

FIG. 10: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF TRUSS SURVEYED NOT TO SCALE

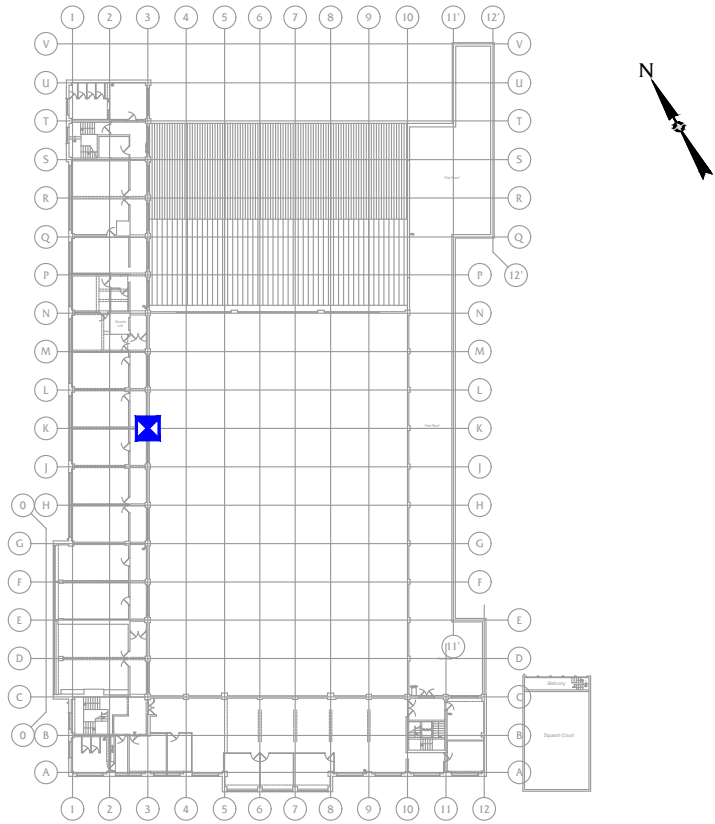


FIG. 12: PART ELEVATION LOOKING WEST SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA K3 SCALE 1:10

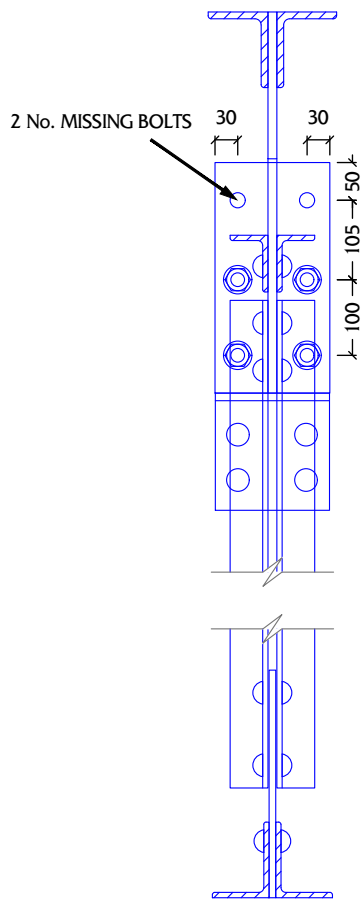
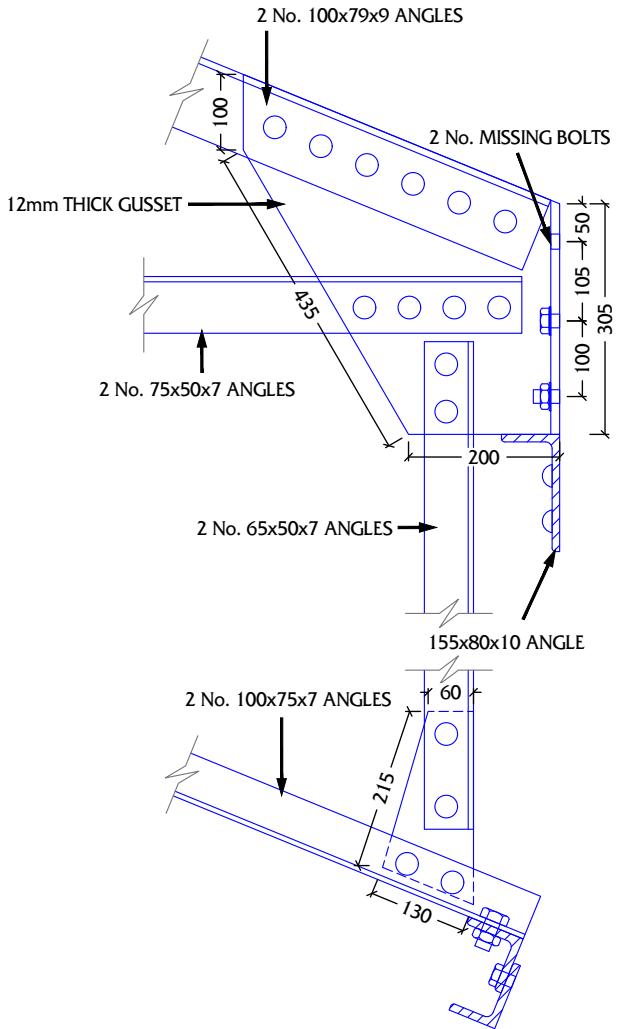


FIG. 11: PART ELEVATION LOOKING SOUTH SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA K3 SCALE 1:10



NOTES

STEELWORK GENERALLY EXHIBITS LIGHT SURFACE CORROSION WHERE EXPOSED.
GUSSET PLATE BELOW TOP CHORD EXHIBITS MODERATE SURFACE CORROSION WHERE EXPOSED.
RIVETS APPEAR TO BE IN POOR CONDITION COMPARED TO ELSEWHERE.
LOSS OF SECTION TO ANGLE SUPPORTING TOP GUSSET.
LOTS OF VEGETATION GROWING THROUGH BRICKWORK.
BRICKWORK MORTAR IS SOFT AND EASILY BROKEN OUT.



P11a: BOTTOM CONNECTION OF TRUSS K3



P11b: TOP CONNECTION AT TRUSS K3

AERIAL VIEW OF SITE



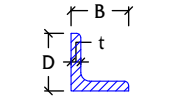
SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- ROOF TRUSS INVESTIGATED
- STEELWORK

MATERIAL TYPES

- STEELWORK

STEEL MEASUREMENT DETAILS (ANGLE)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

PURPOSE OF INVESTIGATION TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF TRUSS CONNECTIONS
SHEET 4 OF 8

Drawn HW SEP 20 CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-TR4



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FIG. 13: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF TRUSS SURVEYED NOT TO SCALE

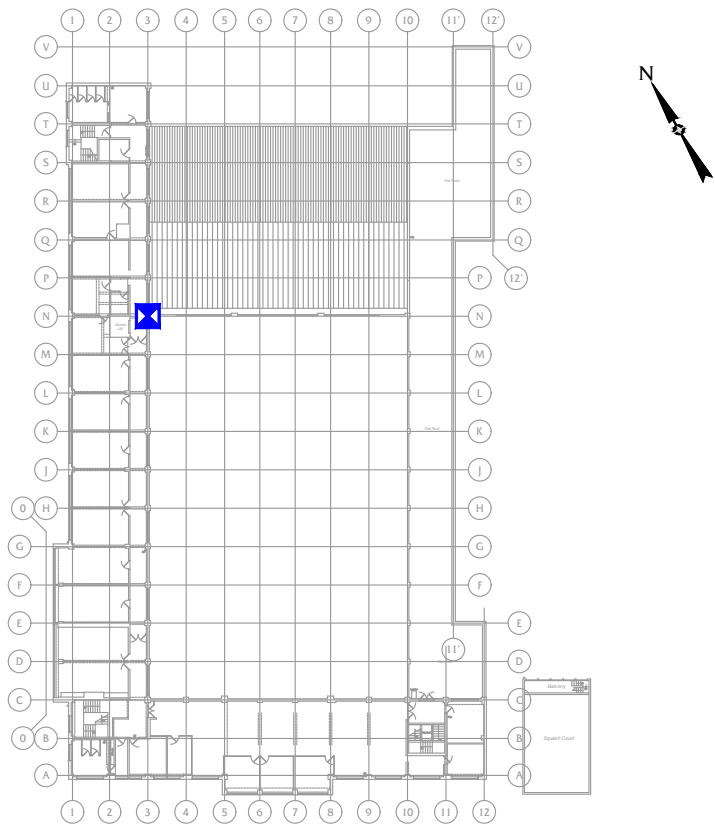


FIG. 14: SCHEMATIC ELEVATION SHOWING BEAM / CHANNEL LAYOUT - SURVEY AREA N3 NOT TO SCALE

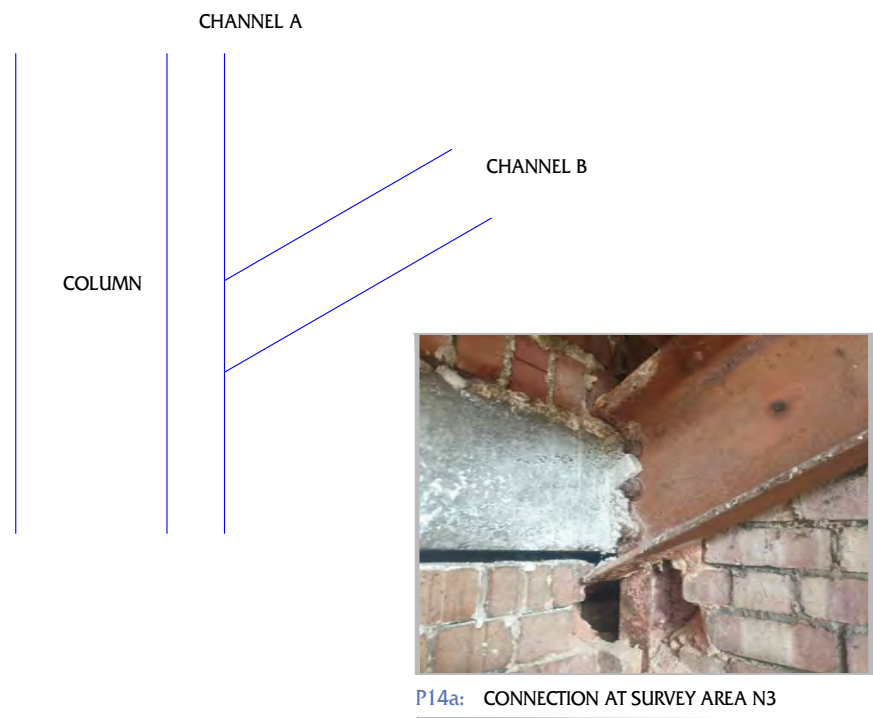


FIG. 15: PART PLAN SHOWING SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS ELEMENTS SURVEYED - SURVEY AREA N3 SCALE 1:10

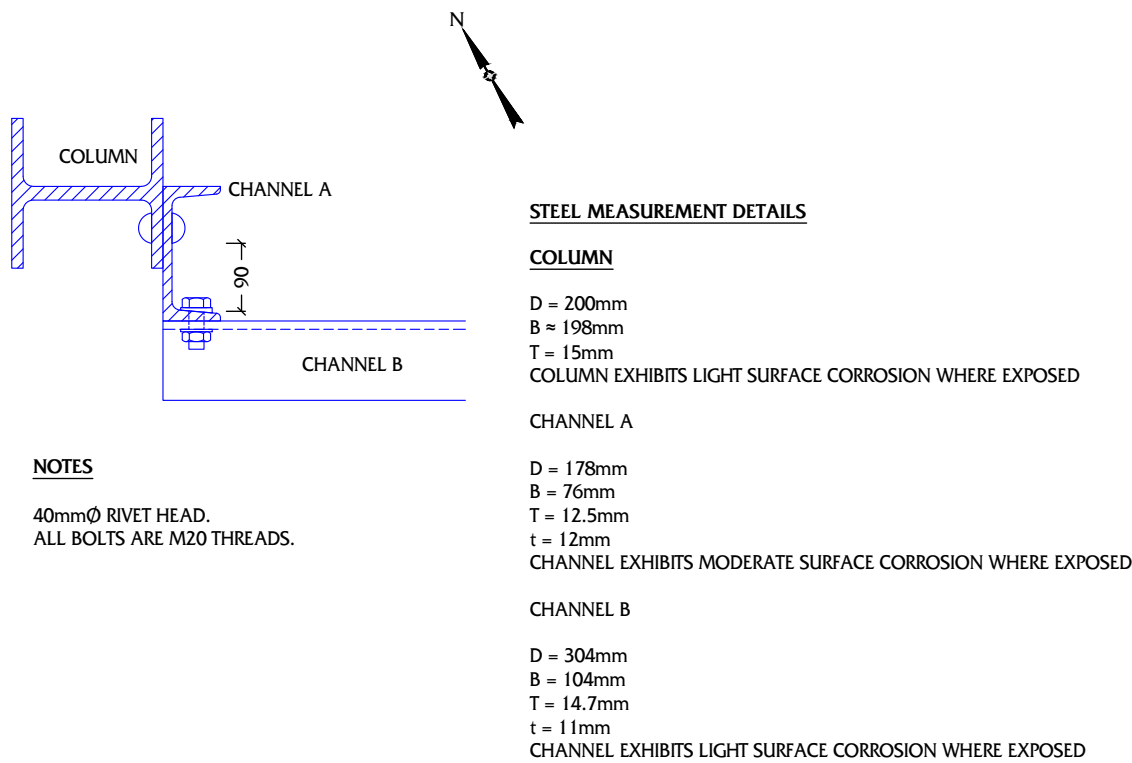
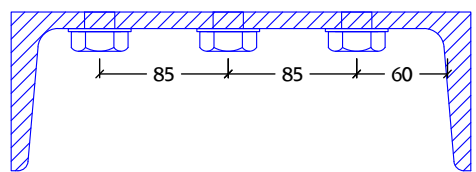


FIG. 16: PART SECTION THROUGH CHANNEL B SHOWING BOLT SPACINGS - SURVEY AREA N3 SCALE 1:5



AERIAL VIEW OF SITE



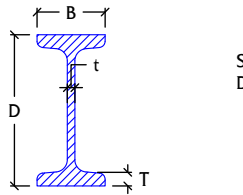
SYMBOLS USED

PLAN EXTENT OF BUILDING SURVEYED	ROOF TRUSS INVESTIGATED	STEELWORK

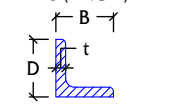
MATERIAL TYPES

	STEELWORK
--	-----------

STEEL MEASUREMENT DETAILS (BEAM / COLUMN)



STEEL MEASUREMENT DETAILS (ANGLE)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

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REF.	REVISION	DATE

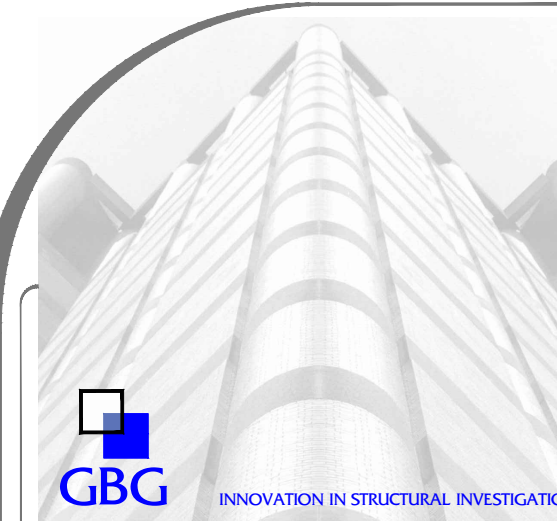
ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF TRUSS CONNECTIONS
SHEET 5 OF 8

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FIG. 17: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF TRUSS SURVEYED NOT TO SCALE

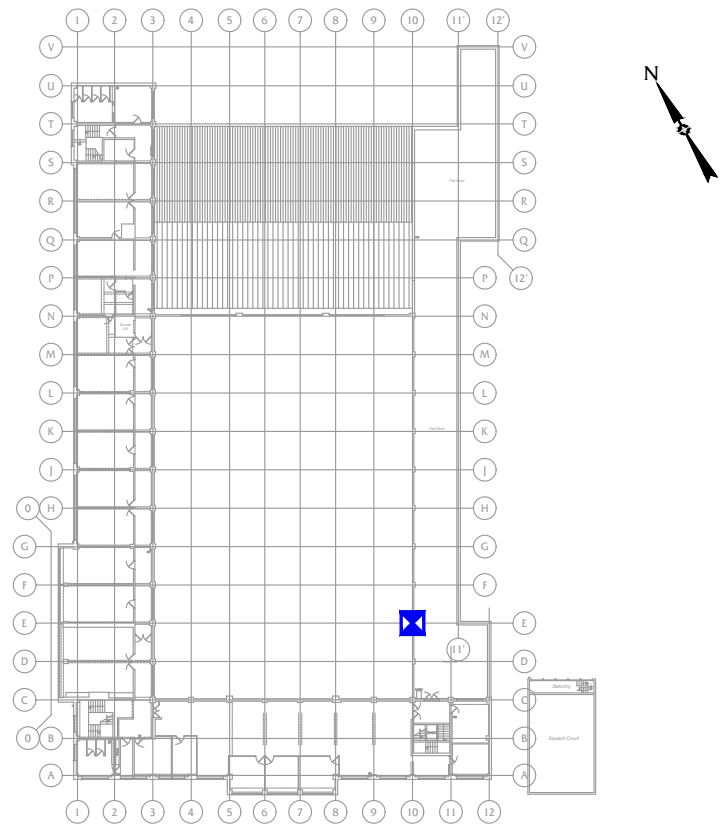


FIG. 19: PART ELEVATION LOOKING EAST SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA E10 SCALE 1:10

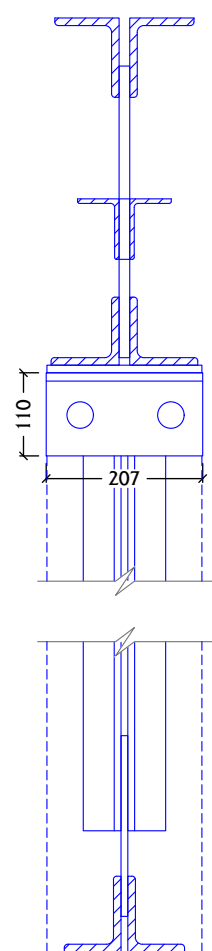
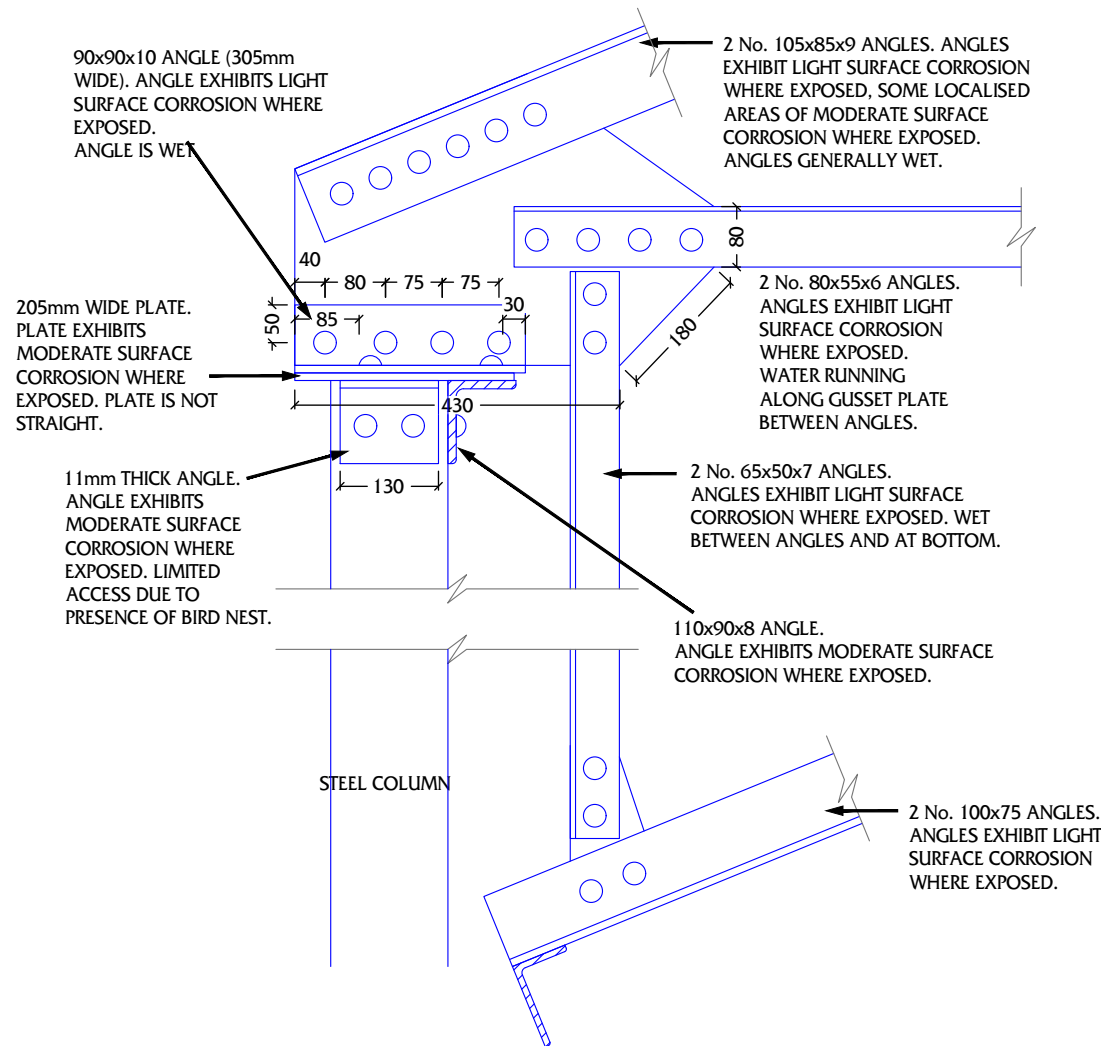


FIG. 18: PART ELEVATION LOOKING SOUTH SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA E10 SCALE 1:10



P18a: TRUSS E10

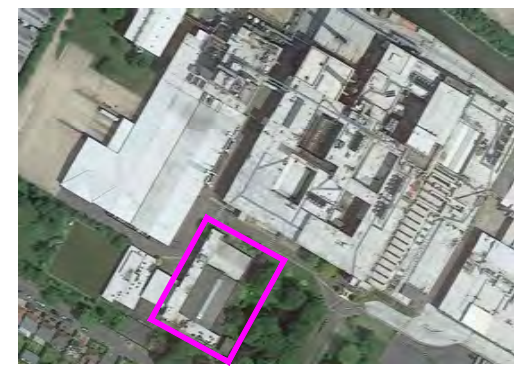


P18b: BOTTOM CONNECTION OF TRUSS E10



P18c: TOP CONNECTION AT TRUSS E10

AERIAL VIEW OF SITE



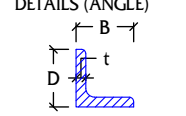
SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- ROOF TRUSS INVESTIGATED
- STEELWORK

MATERIAL TYPES

- STEELWORK

STEEL MEASUREMENT DETAILS (ANGLE)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

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AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

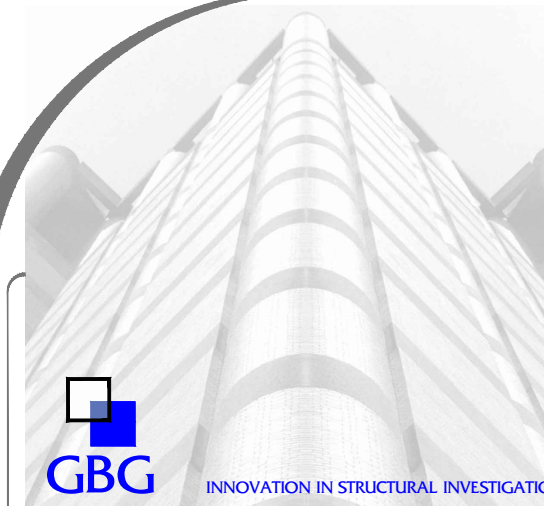
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Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF TRUSS CONNECTIONS
SHEET 6 OF 8

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FIG.20: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF TRUSS SURVEYED NOT TO SCALE

