

File Start

1839 - Sutton

File ID Barcode:



SUT005986

START

Ref: 7884

Address:

Prepared by Resolution Bureau Services

FILE START



Plan No: **7884**

FP

Applicant's Name: Mr & Mrs A Simpson

Address: 61 Downs Road,
Sutton, Surrey SM2 5NR

Site Address 61 DOWNS ROAD, SUTTON

Description: ONE, TWO STOREY SIDE / REAR EXTENSION AND
ALTERATIONS.

Agents Name MR A KENFIELD

Agents Address 28 HIGH VIEW CHEAM SM2 7DY

Receipt No 124881

Insp Fee £ 300.00

5 week Date

Receipt Date 18/03/2005

Insp. VAT: £ 52.50

22/04/2005

	Date	Initials
Approval		
Conditional Approval		
Rejection		
Completion Certificate		
Fire Certificate		
Conditions Discharge Letter		
Send To Structures		
<i>Sent to ELECTRICAL INSPECTOR</i>	<i>28/03/2005</i>	<i>CC</i>
Other:		

7884

BUILDING CONTROL

BUILDING PLAN NUMBER

7884

NOTICE OF PASSING OF PLANS

CC/CB

Building Act, 1984 and the Building Regulations, 2000

Mr and Mrs Simpson
c/o Mr A Kenfield
28 High View
CHEAM
Surrey
SM2 7DY

The Council of the London Borough of Sutton hereby give you notice that they have passed the Plans deposited with them by you under the provisions of the Building Regulations in force at the date hereof in the said Borough relating to buildings and (if applicable) new streets showing the following proposed work within the said Borough

APPROVAL

One/Two Storey Side/Rear Extension and Alterations
At 61 Downside Road, Sutton

The passing of the plans operates as an approval thereof only for the purpose of the requirements of the said Regulations and of such sections of the Building Act, 1984, as are referred to in sub-section (1) of section 16 of that Act

- (a) All the building and work must be executed in strict conformity with the said Regulations. This approval is liable to be cancelled if the buildings are not commenced within three years of this date
- (b) The erection of new buildings must not be commenced before notice thereof is given as required by the Regulations
- (c) Under the requirements of Building Regulations you are required to notify the Authority at certain stages during the execution of the work
- (d) The Council's written consent may also be necessary under the Town and Country Planning Act, 1990 and regulations made thereunder

13 January 2006

(signed)

Building Control

London Borough of Sutton

Environment & Leisure

Executive Head of Environmental Sustainability - Chris Reid

Your Ref

Direct Line 020 8770 6277

My Ref

CC/CB/7884

Fax 020 8770 6270

e mail

Date 13 January 2006

Please reply to

Mr and Mrs Simpson
c/o Mr A Kenfield
28 High View
CHEAM
Surrey
SM2 7DY

London Borough of Sutton
24 Denmark Road
CARSHALTON
Surrey SM5 2JG
www.sutton.gov.uk

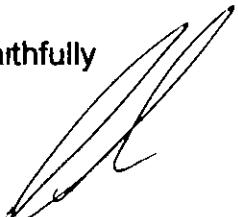
Please ask for C Chase

Dear Sir and Madam

One/Two Storey Side/Rear Extension and Alterations At 61 Dowsndale Road, Sutton

I refer to the above premises and your recently received structural details
Our engineer has reviewed the details and has found them satisfactory

Yours faithfully



C Chase
Building Control Officer

Strategic Director -
Environment and
Leisure
Tom Jeffrey

Chief Executive
Paul Martin

London Borough of Sutton

Environment & Leisure Executive Head of Environmental Sustainability - Chris Reid

Your Ref

Direct Line 020 8770 6279

My Ref

JRH/CB/Plan7884

Fax

020 8770 6270

e mail

Date 16 June 2005

Please reply to

London Borough of Sutton
24 Denmark Road
CARSHALTON
Surrey SM5 2JG
www.sutton.gov.uk

Mr A Kenfield
28 High View
CHEAM
SM2 7DY

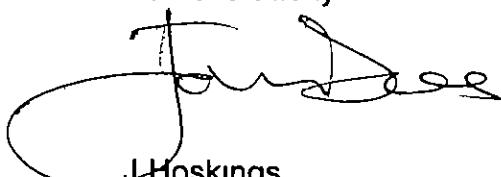
Please ask for J Hoskings

Dear Sir

61 Downs Road, Sutton

The Council's Structural Engineers have now had the opportunity of inspecting the proposals and find them satisfactory. However, we still await a response to the rejection notice dated 21 April 2005 (points 2-6 inclusive)

Yours faithfully



J Hoskings
Building Control Officer

Strategic Director -
Environment and
Leisure
Tom Jeffrey

Interim Chief Executive
Patricia Hughes

BUILDING CONTROL

BUILDING PLAN NUMBER

7884

NOTICE OF REJECTION OF PLANS Building Act, 1984 and the Building Regulations, 2000

Mr and Mrs Simpson
c/o Mr A Kenfield
28 High View
CHEAM
SM2 7DY

JRH/CB

The Council of the London Borough of Sutton hereby give you notice that they have rejected the Plans deposited with them by you under the provisions of the Building Regulations in force at the date hereof in the said Borough relating to buildings and (if applicable) new streets showing the following proposed work within the said Borough for the following reasons, namely

REJECTION

One, Two Storey Side/Rear Extension and Alterations at 61 Downs Road, Sutton

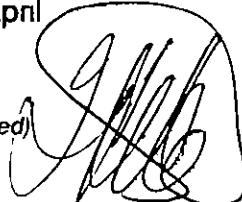
- 1 Structural calculations are required for the steelwork, padstones, piers and foundations
- 2 Calculations shall be submitted to prove the structural stability of the eccentrically loaded foundations
- 3 New drains shall be shown together with gradients and dimensions

21

April

2005

(Signed)


Building Control Manager

N B Section 16 (10) of the Building Act, 1984, is as follows

"In any case where a question arises under this section between a local authority and a person who proposes to carry out any work

- (a) whether plans of the proposed work are in conformity with building regulations, or
- (b) whether the local authority are prohibited from rejecting plans of the proposed work by virtue of sub-section (9) above,

that person may refer the question to the Secretary of State for his determination, and an application for a reference under this sub-section shall be accompanied by such fee as may be prescribed."

ENVIRONMENT & LEISURE24 Denmark Road Carshalton Surrey SM5 2JG
Telephone 020-8770 6268 Direct Line 020-8770 6279

REJECTION NOTICE

CONTINUED

ADDRESS: 61 Downs Road, Sutton
PLAN NO. 7884

- 4 Details required for the spiral staircase to show compliance with Regulation K-N /A
- 5 All electrical works required to meet the requirements of Part P (Electrical Safety), must be designed, installed and inspected and tested by a person competent to do so
- 6 Prior to completion the Council must be satisfied that Part P has been complied with This may require an appropriate BS7671 electrical installation certificate to be issued for the works by a person competent to do so Please note that a completion certificate can only be issued upon receipt of a certificate/test signed by a competent engineer

61 Downs Rd, Sutton.

ref: DRH/PB 7884

Rejection Notice.

1. Structural calculations as required for the steelwork, posttension, piers & foundations.
2. as note 10.
3. as note 53.
4. Details required for the spiral staircase to show compliance with Regulation K.
5. as note 113.
6. as note 114.

7884

Plan No:

FP



Applicant's Name: Mr & Mrs A Simpson

Address: 61 Downs Road,
Sutton, Surrey SM2 5NR

Site Address 61 DOWNS ROAD, SUTTON

Description: ONE, TWO SOTREY SIDE / REAR EXTENSION AND
ALTERATIONS.

Agents Name MR A KENFIELD

Agents Address 28 HIGH VIEW CHEAM SM2 7DY

Receipt No 124881	Insp Fee £ 300.00	5 week Date 22/04/2005
Receipt Date 18/03/2005	Insp. VAT: £ 52.50	

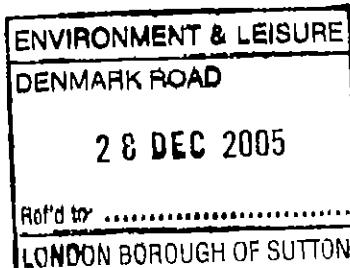
	Date	Initials
Approval		
Conditional Approval		
Rejection		
Completion Certificate		
Fire Certificate		
Conditions Discharge Letter		
Send To Structures		
Other:		

7884



Andrew Kenfield B.A
28, High View, Cheam, Surrey, SM2 7DY.
Phone: 020-8286-1064 Fax: 020-8286-1064.

Mr C Chase,
Building Control Officer,
L B Sutton Environmental Services,
24, Denmark Road,
Carshalton,
Surrey, SM5 2JG



27th December 2005

Dear Mr Chase,

Re: 61, Downs Road, Belmont, Surrey

Further to the application for a proposed one/two storey side/rear extension and alterations at the above address, your reference 7884 and your subsequent request for amendments/ rejection notice, please find enclosed two copies of revised plans which, at the request of the planning department, have now been scaled down to single storey only and I write to confirm the following points

- 1 Five pages of structural engineer's calculations were previously submitted in March of this year Six revised pages are now enclosed, reflecting the deletion of the first floor and including an eccentric foundation specification
- 2 Please see sixth page of engineer's calculations for eccentric foundation spec
- 3 New drains runs are now shown on ground floor plan, gradients & dimensions are detailed in the main 'Drainage' note
- 4 Spiral staircase has now been deleted as there is no new first floor extension
- 5 All electrical works are confirmed to comply with Approved Document P
- 6 A Detailed Part P note now been added below 'Openings'

I Apologise for the delay, But I hope you will now be able to issue an approval notice at your convenience Please let me know if you have any further queries

Yours sincerely,



ANDREW KENFIELD

cc Mr & Mrs Simpson

Enc

The London Borough of Sutton

Building Control



The Power Service
Gas & Electrical Service Contractors
Units 5 & 6
Reliant House
Oakmere Mews
Oakmere Lane
Potters Bar
Herts EN6 5DT

Our ref 7884

Please ask for Mr Hoskings

Tel no 020 8770 6279
Fax no 020 8770 6270
E-mail BuildingControl@Sutton.gov.uk

Date 28 December 2005

Dear Sirs

The Building Regulations 2000 (as amended)

DESCRIPTION OF WORK: one, two storey side / rear extension and alterations.
ADDRESS OF WORK: 61 Downs Road Sutton SM2 5NR

Following notification of the commencement of building/electrical works relating to the above project Sutton Building Control request that the Power Service act as Agents for the London Borough of Sutton in relation to matters concerning Part P – Electrical Safety

I have been informed that the works commenced on

Please find outlined below contact details for the Owner, Building Contractor and Electrical Contractor (if known)

Applicant/Owner: Mr & Mrs A Simpson
Tel No: 0208 762 7888

Building Contractor:
Tel No:

Electrical Contractor:
Tel No:

Agent: Mr A Kenfield
Tel No: 02082861064

**LONDON BOROUGH OF SUTTON
BUILDING CONTROL INSPECTION SHEET**

Plan No. 7884	Invoice Raised
Address: 61 DOWNS ROAD, SUTTON	
Description: ONE, TWO SOTREY SIDE / REAR EXTENSION AND ALTERATIONS.	
Applicant: MR & MRS A SIMPSON	

Ground Conditions:	Trees:
--------------------	--------

Site History:	
EMAS FULL PLANS APPLICATIONS	DATE SIGNED
SOUND INSULATION	
THERMAL INSULATION	

Builder:	
Inspector:	Signature:
Date Approved:	Date Completed:

Statutory Inspections:	Commencement	Excavations	Found Conc
	D P C	O/S Conc	Drains
	Occupation	Completion	
Housing Returns.			
Site Notes Examined	Div. B.C.O.		

REQUESTS FOR BUILDING CONTROL ACCOUNTS

Please Issue Account for PLAN NO 7884
TO WHOM Mr & Mrs A Simpson
ADDRESS 61 Downs Road
Sutton
SM2 5NR
NET AMOUNT £ 300
VAT £ 52.50
DESCRIPTION OF WORK one, two storey side / rear
extension and alterations
SITE ADDRESS 61 Downs Road
Sutton
DATE OF INSPECTION
SIGNATURE

Area: R.....

