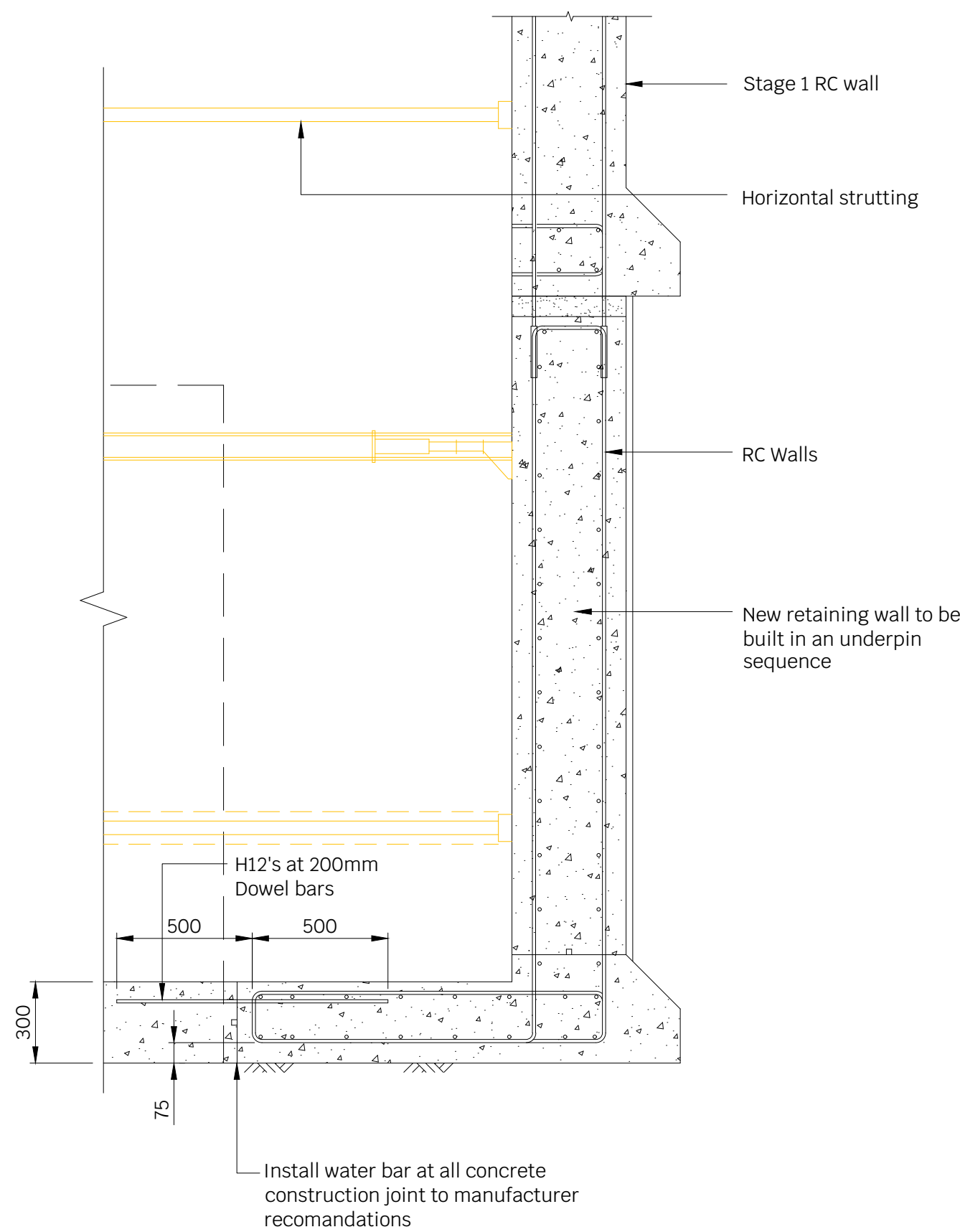
Sequence 8



Sequence 9



Sequence 10



Notes

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Rev	Date	Drwn	Chkd	Amendments		
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 SYMMETRYS STRUCTURAL / CIVIL ENGINEERS T 020 8340 4041 / E INFO@SYMMETRYS.COM / SYMMETRYS.COM / LONDON N8 8SL Job Title 139 CRANLEY GARDENS LONDON N10 3AH						
Drawing Title TYPICAL MULTI STAGE UNDERPINNING SEQUENCE SHEET 2 OF 3						
Project	Company	Zones	Level	Type	Role	Number
21066-	SYM	- XX	- XX	- DR	- S	- 0202
Scale: 1:20 AT A1					Revision :	
Date: APRIL 2023		Drawn By: JS		P1		
		Checked By: SB				

Proposed method statement/
suggested sequence of works

- 1
- Locally underpin walls at positions marked to be used to support temporary works

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Underpinning

1. Dry pack grout underpinning to be to the following specification:

a. Mix to be 3:1 of sharp sand o.p.c.

b. Sand to be sharpest that can be handled

c. Water content to be just enough to allow balling when compressed by hand
2. Excavation for new foundations to be carried out in maximum 1.0m lengths with a minimum clear space of 3.6m between open excavations at any one time
3. "Over-dig" for access purpose is only permitted in the direction away from the existing building. additional excavation of any kind which may undermine the existing foundations is strictly forbidden during underpinning operations
4. Underside of existing foundations to be underpinned shall be thoroughly cleaned to expose sound concrete/brickwork
5. New foundations to be concreted/bricked up to within 75mm of underside of the existing foundation (50mm absolute minimum clear)
6. After a minimum curing period of 24 hours, the 75mm gap is to be pinned by hand or machine rammed of dry pack grout
7. Subsequent excavations cannot commence for a minimum of 48 hours after pinning
8. Contractors method statement and programme is to be issued and approved prior to works commencing on site
9. Underpins to be connected with 4No. H16 bars

Foundations

1. All foundations to bear on gravel/clay strata minimum depth 1000mm. Allowable bearing pressure required 100kN/m²
2. All concrete to be grade 30 unless otherwise stated (30N/mm² minimum)
3. Blinding to be grade C25 concrete down to bearing strata (minimum 50mm)
- 4.Soft spots encountered in subgrade to be removed and filled in layers not greater than 300mm. Fill material to be inert graded granular materials of maximum size 25mm
5. All excavations to be cleaned and approved by engineer and building control officer on site prior to concreting or blinding
6. Maximum aggregates sizes as follows

- blinding and mass concrete - 20mm

Notes

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P1	26.04.23	SB	CA	Preliminary Issue
Rev	Date	Drwn	Chkd	Amendments

Drawing Status

PRELIMINARY



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STRUCTURAL / CIVIL ENGINEERS

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Job Title

139 CRANLEY GARDENS

LONDON N10 3AH

Drawing Title

TYPICAL MULTI STAGE

UNDERPINNING SEQUENCE

SHEET 3 OF 3

Project	Company	Zones	Level	Type	Role	Number
21066-	SYM	- XX	- XX	- DR	- S	- 0203

Scale: 1:20 AT A1

Date: APRIL 2023

Drawn By: JS

Checked By: SB

Revision :

P1

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