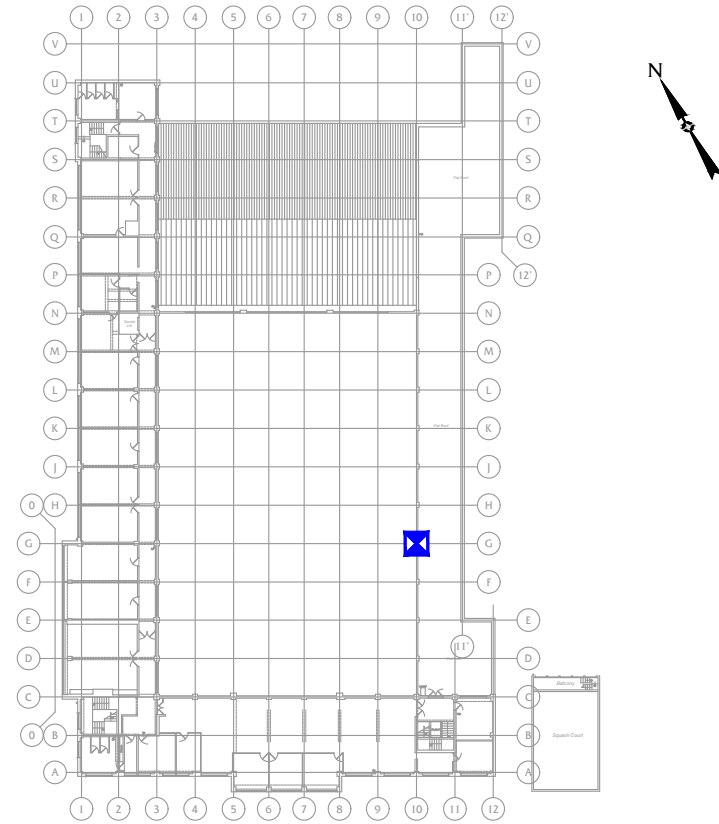


FIG.22: PART ELEVATION LOOKING EAST SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA G10 SCALE 1:10

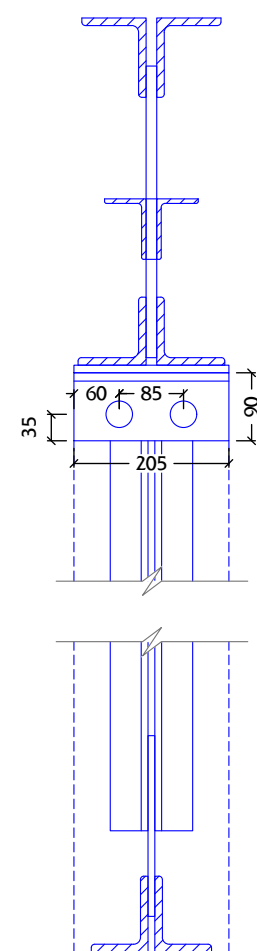
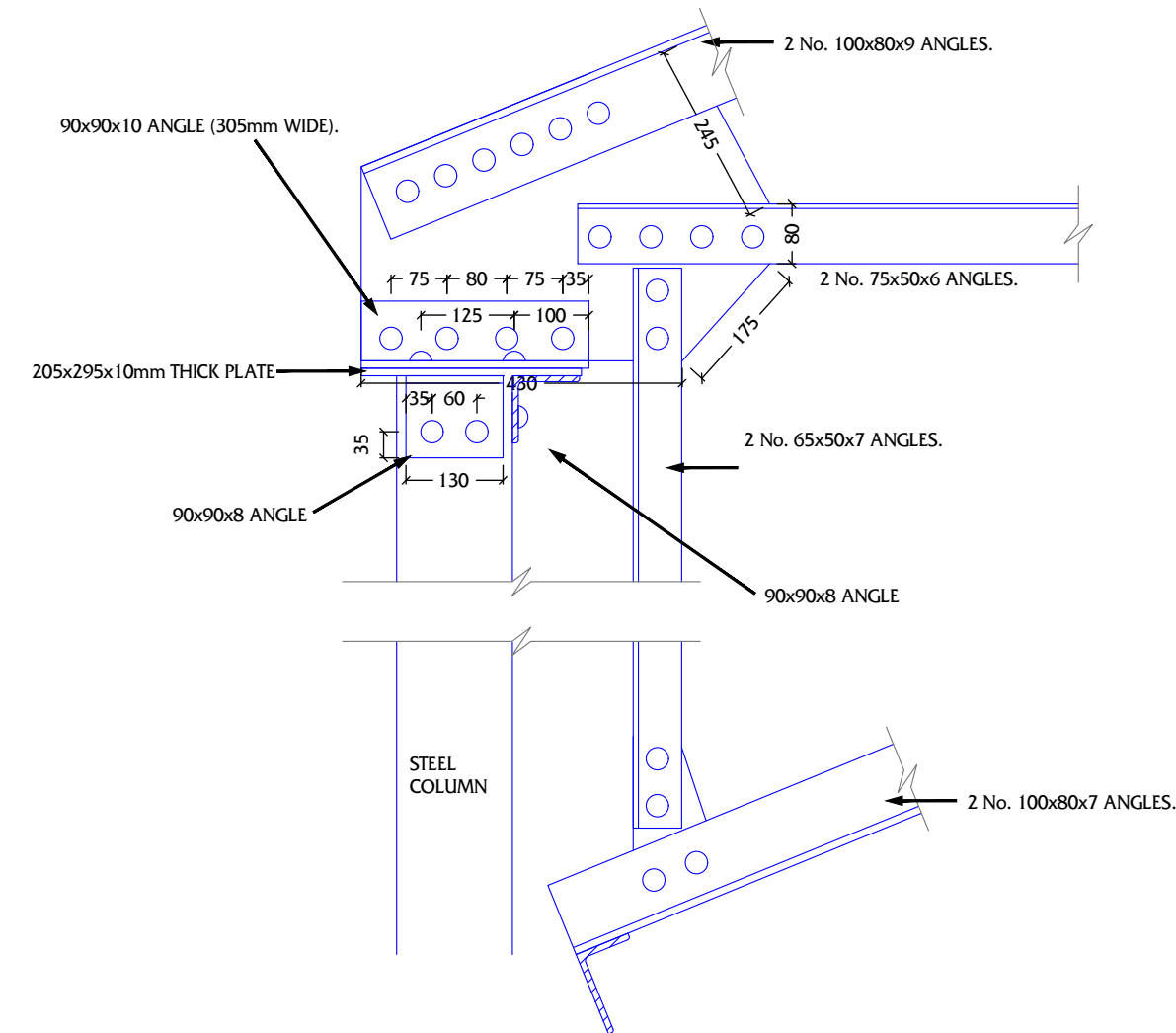


FIG.21: PART ELEVATION LOOKING SOUTH SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA G10 SCALE 1:10



NOTES

STEELWORK GENERALLY EXHIBITS LIGHT SURFACE CORROSION WHERE EXPOSED.
EVIDENCE OF WATER INGRESS.
CORROSION WHERE EXPOSED IS HEAVIER ALONG TOP OF TOP CHORD AND EDGES OF GUSSET.
EVIDENCE OF PREVIOUS BOLT WITH CORROSION WHERE EXPOSED AROUND WASHER.



P21a: TRUSS G10



P21b: BOTTOM CONNECTION OF TRUSS G10

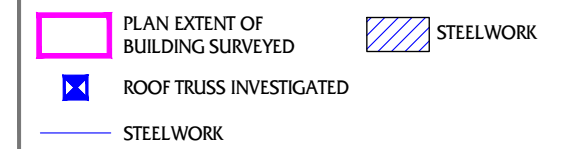


P21c: TOP CONNECTION AT TRUSS G10

AERIAL VIEW OF SITE



SYMBOLS USED



MATERIAL TYPES



STEEL MEASUREMENT
DETAILS (ANGLE)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: **BARRATT LONDON**

Title: DETAILS OF ROOF TRUSS CONNECTIONS
SHEET 7 OF 8

Drawn	Date	Scale	Dwg. No. 4689-TR7
HW	SEP 20	AS SHOWN	
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FIG.23: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF TRUSS SURVEYED NOT TO SCALE

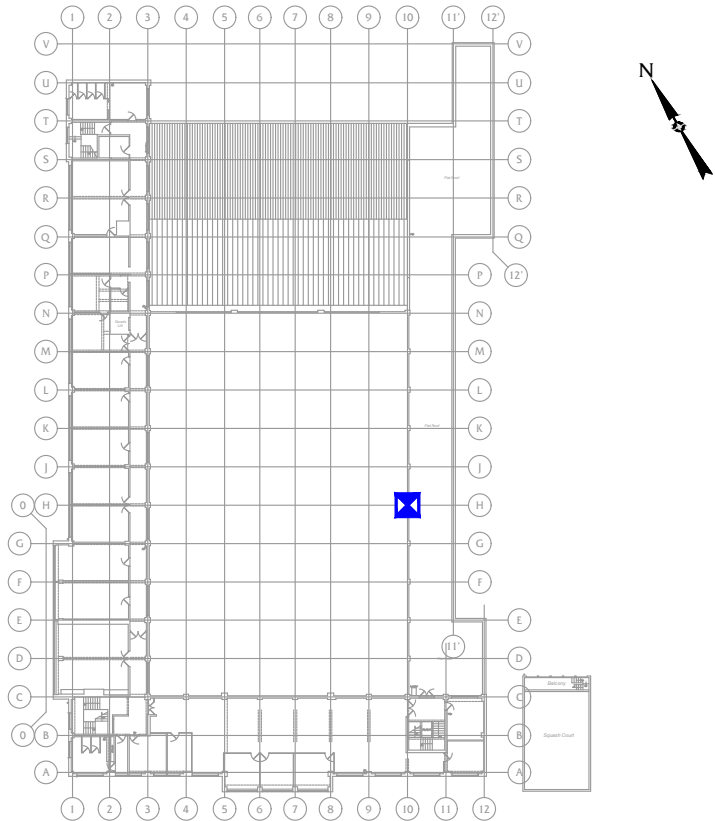


FIG.25: PART ELEVATION LOOKING EAST SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA H10 SCALE 1:10

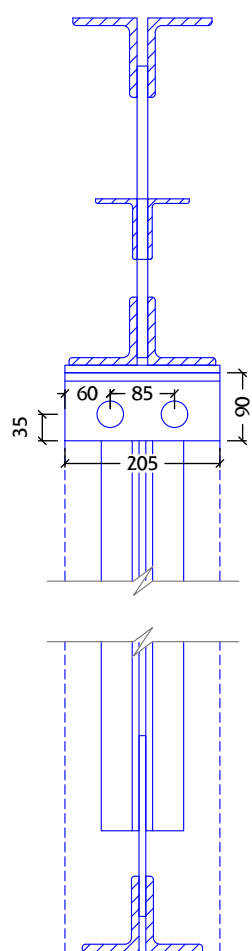
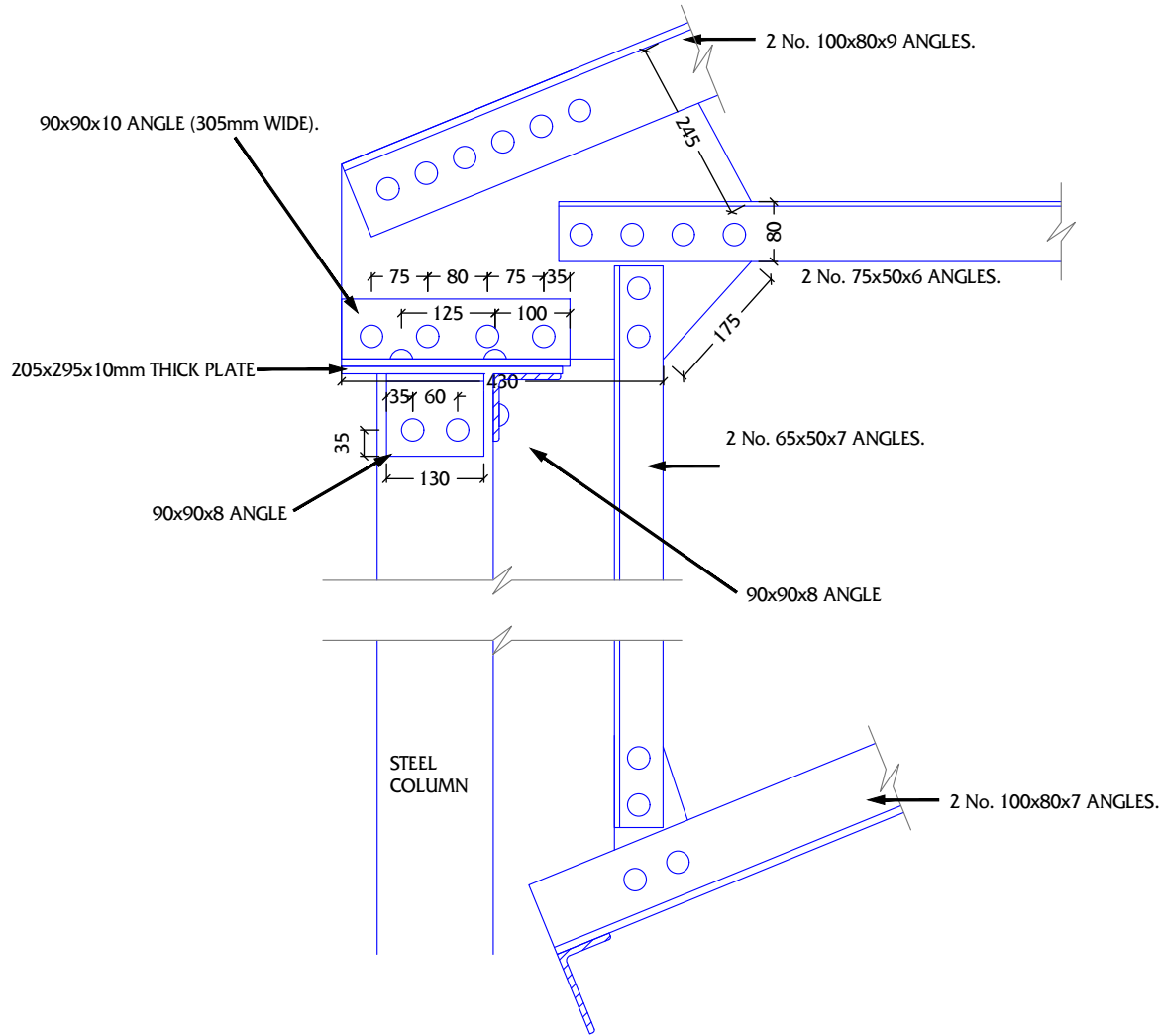


FIG.24: PART ELEVATION LOOKING SOUTH SHOWING DETAILS OF PARTIALLY EXPOSED ROOF TRUSS END CONNECTION - SURVEY AREA H10 SCALE 1:10



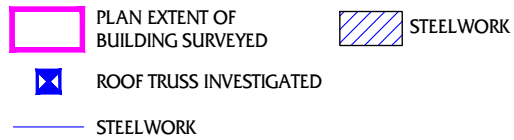
NOTES

STEELWORK GENERALLY EXHIBITS LIGHT SURFACE CORROSION WHERE EXPOSED. SOME AREAS OF ORIGINAL PAINT STILL PRESENT.

AERIAL VIEW OF SITE



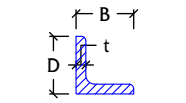
SYMBOLS USED



MATERIAL TYPES



STEEL MEASUREMENT DETAILS (ANGLE)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

PURPOSE OF INVESTIGATION TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

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Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF TRUSS CONNECTIONS
SHEET 8 OF 8

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P24a: BOTTOM CONNECTION OF TRUSS H10



P24c: TOP CONNECTION AT TRUSS H10



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FIG.1: PLAN OF 1ST FLOOR SHOWING LOCATION OF SLAB AND BEAM SURVEYED NOT TO SCALE

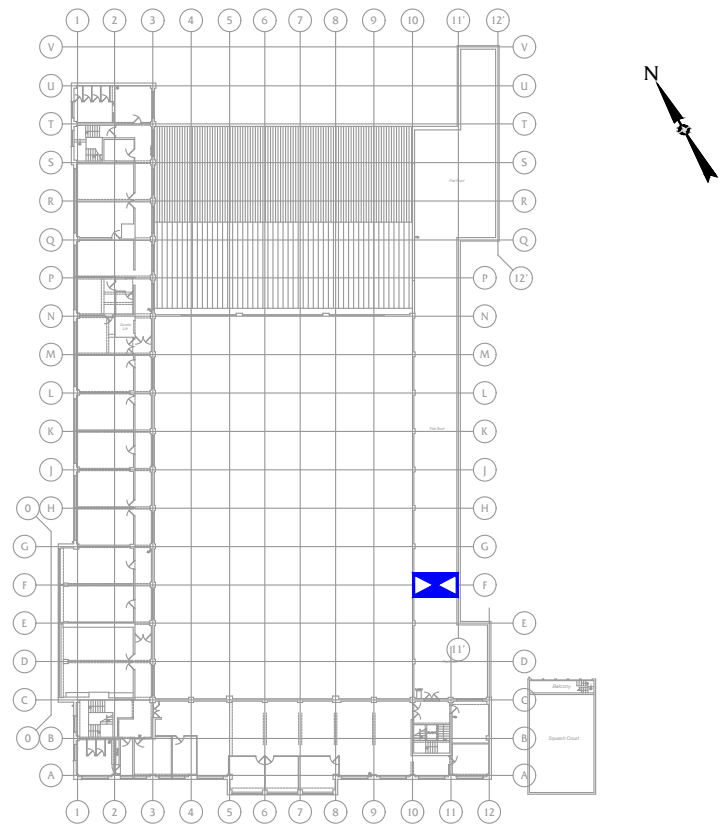


FIG.2: PART REFLECTED 1ST FLOOR SLAB SOFFIT PLAN SHOWING DETAILS OF BEAM AND PRECAST CONCRETE PLANK - SURVEY AREA F/10-11 SCALE 1:10

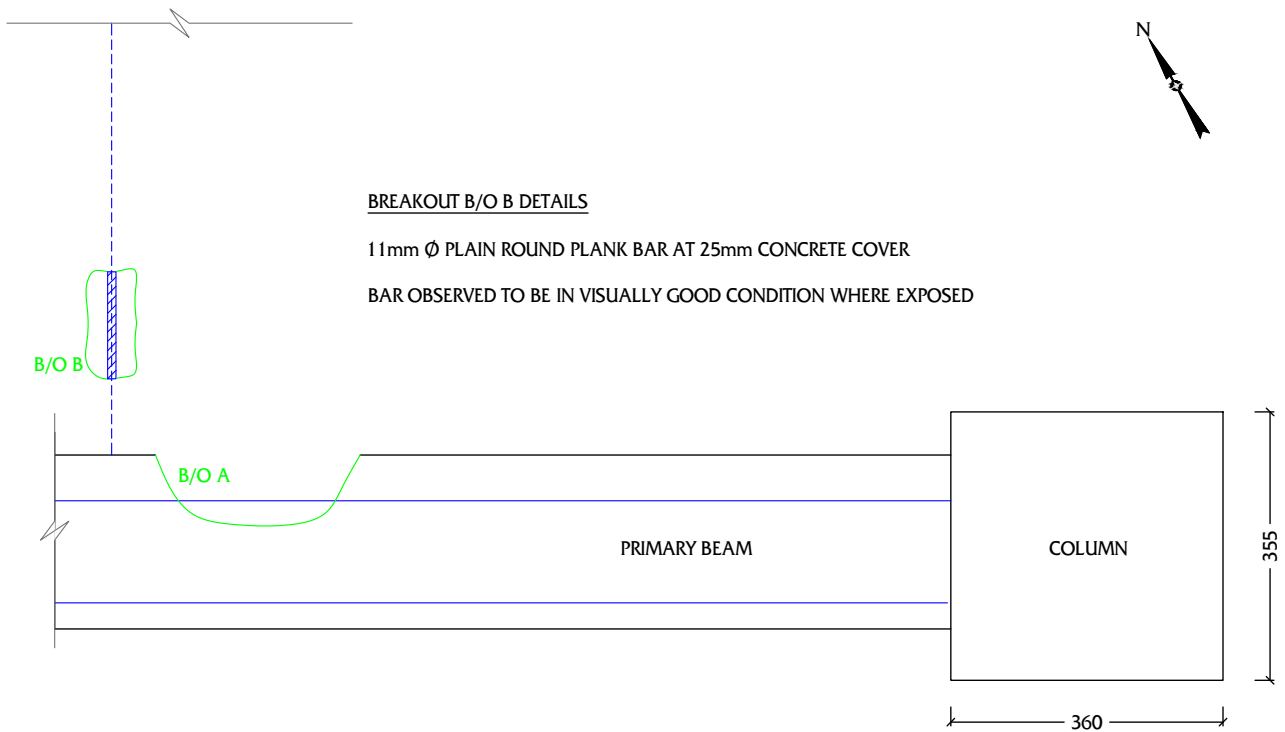
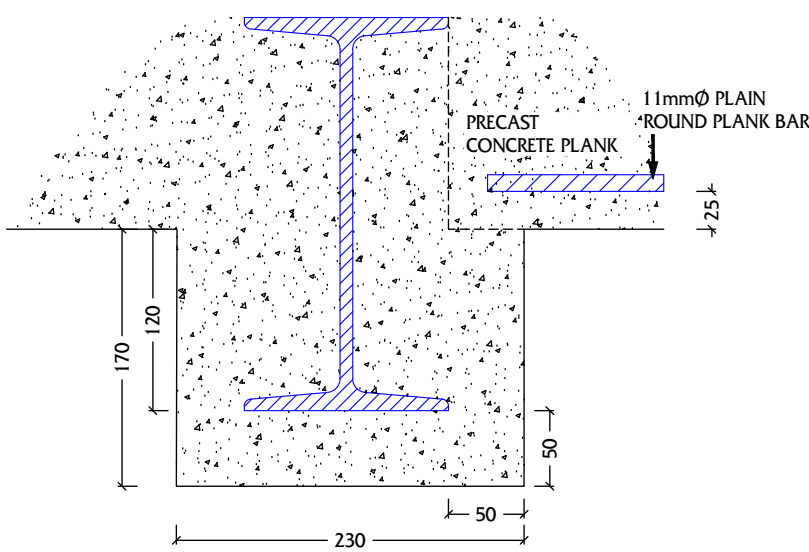
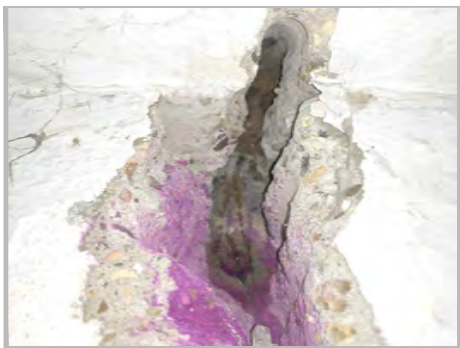


FIG.3: PART SECTION LOOKING WEST THROUGH 1ST FLOOR PRIMARY BEAM - SURVEY AREA F/10-11 SCALE 1:5



P2a: SURVEY AREA F/10-11



P2b: CLOSE UP VIEW OF BREAKOUT B/O A TO SURVEY AREA F/10-11

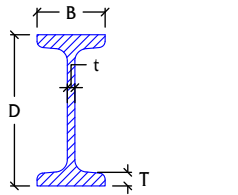
AERIAL VIEW OF SITE



SYMBOLS USED

PLAN EXTENT OF BUILDING SURVEYED	CONCRETE
SLAB INVESTIGATED	STEELWORK
APPROXIMATE EXTENT OF BREAKOUT	
STEELWORK	
REINFORCEMENT	
EXPOSED REINFORCEMENT	

STEEL MEASUREMENT DETAILS (BEAM / COLUMN)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

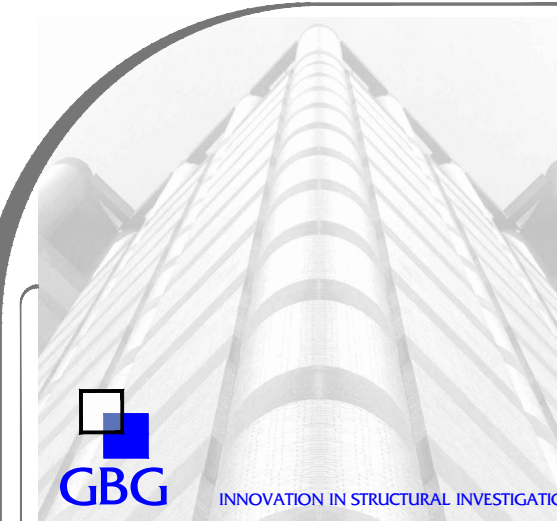
ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF 1ST FLOOR SLAB CONSTRUCTION SHEET 1 OF 6

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-FS1



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FIG.4: PLAN OF 1ST FLOOR SHOWING LOCATION OF SLAB AND BEAM SURVEYED NOT TO SCALE