LONDON BOROUGH OF SUTTON

ENVIRONMENTAL SUSTAINABILITY

BUILDING REGULATION CASE SHEET

APPLICATION NO: 7884.....FP

ADDRESS 61 Downs Road Belmont

DESCRIPTION OF WORK ONE TWO STOREY SIDE INN EXTENSION
AND ALTERATION

BUILDING CONTROL FEES	ACCOUNT SENT
PLANS £ 100 + VAT 17.50 = 117.50	£ 100.00 + VAT 17.50 = 117.50
INSPECTION £ 30.00 + VAT 5.20 = 35.20	
ESTIMATED VALUE OF WORK £.....	
FLOOR AREA 36 m ²	18 m²
FIRE PRECAUTIONS REG: B.I.M.O.E	
Satisfactory 22/3/05	
FIRE PRECAUTIONS ACT CONSULTATION	
N/A 22/3/05	
ACCESS FOR FIRE BRIGADE	
N/A 22/3/05	
<u>STRUCTURES:</u>	
CHECKED BY JD:	PASS / REFUSE
SENT TO STRUCTURAL ENGINEER:	YES / NO
CALCULATIONS REQUIRED:	YES / NO

ACCESS AND FACILITIES FOR DISABLED PERSONS

SECTION 18 OF BUILDING ACT BUILDING OVER SEWERS

SECTION 21 OF BUILDING ACT PROVISION OF DRAINAGE

DECISION OF BUILDING REGULATION APPLICATION

APPROVED

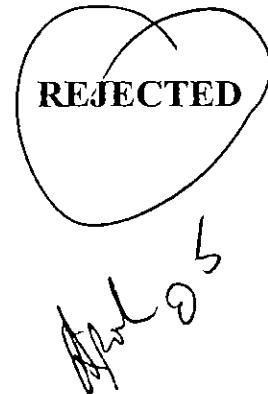
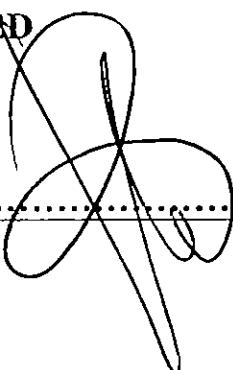
CONDITIONAL / STAGE

REJECTED

PLANS EXAMINED

BY:

DATE



LONDON BOROUGH OF SUTTON
Environmental Sustainability
Building Control
24 Denmark Road
Carshalton Surrey SM5 2JG
Tel No: 020 8770 6267/8 Fax No: 020 8770 6270

FULL PLANS
SUBMISSION
Building Regulations

This form is to be filled in by the person who intends to carry out building works or their agent. If the form is unfamiliar, please read the notes on the reverse side or consult the Office indicated above. Please type or use block capitals

1. Applicant(s) Details (see note 1)

Name MR & MRS A Simpson,
Address 61, DOWNS ROAD, BEMLONT,
Postcode SM2 5NR Tel 020-8642-7888 Fax

2 Agent's Details (if applicable)

Name ANDREW KENFIELD
Address 28, HIGH VIEW, CREAM
Postcode SM2 7QY Tel 020-8286-1064 Fax 020-8286-1064

3. Location of building to which work relates:

Address 61, DOWNS ROAD, BEMLONT,
Postcode SM2 5NR Tel 020-8642-7888

4. Proposed Work:

Description ONE/TWO STOREY SIDE/END EXTENSION + ALTERATIONS

5 Does the work involve the installation of electrical circuitry? YES / NO

This question must be answered otherwise the application will be returned as invalid SEE OVER *

6. Use of building:

- 1 If new building or extension please state proposed use RESIDENTIAL
- 2 If existing building state present use "
- 3 Is the building to be put, or intended to be put, to a use which is designated for the purposes of the Fire Precautions Act 1971 (see note 4) YES / NO

7 Conditions (see note 5)

Do you consent to the plans being passed subject to conditions where appropriate?

YES / NO

8. Extension of time

NO

LONDON BOROUGH OF SUTTON
ENVIRONMENT AND LEISURE

124881

RECEIVED FROM MR A SIMPSON

ADDRESS ANDREW KENFIELD (AGENT)

THE SUM OF ONE HUNDRED + TEN POUNDS —

PENCE

00
3.75

UTTON

dance with
other charges will be

14.3.05....

FOR	CODE	£	p
BUILDING APPLICATION FEE / NOTICE	S100 1060	293	75
TP COPY CHARGE	R121 1260		
FOOTWAY CROSSINGS	X460 1900 0810		
ABANDONED VEHICLES	R340 1205		
PLANNING APPLICATION FEE	S102 1260	110	00
SKIP LICENCE	S006 1205		
B C COPY CHARGE / COMPLETION CERT	R070 1060		

IN RESPECT OF 61, DOWNS RD., TOTAL 403.75 BELMONT.

DATE 18/3/05 CASH CHEQUE PDQ CARD £403.75

For STRATEGIC DIRECTOR OF FINANCE

0pm and 4 00pm

Notes.

- 1 The applicant is the person on whose behalf the work is being carried out e.g. the building's owner
- 2 One copy only of this notice should be completed and submitted with plans and particulars in duplicate in accordance with the provisions of Building Regulation 13
- 3 Subject to certain exceptions, a Full Plans Submission attracts charges payable by the person by whom, or on whose behalf, the work is to be carried out. Charges are payable after the first site inspection of work in progress. The second charge is a single payment in respect of each individual building, to cover all site visits and consultations which may be necessary until the work is satisfactorily completed.

The appropriate charge is dependent upon the type of work proposed. Scale of charges and methods of calculation set out in the Guidance Notes which are available on request
- 4 Premises currently designated for the purpose of the Fire Precautions Act 1971 are
 - Premises within the Fire Precautions (Hotels and Boarding House) Order 1972
 - Premises within the Fire Precautions (Factories, Offices, Shops and Railway Premises) Order 1989
- 5 Section 16 of the Building Act 1984 provides for the passing of plans subject to conditions. The conditions may specify modifications to the deposited plans and/or that further plans shall be deposited
- 6 These notes are for general guidance only, particulars regarding the deposit of plans are contained in Regulation 13 of the Building Regulations 2000 and, in respect of charges in the Building (Local Authority Charges Regulations) 1998
- 7 Estimated cost of work means an estimate by the Local Authority, of such reasonable amount as would be charged for the carrying out of that work by a person in business to carry out such work

N.B.

In addition to Building Regulation permission you may also need approval under other legislation i.e. Planning Permission.

For further advice tel:

Planning	020 8770 6200
Environmental Health	020 8770 5527
Highways	020 8770 6060

***PART P – ELECTRICAL SAFETY**

Please note that a completion certificate can only be issued upon receipt of a certificate/test signed by a competent engineer stating that compliance with Part 'P' Electrical Safety has been achieved

JH

DATE 22-Apr-05

STRUCTURAL ENGINEER

EFFECTIVE DATE 22/04/2005

PLAN NO 7884

SITE 61 Downs Road Sutton SM2 5NR

APPLICANT: Mr & Mrs A Simpson TEL NO

CONTACT ADDRESS: **Mr A Kenfield**
28 High View
Cheam
SM2 7DY

TEL NO 02082861064

CHECKED BY

REF. *lw*

RETURNED .. *20/5*

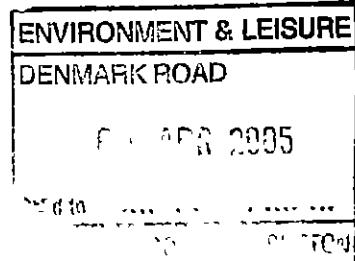
COMMENTS: *ok.*



Andrew Kenfield B.A.

28, High View, Cheam, Surrey, SM2 7DY.
Phone: 020-8286-1064 Fax: 020-8286-1064.

Mr J Hoskings,
Building Control Officer,
L B Sutton Environmental Services,
24, Denmark Road,
Carshalton,
Surrey, SM5 2JG



30th March 2005

Dear Mr Hoskings,

Re: 61, Downs Road, Belmont, Surrey

Further to the current application for a proposed one/two storey side/rear extension at the above address, your reference 7884, please find enclosed five pages of structural engineer's calculations, to accompany the previously submitted plans

I would be grateful if you could accept these calculations as supplementary to my plans Please let me know if you have any comments or queries

Yours sincerely,

ANDREW KENFIELD

cc Mr & Mrs Simpson

Enc

Please send to S.O.
for check with file
No. 7884 Thank
you



61 Downs Rd., Belmont.

Ⓐ - colors for steel.
- colors for eccentric wooden flood

Ⓑ, Ⓛ Ⓝ - Ⓞ - Ⓟ Ⓠ? Ⓡ Ⓢ? several slis.

Ⓒ, Ⓣ - Ⓤ, Ⓥ?

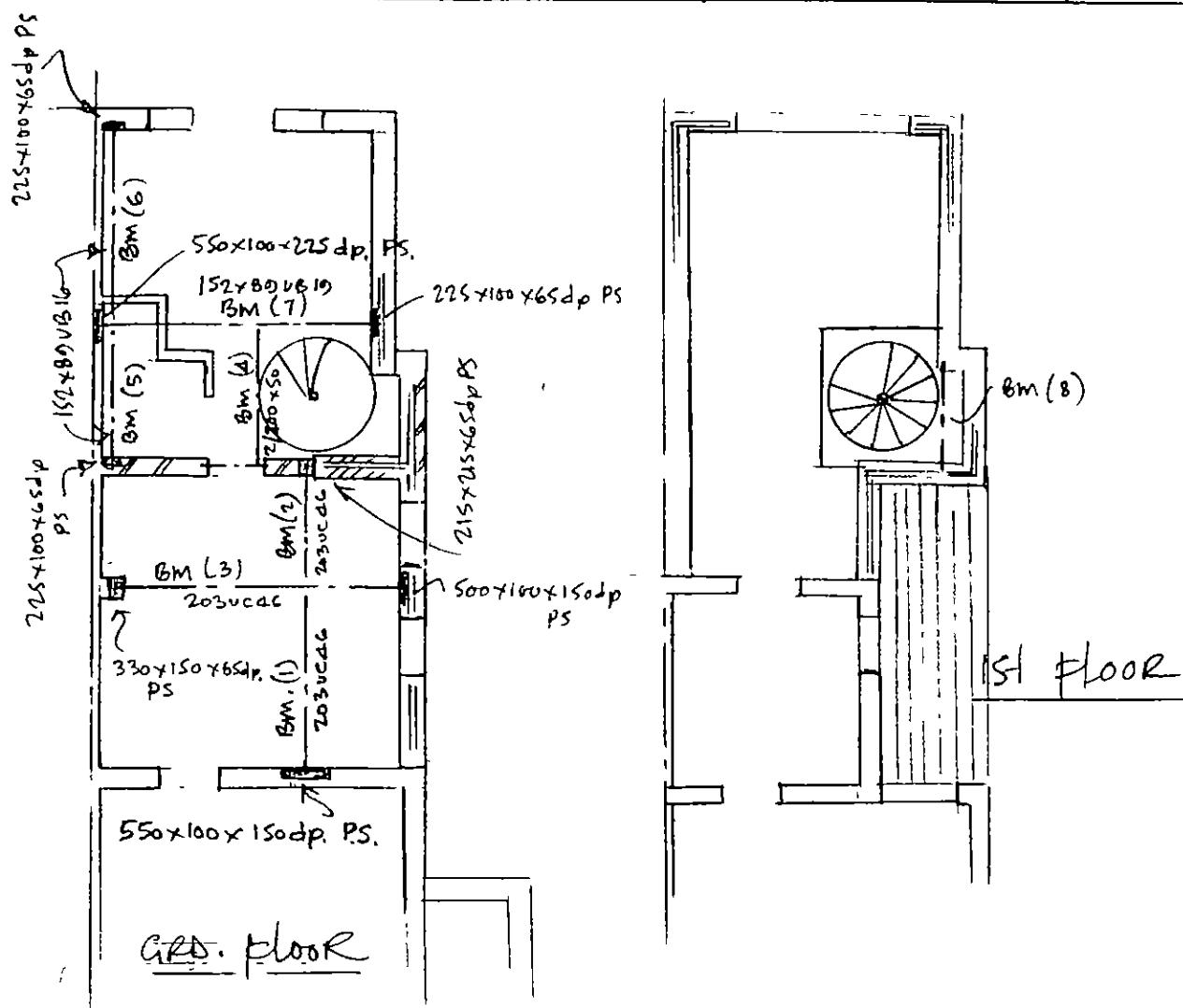
0208 393 5882

D.J. LANDEA M.I.Struct.E.

61 DOWNS ROAD, BELMONT, SY.
ONE/TWO STOREY EXTENSIONMARCH
2005

1223

COL

BM (1) . 2.6 m SPAN

$$\begin{aligned}
 udl & \text{ Roof } 2 \times 2 = 4.0 \\
 & \text{ wall } 4.5 \times 2.4 = 10.8 \\
 & \text{ 1st. } 2 \times 1.2 = 2.4 \\
 & \text{ BM } = 0.5 \\
 & \underline{\underline{17.7}} \times 1.5 = \underline{\underline{26.6 \text{ kN/m ult.}}}
 \end{aligned}$$

REACT² = 34.5 kN

$$m_f = 26.6 \times 2.6^2 \times \frac{1}{8} = 22.5 \text{ kNm}$$

FOR PRACTICAL REASONS

203 UC 46 FOR L₀ = 3m W_b = 125 kNmUSE 203 UC 46^bBM (1)PADSTONE f_k = 2.2 N/mm² (VERY POOR BRWK)

$$\text{LENGTH REQD. } 215 \text{ WIDTH} = \frac{34.5 \times 10^3 \times 3.5}{100 \times 2.2} = 255$$

USE 550x215x150 dp P.S.

USE $800 \times 100 \times 150$ dp FAIRTOE

$$\text{LEAD } \frac{100 \times 4}{56.8 \times 10^3 \times 3.5} = 497 \text{--}$$

OUTSIDE CAV. WIRE $f_k = 4$

PADSTOLES

USE 203UC46K - (3)

$$203UC46 \text{ free } l_0 = 3 \text{-- } 1.16 = 12.5 \text{ kN}$$

$$1970 + 2037 \text{ kN} = 4007 \text{ kN}$$

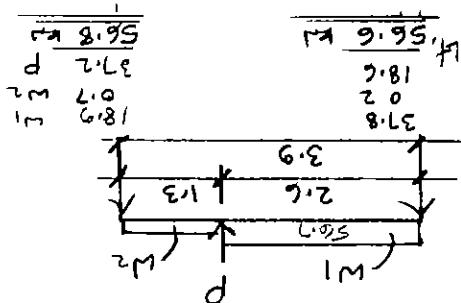
$$I_{\text{REQ.}} = (2.29 \times 14.5 \times 3.9^3) + (3.6 \times 55.8 \times 3.9^2)$$

$$73.8 - 0.6 = 73.2 \text{ kN}$$

$$w.f.e P = (56.8 \times 1.3) - (0.7 \times 1.3^2 \times 1/2)$$

$$P = \text{BM (1)} \neq (2) = 345 + 21.3 = 55.8 \text{ kN}$$

$$W^2 \text{ BM } 0.15 \times 1.4 = 0.7 \text{ kN}$$



$$= \frac{14.5 \times 1.5}{0.15} \text{ kN}$$

$$W_1 \text{ free } 2 \times 1.5 = 3.0$$

$$W_2 \text{ free } 14 \times 2.4 = 11.0$$

BM (3)

USE $218 \times 215 \times 65$ dp. PS

$$215 \times 2.2$$

$$\text{LEAD } 215 \text{ WIRE } f_{\text{lead}} = \frac{21.5 \times 10^3 \times 3.5}{56.8} = 158 \text{--}$$

FAIRTOE

USE 203UC46K BM (2)

203UC46 eccentric BM (1)

particular forces

$$w.f. = 26.4 \times 1.6^2 \times 1/8 = 8.5 \text{ kN}$$

$$\text{PART } 21.3 \text{ kN}$$

$$\text{NET AS BM (1)} = 26.6 \text{ kN}$$

BM (2) \rightarrow SPAN 1.6m

ONE/TWO STRESS EXTENSIONS	2005	1223	C2
61 DOWNS PARTS, ELEMENT, SY MRECA			

B.J. AJDEC M.I.S.M.E.

