



**22-24 KING'S MEWS
LONDON, WC1N**

CONSTRUCTION METHOD STATEMENT

MARCH 2018

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REVISION HISTORY

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CONSTRUCTION METHOD STATEMENT **22-24 KING'S MEWS, LONDON WC1N**

INTRODUCTION AND SCOPE OF WORKS

It is proposed to create a new basement level below the existing properties at 22-24 King's Mews, demolish the existing roof and all internal structure as well as most of the front façade, and build three self-contained properties.

The property consists of what was originally three mews houses, with Nos 23 and 24 having been joined in past with no party wall in between. The internal structure consists of steel columns and steel beams with timber floors spanning front to back. Most of the timber floors had been removed and only steel carcass with timber roof remains on the first floor level. Second floor had been partially retained.

No 22 is separated from 23-24 by thick masonry wall and has different structure with one central spine beam spanning front to back and timber joists spanning party wall to party wall. Similarly to Nos 23-24 most of the structure had been removed with a timber mezzanine level remaining at the rear.

It is proposed to carry out works starting from the basement works and steel erection in the middle part of the property, at No 23; then the works will progress to No 24, and finally to complete the basement No 22 will be underpinned and basement "box" complete.

The internal structure will be demolished and replaced with a new structure. This will include two new columns on pad foundations and steel superstructure with beam and block ground floor construction.

The new basement will be formed by underpinning the external walls using reinforced concrete underpinning on three sides and mass concrete underpinning with reinforced concrete liner wall on party wall to No 5 side.

The works will also include replacement of the existing steel structure within front elevations.

CONSTRUCTION DRAWINGS

See drawing TW/01- TW/07 for sequence of works and location of the proposed propping.

CONSTRUCTION SEQUENCE

TEMPORARY PROPPING TO THE EXISTING WALLS

Before demolition of all internal structure, front elevation and the roof the existing walls to be propped using diagonal braces.

1. Install diagonal bracing as shown on the drawing TW01 just below the existing roof level, then continue to installing bracing at each level, just above the existing floor structure, including ground floor.
2. Demolish existing roof, internal structure and section of the front wall at No 23 as well as any loose brickwork on front elevation that is not restrained by diagonal bracing
3. Carry on with basement works as per sequence below
4. Once basement is cast and ground floor structure installed, remove lowest level of bracing.

5. Progressively install new floors structure and tie into existing retained masonry walls.
6. When new floor plates are complete and tied into perimeter walls, remove the remaining diagonal bracing.

CONSTRUCTION SEQUENCE OF THE NEW BASEMENT

1. Reduce the level across the site to the just above the bottom of the existing perimeter wall foundations
2. Install trench sheets as shows on sketch TW03 along gridlines 2 and 3.
3. Cast new retaining wall in underpinning sequence on front elevation line and prop against the central berm
4. Underpin rear party wall to No 49 Grays Inn Road
5. Reduce dig in between trench sheets
6. Install RMD wailers to prop top of the trench sheets
7. Excavate locally and cast trust block on gridline 3
8. Install RMD wailer on gridline A approximately 500mm above the bottom of the underpinning wall. Prop wailer using diagonal braces against trench sheet wall on one side and against thrust block on other side
9. Install RMD wailer on gridline C approximately 500mm above the bottom of the underpinning wall. Prop wailer using diagonal braces against trench sheet wall
10. Reduce dig between trench sheets to approximately 500mm above the proposed basement slab level and install lower level of wailers and props to the trench sheets
11. Excavate the rest of the soil. Install new foundations.
12. The below – slab drainage for foul & ground water, sumps and pumps will then be installed.
13. Cast new basement slab at No 23.

14. Start reducing dig from gridline B towards gridline C at No 24
15. Cast new retaining wall in underpinning sequence on front elevation line and prop against the central berm
16. Cast the thrust block as indicated to provide a platform to prop against for the front elevation retaining wall temporary propping
17. Install raking RMD props to front elevation underpinning
18. Once raking props are in, commence excavation of the remaining berm
19. Cast new foundations where required and new basement slab to No 24.
20. Once slab had gained sufficient strength remove the low level propping
21. Install new ground floor structure
22. Once structural topping to beam and block gained sufficient strength remove the high level propping.

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