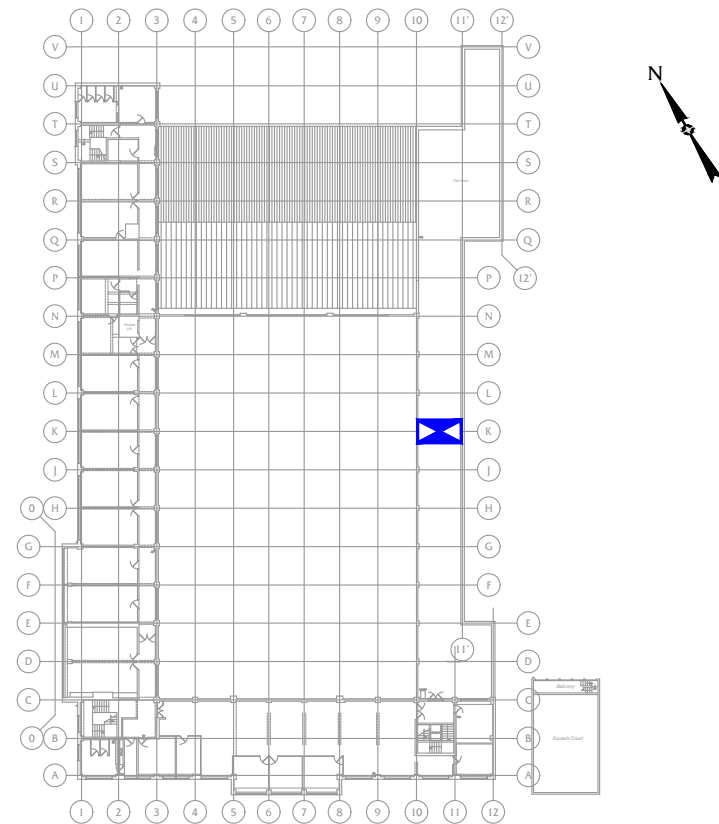


FIG.5: PART REFLECTED 1ST FLOOR SLAB SOFFIT PLAN SHOWING DETAILS OF BEAM AND PRECAST CONCRETE PLANK - SURVEY AREA K/10-11 SCALE 1:10

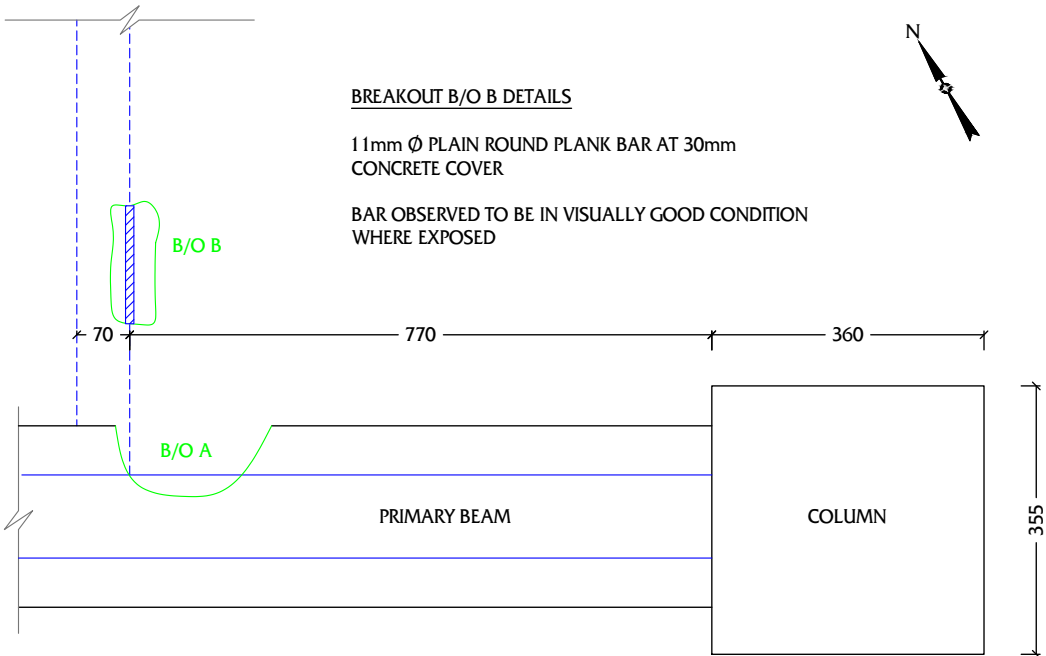
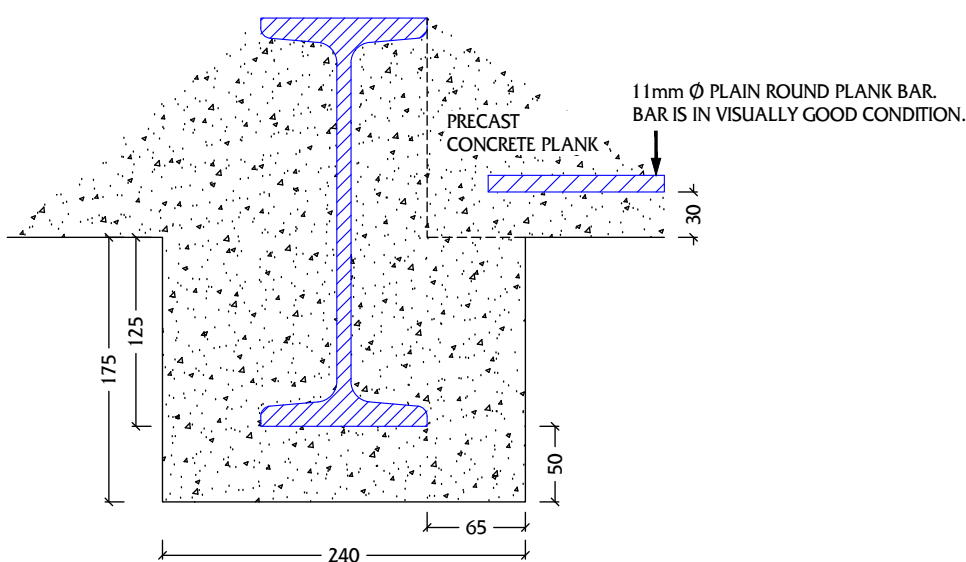


FIG.6: PART SECTION LOOKING WEST THROUGH 1ST FLOOR PRIMARY BEAM - SURVEY AREA K/10-11 SCALE 1:5



BEAM DETAILS

D = 270mm
B = 110mm
T = 15mm
t = 9.4mm

STEELWORK EXHIBITS LIGHT SURFACE CORROSION WHERE EXPOSED

NOTES

FINISHES OMITTED FROM SKETCH FOR CLARITY

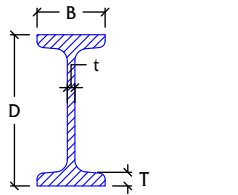
AERIAL VIEW OF SITE



SYMBOLS USED

SYMBOLS USED	MATERIAL TYPES
PLAN EXTENT OF BUILDING SURVEYED	CONCRETE
SLAB INVESTIGATED	STEELWORK
APPROXIMATE EXTENT OF BREAKOUT	
STEELWORK	
REINFORCEMENT	
EXPOSED REINFORCEMENT	

STEEL MEASUREMENT DETAILS (BEAM / COLUMN)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

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LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

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ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF 1ST FLOOR SLAB CONSTRUCTION SHEET 2 OF 6

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FIG.7: PLAN OF 1ST FLOOR SHOWING LOCATION OF SLAB AND BEAM SURVEYED NOT TO SCALE

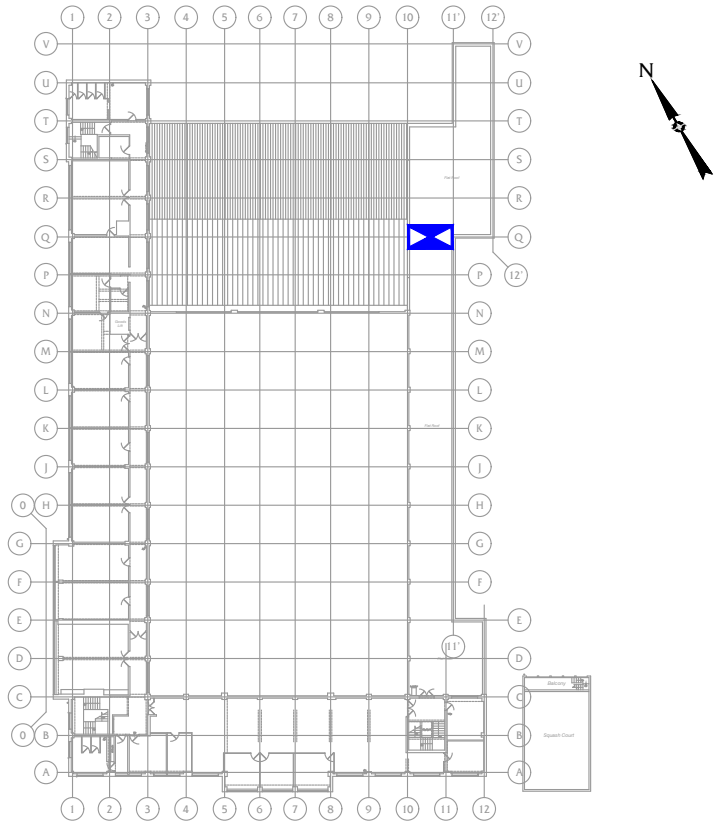


FIG.8: PART REFLECTED 1ST FLOOR SLAB SOFFIT PLAN SHOWING DETAILS OF BEAM AND PRECAST CONCRETE PLANK - SURVEY AREA Q/10-11 SCALE 1:10

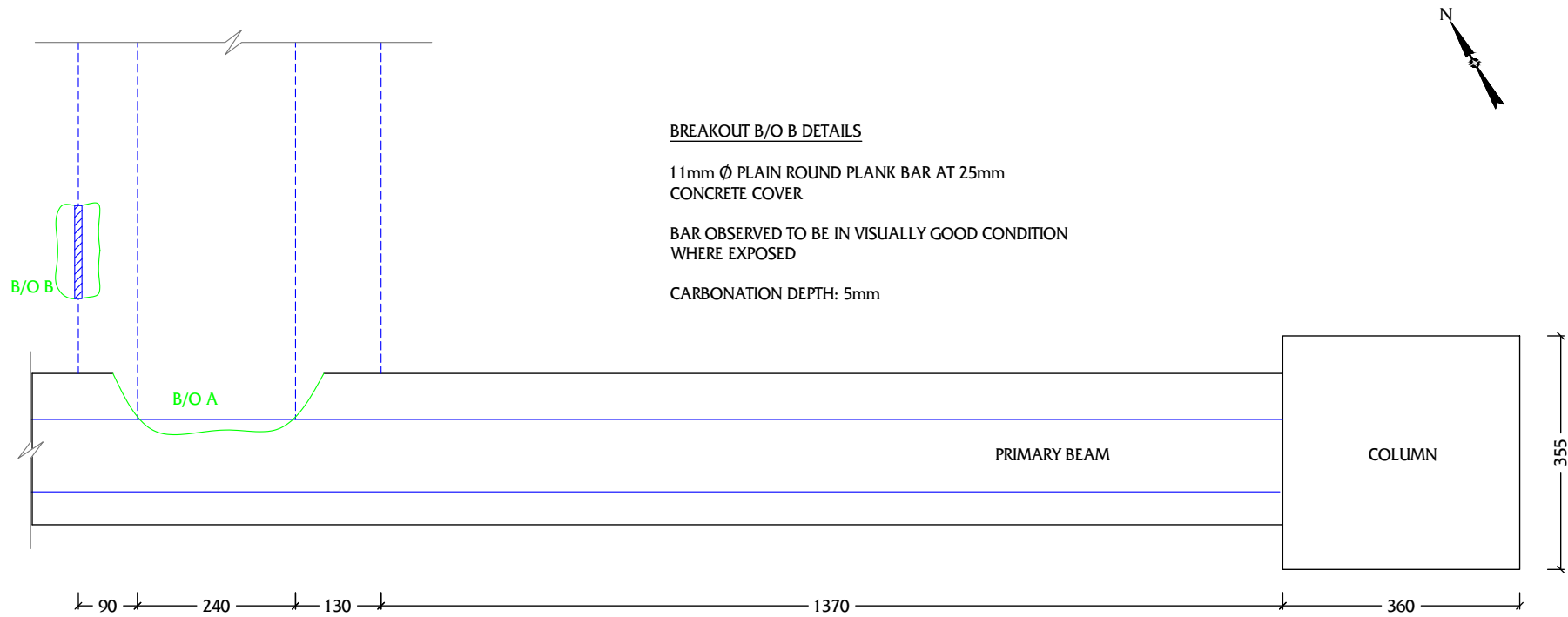
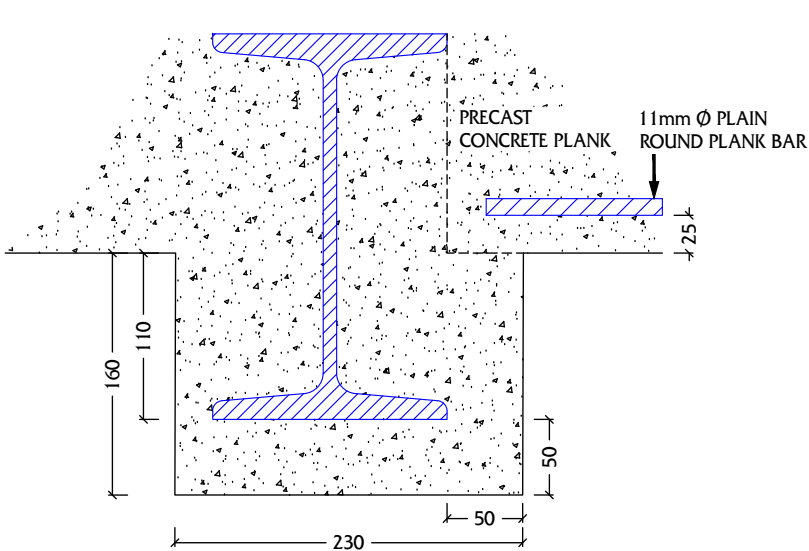


FIG.9: PART SECTION LOOKING WEST THROUGH 1ST FLOOR PRIMARY BEAM - SURVEY AREA Q/10-11 SCALE 1:5



BEAM DETAILS

D = 255mm
B = 155mm
T = 15mm
t = 8.9mm

STEELWORK EXHIBITS LIGHT SURFACE CORROSION WHERE EXPOSED

NOTES

FINISHES OMITTED FROM SKETCH FOR CLARITY.
CONCRETE ENCASUREMENT TO BEAM AND PLANKS IN VISIBLY POOR CONDITION.
RUST STAINS, MOSS, HISTORIC STAINING AND SPALLING PRESENT.

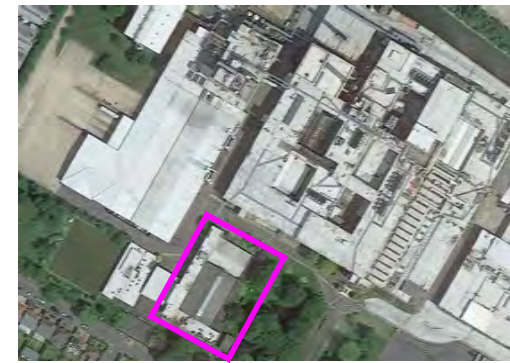


P8a: SURVEY AREA Q/10-11



P8b: CLOSE UP VIEW OF BREAKOUT B/O A TO BEAM AT SURVEY AREA Q/10-11

AERIAL VIEW OF SITE



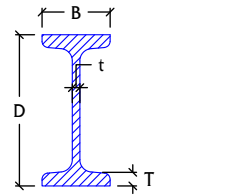
SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- SLAB INVESTIGATED
- APPROXIMATE EXTENT OF BREAKOUT
- STEELWORK
- REINFORCEMENT
- EXPOSED REINFORCEMENT

MATERIAL TYPES

- CONCRETE
- STEELWORK

STEEL MEASUREMENT DETAILS (BEAM / COLUMN)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

PURPOSE OF INVESTIGATION TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF 1ST FLOOR SLAB CONSTRUCTION SHEET 3 OF 6

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-FS3



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FIG. 10: PLAN OF 1ST FLOOR SHOWING LOCATION OF SLAB AND BEAM SURVEYED NOT TO SCALE

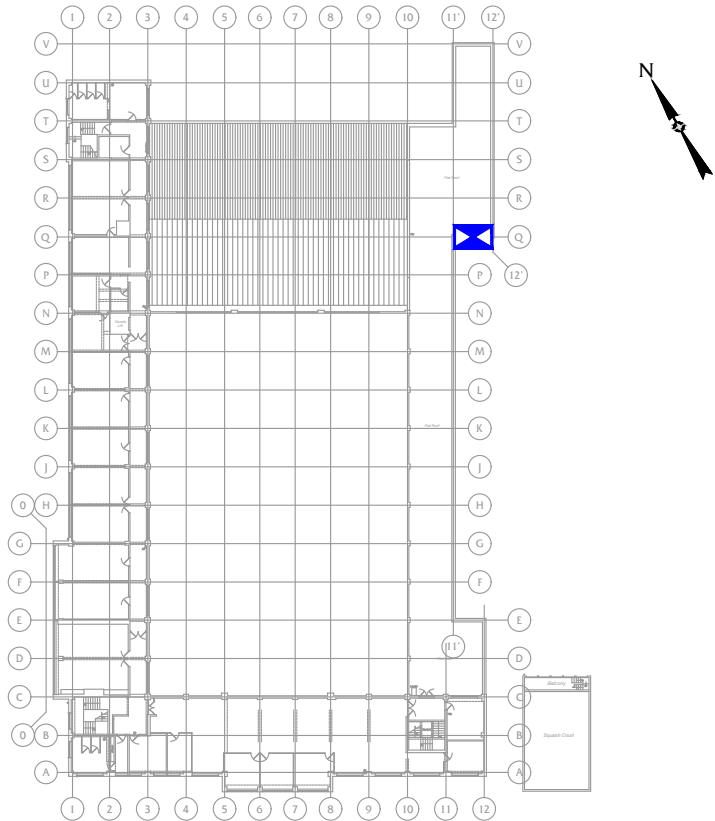


FIG. 11: PART REFLECTED 1ST FLOOR SLAB SOFFIT PLAN SHOWING DETAILS OF BEAM AND PRECAST CONCRETE PLANK - SURVEY AREA Q/11-12 SCALE 1:10

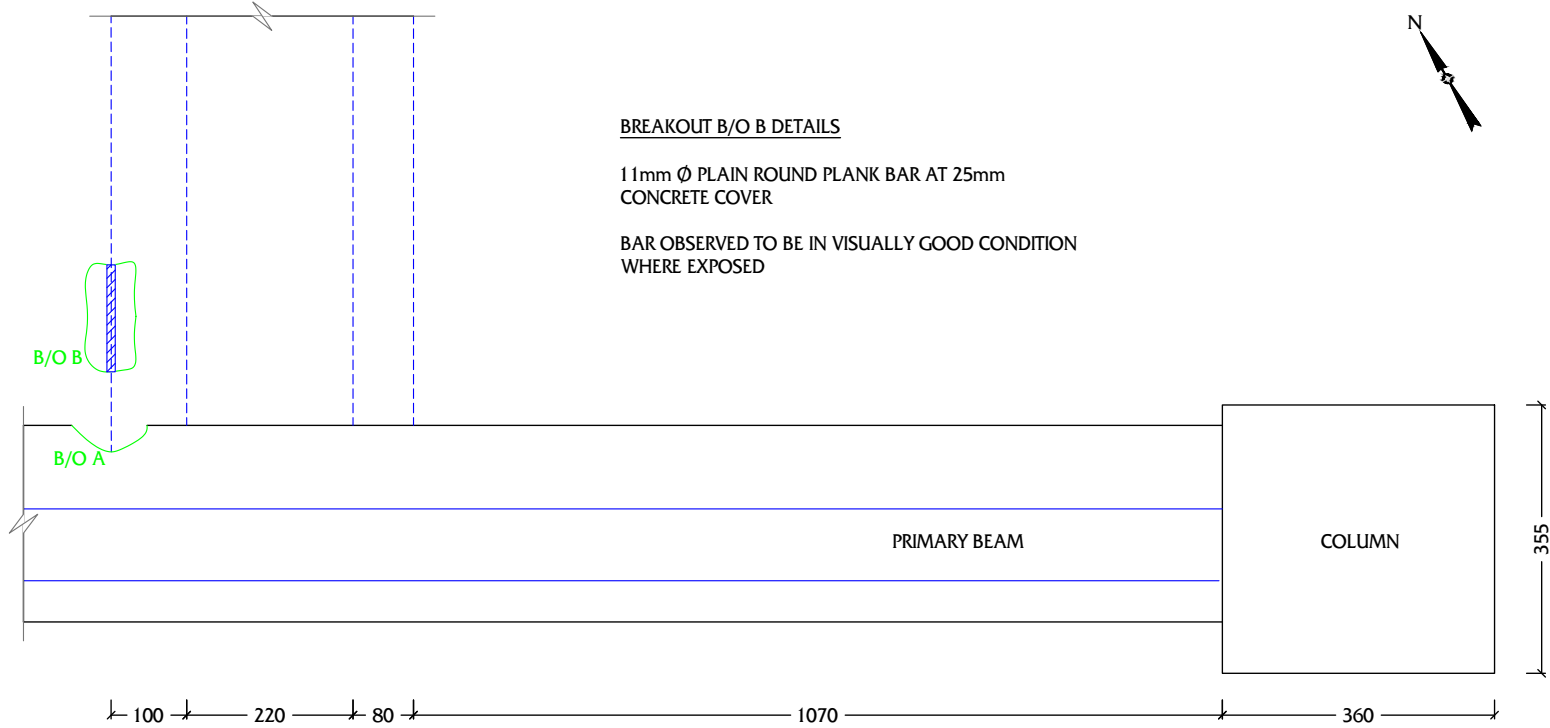
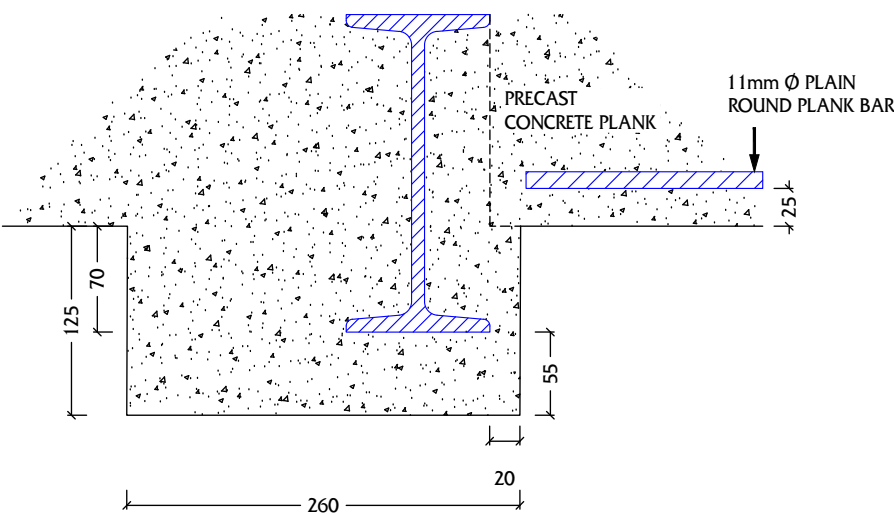


FIG. 12: PART SECTION LOOKING WEST THROUGH 1ST FLOOR PRIMARY BEAM - SURVEY AREA Q/11-12 SCALE 1:5



BEAM DETAILS

D = 210mm
B = 95mm
T = 10mm
t = 8.6mm

STEELWORK EXHIBITS LIGHT SURFACE CORROSION WHERE EXPOSED

NOTES

FINISHES OMITTED FROM SKETCH FOR CLAI

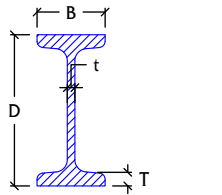
AERIAL VIEW OF SITE



SYMBOLS USED

PLAN EXTENT OF BUILDING SURVEYED	SLAB INVESTIGATED	APPROXIMATE EXTENT OF BREAKOUT	STEELWORK	REINFORCEMENT	EXPOSED REINFORCEMENT

STEEL MEASUREMENT DETAILS (BEAM / COLUMN)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

PURPOSE OF INVESTIGATION TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF 1ST FLOOR SLAB CONSTRUCTION SHEET 4 OF 6

Drawn HW SEP 20 PM CAD Date AS SHOWN APP Scale Dwg. No. 4689-FS4



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FIG.1: PLAN OF 1ST FLOOR SHOWING LOCATION OF SLAB AND BEAM SURVEYED NOT TO SCALE

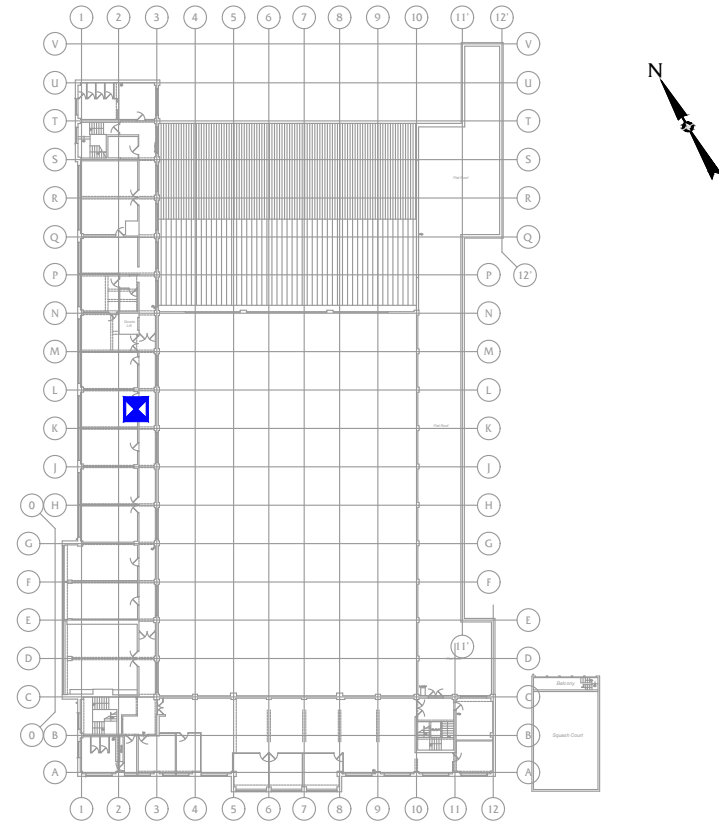
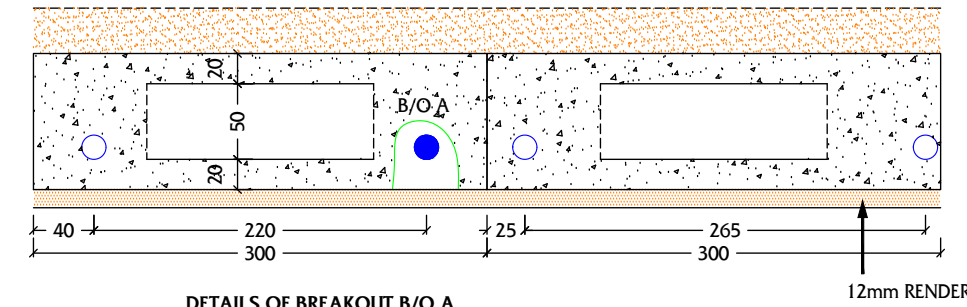


FIG.2: PART SECTION LOOKING SOUTH THROUGH 1ST FLOOR SLAB SHOWING PRECAST CONCRETE PLANK CONSTRUCTION DETAIL - SURVEY AREA L-K/2-3 SCALE 1:20



DETAILS OF BREAKOUT B/O A

16mmØ PLAIN ROUND BAR AT 20mm CONCRETE COVER.
BAR IS IN VISIBLY GOOD CONDITION WHERE EXPOSED.