USE $225 \times 150 \times 65dp$

$$\text{RESULT} = \frac{100 \times 2.2}{11.5 \times 10^3 \times 3.5} = 183 \text{ m}$$

RELD. 150 mm RELE

PARTITION

USE $152 \times 80 UB 16$

$$152 \times 80 UB 16 \quad \text{REL. } 16 = 2 \text{ m}, \text{ Hf} = 23 \text{ mm}$$

$$Hf = 12.75 \times 1.82 \times 1/8 = 5.2 \text{ mm Hf}$$

$$\text{RELTN} = 11.5 \text{ m}$$

$$\frac{8.5 + 1.5}{0.3} \times 2 = 12.75 \text{ mm Hf}$$

$$\text{REL. } 2 \times 2 = 4 \text{ m}$$

$$152 \times 80 \text{ mm } 1 \times 2.2 = 2.2 \text{ m}$$

$$152 \times 2 \times 1 = 2.0 \text{ m}$$

$$183 \times 1.8 = 329 \text{ mm}$$

BM (3)

USE $2 / 194 \times 47$ timbers

$$\text{RELA} = \frac{0.93 \times 10^6}{5.3 \times 11 \times 10^6} = 153 \times 10^3 \text{ mm}$$

$$Hf = 2.3 \times 1.82 \times 1/8 = 0.93 \text{ mm}$$

$$\text{RELTN} = 2.1 \text{ m}$$

$$\text{REL. } 152 \times 2 \times 1.1 = 2.2 \text{ m}$$

$$183 \times 1.8 = 329 \text{ mm}$$

BM (4)

AT PILE

USE $330 \times 150 \times 65dp$ ADSTOUE

$$\text{RESULT} = \frac{330 \times 4}{56.4 \times 10^3 \times 3.5} = 180 \text{ m}$$

RELD. 330 mm RELE

PADSTOUE C PILE Sound oil back f = 4.9 m

BM (3) com Hf.

one/two sides extensio

61 BOMBS Pile, ELEMENT, SY WIREC 1223 CO3

D.J. LAJDEC M.I.S.T.E

61 DOWNS RD, BELMONT, SY
ONE/TWO STOREY EXTENSIONMARCH
2005

1223

C04

BM₁ - (6) 2.8m SPAN

$$\begin{aligned}
 \text{UDL} & \text{ Roof } 2 \times 2 = 4.0 \\
 & \text{wall } 1 \times 2.2 = 2.2 \\
 & \text{1st. } 2 \times 1.8 = 3.6 \\
 & \text{Bm.} = 0.3 \\
 & \frac{8f}{10.1 \times 1.5} = 15.2 \text{ kN/m ult.}
 \end{aligned}$$

REACT^N = 21.3 kN

W_f = 15.2 × 2.8² × 1/8 = 14.9 kNm

FOR L₀ = 3.0 m M_b = 17 kNm

I_{REQ} = 2.20 × 10.1 × 2.8³ = 508 cm⁴

USE 152x89 VB 16^{kg} — (6)PADSTONE @ EXT WALL

LENGTH 100 wide RECD.

$$= \frac{21.3 \times 10^3 \times 3.5}{100 \times 4} = 186 \text{ mm}$$

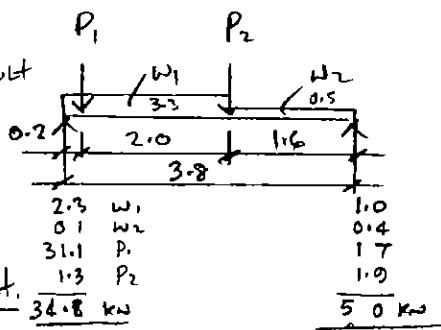
USE 22S x 100x 65dp. PS.BM (7)

P₁ = Bm(5) + (6) = 11.5 + 21.3 = 32.8 kN ult

P₂ = Bm(4) 2.1 × 1.5 = 3.2 kN ult

W₁ = 1st 2 × 0.4 = 0.8

Bm = 0.2 8f = 1.5 kN/m ult.



W₂ Bm = 0.2 × 1.5 = 0.3 kN zero shear $\frac{(34.8 - 32.8)}{1.5}$ = 1.33 m

W_f = (34.8 × 1.33) - (32.8 × 1.13) - (1.5 × 1.33² × 1/2)

46.3 - 37.1 - 1.3 = 7.9 kNm

152x89 VB 16 FOR b = 4 m, M_b = 14 kNm

I_{REQ} = (2.20 × 1 × 3.8³) + (3.6 × 2.1 × 3.8²)

126 + 109 = 235 cm⁴

USE 152x89 VB 16^{kg}

D.J. LANDEG M.I.Struct.E.

GL DOWNS RD, BELMONT, SY
ONE/TWO STOREY EXTENSION

Bm (7) cond'ld

PADSTONE @ Party wall

$$\text{LENGTH } 100 \text{ MM} \text{ REIN. } = \frac{34.8 \times 10^3 \times 3.5}{100 \times 2.2} = 554 \text{ mm}$$

UOE - 580x100x225 shp. PADSTONE

AT EXT. WALL $f_{ck} = 4$

$$\text{LENGTH REIN. } 100 \text{ MM} = \frac{5 \times 10^3 \times 3.5}{100 \times 4} = 44 \text{ mm}$$

UOE 225x100x65 shp. PS

Bm (8) SPAN 1.3m

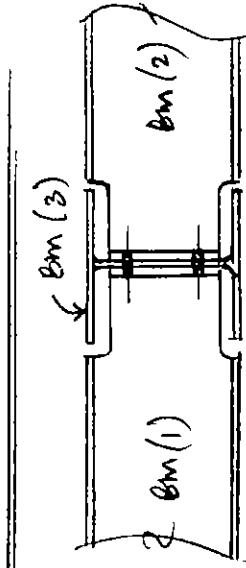
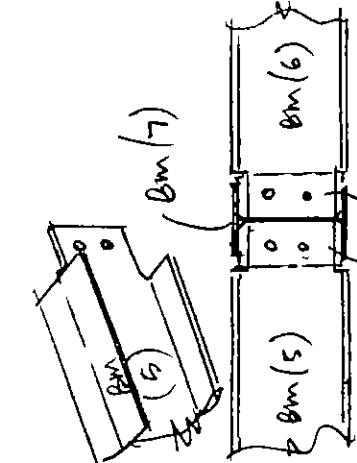
$$\text{UDL Roof } 2 \times 2 = \frac{4}{Bm} = \frac{0.1}{4.1} \text{ kN/m}$$

$$w_f = 4.1 \times 1.3^2 \times \frac{1}{8} = 0.6 \text{ kN/m}$$

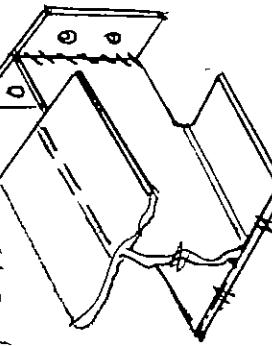
$$Z_{eq} = \frac{0.7 \times 10^6}{5.3 \times 1.046 \times 1.1} = 148 \times 10^3 \text{ mm}^3$$

— UOE 2/200x50

CONNECTIONS



4/ M16 (8.8) Bolts



to thick. plts welscbd 6fw.
M16 (8.8) captive bolts

JH

DATE, 29-Dec-05

STRUCTURAL ENGINEER

EFFECTIVE DATE: 22/04/2005

PLAN NO. 7884

SITE 61 Downs Road Sutton SM2 5NR

APPLICANT: Mr & Mrs A Simpson TEL NO 0208 762 7888

**CONTACT ADDRESS: Mr A Kenfield
28 High View
Cheam
SM2 7DY**

TEL NO: 02082861064

REF: *lw*

RETURNED: 05/01/06

COMMENTS

OK

$$\text{Length EERD, 21S tube} = \frac{3d.s \times 10^3 \times 3.5}{100 \times 0.2} = 225$$

DUCTS

$$f_k = 2.2 \quad (\text{VENT pipe break})$$

BM (1) $18 \text{ ft } 203 \text{ UC } 46 \text{ kN}$

$$203 \text{ UC } 46 \text{ F.O.E } l_0 = 3 \text{ m } \mu_b = 125 \text{ kNm}$$

for practical reasons

$$R_f = 26.6 \times 2.6^2 \times 1/8 = 22.5 \text{ kNm}$$

Reactive = $3d.s \text{ kNm}$

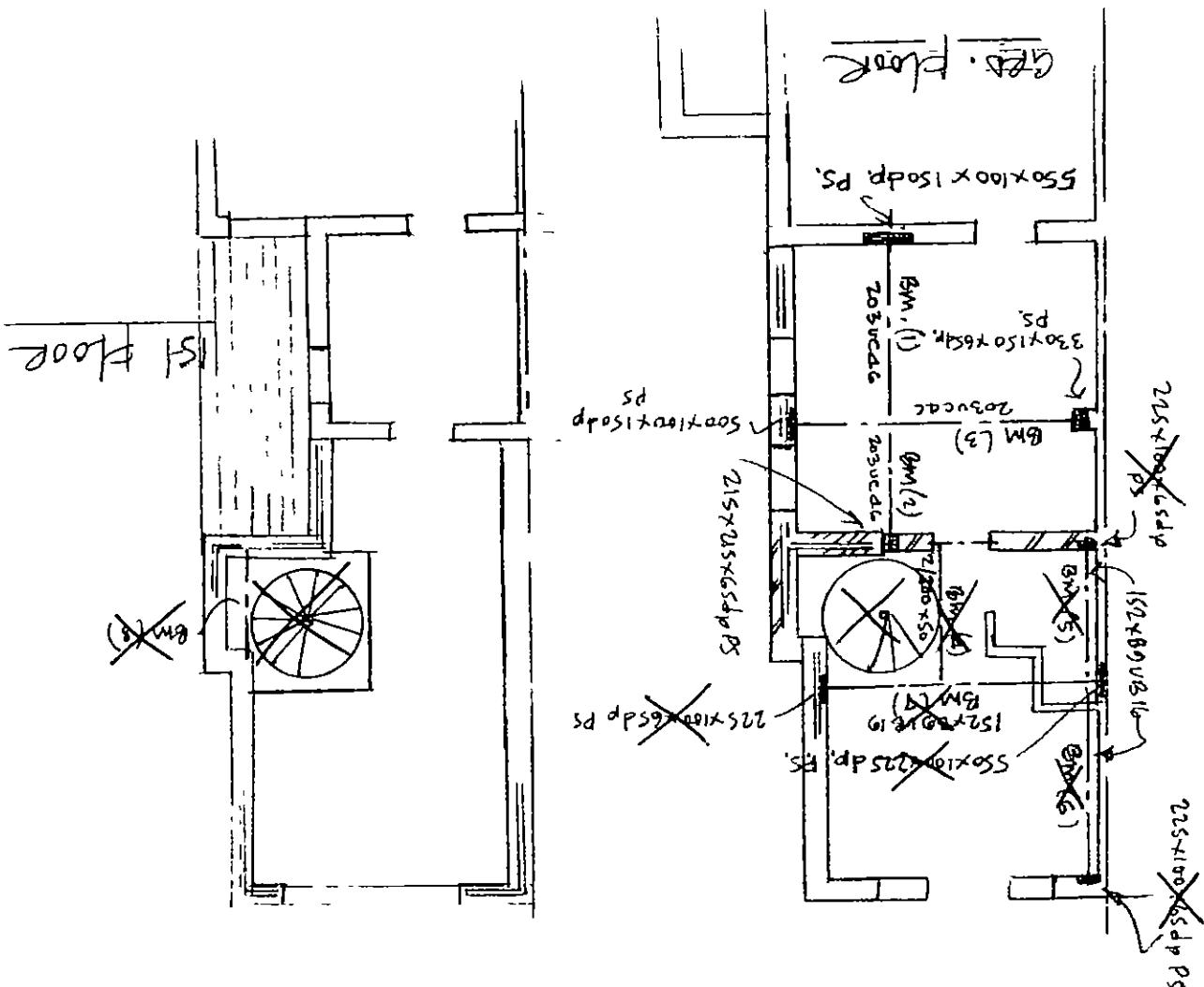
$$\frac{17.7 \times 1.5}{0.5} = 26.6 \text{ kNm/ft}$$

$$18.1 \cdot 2 \times 1.2 = 2.4$$

$$\text{real } d.s \times 2.4 = 10.8$$

$$\text{real } 2 \times 2 = 4.0$$

BM (1) $2.6 \text{ m } \text{span}$



Q.E./TWO STOREY EXTENSION
61 DOWNS ROAD, BELMONT, SYDNEY NSW 2223 02 123 5882

J.J. HANIFEE WILSONS LTD.