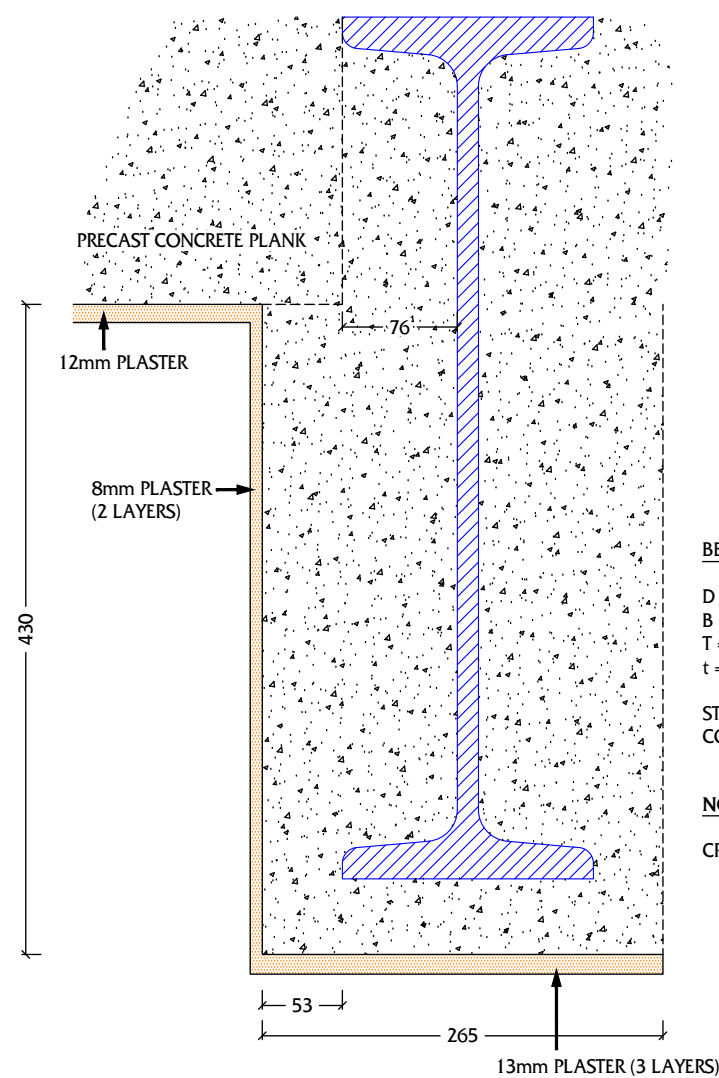
NOTES

CRACKING BETWEEN PLANKS (AT PLANK JOINTS) THROUGH RENDER ONLY



P2a: SURVEY AREA L-K/2-3

FIG.3: PART SECTION LOOKING EAST THROUGH 1ST FLOOR PRIMARY BEAM - SURVEY AREA L-K/2-3 SCALE 1:5



BEAM DETAILS

D = 570mm
B = 166mm
T = 23.2mm
t = 14mm

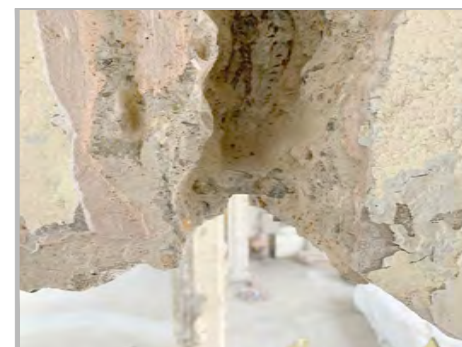
STEELWORK EXHIBITS LIGHT SURFACE
CORROSION ONLY WHERE EXPOSED

NOTES

CRACKS DO NOT EXTEND BEYOND RENDER

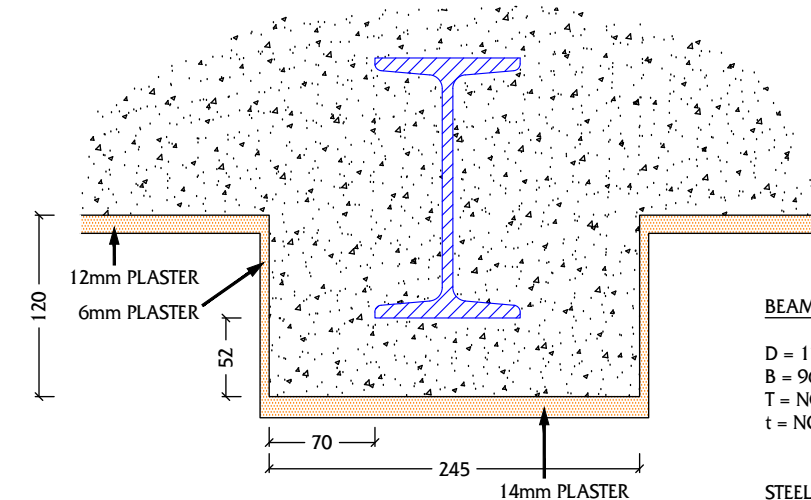


P3a: PRIMARY BEAM AT SURVEY
AREA L-K/2-3



P3b: CLOSE UP VIEW OF PRIMARY BEAM AT
SURVEY AREA L-K/2-3

FIG.4: PART SECTION LOOKING NORTH THROUGH 1ST FLOOR SECONDARY BEAM - SURVEY AREA L-K/2-3 SCALE 1:5



BEAM DETAILS

D = 172mm
B = 96mm
T = NOT MEASURED
t = NOT MEASURED

STEELWORK EXHIBITS LIGHT SURFACE
CORROSION ONLY WHERE EXPOSED



P4a: SECONDARY BEAM AT SURVEY AREA L-K/2-3



P4b: CLOSE UP VIEW OF SECONDARY BEAM AT
SURVEY AREA L-K/2-3

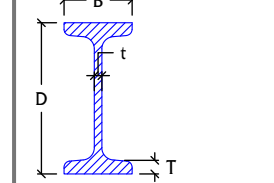
AERIAL VIEW OF SITE



SYMBOLS USED

SYMBOLS USED	MATERIAL TYPES
PLAN EXTENT OF BUILDING SURVEYED	CONCRETE
SLAB INVESTIGATED	SCREED
APPROXIMATE EXTENT OF BREAKOUT	RENDER / PLASTER
EXPOSED REINFORCEMENT	STEELWORK
REINFORCEMENT FOUND USING NDT METHODS	

STEEL MEASUREMENT DETAILS (BEAM / COLUMN)



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER
CANTEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

PURPOSE OF INVESTIGATION TO DETERMINE CERTAIN STRUCTURAL DETAILS AND
MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S
DESIGN TEAM

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0 5 METRES
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF 1ST FLOOR SLAB CONSTRUCTION
SHEET 5 OF 6

Drawn Date Scale
HW SEP 20 AS SHOWN
CAD PM APP

Dwg. No. 4689-FS5



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FIG.1: PLAN OF 1ST FLOOR SHOWING LOCATION OF SLAB AND BEAM SURVEYED NOT TO SCALE

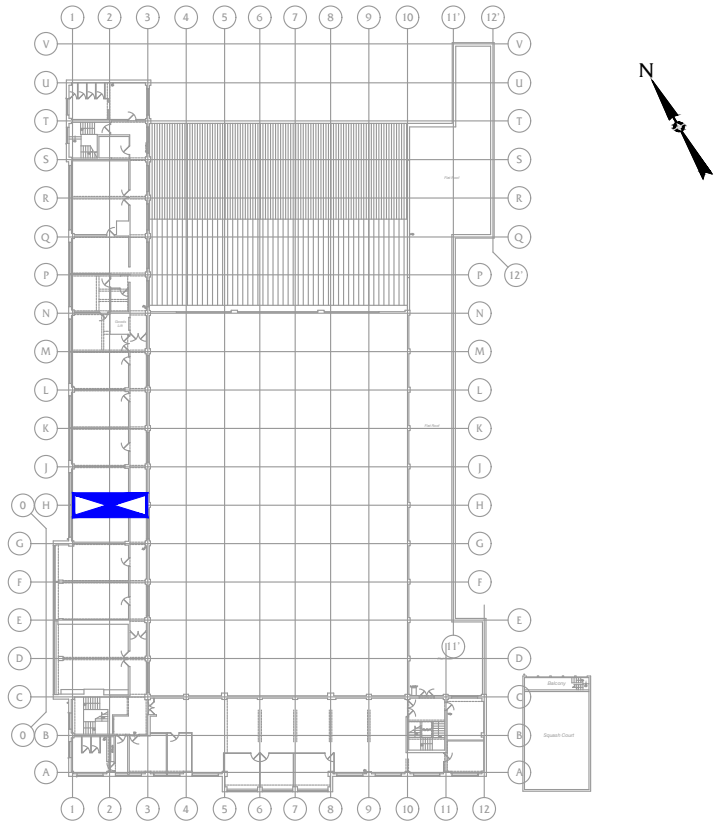
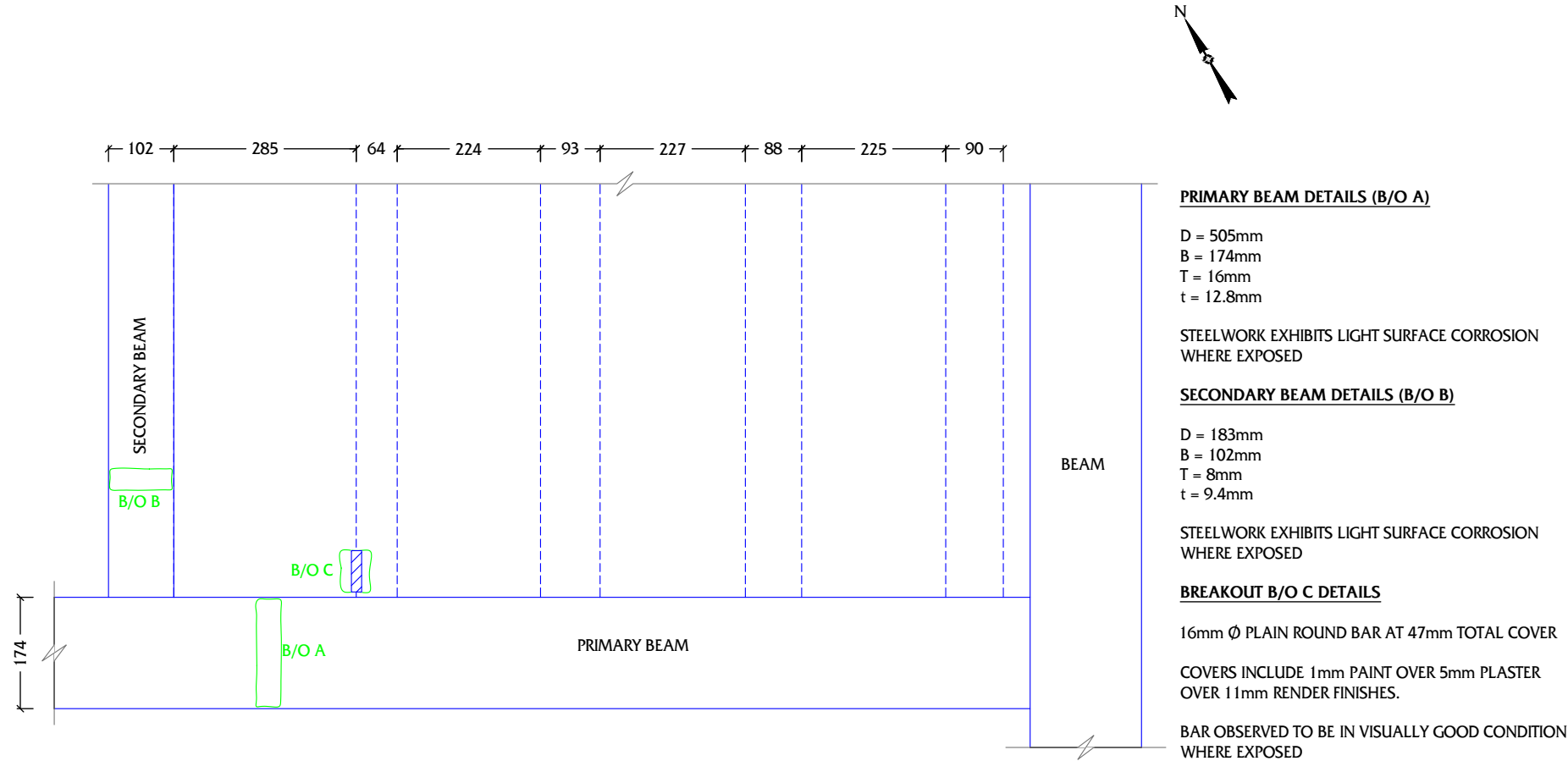


FIG.2: PART REFLECTED 1ST FLOOR SLAB SOFFIT PLAN SHOWING DETAILS OF BEAM AND PRECAST CONCRETE PLANKS - SURVEY AREA H/1-3 SCALE 1:10

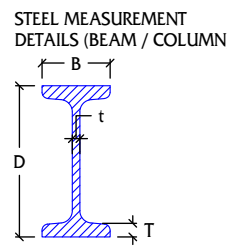


AERIAL VIEW OF SITE



SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- SLAB INVESTIGATED
- APPROXIMATE EXTENT OF BREAKOUT
- STEELWORK
- EXPOSED REINFORCEMENT



PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF 1ST FLOOR SLAB CONSTRUCTION
SHEET 6 OF 6

Drawn: HW
CAD: CAD
Date: SEP 20
PM
Scale: AS SHOWN
APP
Dwg. No. 4689-FS6



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FIG.1: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF SLAB SURVEYED OVER NOT TO SCALE

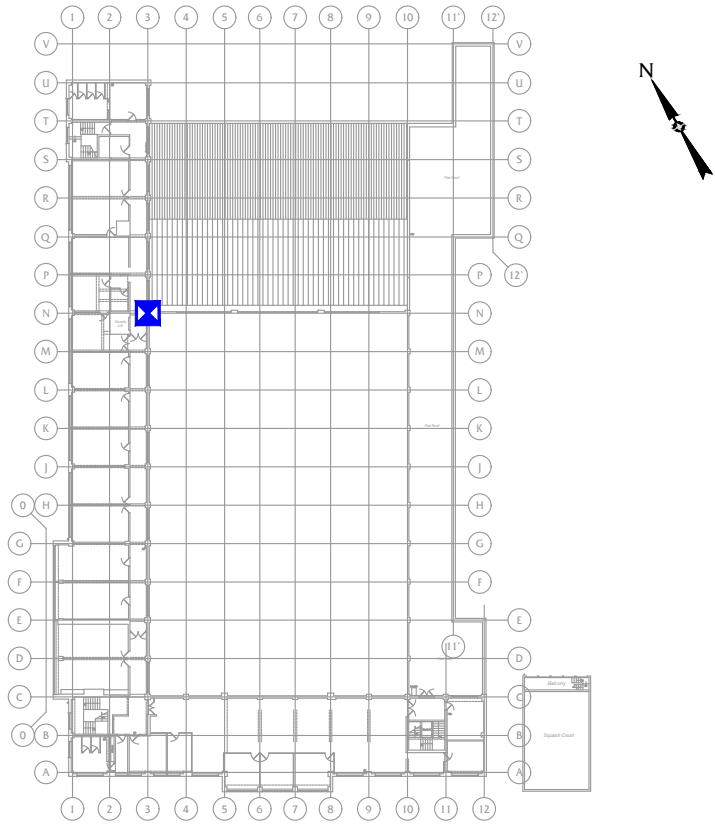


FIG.2: PART REFLECTED SOFFIT PLAN OF ROOF SLAB SHOWING DOWNSTAND BEAM, PRECAST CONCRETE PLANK AND LOCALISED DEFECTS - SURVEY AREA RS1 SCALE 1:20

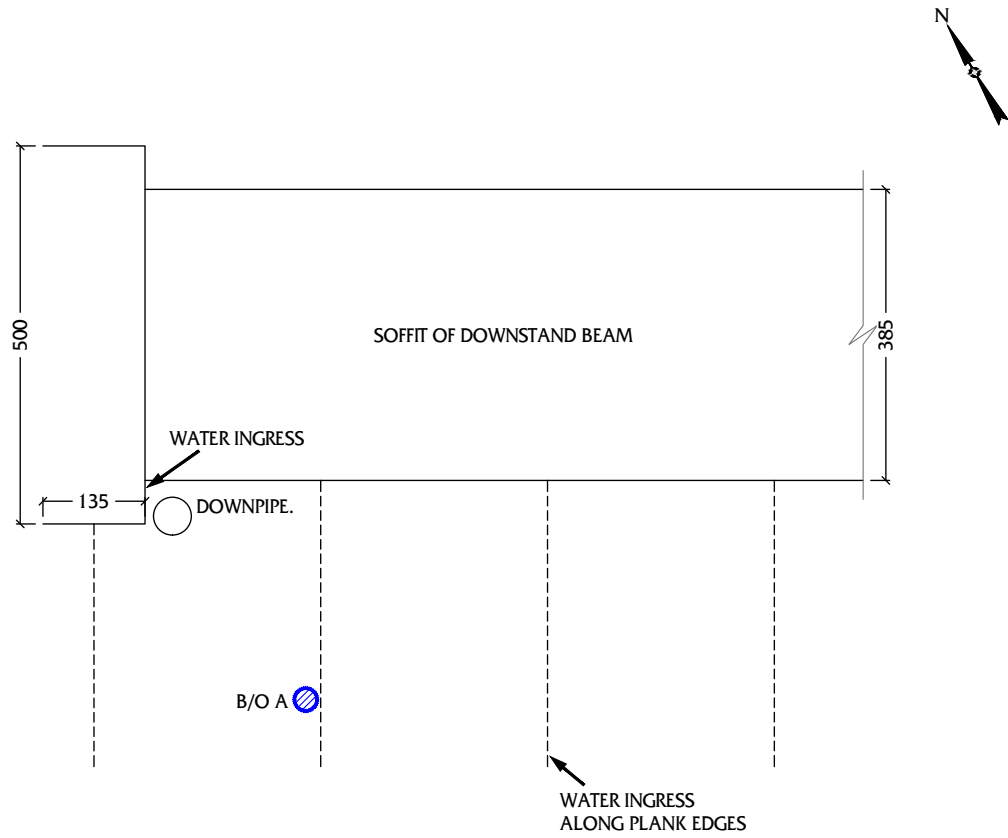
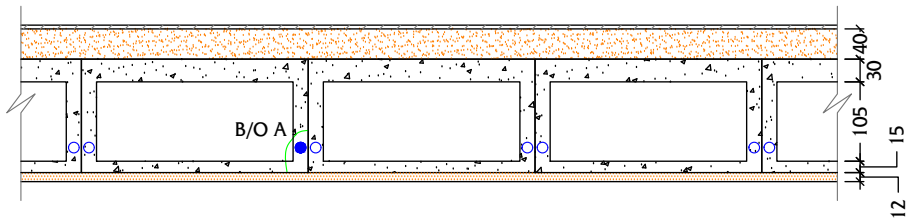


FIG.3: PART SECTION LOOKING SOUTH THROUGH ROOF SLAB SHOWING DETAILS OF PRECAST CONCRETE PLANK - SURVEY AREA RS1 SCALE 1:5



DETAILS OF BREAKOUT BREAKOUT B/O A
14mmØ PLAIN ROUND BAR AT 26mm CONCRETE COVER.
BAR EXHIBITS VERY LIGHT SURFACE CORROSION WHERE EXPOSED.



AERIAL VIEW OF SITE



SYMBOLS USED

SYMBOLS USED	MATERIAL TYPES
PLAN EXTENT OF BUILDING SURVEYED	CONCRETE
SLAB INVESTIGATED	SCREED
BREAKOUT LOCATION	RENDER / PLASTER
APPROXIMATE EXTENT OF BREAKOUT	WATERPROOFING
EXPOSED REINFORCEMENT	
ASSUMED REINFORCEMENT	

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF SLAB CONSTRUCTION
SHEET 1 OF 4

Drawn HW CAD	Date SEP 20 PM	Scale AS SHOWN APP	Dwg. No. 4689-RS1
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FIG.4: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF SLAB SURVEYED OVER NOT TO SCALE

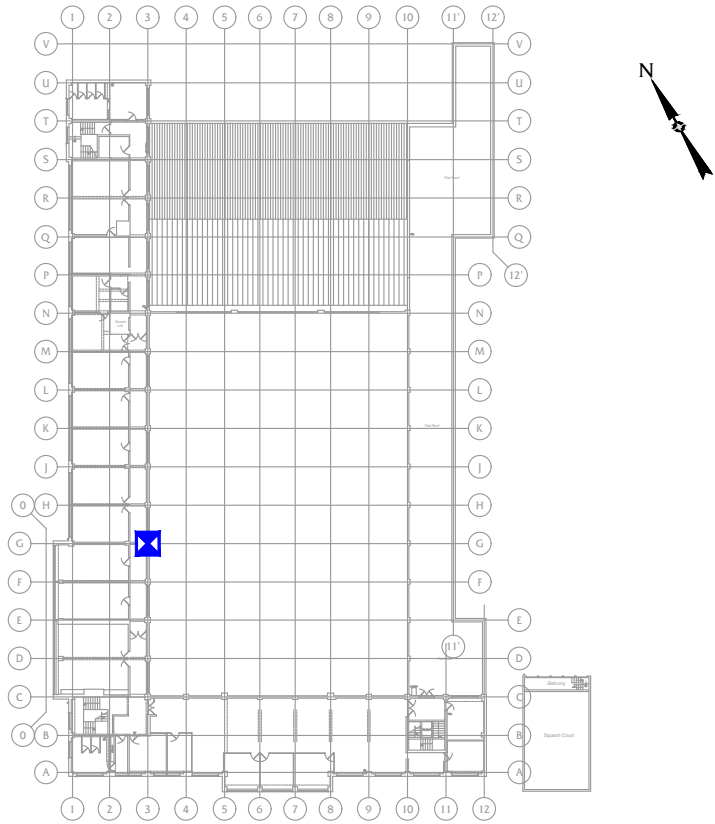


FIG.5: PART REFLECTED SOFFIT PLAN OF ROOF SLAB SHOWING DOWNSTAND BEAM AND PRECAST CONCRETE PLANK - SURVEY AREA RS2 SCALE 1:20

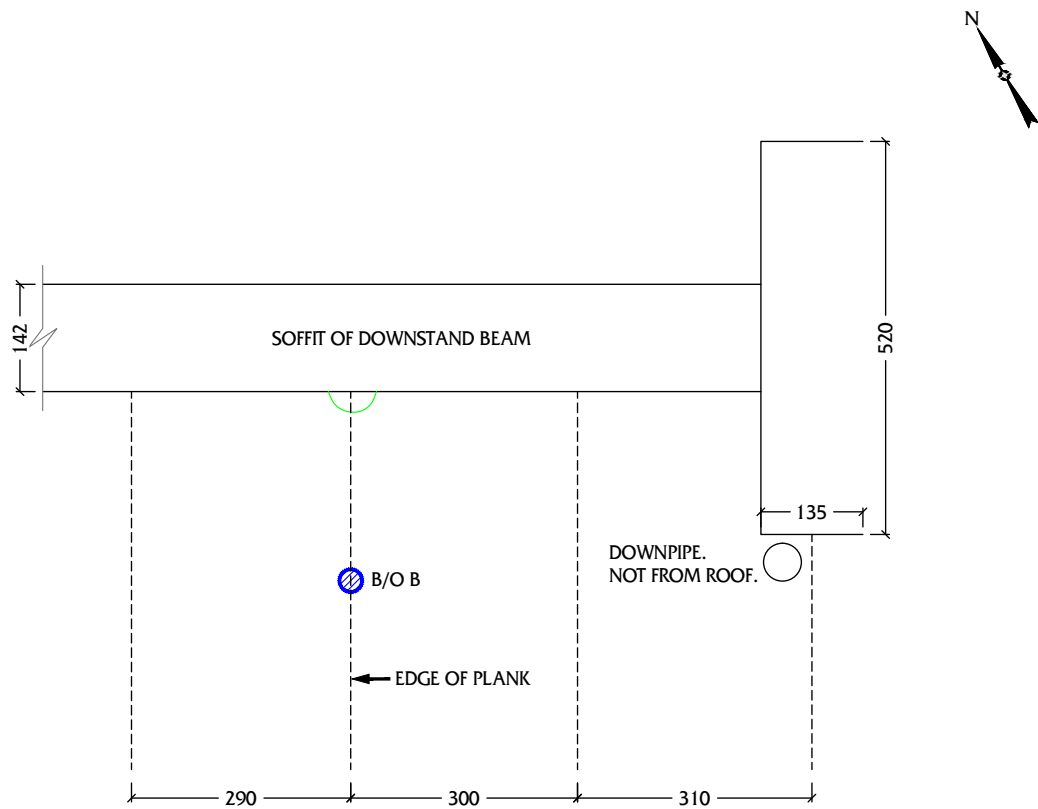
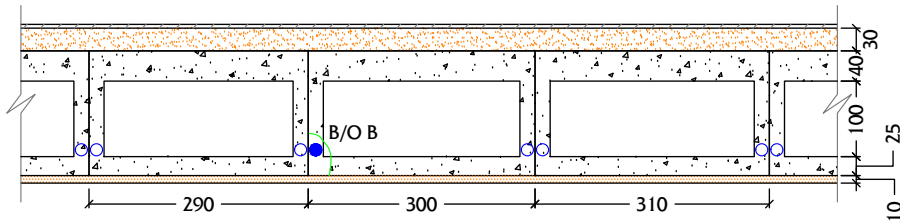


FIG.6: PART SECTION LOOKING EAST THROUGH ROOF SLAB SHOWING DETAILS OF PRECAST CONCRETE PLANK - SURVEY AREA RS2 SCALE 1:5



DETAILS OF BREAKOUT B/O B
16mmØ PLAIN ROUND BAR AT 26mm CONCRETE COVER.
BAR EXHIBITS VERY LIGHT SURFACE CORROSION WHERE EXPOSED.

AERIAL VIEW OF SITE



SYMBOLS USED

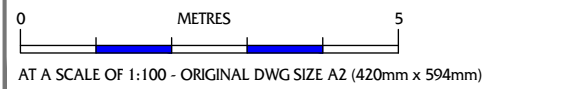
SYMBOLS USED	MATERIAL TYPES
PLAN EXTENT OF BUILDING SURVEYED	CONCRETE
SLAB INVESTIGATED	SCREED
BREAKOUT LOCATION	RENDER / PLASTER
APPROXIMATE EXTENT OF BREAKOUT	WATERPROOFING
EXPOSED REINFORCEMENT	
ASSUMED REINFORCEMENT	

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF SLAB CONSTRUCTION
SHEET 2 OF 4

Drawn HW CAD	Date SEP 20 PM	Scale AS SHOWN APP	Dwg. No. 4689-RS2
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FIG.7: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF SLAB SURVEYED OVER NOT TO SCALE

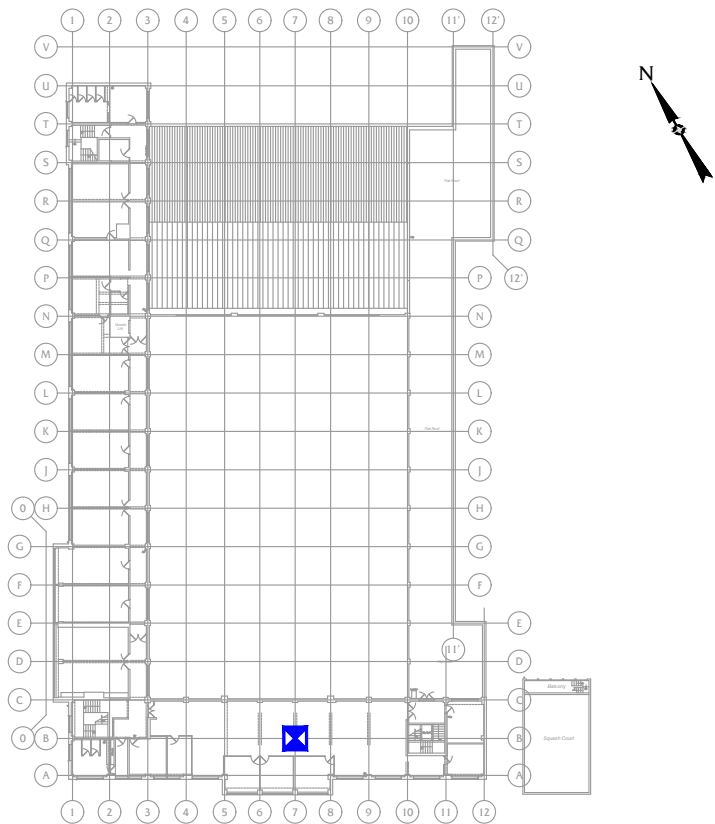
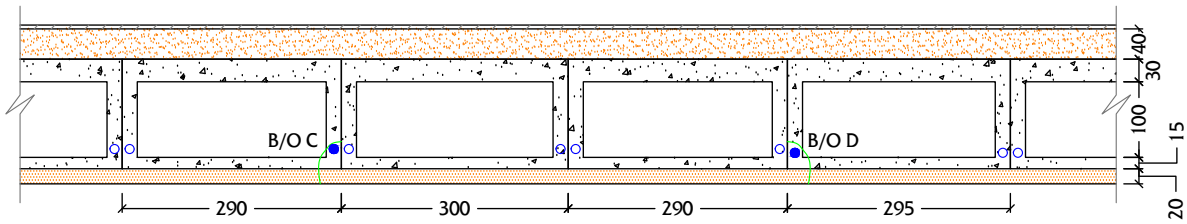


FIG.9: PART SECTION LOOKING EAST THROUGH ROOF SLAB SHOWING DETAILS OF PRECAST CONCRETE PLANK - SURVEY AREA RS3 SCALE 1:5



DETAILS OF BREAKOUTS

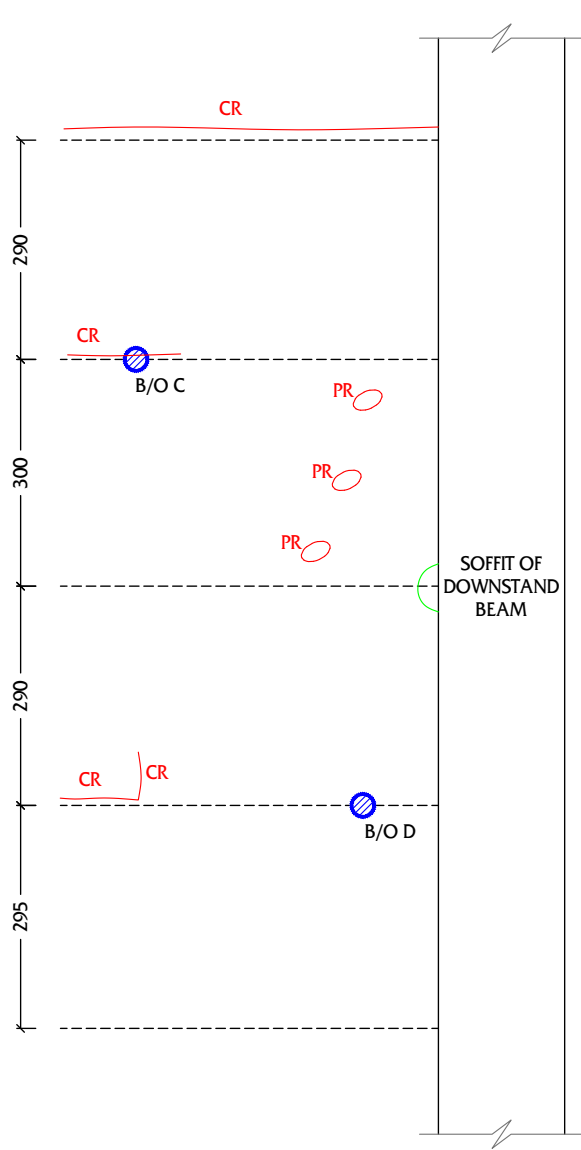
BREAKOUT B/O C

12mmØ PLAIN ROUND BAR AT 20mm CONCRETE COVER.
BAR EXHIBITS MODERATE TO HEAVY SURFACE CORROSION WHERE LOCALLY EXPOSED.

BREAKOUT B/O D

12mmØ PLAIN ROUND BAR AT 15mm CONCRETE COVER.
BAR EXHIBITS LIGHT SURFACE CORROSION WHERE EXPOSED.

FIG.8: PART REFLECTED SOFFIT PLAN OF ROOF SLAB SHOWING DOWNSTAND BEAM, PRECAST CONCRETE PLANK AND LOCALISED DEFECTS - SURVEY AREA RS3 SCALE 1:20



P8a: SURVEY AREA RS3



P8b: BAR EXPOSED AT BREAKOUT B/O C

AERIAL VIEW OF SITE



SYMBOLS USED

SYMBOLS USED	MATERIAL TYPES
PLAN EXTENT OF BUILDING SURVEYED	CONCRETE
SLAB INVESTIGATED	SCREED
BREAKOUT LOCATION	RENDER / PLASTER
APPROXIMATE EXTENT OF BREAKOUT	WATERPROOFING
EXPOSED REINFORCEMENT	
ASSUMED REINFORCEMENT	
DEFECT LOCATION	
CRACK	
PATCH REPAIR	

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 5 METRES
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF SLAB CONSTRUCTION
SHEET 3 OF 4

Drawn HW CAD	Date SEP 20 PM	Scale AS SHOWN APP	Dwg. No. 4689-RS3
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FIG. 10: PLAN OF 1ST FLOOR SHOWING LOCATION OF ROOF SLAB SURVEYED OVER NOT TO SCALE

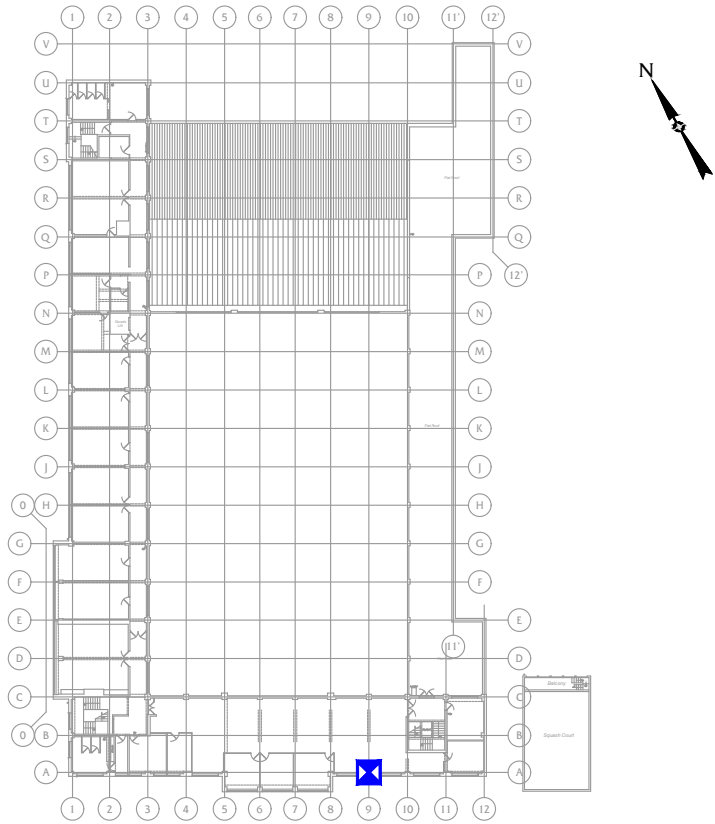
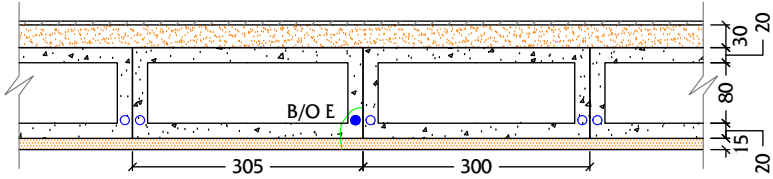
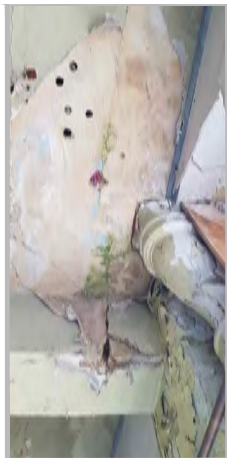
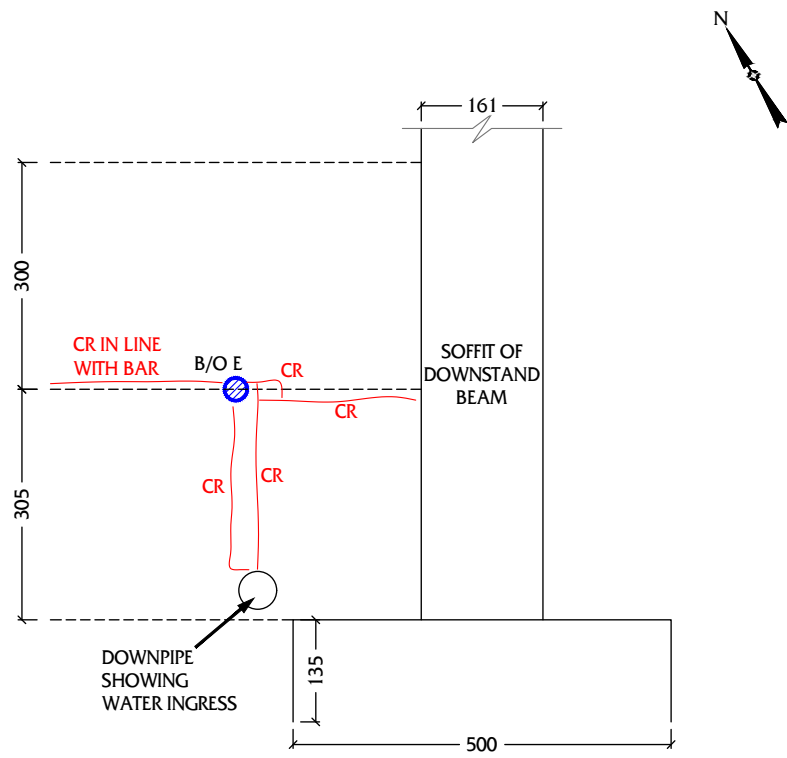


FIG. 12: PART SECTION LOOKING EAST THROUGH ROOF SLAB SHOWING DETAILS OF PRECAST CONCRETE PLANK - SURVEY AREA RS4 SCALE 1:5



DETAILS OF BREAKOUT B/O E
12mmØ PLAIN ROUND BAR AT 18mm CONCRETE COVER.
BAR EXHIBITS VERY LIGHT SURFACE CORROSION WHERE LOCALLY EXPOSED.

FIG. 11: PART REFLECTED SOFFIT PLAN OF ROOF SLAB SHOWING DOWNSTAND BEAM, PRECAST CONCRETE PLANK AND LOCALISED DEFECTS - SURVEY AREA RS4 SCALE 1:20



P11a: SURVEY AREA RS4



P11b: BAR EXPOSED AT BREAKOUT B/O D

AERIAL VIEW OF SITE



SYMBOLS USED

SYMBOLS USED	MATERIAL TYPES
PLAN EXTENT OF BUILDING SURVEYED	CONCRETE
SLAB INVESTIGATED	SCREED
BREAKOUT LOCATION	RENDER / PLASTER
APPROXIMATE EXTENT OF BREAKOUT	WATERPROOFING
EXPOSED REINFORCEMENT	
ASSUMED REINFORCEMENT	
DEFECT LOCATION	
CRACK	

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF ROOF SLAB CONSTRUCTION
SHEET 4 OF 4

Drawn HW CAD	Date SEP 20 PM	Scale AS SHOWN APP	Dwg. No. 4689-RS4
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FIG. 1: PLAN OF 1ST FLOOR SHOWING LOCATION OF STAIR CORE SURVEYED NOT TO SCALE

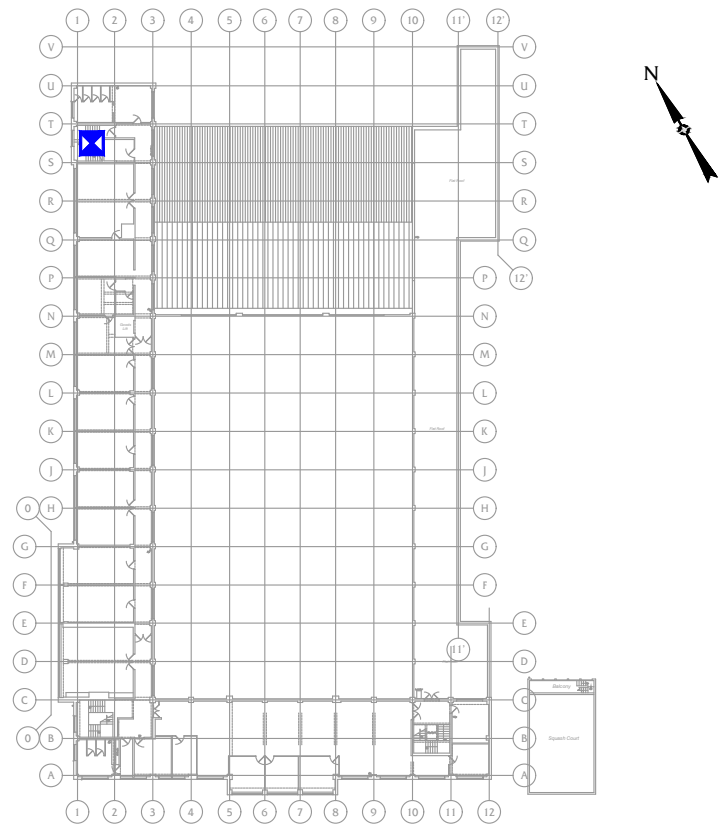
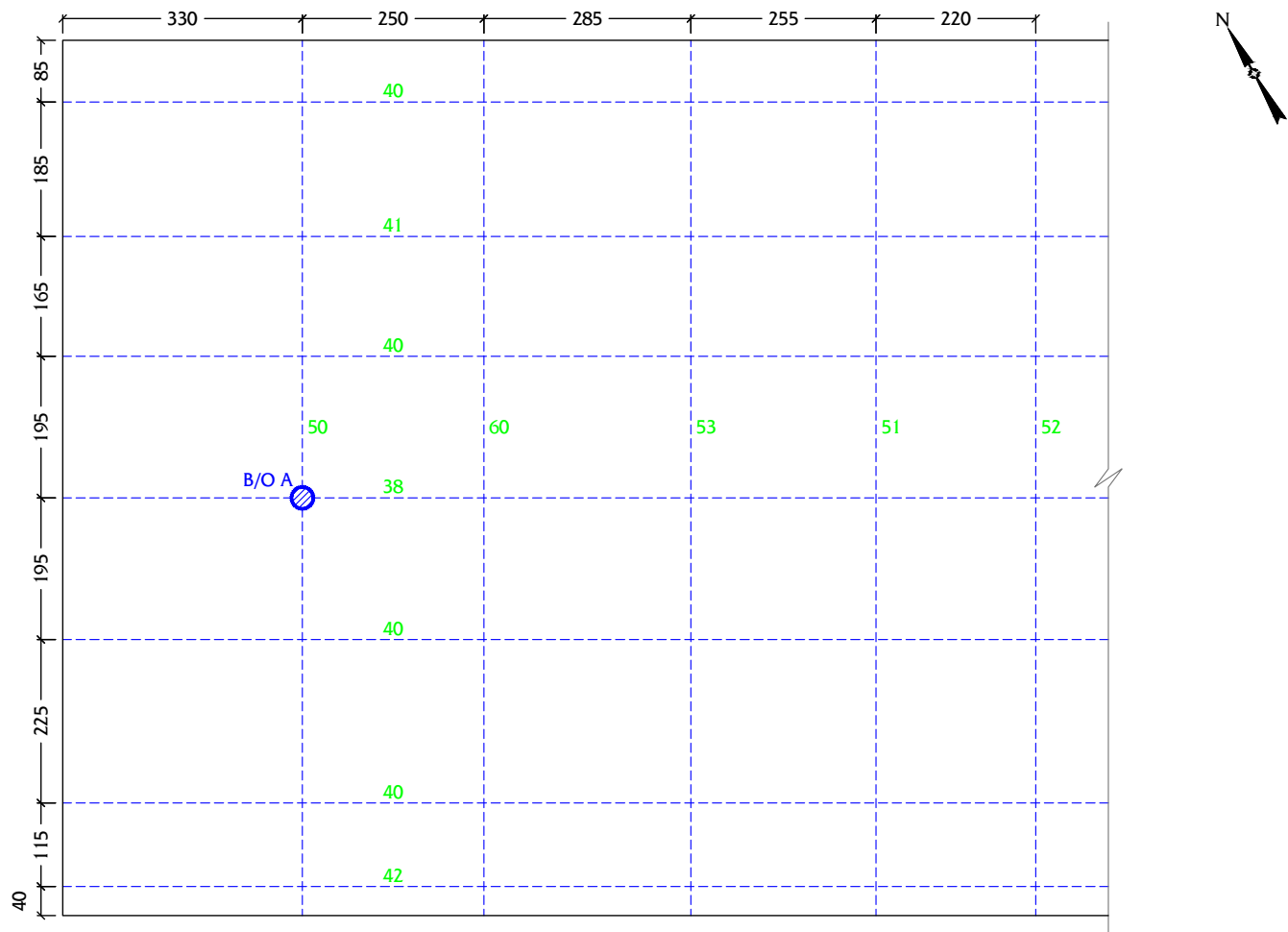


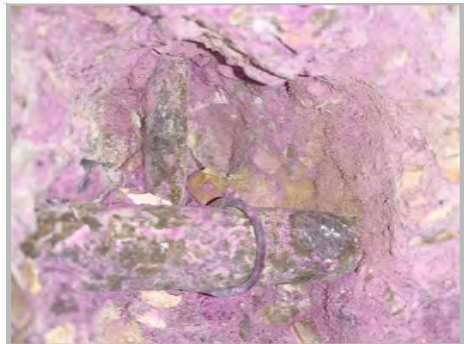
FIG.2: PART REFLECTED SOFFIT PLAN OF 1ST FLOOR STAIR LANDING SHOWING BREAKOUT AND NEAR SURFACE STEEL REINFORCEMENT ARRANGEMENT - SURVEY AREA S-T/1-2 SCALE 1:20



DETAILS OF BREAKOUT B/O A
10mmØ N-S BAR AT 36mm CONCRETE COVER.
16mmØ E-W BAR AT 20mm CONCRETE COVER.
BOTH BARS EXHIBIT LIGHT SURFACE CORROSION ONLY.