USE 800 x 100 x 150 dp ABSOLUTE

$$\text{OUTSIDE CUR. WRL } f_{ce} = 4 \quad \text{LENTHTH REED, 100 WIRE} = \frac{56.8 \times 10^3 \times 3.5}{86} = 497 \text{ m}$$

USE 203UC4GK - (3)

203UC4G fce l₀ = 3 m, WRL = 125 m

$$1970 + 2037 = 4007 \text{ cm}^4 \text{ ADG}$$

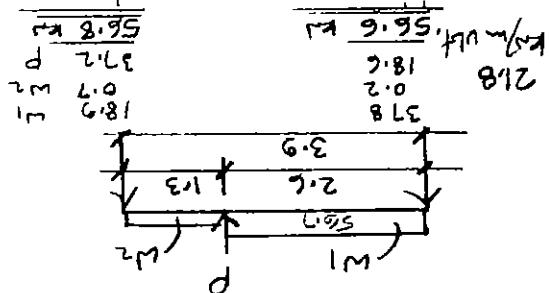
$$I_{FE0} = (2.29 \times 14.5 \times 3.9^3) + (3.6 \times 55.8 \times 3.9^2)$$

$$73.8 - 0.6 = 73.2 \text{ kN}$$

$$W.F.E P = (56.8 \times 1.3) - (0.7 \times 1.3^2 \times 1/2)$$

$$P = BM(1) + (3) = 34.5 + 21.3 = 55.8 \text{ m uL}$$

$$W^2 \text{ BM } 0.5 \times 1.4 = 0.7 \text{ kN}$$



$$= \frac{0.5 \times 1.5}{0.5} \times 2.18 = 2.18$$

$$W1 \text{ Root } 2 \times 1.5 = 3.0$$

$$WRL \quad Dc \times 2.4 = 11.0$$

BM

(3)

USE 215 x 915 x 65 dp PS

$$\text{LENTHTH } 215 \text{ WIRE REED} = \frac{21.3 \times 10^3 \times 3.5}{86} = 158 \text{ m}$$

PRACTICE

USE 203UC4GK BM (2)

203UC4G compare BM (1)

use practical design

$$W.F = 26.4 \times 1.6^2 \times 1/8 = 8.5 \text{ kN}$$

PRACTICE 21.3 kN

WDL AS BM (1) = 26.6 m

BM (2) Span 1.6 m

ONE/TWO STRESS EXTENSION	2005	1223	CO2
0.1 DOWNS REED, ELEMENT, SY MRECA			

61 DOWNS ROAD, BELMONT, SY
ONE/TWO STOREY EXTENSION

MARCH
2005

1223

C03

BM (3) contd.

PADSTONE @ PIER. SOUND OLD BLK $f_c = 4^N/m^2$

$$\text{LENGTH } 330 \text{ WHERE REQ'D.} = \frac{56.4 \times 10^3 \times 3.5}{330 \times 4} = 180 \text{ m}$$

USE 330x180x65dp PADSTONE
AT PIER

BM (4) SPAN 1.8m

$$\begin{aligned} \text{UDL} &= \text{1st. } 2 \times 1.1 = 2.2 \\ \text{BLK} &= \frac{0.1}{2.3} \text{ m} \quad X \text{ NOT NEEDED.} \end{aligned}$$

$$\text{REACT}^N = 2.1 \text{ kN}$$

$$w_f = 2.3 \times 1.8^2 \times 1/8 = 0.93 \text{ kN/m}$$

$$Z_{\text{EQ}} = \frac{0.93 \times 10^6}{5.3 \times 1.1 \times 1.026} = 153 \times 10^3 \text{ mm}^3$$

USE 2/104x47 TIMBERS

(16)

BM (5) SPAN 1.8m

$$\begin{aligned} \text{UDL} &\text{ Roof } 2 \times 2 = 4.0 \\ \text{BLK} &\text{ wall } 1 \times 2.2 = 2.2 \quad X \text{ NOT NEEDED} \\ \text{1st} &\text{ } 2 \times 1 = 2.0 \\ \text{BLK} &= \frac{0.3}{8.5 \times 1.5} \text{ m} = 12.75 \text{ kN/m ult.} \end{aligned}$$

$$\text{REACT}^N = 11.5 \text{ kN}$$

$$w_f = 12.75 \times 1.8^2 \times 1/8 = 5.2 \text{ kNm ult.}$$

$$152 \times 80 \text{ UB 16 FOR } L_0 = 2 \text{ m, } M_b = 23 \text{ kNm}$$

USE 152x80 UB 16 kg

PADSTONE

$$\begin{aligned} \text{LENGTH REQ'D. } 100 \text{ WHERE } 8m \\ = \frac{11.5 \times 10^3 \times 3.5}{100 \times 2.2} = 183 \text{ m} \end{aligned}$$

USE 225x100x65dp PS.

152x89VB 16

$$126 + 104 = 235 \text{ mm}$$

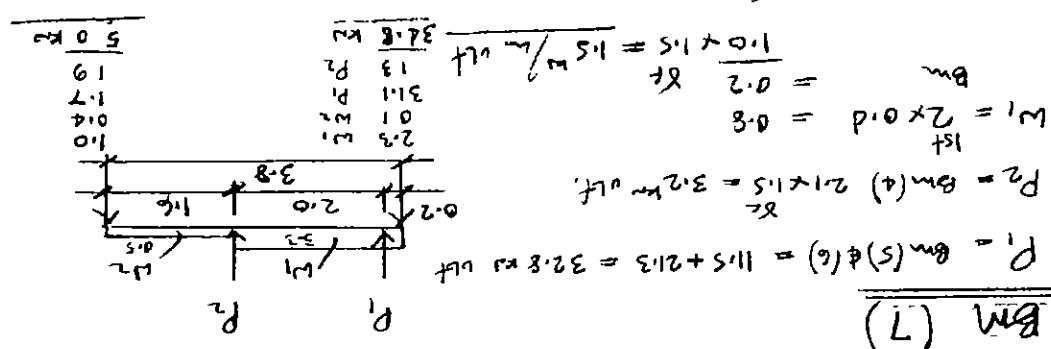
$$I_{EEA} = (2.20 \times 1 \times 3.8^3) + (3.6 \times 2) \times 3.8^2$$

$$152 \times 89 VB 16 \quad t_{OE} b = 4 \text{ m}, \quad M_b = 14 \text{ kNm}$$

$$46.3 - 37.1 - 1.3 = 7.9 \text{ kNm}$$

$$M_f = (34.8 \times 1.33) - (32.8 \times 1.13) - (1.5 \times 1.33^2 \times 1/6)$$

$$M_2 \text{ BM} = 0.2 \times 1.5 = 0.3 \text{ kNm} \quad 2600 \text{ Shear } (34.8 - 32.8) = 1.33 \text{ m}$$



152E 225x100x65d-f-ps

$$186 \text{ mm} = \frac{100 \times 4}{21.3 \times 10^3 \times 3.5} =$$

RESULT: 180 WIRE REINFORCING.

PARTITION @ EXT WALL

(6) — 152x89VB 16 —

$$I_{EO} = 2.20 \times 10.1 \times 2.8^3 = 508 \text{ cm}^4$$

$$t_{OE} b = 3.0 \text{ m}, \quad M_b = 17 \text{ kNm}$$

$$M_f = 15.2 \times 2.8^2 \times 1/8 = 14.9 \text{ kNm}$$

$$P_{ECTN} = 21.3 \text{ kN}$$

$$10.1 \times 1.5 = 15.2 \text{ kN/mm ULT.} \quad BM.$$

$$15.2 \times 1.8 = 3.6$$

$$\text{WALL } 1 \times 2.2 = 2.2$$

$$UL \text{ REEF } 2 \times 2 = 4.0$$

X NOV NEEDS

BM. (6) 2.8m span

ONE/TWO STREET EXTENSION

61 BOWNS ED, BELMONT, SY	WRECK	1223	C04
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D.J. AJDEDEC M.L. STUDIO

G1 DOWNS RD, BELMONT, SY
ONE/TWO STOREY EXTENSIONMARCH
2005

1223

COS

BM (7) cont'd.PADDIONE @ PARTY WALL

$$\text{LENGTH 100 WIDE REqd.} = \frac{3d.8 \times 10^3 \times 3.5}{100 \times 2.2 \text{ fr}} = 554 \text{ mm}$$

USE 550x100x225 sq. PADDIONEAT EXT. WALL $f_r = 4$

$$\text{LENGTH REQD 110 WIDE} = \frac{5 \times 10^3 \times 3.5}{100 \times 4} = 44 \text{ --}$$

BSE 225x100x65dp PSBM (8) SPAN 1.3m

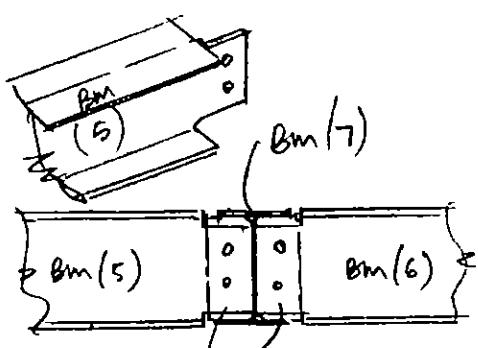
$$\text{UDL Roof } 2 \times 2 = 4 \text{ kN/m}$$

$$= \frac{0.1}{4.1} \text{ kN/m}$$

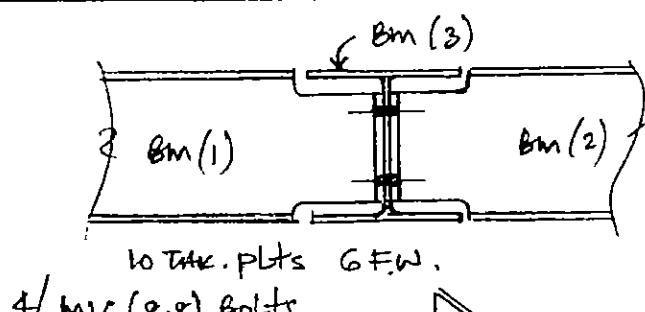
X NOT NEEDED

$$w_f = 4.1 \times 1.3^2 \times \frac{1}{8} = 0.9 \text{ kN/m}$$

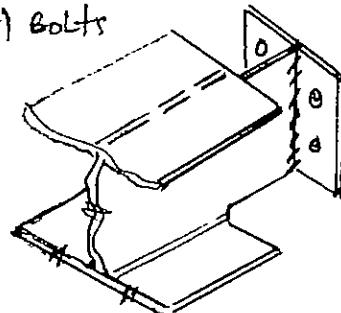
$$Z_{\text{REQ}} = \frac{0.9 \times 10^6}{5.3 \times 1.046 \times 1.1} = 148 \times 10^3 \text{ mm}^3$$

USE 2/200+50CONNECTIONS

To THK. plts w/lock 6FW.
M16 (8.8) CAPTIVE Bolts



To THK. plts 6FW.
4/ M16 (8.8) Bolts



JUNE
2005

1246

ECCENTRIC FOOTING

$$P_1 = P_2 = \text{Block } 1 \times 3.5 = 3.5 \text{ kN}$$

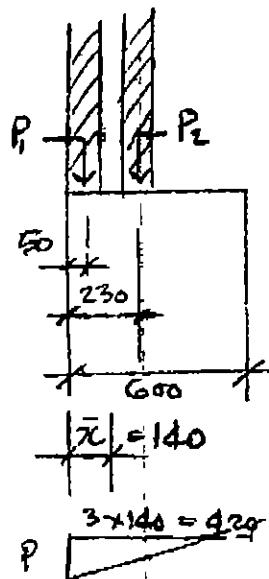
$$= 7 \text{ kN} @ \text{ecc. } 300 - 140 = 160 \text{ mm} \rightarrow 100$$

$$P \times 42 \times 1.5 = 7$$

$$P = \frac{7}{42 \times 1.5} = 33.3 \text{ kN/m}^2$$

Perm Ad. BEARING PRESSURE

$$= 100 \text{ kN/m}^2$$

∴ ECCENTRIC LOAD OK ON FOOTING

Special Document Placeholder

Special Document ID Barcode:



313067



PLACEHOLDER

Prepared by Resolution Ltd

PLACEHOLDER

NOTE: This drawing has been prepared for submission to the local authority for planning permission. Planning Act and Building Regulations Assumptions may have been made and all relevant facts and dimensions must be taken by the builder when the drawing is used for construction purposes. This drawing should not be scaled. All work must comply with the 1996 Party Wall Act (notices served if applicable), current BS codes of practice and Building Regulations to the Building Inspector's satisfaction.

2. FOUNDATIONS: To be to local authority/B1 requirements, min. 1000 deep x 450 wide, below level of any drains in the immediate area and to take account all relevant site conditions e.g. type of soil and presence of any tree roots. Any existing foundations subject to further loads are to be exposed and checked for adequacy. Any excavation carried out close to neighbour's walls is to be dug in bays to avoid undermining any existing foundations.

3. GROUND FLOOR: To be level with existing. Break up ex. concrete & use as hardcore for new floor, elsewhere remove all vegetable soil, min 150mm. Lay well compacted hardcore to make up height as necessary, sand blinding 1200g polythene DPM, previous DPM removed. 100mm aggregate to equal polythene insulation, 25mm perimeter insulation, 200g polythene separating layer, 65mm screed, Max. U' value: 0.25 W/m²K. Maintain underfloor ventilation if applicable with 100mm pipes in new floor connecting to ex. air bricks. Provide channels or similar in solid floor so radiator pipes do not need to be above floor level. Alternative suspended timber floor construction, if preferred: break up existing. Lay min. 100mm overcrete concrete, laid to fall in to drain. Provide 100mm hollow core joists at 150 x 150 mm max. distance between concrete and suspended timber. Floor joists to be 47 x 147 at 400c/c, side to side, supported on GI joist hangers, max. permitted span 3060, 21mm moisture-resistant flooring grade 1&G chip-board finish. Provide solid or herringbone strutting at mid span. Maintain existing and new under floor ventilation equivalent to 3000mm²/metre with air bricks. Fit 100mm 'Jabite' grade SD, or equivalent polystyrene ins. between joists, supported on battens or equivalent nail to manufacturer's instructions.

4. WALLS: New external walls are to be brick cavity construction, Redbrick facing brick to be exposed, cavity fill to inner leaf, 100mm 'Thermabat' outer leaf, 13mm lightweight plaster finish, maximum U' value: 0.35 W/m²K. Provide vertical DPC, e.g. 'Thermabat' at junctions of brick and block. Provide horizontal DPC, min. 150mm above ground level, to B5/5262:1976, continuous with DPM. Incorporate expansion joints at least every 3000mm horizontally. Use 'PVC profiles' at junctions of new & old walls. Internal partitions are to be 100 x 50 softwood studs at 400c/c, 100mm 'Rockwool' acoustic quilt fill, 12.5mm plasterboard & skim finish. Provide double joists under partitions. (If preferred, any ground floor internal walls may be 100mm lightweight block construction, 13mm plaster finish, built off thickened concrete slab.) Note: partitions enclosing bedrooms and bathrooms are to have additional sound insulation to comply with the 2003 Regs (part E), use foam-backed plasterboard or equivalent sound-resisting wall-board and acoustic fill, tape edges to avoid cracking transmission.

5. FLOOR LAYERS: To be level with existing. Lay 21mm flooring grade T&G chipboard (moisture-resistant in bathroom areas) on 47 x 185 joists at 400c/c side to side, supported on GI joist hangers, max. permissible span 4040, line underside with 12.5mm plasterboard and skim. Provide 30 x 5 galv. mild steel restraint straps at max. 2000c/c and solid or herringbone strutting at mid-span. Provide double joists under partitions. New floor is to comply with 2003 Sound Regs, incorporate resilient layer to reduce impact sound & fill between joists with 100mm Rockwool acoustic quilt.

6. ROOF: To match main roof as closely as possible. Use matching concrete interlocking tiles (thought to be 'Redland 49') laid at approx. 30° to manufacturer's instructions. Remove tiles where necessary and store for re-use. All existing roof timbers are to be retained, extension roof is to be built off existing roofline. All new joists are to be 47 x 147, 100mm 'Rockwool' reinforced roofing felt to B5/747. New rafters to be 50 x 150 at 400c/c, birdsmouthed and spiked to 75 x 50 wall plates, ceiling joists are to be 47 x 147, at 400c/c, running side to side (rear roof) and front to rear (dressing roof) fixed to wall plates and not end joists. All rafters are to be 47 x 147, 100mm 'Rockwool' between and across joists, with insulation suppressors to maintain ventilation at eaves. Ensure a 10mm continuous ventilation gap is maintained to all eaves to ensure full cross-ventilation. Trap doors to be provided in roof space to allow galvanised mild steel straps at max. 2000c/c, with additional lateral restraint straps where joists run parallel to walls. Ground floor roof to be as main roof, but use 47 x 100 joists and rafters at 400c/c, 250mm 'Rockwool' insulation, ventilation, strapping, etc., as above. Wall plate is to be ravelled to wall at high level. Provide 150mm code 5 lead flashing and a suitable cavity tray at junction of new roof and existing wall. Ventilation is to be a continuous 25mm gap at eaves level and the equivalent of a continuous 5mm gap at high level - use suitable abutment ventilation system.

7. SMOKE ALARM: An approved mains wired interconnected smoke detector is to be provided at all levels, in compliance with building regulations Part B1, 2004.

8. VENTILATION: Habitable rooms are to have trickle vent background ventilation, min. 800mm². Kitchen, utility & WC/bathrooms to have similar, but there will be additional extract fans in kitchen (15 litres/sec.), 15 litres/sec. (WC/bathrooms), 30 litres/sec. (utility) and 60 litres/sec. in kitchen (20 litres/sec. in a cooker hood), capable of intermittent operation. Rooms without opening windows are to have fans linked to light switch with min. 15 minute overrun.

9. DRAINAGE: To comply with BS 8301 and 5572. Surface water to fall to rainwater gutters to match and unite (where possible) with existing, discharging into existing/new RWP's, connecting below ground to ex. surface water system, assuming this is suitable and separate from foul water. If not possible then surface water is to run to new RWP's, then to hollow brick honeycomb construction soakaway, min. 500mm deep any building. WC's to have 100mm pipe & 50mm seal, min. 32mm & 75mm diameter, 100mm pipe to 40mm pipe if over 1700, bathshower/trough, 40mm pipe & 75mm seal. Kitchen sink to discharge directly into restfed flank S&V. Bathroom waste (note rearrangement of existing first floor bathroom) is to discharge into 100mm stub stack with air admittance valve, connecting to flank 100mm S&V as above and mains foul waste via 100mm stack to rear of house. All manholes, falling pipes and pipe extensions are to be fitted with double seal bolt down covers - existing man hole invert depth is to be checked on site. Drainage proposals may be modified on opening up site, subject to agreement with the building inspector. Provide rodding eyes at drainage junctions. Bridge soil pipes passing under new walls with concrete tills. Drains are to have a minimum fall of, 1 in 40 and are to be surrounded in a plastic lining.

10. OPENINGS: Glazing less than 800mm above finished floor level in walls/partitions, or 150mm above doors/adjacent side panels, to be toughened or laminated glass, min. 12mm thickness. New windows at first floor level to have escape windows with an unbroken opening area of at least 0.25 m² with neither width nor height less than 450mm. All beams are to have a minimum end bearing of 150mm. Any existing lintels subject to additional loads are to be exposed and checked for adequacy. New external lintels are to be installed with C20 concrete, open to load-bearing walls up to 1500 wide to have sufficient concrete loads over 12.5mm 'Gypcrete' plasterboard for half hour fire resistance - see separate structural engineer's details for full beam spec. New glazing is to be 'triple glazed/Pilkington K', or equivalent, min. U' value 2.0W/m²K (timber or uPVC) or 2.2W/m²K (aluminium). Similar to and matching as existing except for existing. Any new windows/rolllights are to fitted to manufacturer's instructions, code 5 lead and double trimmers all round. Any flank windows are to have obscured glass. At least 33% of newextended rooms are to have a low energy/high efficiency light fittings to comply with Regulation L1. All internal doors (size and style) to match existing. Electrical installation to be in accordance with IEE regulations. All new/extended rooms to be connected to existing gas central heating system, position and capacity of existing central heating boiler is to be checked and if required replaced with new balanced flue boiler installed by 'Corgi' registered plumber (SEDBUK rating to be better than 78%), suitably ventilated and positioned on front or rear external wall (not over windows). Note: extract duct is to be at least 300mm from external doors or windows.

ELECTRICAL INSTALLATION TO BE DESIGNED, INSTALLED, INSPECTED & TESTED ACCORDING TO BS 765 PART 1 AND APPROPRIATE BS 7671. ELECTRICAL CERTIFICATE IS TO BE ISSUED BY A CONFERRED QUALIFIED ELECTRICAL ENGINEER.

61, Downs Road, Belmont, Surrey

Proposed one/two storey extension & alterations

Scale: 1 to 50 & 1 to 100 Date: 28th February 2005

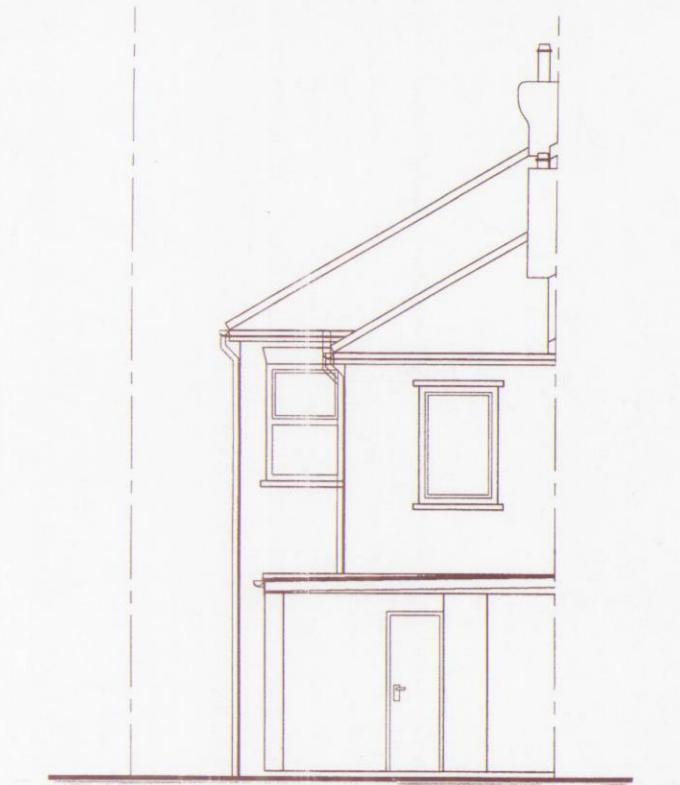
ANDREW KENFIELD B.A.
ANDREW KENFIELD ASSOCIATES
28, High View, Cheam, Surrey, SM2 7DY
Phone: 020-8286-1064 Fax: 020-8286-1064

amendments:

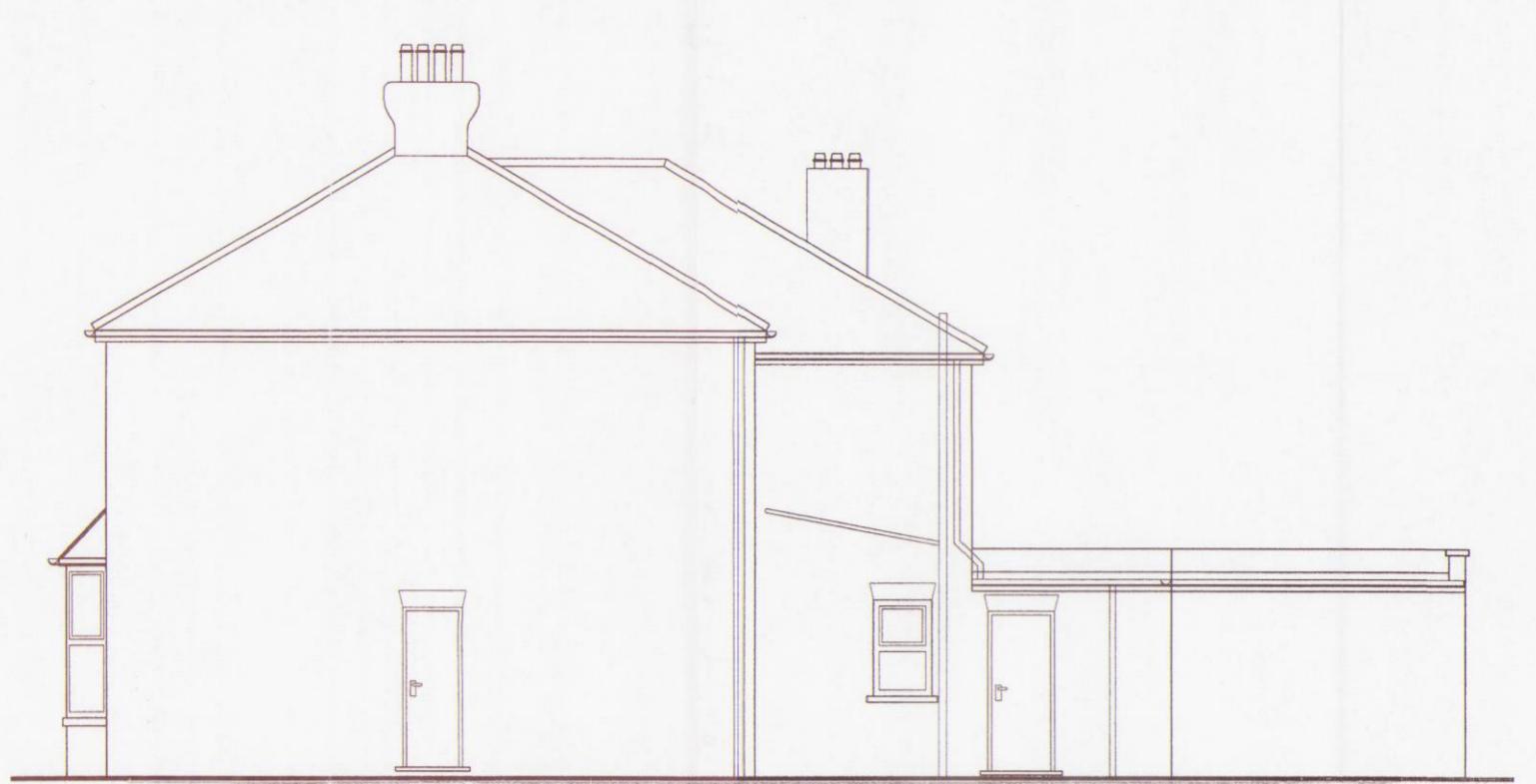
10-3-05-^a-Side walls moved.
20-9-05-^b-Sealed cavity to a study.
10-10-05-^c-F.F. removed, found. am.
20-12-05-^d-Add 8 reg. notes.

drawing number:

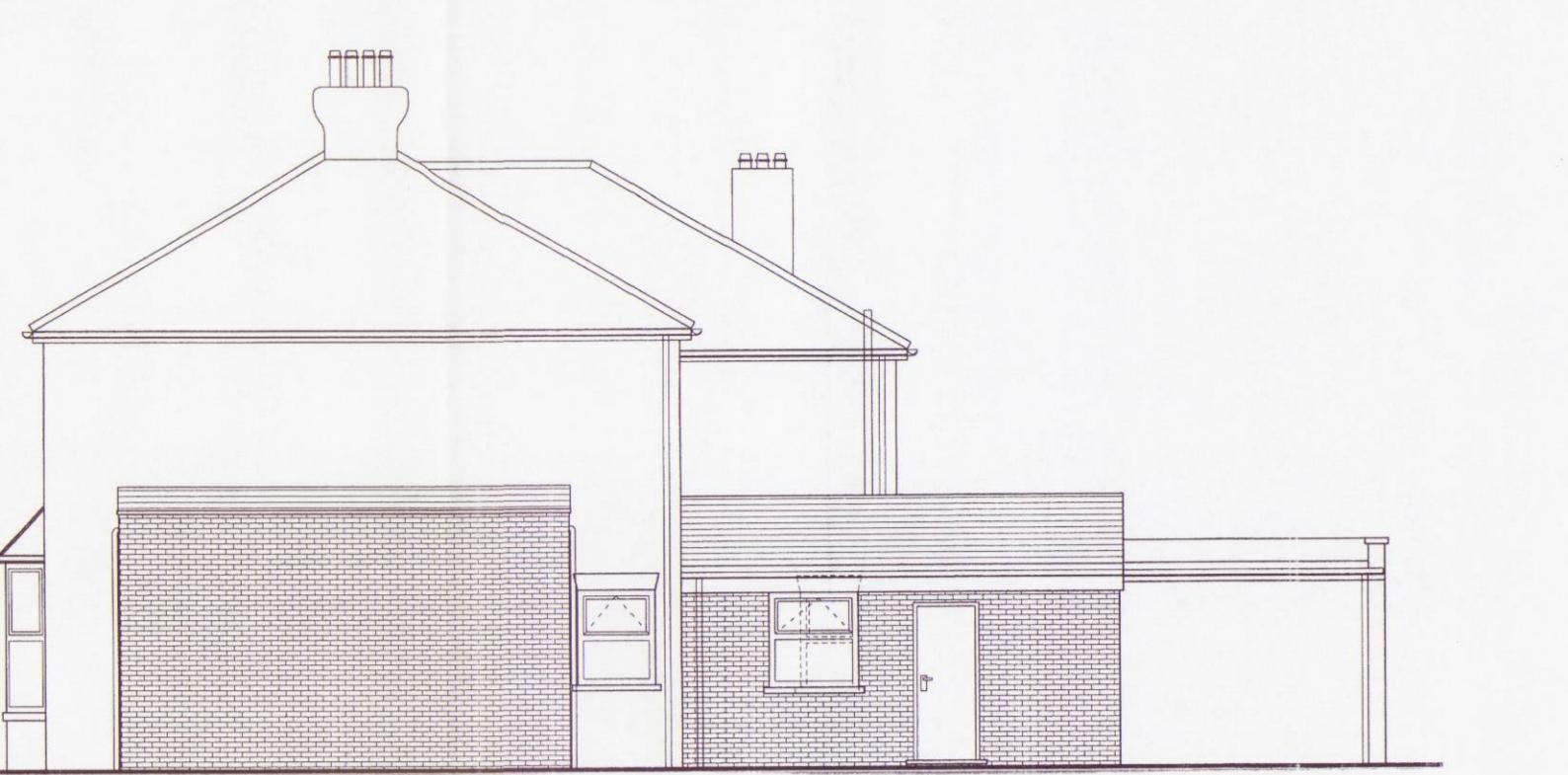
841



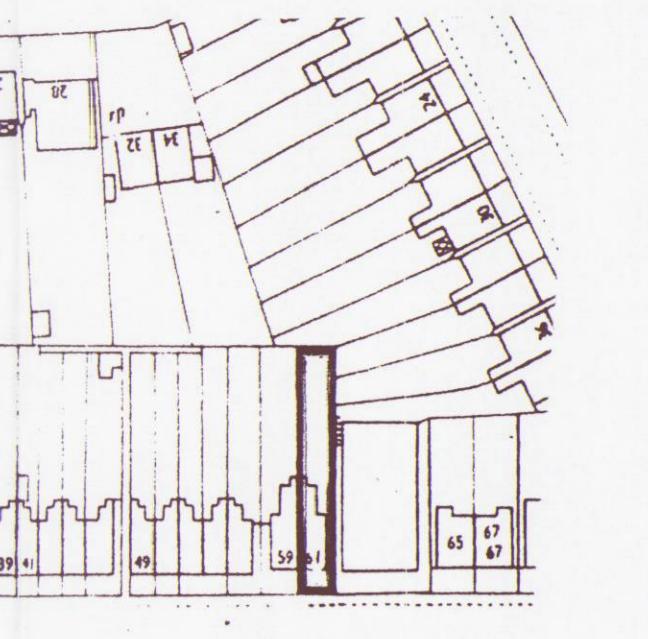
EXISTING SECTION 'A-A'



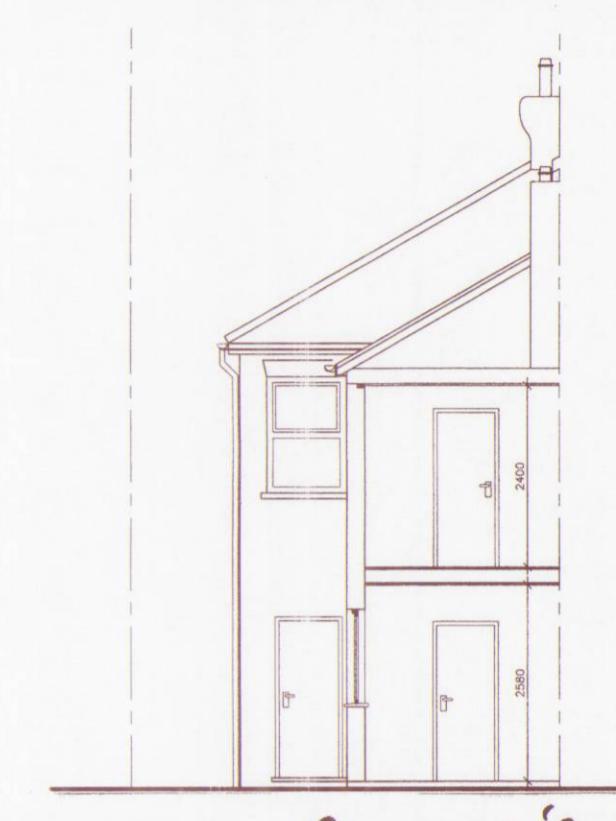
EXISTING SIDE ELEVATION



PROPOSED SIDE ELEVATION



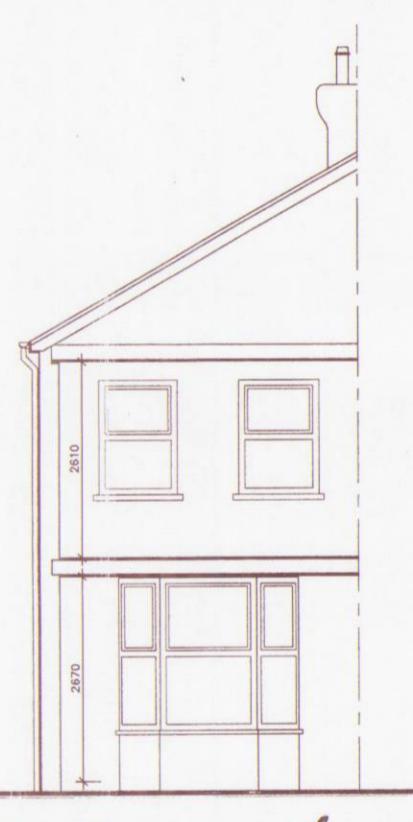
1:1250 LOCATION PLAN



EXISTING SECTION 'B-B'

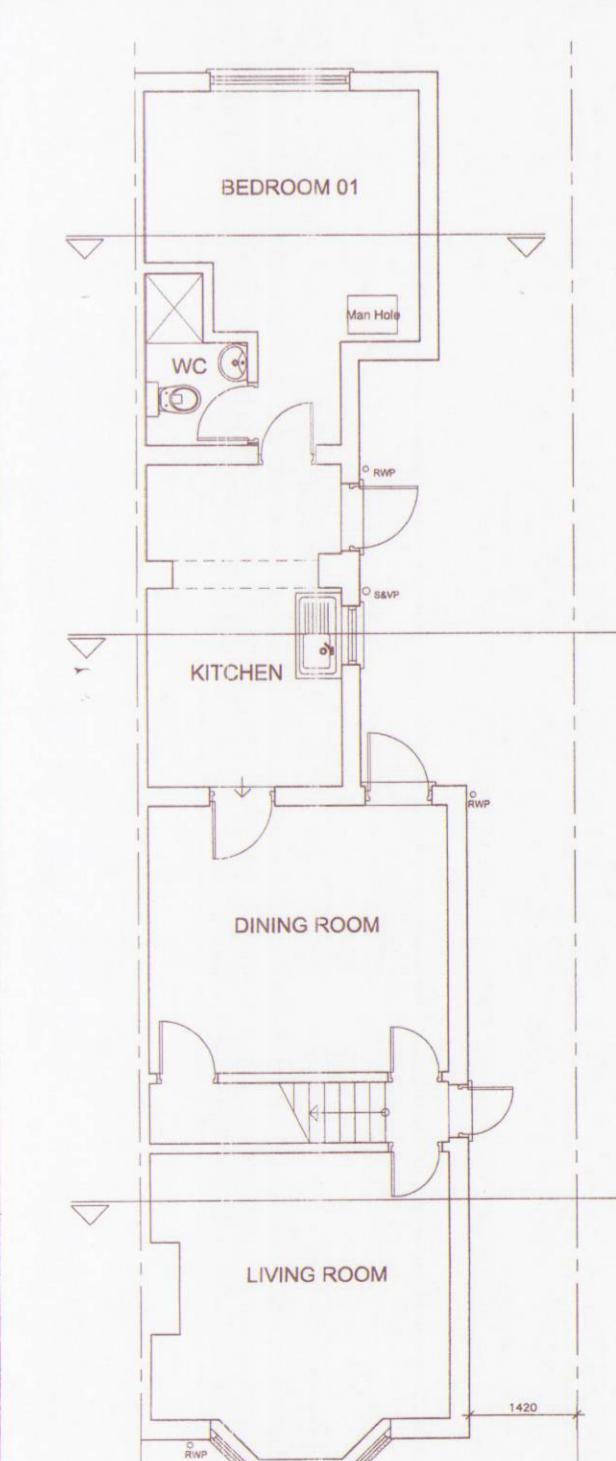


EXISTING REAR ELEVATION PROPOSED REAR ELEVATION

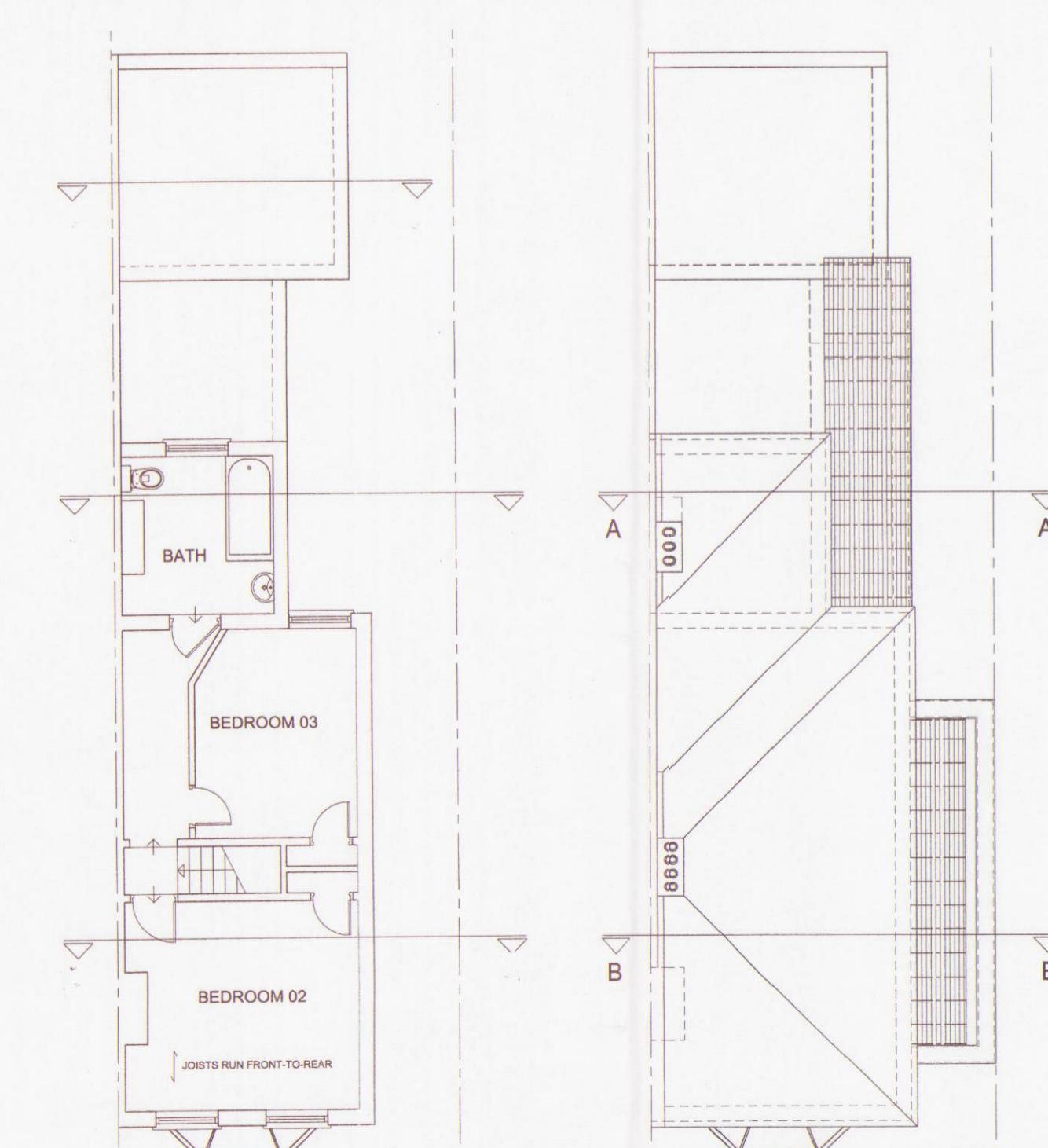


EXISTING SECTION 'C-C' EXISTING FRONT ELEVATION PROPOSED FRONT ELEVATION

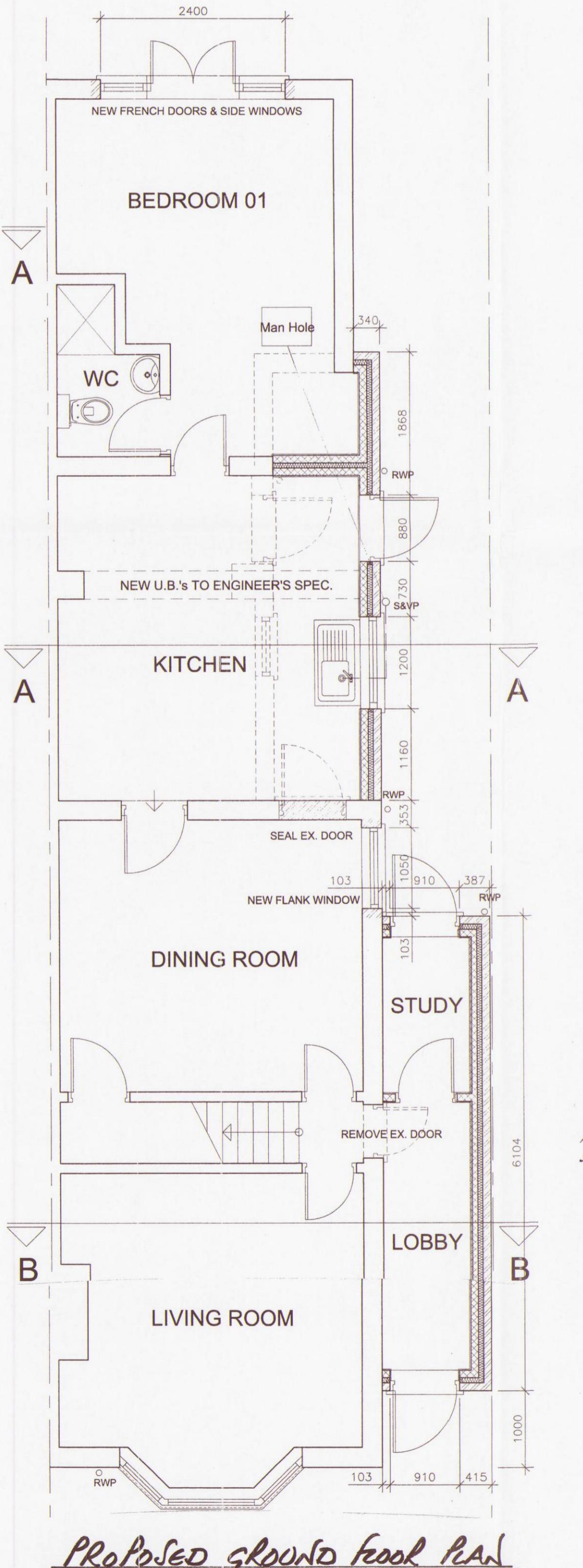
EXISTING FRONT ELEVATION PROPOSED FRONT ELEVATION



EXISTING GROUND FLOOR PLAN



EXISTING FIRST FLOOR PLAN



PROPOSED GROUND FLOOR PLAN



PROPOSED SECTION 'B-B'