P2a: SURVEY AREA S-T/1-2



P2b: BREAKOUT B/O A

AERIAL VIEW OF SITE



SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- SLAB INVESTIGATED
- BREAKOUT LOCATION
- COVERMETER READING (mm)
- REINFORCEMENT POSITION, DETERMINED VIA ADT METHODS (MAY COMPRISE OF MORE THAN 1 ADJACENT BARS)

PROJECT DETAILS
GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5

AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF 1ST FLOOR STAIR CORE CONSTRUCTION

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-SC1



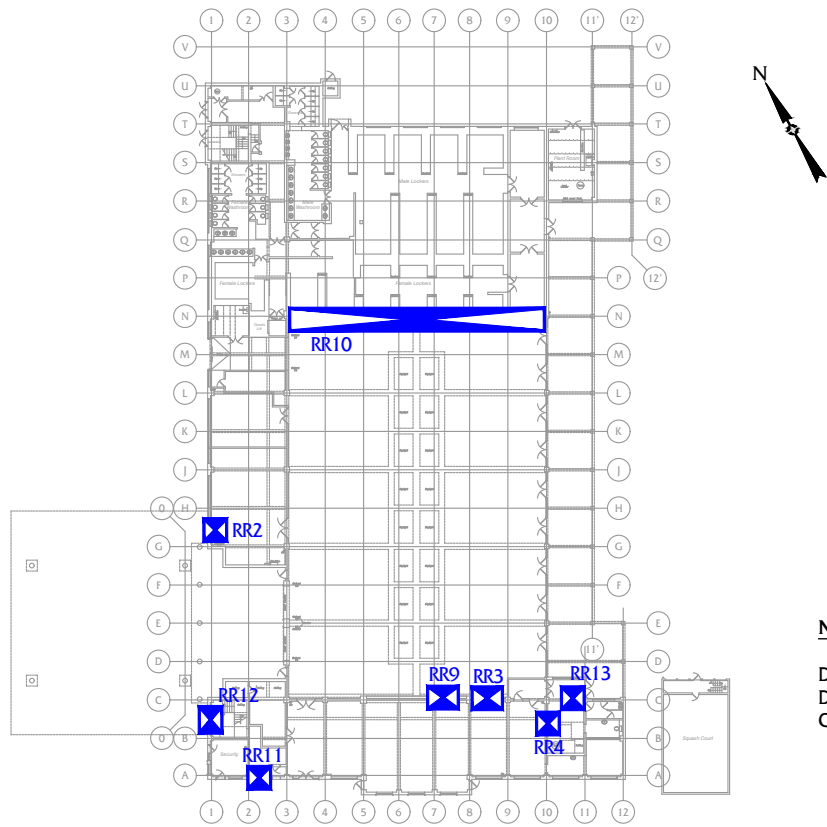
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LOCATIONS OF GROUND FLOOR WALL DAMP PROOF COURSE (DPC) AND CRACK SURVEYS
NESTLE FORMER CANTEN BUILDING, HAYES

FIG. 1: PLAN OF GROUND FLOOR SHOWING LOCATIONS OF SURVEY AREAS NOT TO SCALE



NOTES

DAMP PROOF COURSE WAS LOCATED AT SURVEY AREAS RR9 AND RR12 AT LOW LEVEL. NO OTHER DAMP PROOF COURSE WAS FOUND AT THE REMAINING GROUND FLOOR SURVEY AREAS. CRACKS TO WALL FINISHES DID NOT EXTEND INTO THE BRICKWORK MASONRY WHERE INVESTIGATED.



P1a: DPC INVESTIGATION - SURVEY AREA RR2



P1b: DPC INVESTIGATION - SURVEY AREA RR10



P1c: DPC INVESTIGATION - SURVEY AREA RR11



P1d: DPC INVESTIGATION - SURVEY AREA RR12



P1e: DPC INVESTIGATION - SURVEY AREA RR13



P1f: CRACK INVESTIGATION - SURVEY AREA RR3



P1g: CRACK INVESTIGATION - SURVEY AREA RR4



P1h: CRACK INVESTIGATION - SURVEY AREA RR9

AERIAL VIEW OF SITE



SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- WALL SURVEY AREA
- 8.8 MOISTURE METER READING (SURFACE FINISH)

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

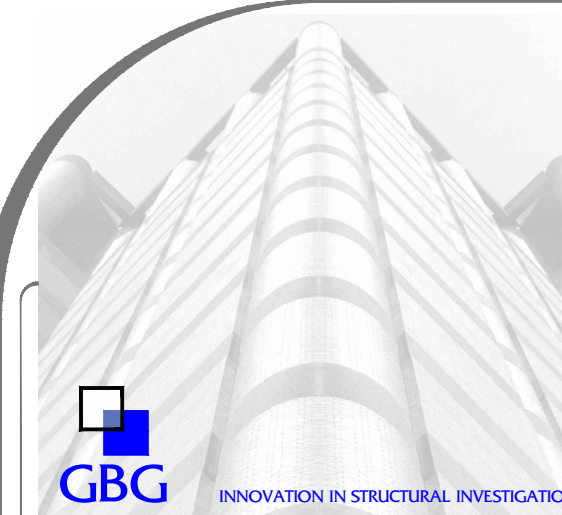
ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: LOCATIONS OF GROUND FLOOR WALL DAMP PROOF COURSE (DPC) AND CRACK SURVEYS

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-W1



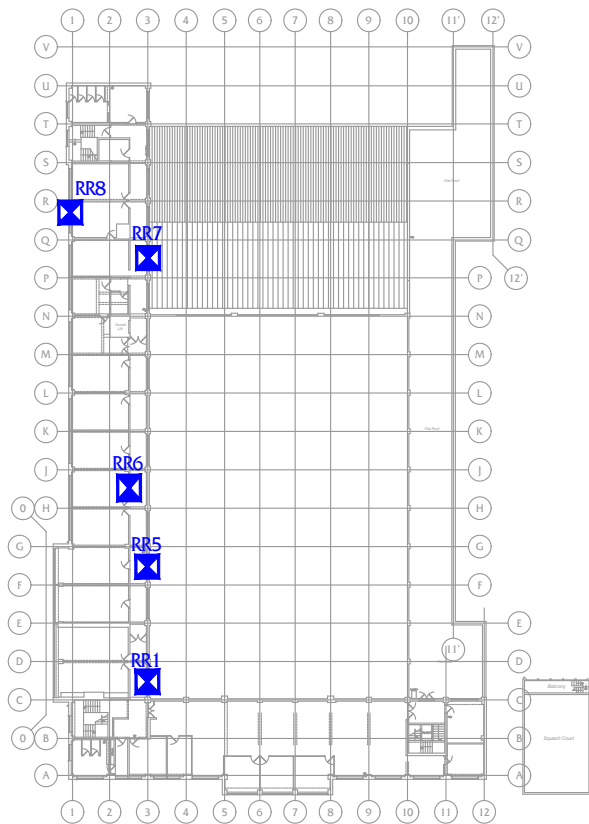
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LOCATIONS OF 1ST FLOOR WALL CRACK SURVEYS
NESTLE FORMER CANTEEN BUILDING, HAYES

FIG.2: PLAN OF 1ST FLOOR SHOWING LOCATIONS OF WALLS SURVEYED NOT TO SCALE



NOTES
CRACKS TO WALL FINISHES DID NOT EXTEND INTO THE BRICKWORK MASONRY WHERE INVESTIGATED.



P2a: CRACK INVESTIGATION - SURVEY AREA RR1



P2b: CRACK INVESTIGATION - SURVEY AREA RR5



P2c: CRACK INVESTIGATION - SURVEY AREA RR6



P2d: CRACK INVESTIGATION - SURVEY AREA RR7



P2e: CRACK INVESTIGATION - SURVEY AREA RR8

AERIAL VIEW OF SITE



SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- WALL SURVEY AREA
- 8.8 MOISTURE METER READING (SURFACE FINISH)

PROJECT DETAILS
GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: LOCATIONS OF 1ST FLOOR WALL CRACK SURVEYS

Drawn HW CAD	Date SEP 20 PM	Scale AS SHOWN APP	Dwg. No. 4689-W2
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FIG.1: PLAN OF GROUND FLOOR SHOWING LOCATIONS OF THERMAL SURVEYS NOT TO SCALE

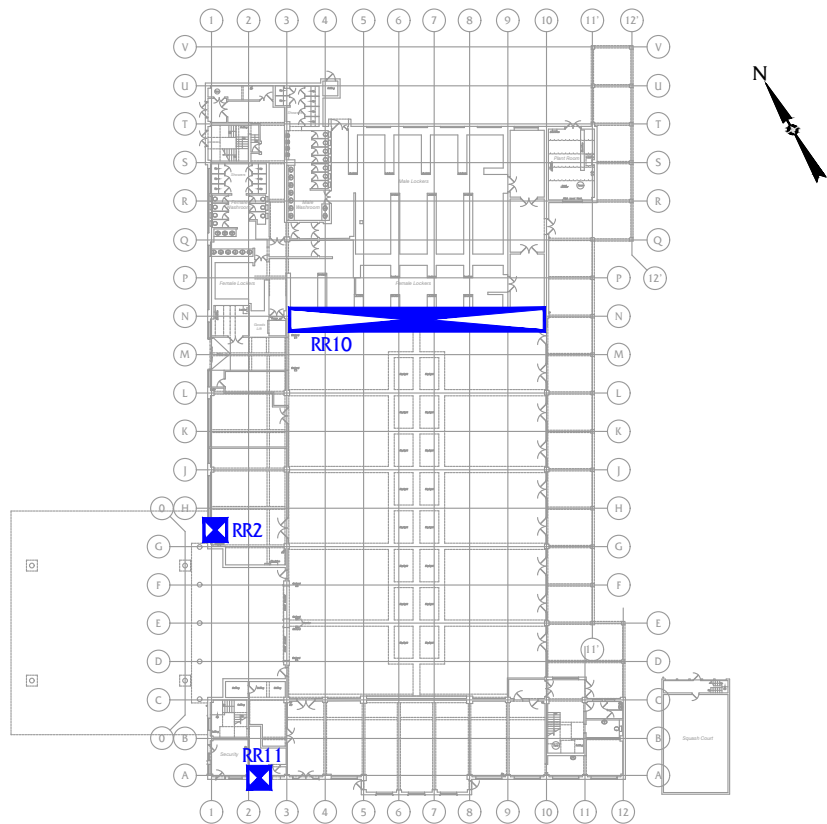


FIG.2: RESULTS OF THERMAL SURVEY - AREA RR2



FIG.3: RESULTS OF THERMAL SURVEY - AREA RR10

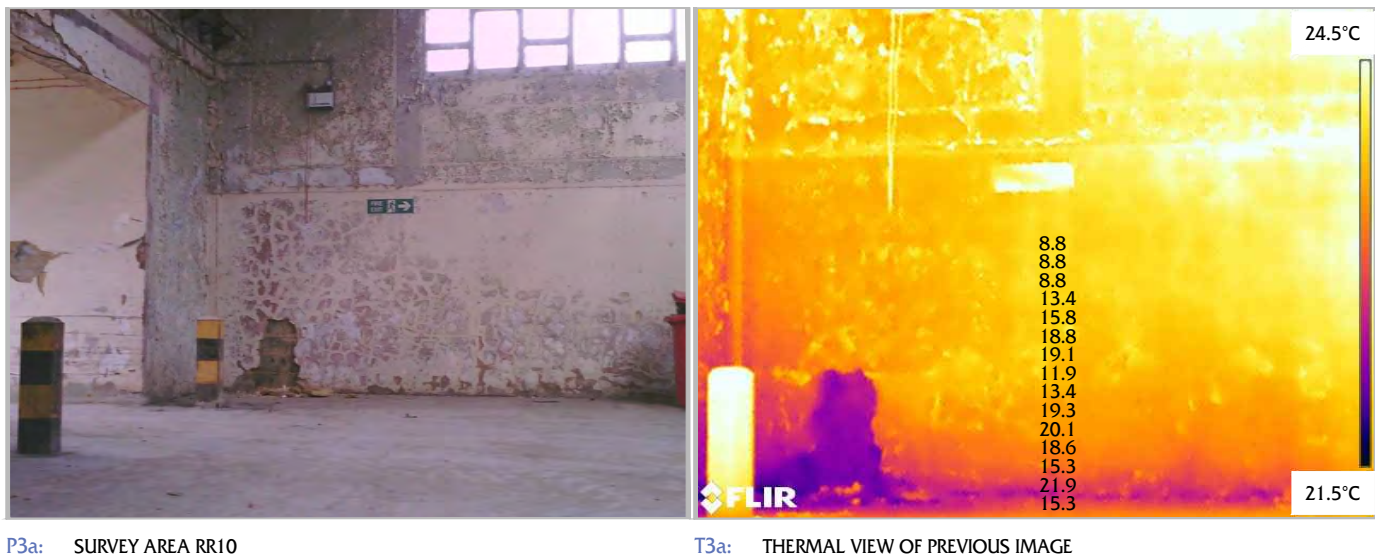
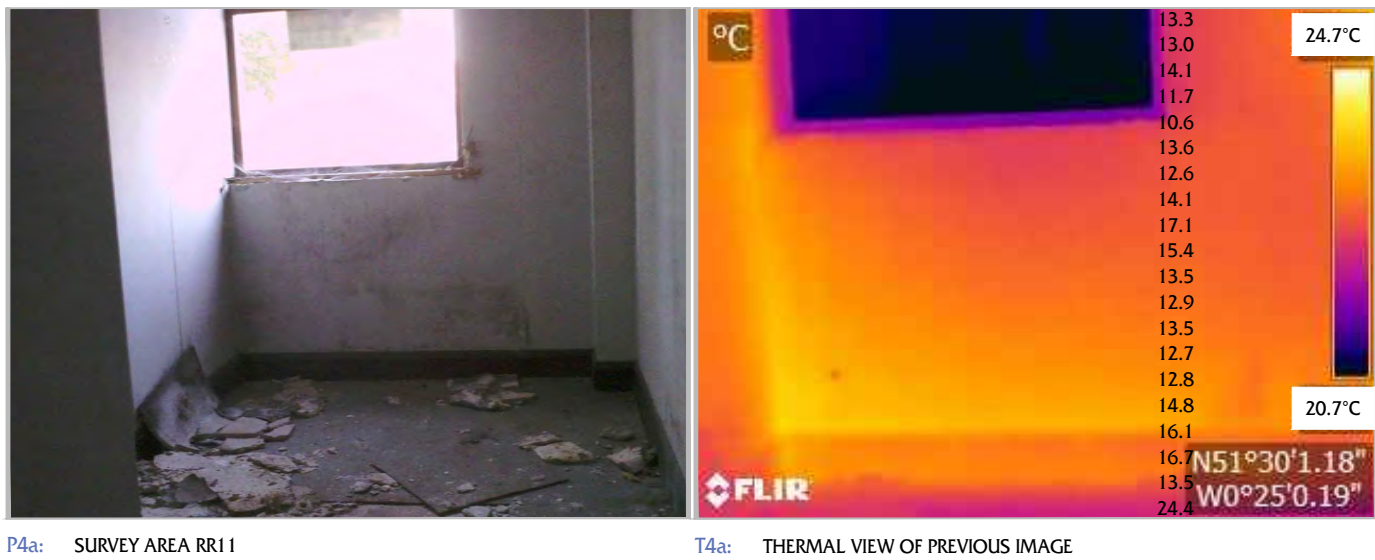


FIG.4: RESULTS OF THERMAL SURVEY - AREA RR11



AERIAL VIEW OF SITE



SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- WALL SURVEY AREA
- 8.8 MOISTURE METER READING (SURFACE FINISH)

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: LOCATIONS AND DETAILS OF DAMP SURVEYS TO GROUND FLOOR WALLS - SHEET 1 OF 2

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-TS1



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FIG.5: PLAN OF GROUND FLOOR SHOWING LOCATIONS OF THERMAL SURVEYS NOT TO SCALE

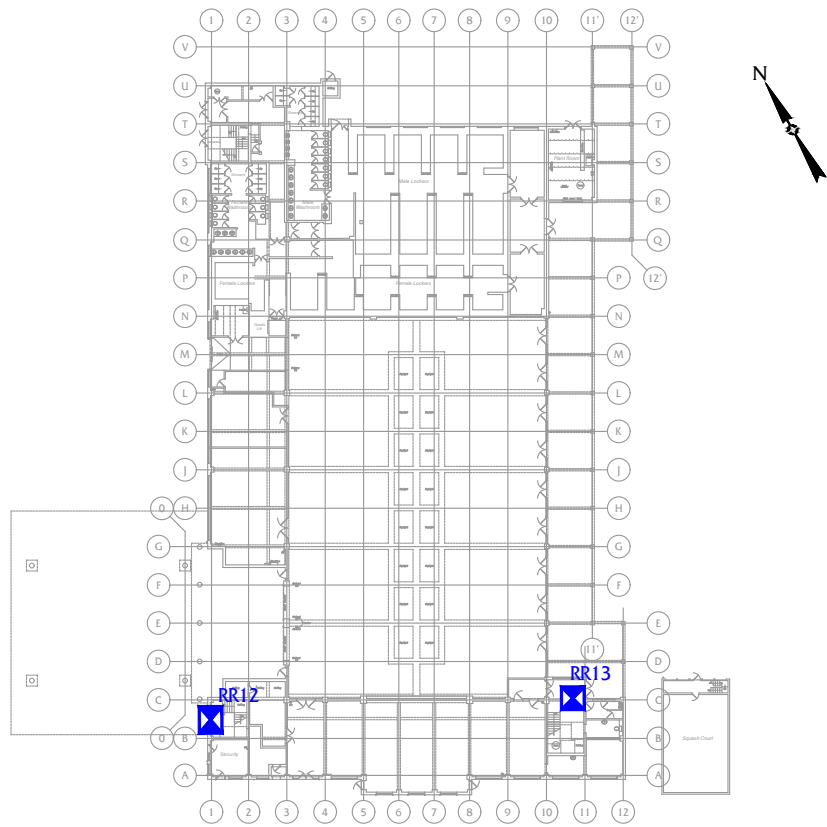


FIG.6: RESULTS OF THERMAL SURVEY - AREA RR12

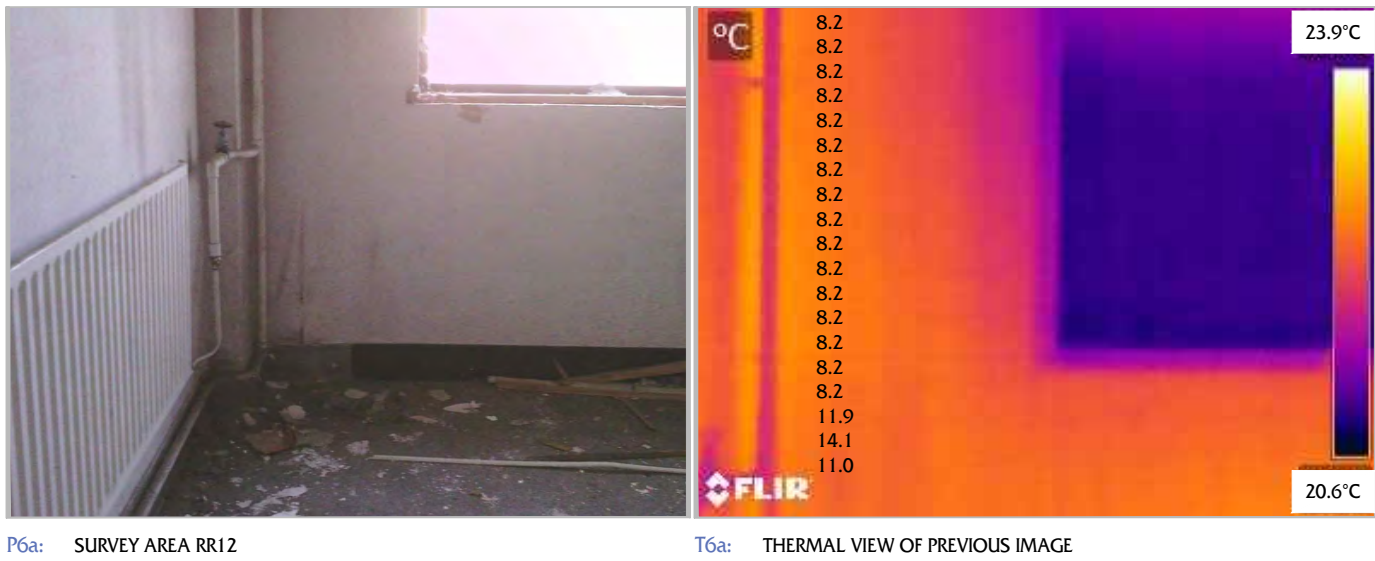
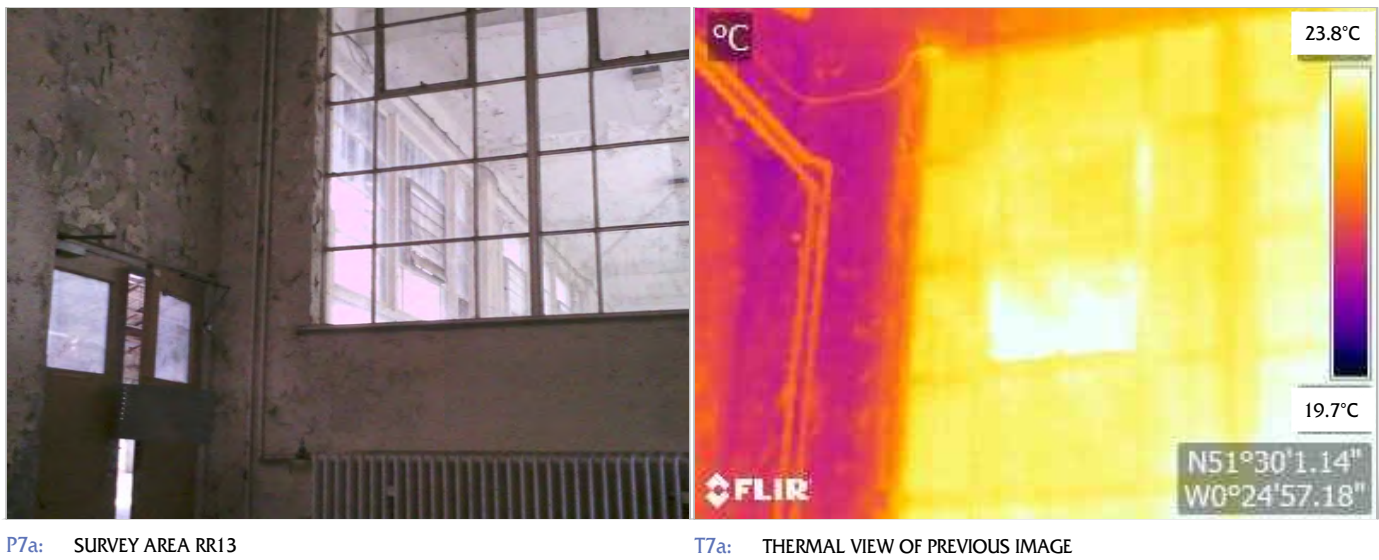


FIG.7: RESULTS OF THERMAL SURVEY - AREA RR13



AERIAL VIEW OF SITE



SYMBOLS USED

- PLAN EXTENT OF BUILDING SURVEYED
- WALL SURVEY AREA
- 8.8 MOISTURE METER READING (SURFACE FINISH)

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED	TWO STOREY STEEL FRAMED FORMER CANTEEN BUILDING
LOCATION	NORTH HYDE GARDENS, HAYES, UB3 4RF
PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEEN BUILDING, HAYES