PROPOSED SECTION 'A-A'

1. **NOTE:** This drawing has been prepared for submission to the local authority for planning under the Planning Act and Building Regulations. Assumptions may have been made and all relevant facts and dimensions must be taken by the builder when the drawing is used for construction purposes. This drawing should not be scaled. All work must comply with the 1996 Party Wall Act (notices served if applicable), current BS codes of practice and Building Regulations to the Building Inspector's satisfaction.

2. **FOUNDATIONS:** To be to local authority/B1 requirements, min. 1000 deep x 450 wide, below level of any drains in the immediate area and to take account all relevant site conditions e.g. type of soil and presence of any tree roots. Any existing foundations subject to further loads are to be exposed and checked for adequacy. Any excavation carried out close to neighbour's walls is to be dug in bays to avoid undermining any existing foundations.

3. **GROUND FLOOR:** To be level with existing. Break up concrete & use as hardcore for new floor, elsewhere remove all vegetable soil, min. 150mm. Lay well compacted hardcore to make up height as necessary, sand blinding 1200kg/m³ or equivalent. Provide concrete 'Jabline' grade 40D, or equivalent polystyrene insulation, 50mm perimeter insulation, 50mm polythene separating layer, 6.5mm screed. Max. 'U' value: 0.25 W/m²K. Maintain underfloor ventilation if applicable with 100mm pipes in new floor connecting to ex. air bricks. Provide channels or similar in solid floor so radiator pipes do not need to be above floor level. Alternative suspended timber floor construction, if preferred, max. 150mm thick. Lay 100mm overalls on joists, max. 300 from corners. Provide drainage to prevent surface water. Ensure min. 150 mm gap is maintained between concrete and suspended timber. Floor joists to be 47 x 147 at 400/c, side, supported on GI joist hangers, max. permitted span 3060, 21mm thickness floating grade T&G chipboard. Provide solid or herringbone tiling at mid span. Maintain existing and new under floor ventilation equivalent to 3000 m³/min with air bricks. Fit 100mm 'Jabline' grade SD, or equivalent polystyrene ins. between joists, supported on batters or galvanized rails to manufacturer's instructions.

4. **WALLS:** New external walls are to be brick cavity construction, comprising facing brick to match existing 65mm cavity fully filled with 'Rockwool' cavity ins. batts, 10mm 'Thermalite Shield' inner leaf, 13mm lightweight plaster finish, maximum 'U' value: 0.35 W/m²K. Provide vertical DPC, e.g. 'Thermate' or similar of brick or block. Provide horizontal DPC, min. 100mm above ground level. Lay 100mm overalls on joists, max. 300 from corners. Incorporate expansion joints at max. 6000/c, first joints max. 3000 from corners. Use 'Furfix Profiles' at junctions of new & existing walls. Internal partitions are to be 100 x 50 softwood studs at 400/c, 100mm 'Rockwool' acoustic quilt fill, 12.5mm plasterboard & skim finish. Provide double joists under partitions. (If preferred, any ground floor internal walls may be 100mm lightweight block construction). Double joists are to be 47 x 147 at 400/c, side, supported on partitions enclosing bedrooms and bathrooms. Double joists under partitions are to be 100 x 50 softwood studs at 400/c, 100mm 'Rockwool' acoustic quilt fill, 12.5mm plasterboard & skim finish. Provide double joists under partitions. (If preferred, any ground floor internal walls may be 100mm lightweight block construction). Double joists are to be 47 x 147 at 400/c, side, supported on partitions enclosing bedrooms and bathrooms. Double joists under partitions are to be 100 x 50 softwood studs at 400/c, 100mm 'Rockwool' acoustic quilt fill, 12.5mm plasterboard & skim finish. Provide double joists under partitions. (If preferred, any ground floor internal walls may be 100mm lightweight block construction). Double joists are to be 47 x 147 at 400/c, side, supported on partitions enclosing bedrooms and bathrooms. Double joists under partitions are to be 100 x 50 softwood studs at 400/c, 100mm 'Rockwool' acoustic quilt fill, 12.5mm plasterboard & skim finish. Provide double joists under partitions. (If preferred, any ground floor internal walls may be 100mm lightweight block construction).

5. **FIRST FLOOR:** To be level with existing. Lay 21mm flooring grade T&G chipboard (moisture-resistant in bathroom areas) on 47 x 195 joists at 400/c, side to side, supported on GI joist hangers, max. permissible span 4040, line underside with 12.5mm plasterboard and skim. Provide 30 x 5 galf. mild steel restraint straps at max. 2000/c, solid or herringbone strutting at mid-span. Provide double joists under partitions. New floor is to comply with 2003 Sound Regs, incorporate resilient layer to reduce impact sound & fill between joists with 100mm 'Rockwool' Acoustic quilt.

6. **ROOF:** To match main roof as closely as possible. Use matching concrete tiles. To be 'Redland' 49P, laid at approx. 30° to manufacturer's instructions. Roofing where necessary, refer to re-roof. All existing roof timbers are to be retained, extension roof is to be cut off existing using lay boards, etc. Lay tiles on preservative treated batten, on reinforced roofing felt to BS 747. New rafters to be 50 x 150 at 400/c, bisectional and spliced to 75 x 300 mm. Existing joists are to be 47 x 147 at 400/c, side, supported on 195 binders in opposite direction to wall plates and rafters and provide double 47 x 195 binders in opposite direction to ceiling joists, to support joists at mid-span and to prevent spread. Join timbers using 12.5mm diameter bolts and dog tooth connectors. Line underside of joists with 12.5mm foil backed plasterboard, skim coat finish. Lay tiles on 250mm 'Rockwool' between and across joists, with insulation suppressed to maintain ventilation at eaves level. A 10mm continuous ventilation gap is maintained along all eaves to ensure full cross-ventilation. Step up to wider intermediate spans using 15.5 galvanized metal strips at max. 2000/c, with additional lateral restraint straps where joists run parallel to walls. Ground floor roof to be as main roof, but use 47 x 100 joists and rafters at 400/c, 250mm 'Rockwool' insulation, vented trapdoor access to roof. Wall ties are to have 10mm pipe & 55mm seal basins: 32 pipe & 75 seal (max. 1700 pipe ran - increase to 40mm pipe if over 1700), bath/shower/sink: 40mm pipe & 75mm seal. Kitchen waste is to discharge directly into existing flange SAVP. Kitchen waste (note rearrangement of joists) is to discharge into 100mm SAVP above main foul water system, via existing rear man hole. Note: any 'in-roof' connecting pipes are to be insulated against sound transmission. Any man hole(s) falling inside new extension are to be fitted with double seal boll down covers - existing man hole invert depth is to be checked on site. Drainage proposals may be modified on opening site subject to agreement with the building engineer. Provide rodding eyes at drainage junctions. Bridge soil pipes passing under main walls with concrete lintels. Drains are to have a minimum fall of 1 in 40 and are to be surrounded in pea shingle.

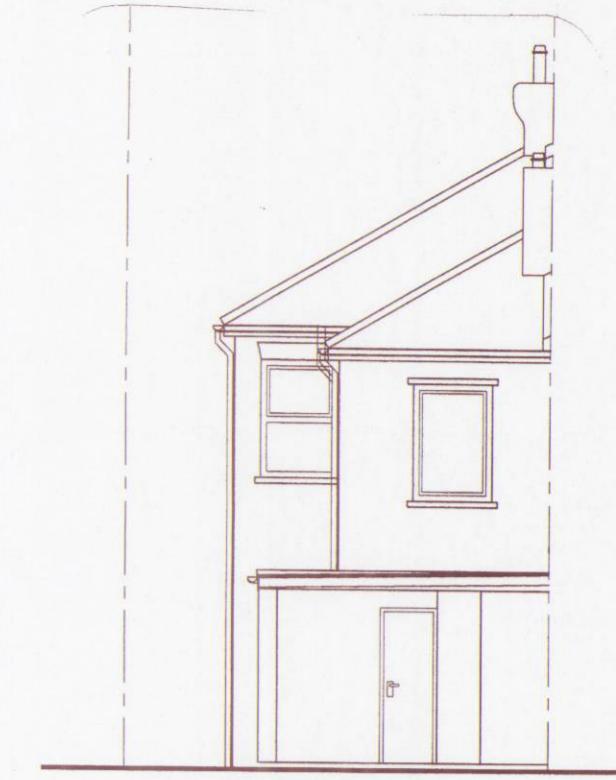
7. **SMOKE ALARM:** An approved mains wired interlinked smoke detector is to be provided at all levels, in compliance with building regulations Part B1, 2000.

8. **VENTILATION:** Habitable rooms are to have trickle vent background ventilation, min. 800mm². Kitchen, utility and WC/bathrooms to have similar, but 400mm² and extractor fans, direct to open air, capable of extracting min. 15 litres/sec. (WC/bathrooms), 30 litres/sec. (utility) and 60 litres/sec in kitchen (30 litres/sec. in a cooker hood), capable of intermittent operation. Rooms without opening windows are to have fans linked to light switch with 15 minute overrun.

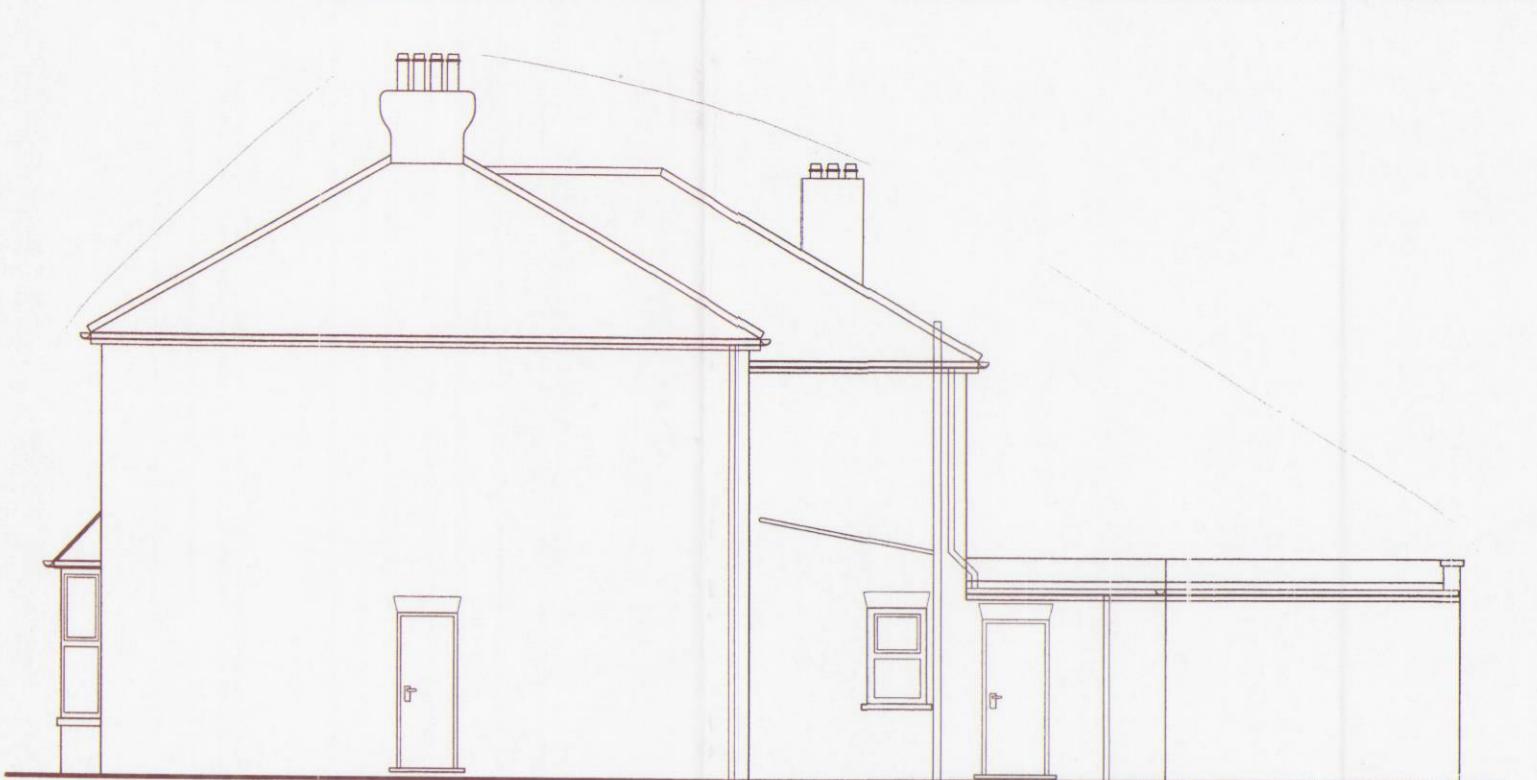
9. **DRAINAGE:** To comply with BS 8301 and 5572. Surface water to fall to rainwater gutters to match and unite (where possible) with existing discharge into existing new RWP's, connecting below ground to ex. surface water system, assuming this is available and separated from foul water. If not then surface water is to be diverted to RWP's, then to the nearest bridle head connection, soakaway, min. 5000 litres per hour. WC's have 10mm pipe & 55mm seal basins: 32 pipe & 75 seal (max. 1700 pipe ran - increase to 40mm pipe if over 1700), bath/shower/sink: 40mm pipe & 75mm seal. Kitchen waste is to discharge directly into existing flange SAVP. Kitchen waste (note rearrangement of joists) is to discharge into 100mm SAVP above main foul water system, via existing rear man hole. Note: any 'in-roof' connecting pipes are to be insulated against sound transmission. Any man hole(s) falling inside new extension are to be fitted with double seal boll down covers - existing man hole invert depth is to be checked on site. Drainage proposals may be modified on opening site subject to agreement with the building engineer. Provide rodding eyes at drainage junctions. Bridge soil pipes passing under main walls with concrete lintels. Drains are to have a minimum fall of 1 in 40 and are to be surrounded in pea shingle.