Client: BARRATT LONDON

Title: LOCATIONS AND DETAILS OF DAMP SURVEYS TO GROUND FLOOR - SHEET 2 OF 2

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-TS2



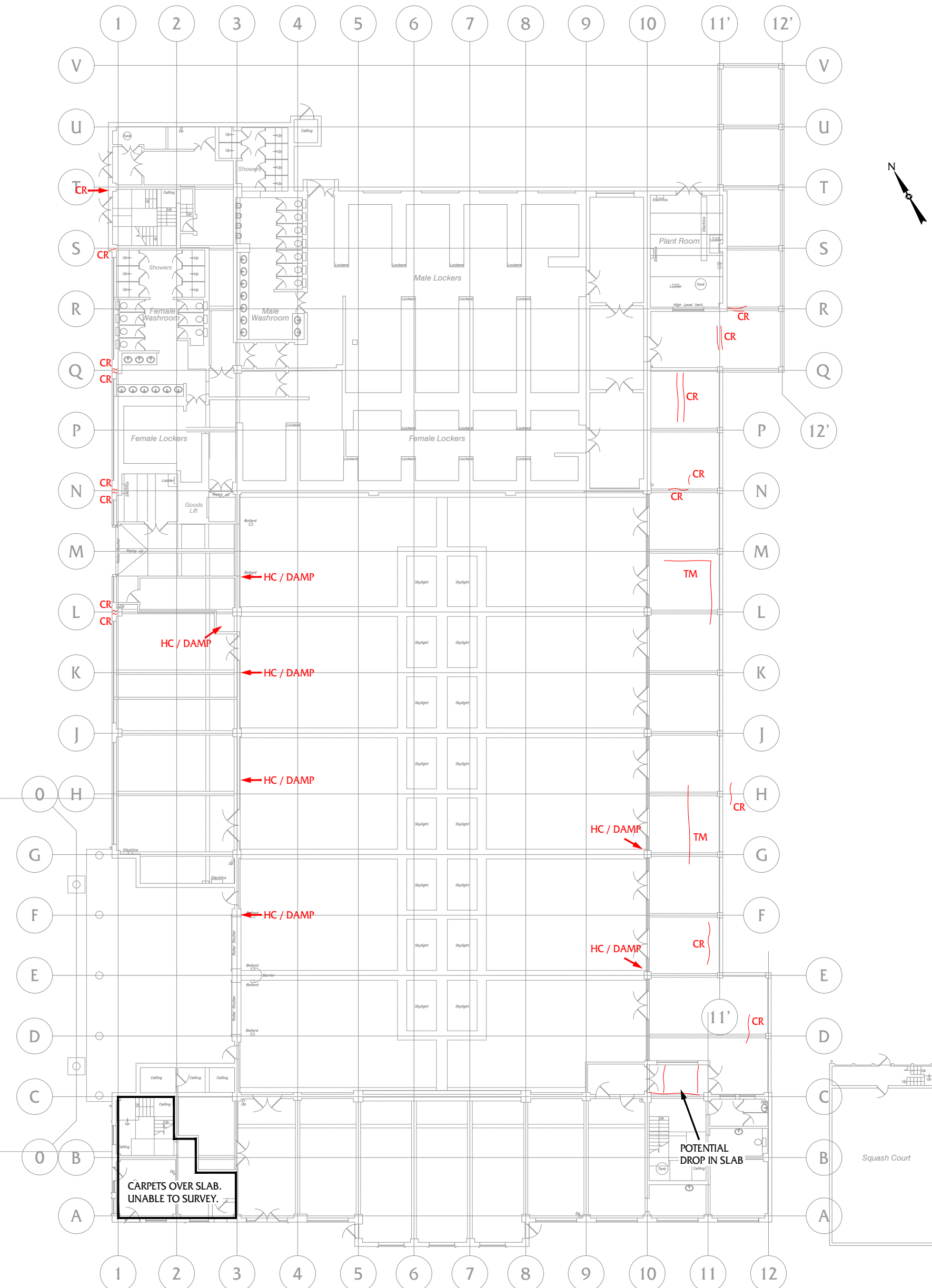
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DETAILS OF GROUND FLOOR DEFECT OBSERVATIONS IN VICINITY OF SURVEY AREAS NESTLE FORMER CANTEN BUILDING, HAYES

FIG. 1: PLAN OF GROUND FLOOR SHOWING LOCATIONS OF DEFECT OBSERVATIONS IN VICINITY OF SURVEY AREAS NOT TO SCALE



P1a: GENERAL VIEW OF SOUTH WESTERN FACE OF BUILDING



P1b: GENERAL VIEW OF SOUTH EASTERN FACE OF BUILDING



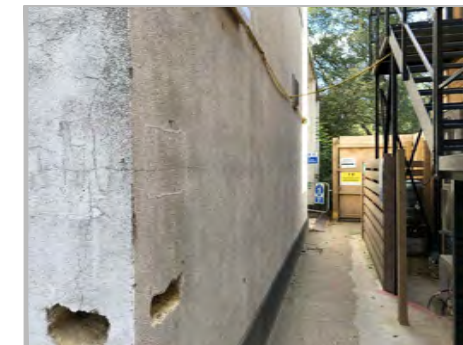
P1c: GENERAL VIEW OF COLONNADE



P1d: WATER SEEPAGE, CRACK AND MOSS GROWTH - GRID Q-P/10-11



P1e: VERTICAL CRACK TO EXTERNAL COLUMN AB



P1f: FINE CRACKS TO COLUMN A12



P1g: CRACK AND WATER INGRESS TO WALL R/10-11



P1h: GENERAL VIEW OF NORTH WESTERN FACE OF BUILDING



P1j: GENERAL VIEW OF WESTERN FACE OF BUILDING



P1k: SPALLING TO WINDOW STRUCTURE AT WESTERN FACE OF BUILDING

AERIAL VIEW OF SITE



SYMBOLS USED

- PLAN EXTENT OF AREA SURVEYED
- CR CRACK
- HC HONEYCOMBING
- WD WATER DAMAGE
- PR PATCH REPAIR
- TM TILE MOVEMENT
- RF EXPOSED REINFORCEMENT
- SP SPALLED CONCRETE
- RS RUST STAINING

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

PURPOSE OF INVESTIGATION TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: DETAILS OF GROUND FLOOR DEFECT OBSERVATIONS IN VICINITY OF SURVEY AREAS

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-V1



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[illegible]

	PLAN EXTENT OF AREA SURVEYED
CR	CRACK
HC	HONEYCOMBING
WD	WATER DAMAGE
PR	PATCH REPAIR
TM	TILE MOVEMENT
RF	EXPOSED REINFORCEMENT
SP	SPALLED CONCRETE
RS	RUST STAINING

PURPOSE OF INVESTIGATION	TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM
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Drawn	Date	Scale	Dwg. No. 4689-V2
HW	SEP 20	AS SHOWN	
CAD	PM	APP	



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FIG. 1: PLAN OF GROUND FLOOR SHOWING LOCATIONS OF SAMPLES TO GROUND FLOOR AND 1ST FLOOR SOFFIT OVER NOT TO SCALE

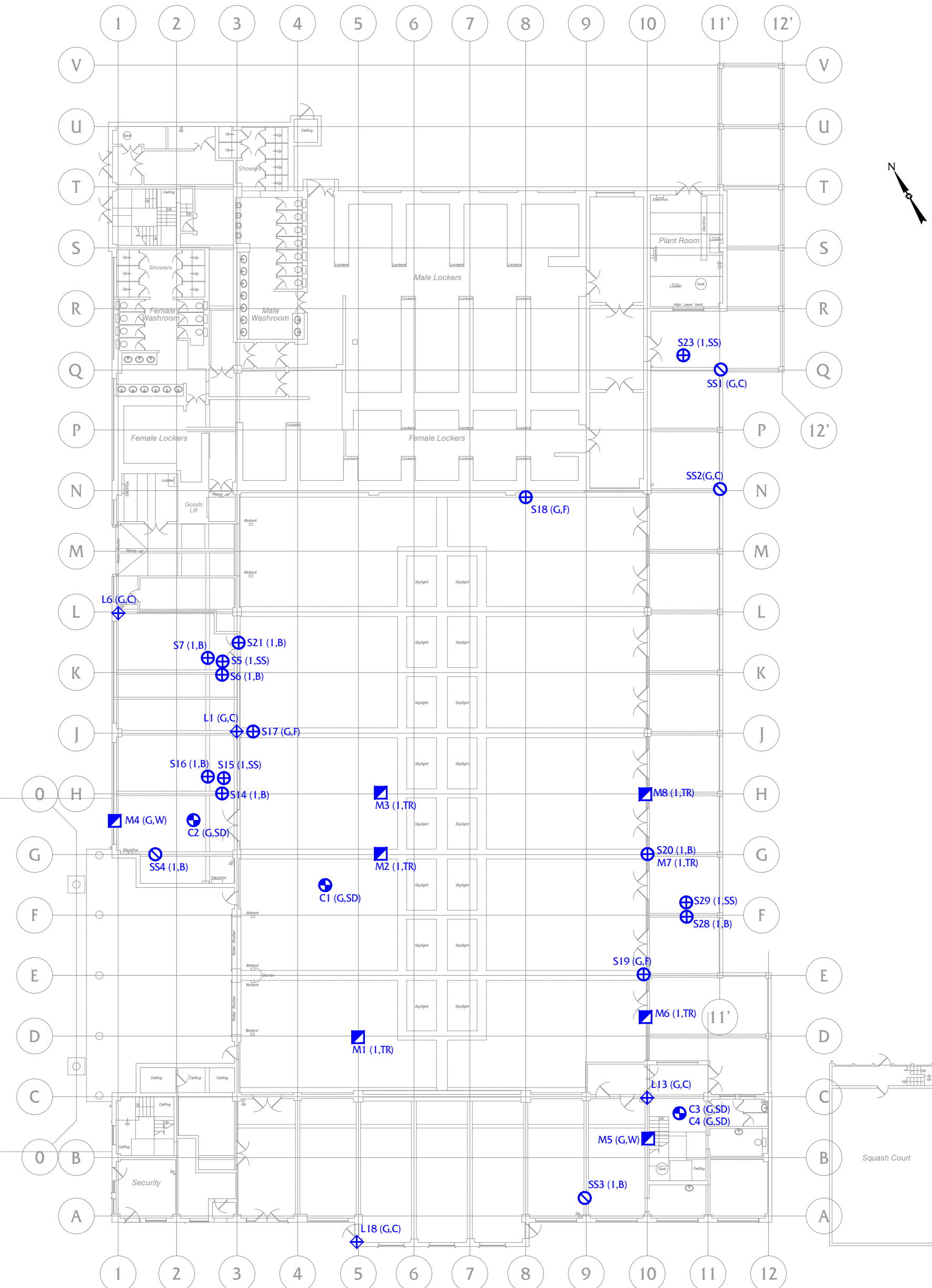
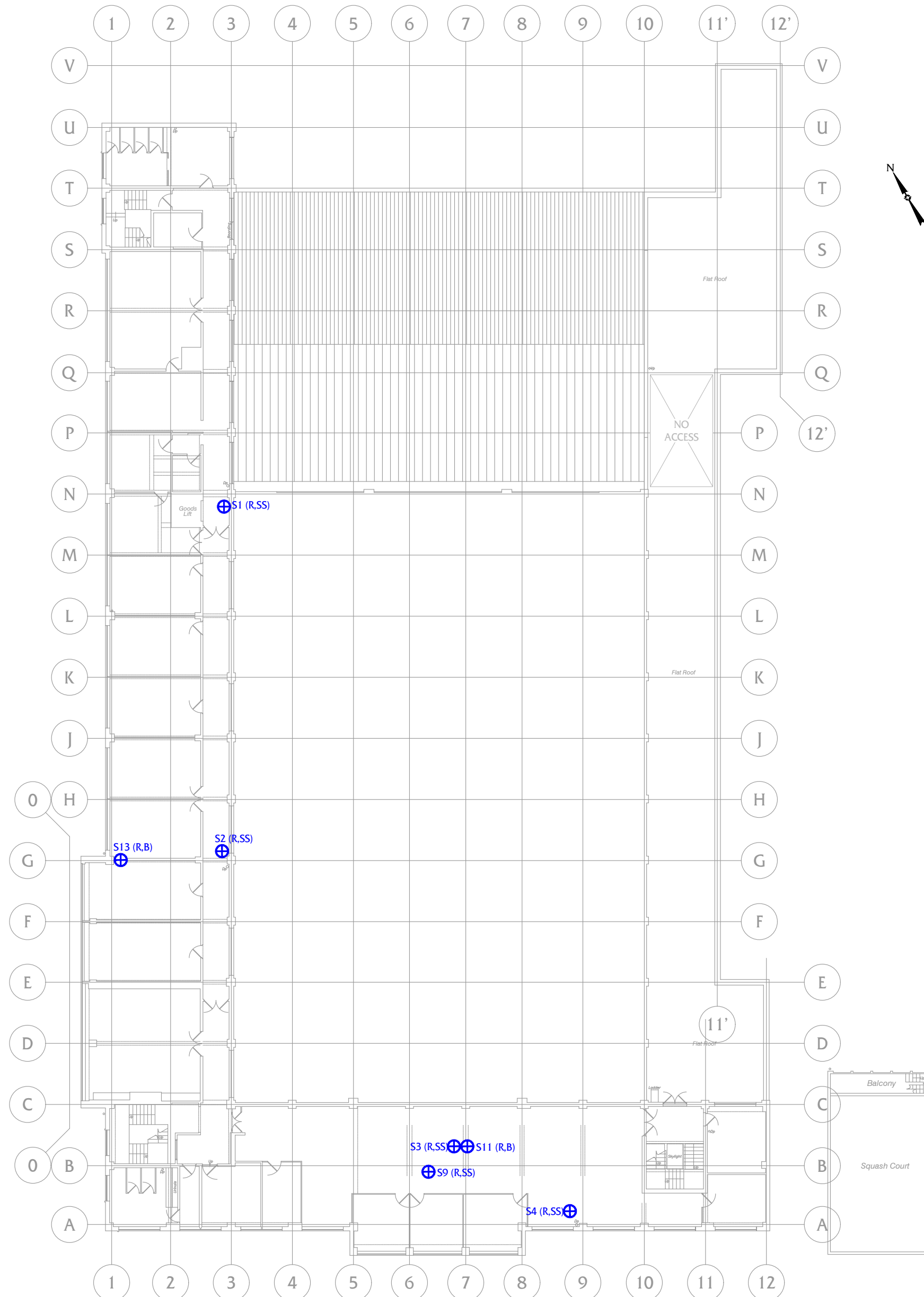








FIG.2: PLAN OF 1ST FLOOR SHOWING LOCATIONS OF SAMPLES TO ROOF SOFFIT OVER NOT TO SCALE



AERIAL VIEW OF SITE



SYMBOLS USED

	PLAN EXTENT OF AREA SURVEYED		
	DUST SAMPLE	G	GROUND FLOOR
	MORTAR SAMPLE	I	1ST FLOOR
	LUMP SAMPLE	R	ROOF
	CORE SAMPLE	F	FOUNDATION
	STEEL SAMPLE	C	COLUMN
		B	BEAM
		SD	SLAB SOFFIT
		SS	SLAB SOFFIT
		TR	TRUSS
		W	WALL

PROJECT DETAILS

GBG REPORT No. 4698 ACCOMPANIES THIS DRAWING.

STRUCTURE INVESTIGATED TWO STOREY STEEL FRAMED FORMER CANTEN BUILDING

LOCATION NORTH HYDE GARDENS, HAYES, UB3 4RF

PURPOSE OF INVESTIGATION TO DETERMINE CERTAIN STRUCTURAL DETAILS AND MATERIAL PROPERTIES AS REQUIRED BY THE CLIENT'S DESIGN TEAM

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0 METRES 5
AT A SCALE OF 1:100 - ORIGINAL DWG SIZE A2 (420mm x 594mm)

REF.	REVISION	DATE

ALL ORIGINAL DRAWINGS ARE PRODUCED IN COLOUR

Project: NESTLE FORMER CANTEN BUILDING, HAYES

Client: BARRATT LONDON

Title: LOCATIONS OF SAMPLES

Drawn HW CAD Date SEP 20 PM Scale AS SHOWN APP Dwg. No. 4689-S1



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APPENDIX 2

SAMPLE DESCRIPTIONS AND PHOTOGRAPHS



Plate: SD1 (D7730_001)

Site Reference: C1

Laboratory Ref: 7452

Location: Slab Survey Area GS1: Ground Floor Level – Main Hall

A core extracted in one piece with a diameter of 97mm, including a 10mm thick granolithic screed layer bonded to an underlying 195mm thick concrete layer. The overall length of the sample was 205mm.

The concrete contained approximately 45-55% mixed flint-gravel as the coarse aggregate, which was sub-rounded to sub-angular and equant to elongate in shape, generally well graded and evenly distributed, with a maximum nominal size of 20mm. The cement paste within the core sample was light grey in colour and apparently of good compaction, with excess voidage judged at 0.5% and a maximum void size of 4mm x 3mm x 6mm deep.

The surface of the core was dry on receipt and the voids were empty. There were no cracks cutting the core. There was 1No. 8mm diameter steel bar present within the core at 25mm from the top surface of the core.

Other Information: The top surface of the screed has a smooth surface finish. The bottom surface of the core was uneven but smooth, with the impression of a damp proof membrane.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No.
4689

Fig.
A2.1

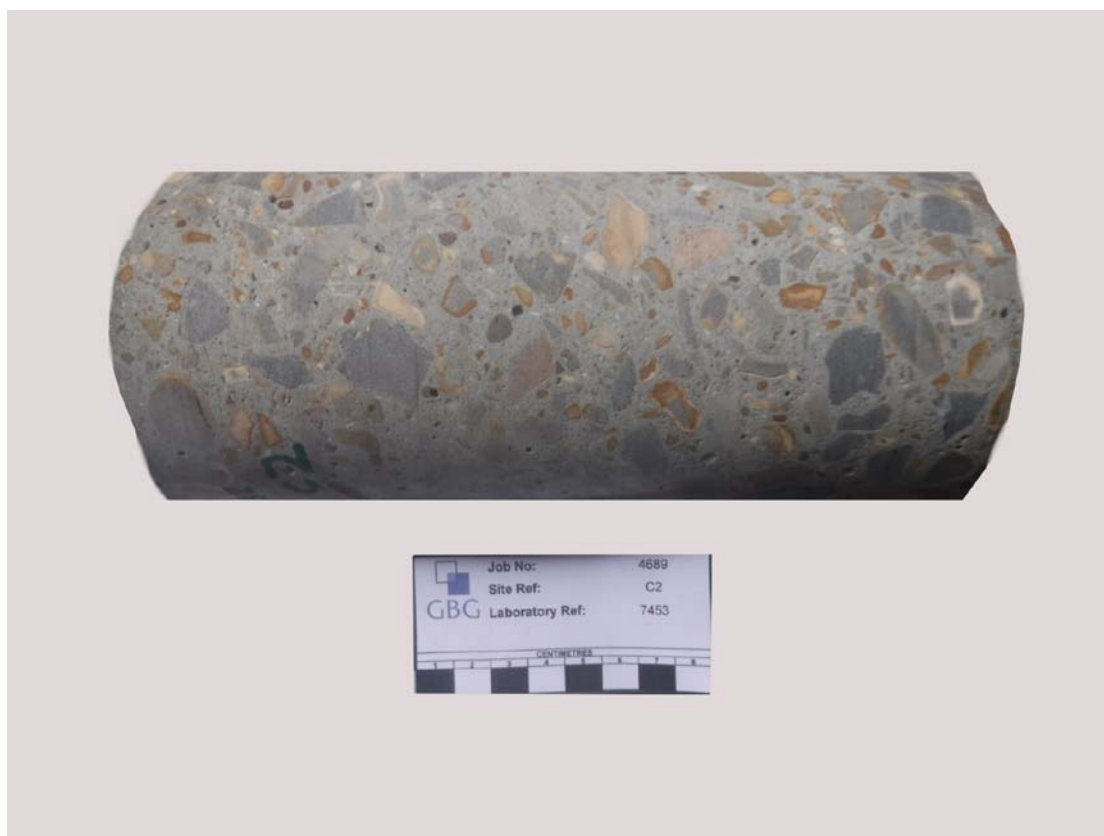


Plate: SD2 (D7730_014)

Site Reference: C2

Laboratory Ref: 7453

Location: Slab Survey Area GS2: Ground Floor Level – Main Hall

A concrete core extracted in one piece with a diameter of 97mm. The overall length of the sample was 220mm.

The concrete contained approximately 45-55% mixed flint-gravel as the coarse aggregate, which was sub-rounded to sub-angular and equant to elongate in shape, generally well graded and evenly distributed, with a maximum nominal size of 20mm. The cement paste within the core sample was grey in colour and apparently of good compaction, with excess voidage judged at 0.5% and a maximum void size of 1mm x 2mm x 2mm deep.

The surface of the core was dry on receipt and the voids were empty. There were no cracks cutting the core. There were no steel bars present in the core.

Other Information: The top surface of the concrete has a smooth surface finish. The bottom surface of the core was uneven but smooth, with the impression of a damp proof membrane.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No.
4689

Fig.
A2.2



Plate: SD3 (D7730_049)

Site Reference: C3

Laboratory Ref: 7454

Location: Slab Survey Area GS3: Ground Floor Level – Main Hall

A core extracted in two pieces, including a 35mm thick granolithic screed layer and a 210mm thick concrete layer, each with a diameter of 97mm. The overall length of the sample was 245mm.

The concrete contained approximately 45-55% mixed flint-gravel as the coarse aggregate, which was sub-rounded to sub-angular and equant to elongate in shape, generally well graded and evenly distributed, with a maximum nominal size of 20mm. The cement paste within the core sample was light grey in colour and apparently of good compaction, with excess voidage judged at 1.5% and a maximum void size of 5mm x 5mm x 5mm deep.

The surface of the core was dry on receipt and the voids were empty. There were no cracks cutting the core. There were no steel bars present in the core. Minor honeycombing was observed at the bottom of the core.

Other Information: The top surface of the screed had a roughly cast surface finish and the screed had become detached from the underlying concrete. The bottom surface of the core was uneven but smooth, with the impression of a damp proof membrane.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No. **4689**

Fig. **A2.3**

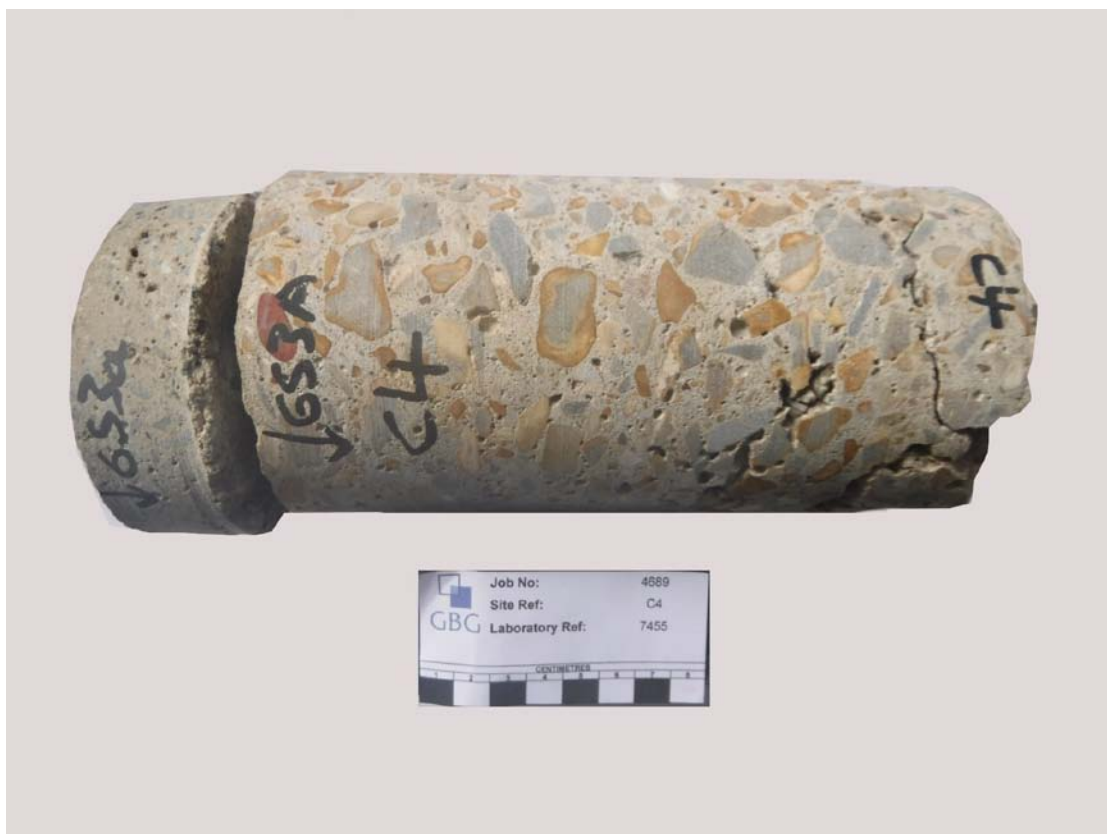


Plate: SD4 (D7730_062)

Site Reference: C4

Laboratory Ref: 7455

Location: Slab Survey Area GS3: Ground Floor Level – Main Hall

A concrete core extracted in two pieces, including a 35mm thick granolithic screed layer and a 165-209mm thick concrete layer, each with a diameter of 97mm. The overall length of the sample was 200-244mm.

The concrete contained approximately 45-55% mixed flint-gravel as the coarse aggregate, which was sub-rounded to sub-angular and equant to elongate in shape, generally well graded and evenly distributed, with a maximum nominal size of 20mm. The cement paste within the core sample was light grey in colour and generally of good compaction, with excess voidage judged at 1.5%. However, honeycombing was evident towards the bottom of the core and the maximum void size observed was 8mm x 9mm x 6mm deep (honeycombed area).

The surface of the core was dry on receipt and the voids were empty. A cracks was observed cutting a portion of the bottom of the core within the honeycombed area. There were no steel bars present in the core.

Other Information: The top surface of the concrete has a roughly cast surface finish. The bottom surface of the core was roughly cast and uneven. There was no damp proof membrane at the bottom of the core.

SAMPLE DESCRIPTIONS

NESTLE CANTEEN, HAYES

Job No.
4689

Fig.
A2.4



Plate: SD5 (D7736_003)

Site Reference: SS1

Laboratory Ref: 7572

Location: Grid Q/11 – Steel Column – Ground Floor Level

A 150mm long x 25mm wide steel coupon sample cut from the steel column web.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No. **4689**

Fig. **A2.5**



Plate: SD6 (D7736_005)

Site Reference: SS2

Laboratory Ref: 7573

Location: Grid N/11 – Steel Column – Ground Floor Level

A 150mm long x 25mm wide steel coupon sample cut from the steel column web.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No.

4689

Fig.

A2.6



Plate: SD7 (D7736_007)

Site Reference: SS3

Laboratory Ref: 7574

Location: Grid A-B/9 – Steel Beam – First Floor Level

A 150mm long x 25mm wide steel coupon sample cut from the steel beam flange.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No.

4689

Fig.

A2.7



Plate: SD8 (D7736_009)

Site Reference: SS4

Laboratory Ref: 7575

Location: Grid G/1-2 – Steel Beam – First Floor Level

A 150mm long x 25mm wide steel coupon sample cut from the steel beam flange.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No. **4689**

Fig. **A2.8**



Plate: SD9 (D7729_001)

Site Reference: L1

Laboratory Ref: 7475

Location: Grid J/3 – Column Encasement - Ground Floor level

A very firm concrete containing natural fine and coarse aggregates set in a grey coloured binding paste.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No. **4689**

Fig. **A2.9**

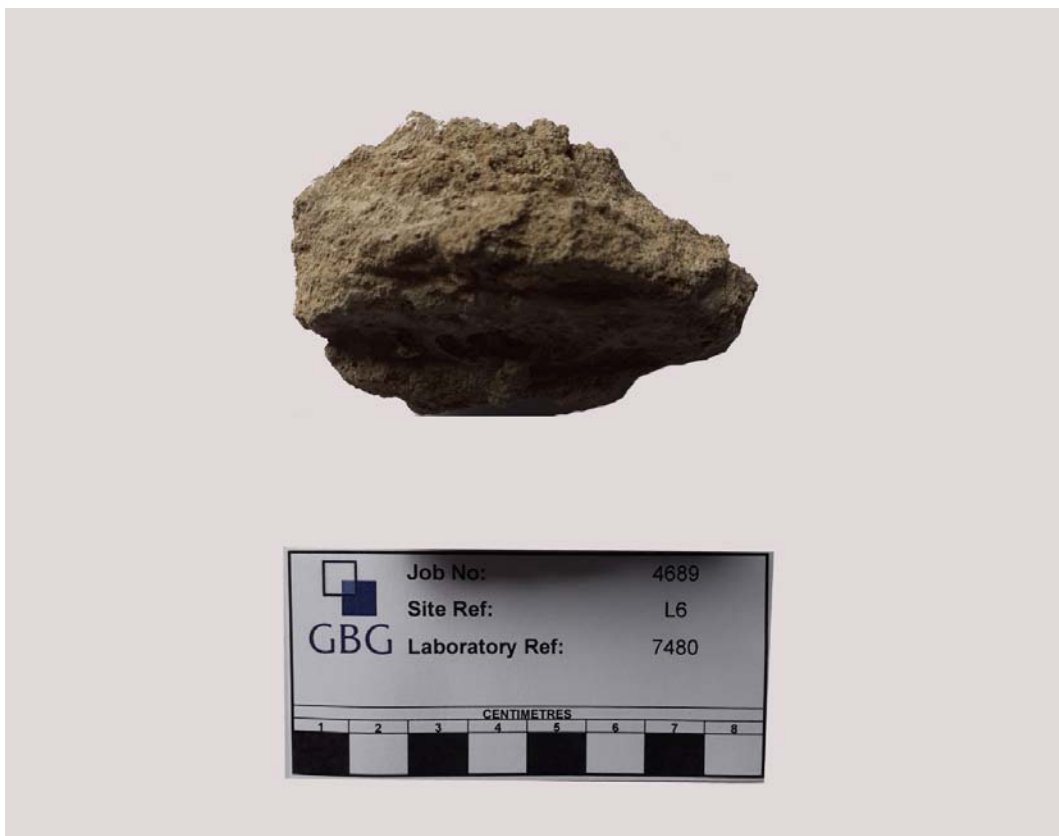


Plate: SD10 (D7729_014)

Site Reference: L6

Laboratory Ref: 7480

Location: L/1 – Column Encasement - Ground Floor level

A firm but brittle mortar containing natural fine aggregates set in a light buff coloured binding paste.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No. **4689**

Fig. **A2.10**

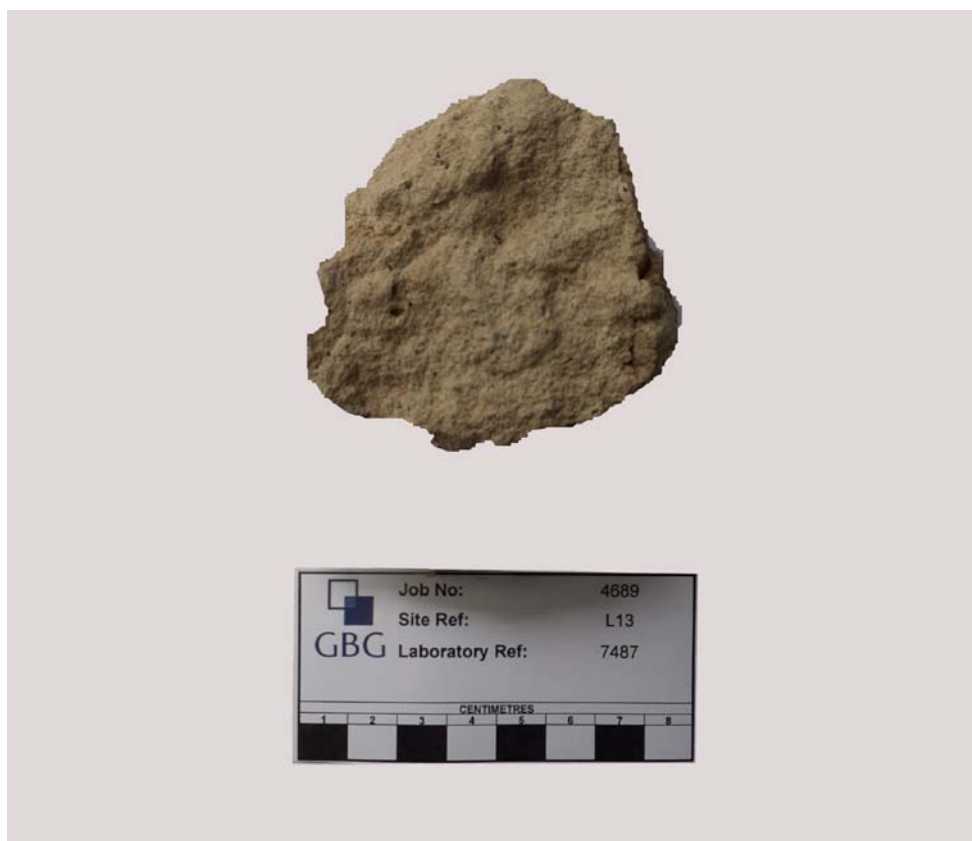


Plate: SD11 (D7729_031)

Site Reference: L13

Laboratory Ref: 7487

Location: C/10 – Column Encasement - Ground Floor level

A firm but brittle mortar containing natural fine aggregates set in a light buff coloured binding paste.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No. **4689**

Fig. **A2.11**



Plate: SD12 (D7736_001)

Site Reference: L18

Laboratory Ref: 7556

Location: A/5 – Column Encasement - Ground Floor level

A firm but brittle mortar containing natural fine aggregates set in a light buff to grey coloured binding paste.

SAMPLE DESCRIPTIONS

NESTLE FORMER CANTEEN BUILDING, HAYES

Job No. **4689**

Fig. **A2.12**

APPENDIX 3

SITE AND LABORATORY TEST RESULTS SUMMARY

Site Ref.	Depth/Dia.	Location/Element	Min. Depth of Concrete Cover	Depth of Carb'n	Density	Core Compressive Strength	Estimated in-situ Cube Strength	Presence of HAC	Sulfate Content*	Chloride Content*
	mm		mm	mm	kg/m ³	MPa	MPa		%	%
<u>R.C. Ground Bearing Slab</u>										
C1	100 dia.	Grid F-G/4-5 – GS1			2310	62.6	64.2			
C2	100 dia.	Grid G-H/2-3 – GS2			2310	60.9	61.6			
C3	100 dia.	Grid B-C/10-11 – GS3			2320	55.9	57.1			
C4	100 dia.	Grid B-C/10-11 – GS3								
Average					2310	59.8	61.0			
<u>Concrete Foundations</u>										
S17	5-30	Trial Pit 1 at Grid J/3							1.97	
S18	5-30	Trial Pit 2 at Grid N/8							2.29	
S19	5-30	Trial Pit 2 at Grid E/10							2.06	
Average									2.11	
<u>R.C. Pre-cast Concrete Planks</u>										
S1	5-30	Roof at Grid N/3						Not present		0.11
S2	5-30	Roof at Grid G/3						Not present		0.27
S3	5-30	Roof at Grid B/7						Not present		0.58
S4	5-30	Roof at Grid A/9						Not present		0.13
S9	5-30	Roof at Grid B/7						Not present		0.07
S5	5-30	First Floor at Grid L-K/3	20	5				Not present		0.05
S15	5-30	First Floor at Grid H/3						Not present		0.40
S23	5-30	First Floor at Grid Q/11	25	5						0.27
B/O		First Floor at Grid Q/12	25	5						
S27	5-30	First Floor at Grid K/11	30	5						0.41
S29	5-30	First Floor at Grid F/11	25	15				Not present		0.25
Average			25	7						0.25

KEY:
C1 – Core Sample, S1 – Dust Sample, B/O – Breakout
***An assumed cement content of 14% was used to express the chloride and sulfate contents of the concrete samples.**

Site Ref.	Depth/Dia.	Location/Element	Min. Depth of Concrete Cover	Depth of Carb'n	Presence of HAC	Sulfate Content*	Chloride Content*
	mm		mm	mm		%	%
<u>Steel Beam Concrete Encasement</u>							
S11	5-30	Roof Beam at Grid B/7					0.09
S13	5-30	Roof Beam at Grid G/1-2					0.01
B/O		Roof Beam at Grid A-C/7	41	15			
B/O		Roof Beam at Grid C/10-11	90	20			
S6	5-30	First Floor at Grid K/3	55	70			0.01
S7	5-30	First Floor at Grid L-K/2-3					0.01
S14	5-30	First Floor Beam at Grid H3					0.01
S16	5-30	First Floor Beam at Grid J-H/2-3	55	90			0.01
S20	5-30	First Floor Beam at Grid G/10	45	25	Not present		0.01
S21	5-30	First Floor Beam at Grid K/3					0.01
S28	5-30	First Floor Beam at Grid F/10-11	50	15			
B/O		First Floor Beam at Grid K/11	50	20			
B/O		First Floor Beam at Grid Q/11	50	25			
B/O		First Floor Beam at Grid Q/12	55	30			
Average			55	34			0.02
<u>Steel Column Masonry/Concrete Encasement</u>							
L1	5-30	Ground Floor Column at Grid J/3					0.01
L6	5-30	Ground Floor Column at Grid L/1					0.01
L13	5-30	Ground Floor Column at Grid C/10					0.01
L18	5-30	Ground Floor Column at Grid A/5					0.01
Average							0.01

KEY:

L1 – Lump Sample, S1 – Dust Sample, B/O – Breakout

*An assumed cement content of 14% was used to express the chloride contents of the concrete samples.

70 – Carbonation front has reached or exceeded the concrete depth of cover to the embedded steel.

Site Ref.	Location/Element	Lead (aqua regia extractable in "other")	Cadmium (aqua regia extractable in "other")	Tensile strength	
		mg/kg	mg/kg	Yield (0.2%rp) Stress	Maximum Stress
				MPa	MPa
<u>Steel Beams and Columns</u>					
SS1	Ground Floor Column at Grid Q/11			271	412
SS2	Ground Floor Column at Grid N/11			276	460
SS3	First Floor Beam at Grid A-B/9			234	435
SS4	First Floor Beam at Grid G/1-2			263	459
	Average			261	442
<u>Paint Samples (Steel Trusses)</u>					
M1	Truss at Grid D	2100	<0.2		
M2	Truss at Grid G	1600	<0.2		
M3	Truss at Grid H	1000	<0.2		
M6	Truss at Grid D/10	7400	<0.2		
M7	Truss at Grid G/10	8200	<0.2		
M8	Truss at Grid H/10	17000	0.3		
	Average	6200	<0.2		

KEY:
SS1 – Steel Sample, M1 – Paint Sample

Site Ref.	Location/Element	Probable Mix Proportions By Volume		Equivalent Mortar Grade (BS 4551:2005+A2:2013)
		cement: sand	cement: lime: sand	
<u>Masonry Wall</u>				
M4	Ground Floor - RR2 at Grid G/1	1:7 to 8 or 1:5 to 6	1:1:5 to 6	iv or iii
M5	Ground Floor - RR4 at Grid B/10	1:8 or 1:7 to 8	1:2:8 to 9	v or iv

KEY:
M1 – Mortar Sample

Methods of Mortar Testing

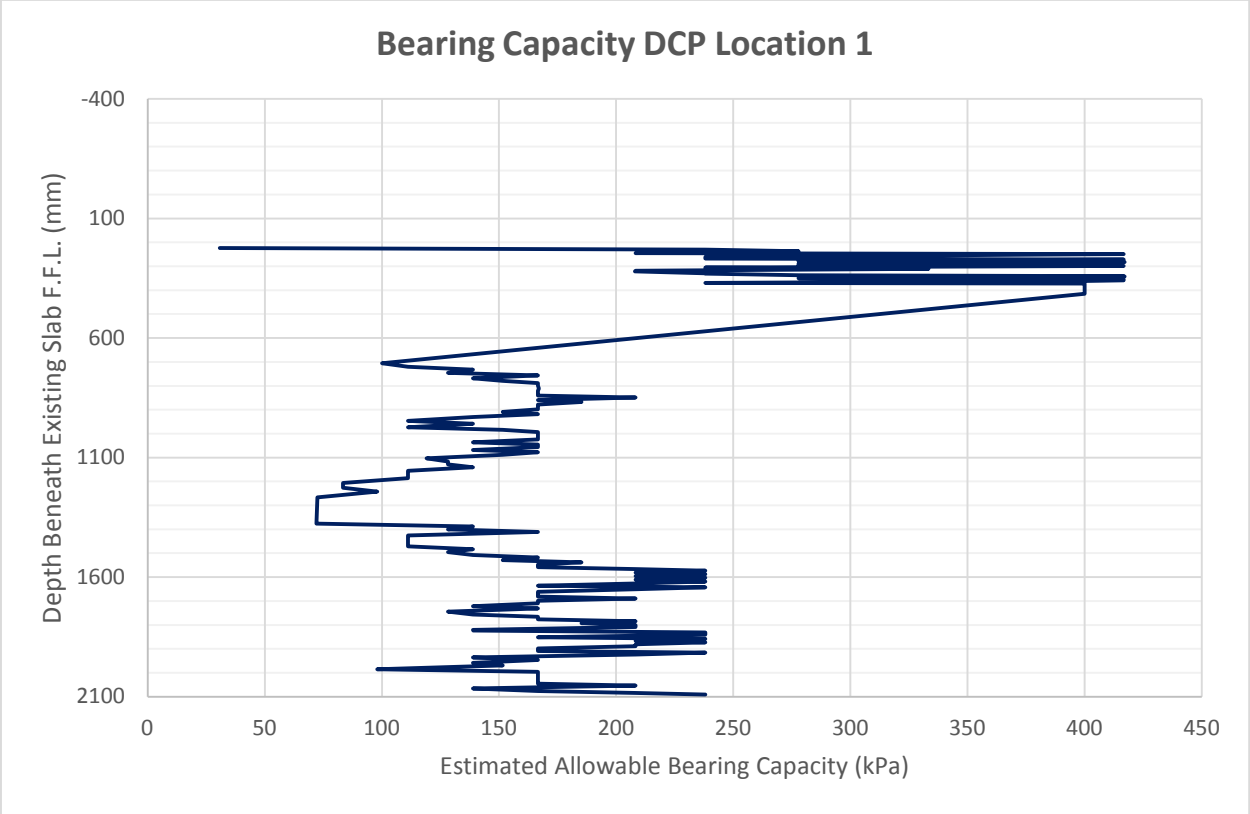
The mix proportions were determined by the method described in B.S. 4551:2005+A2:2013. The ground sample was extracted with acid and alkali. The silica and calcium oxide contents were determined by atomic absorption spectrophotometric/titrimetric method from the extract. The insolubles were determined by drying at 105 °C. The cement, lime and sand contents were calculated using the following assumptions:

silica content of cement (CEM I) =	0.202	bulk density of sand =	1675 kg/m ³
calcium oxide content of cement (CEM I) =	64.50%	bulk density of cement =	1450 kg/m ³
soluble silica content of sand =	0.20%	bulk density of lime =	575 kg/m ³
calcium oxide content of lime =	72.70%		

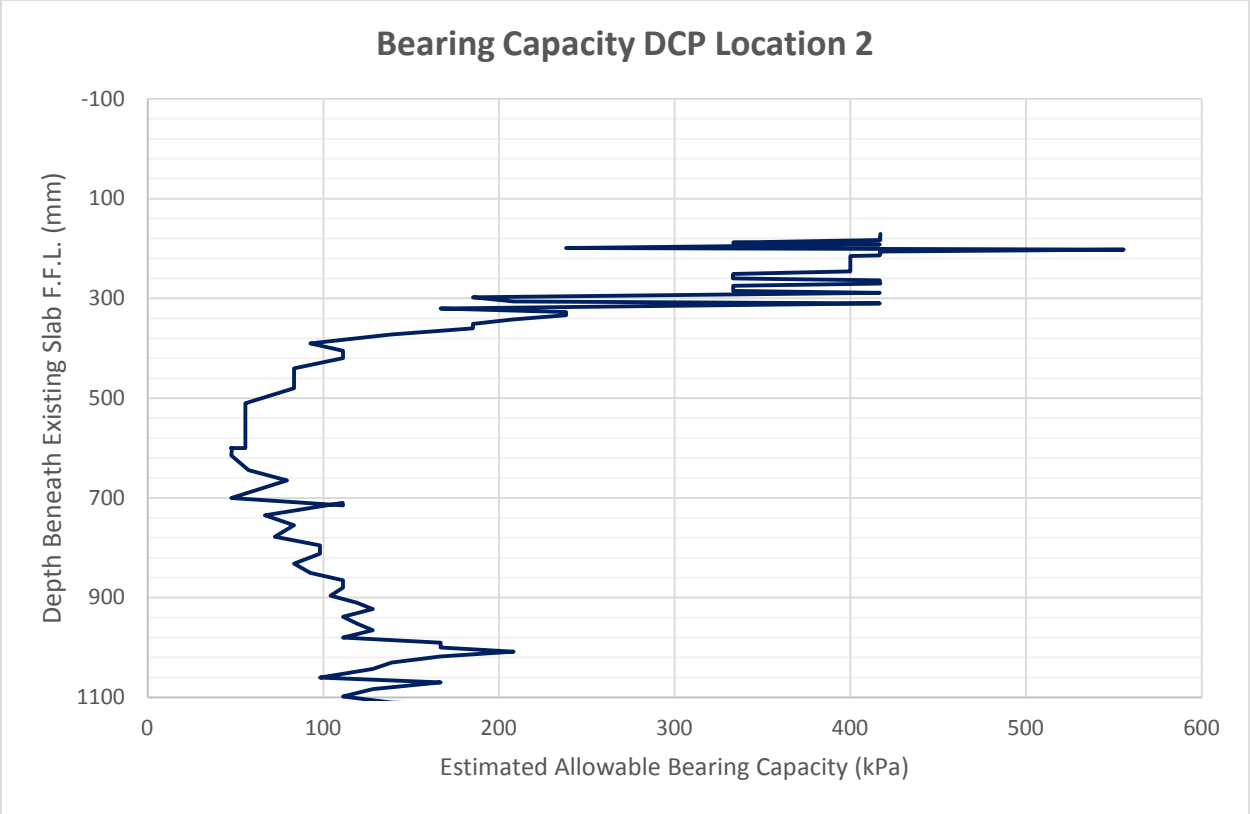
The traditional mix proportions were then chosen based on the cement content from Table 4 and 7 of the above standard. Based on the standard chemical analysis, visual observations and experience of the laboratory, the most likely mix proportions are highlighted in bold in the above results table.

APPENDIX 4

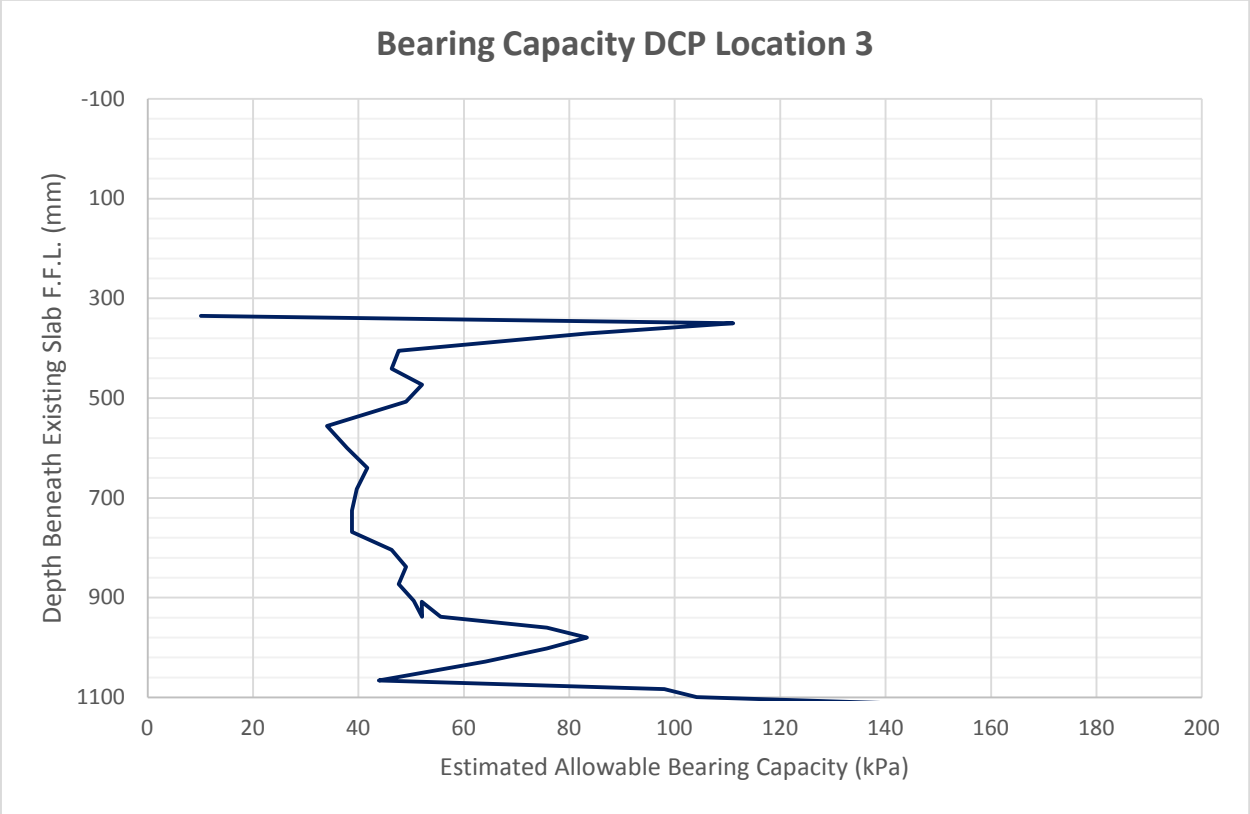
DCP TEST RESULTS GRAPHS



DCP TEST RESULTS	Job No.
NESTLE FORMER CANTEEN BUILDING, HAYES	4689
	Fig No.
	A4.1



DCP TEST RESULTS	Job No.	4689
NESTLE FORMER CANTEEN BUILDING, HAYES	Fig No.	A4.2



DCP TEST RESULTS	Job No.
NESTLE FORMER CANTEEN BUILDING, HAYES	4689
	Fig No.
	A4.3