10. **OPENINGS:** Glazing less than 800mm above finished floor level in walls/partitions, or 1500mm in doors/adjacent side panels, to be toughened or laminated glass to BS 6206:1981. New habitable rooms at first floor level to have escape windows with an unobstructed operable area of at least 0.33m², with neither width nor height less than 450mm. All beams/lintels to have a minimum bearing of 600mm. Any existing beams/lintels subject to removal and/or are to be exposed are to be checked by engineer. New external doors are to be insulated - 'Cattic' CN7. New openings in load-bearing walls up to 1500 wide to have precast concrete lintels over. Openings over 1500mm wide to have universal headers over, encased in 12.5mm 'Gypcrete freeline' plasterboard for half height fire resistance. See separate structural engineer's details for full height spec. New glazing is to be 'A' rated (U-value K, or equivalent maximum 'U' value 2.0W/m²K timber or uPVC) or 2.3W/m²K (aluminium), similar style and to line through as much as possible with existing. Any 'Velux' rooflights are to be fitted to manufacturer's instructions, code 5 lead and double trimmers all round. Any flank windows are to have obscured glass. At least 33% of new windows are to be double glazed with a low energy/high efficiency light fittings to comply with Regulation L1. All internal doors are to be 30mm thick. Provide coving, skirting and all joinery to match existing. Electrical installation to be in accordance with IEE standards and Approved Document P. All new/reduced rooms are to have additional radiators to match existing, connected to existing gas central heating system, position & capacity of existing central heating boiler to be left as is and received separate to new installed flue boiler supplied by 'Corgi' registered plumber (SEDBUK rating to be better than 78%), suitably insulated and positioned on front or rear external wall (not over neighbour). Note: extract duct is to be at least 200mm from external walls or windows.

61, Downs Road, Belmont, Surrey
Proposed one/two storey extension & alterations
Scale: 1 to 50 & 1 to 100 Date: 28 th February 2005
Andrew Kenfield B.A. 28, High View, Cheam, Surrey, SM2 7DY. Phone: 020-8286-1064 Fax: 020-8286-1064
amendments: 10-3-05 - 'A' side walls moved.
drawing number: 841A



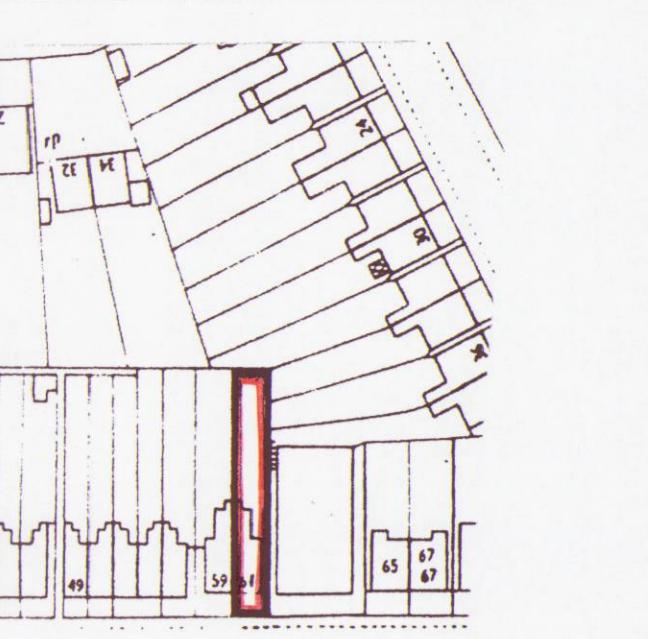
EXISTING SECTION 'A-A'



EXISTING SIDE ELEVATION



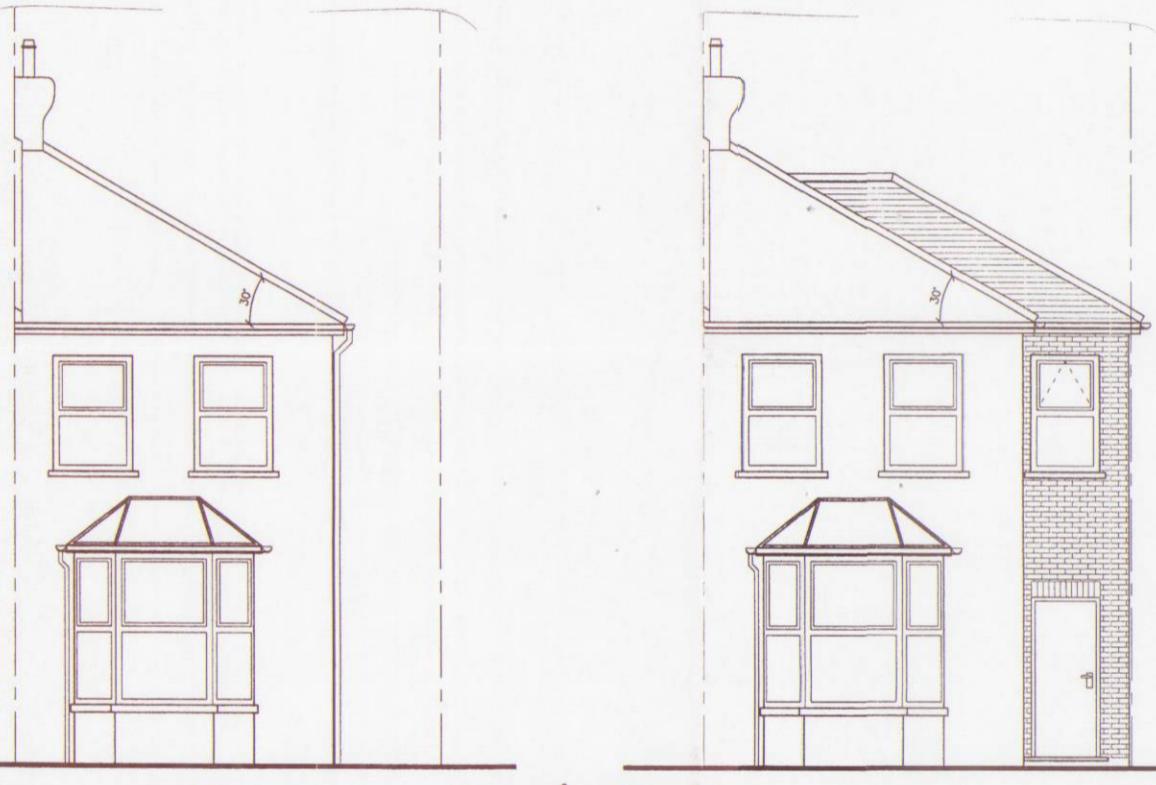
PROPOSED SIDE ELEVATION



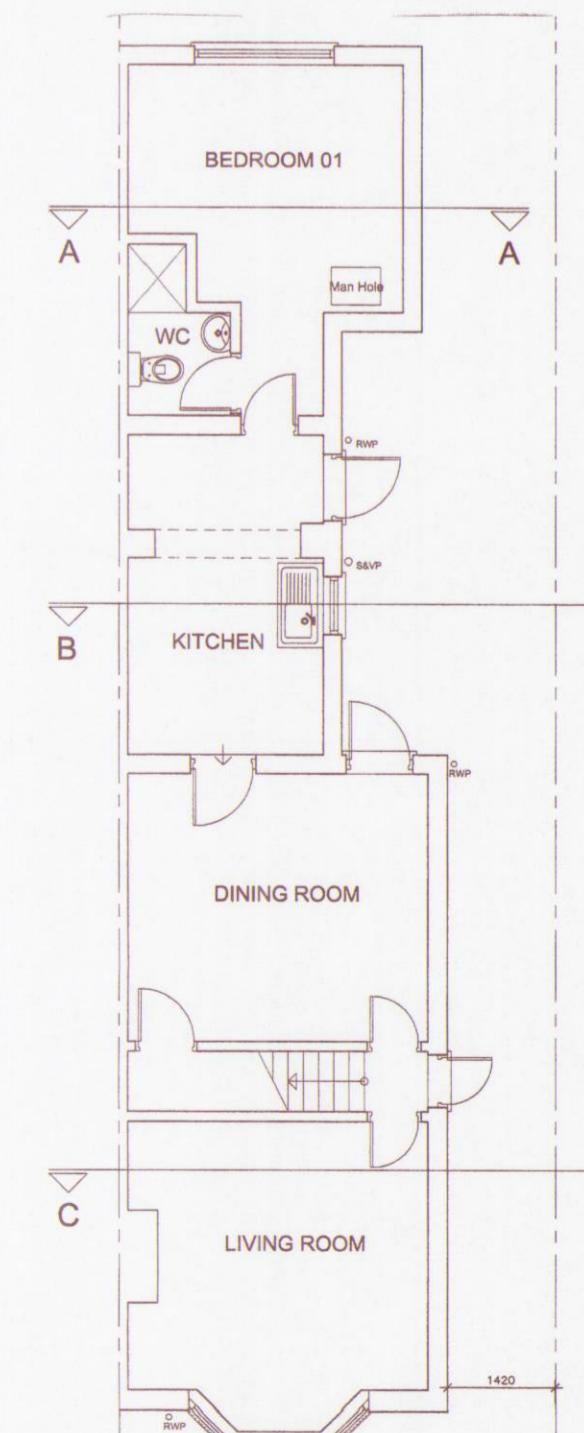
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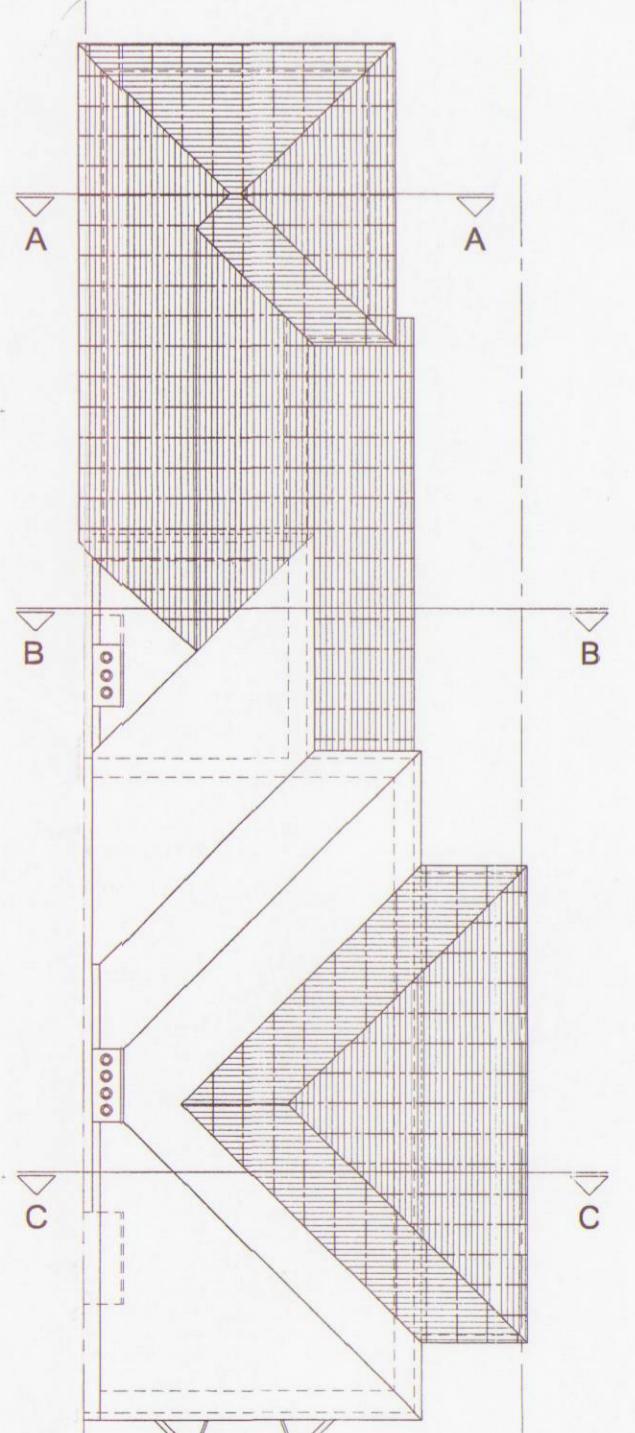
EXISTING REAR ELEVATION PROPOSED REAR ELEVATION



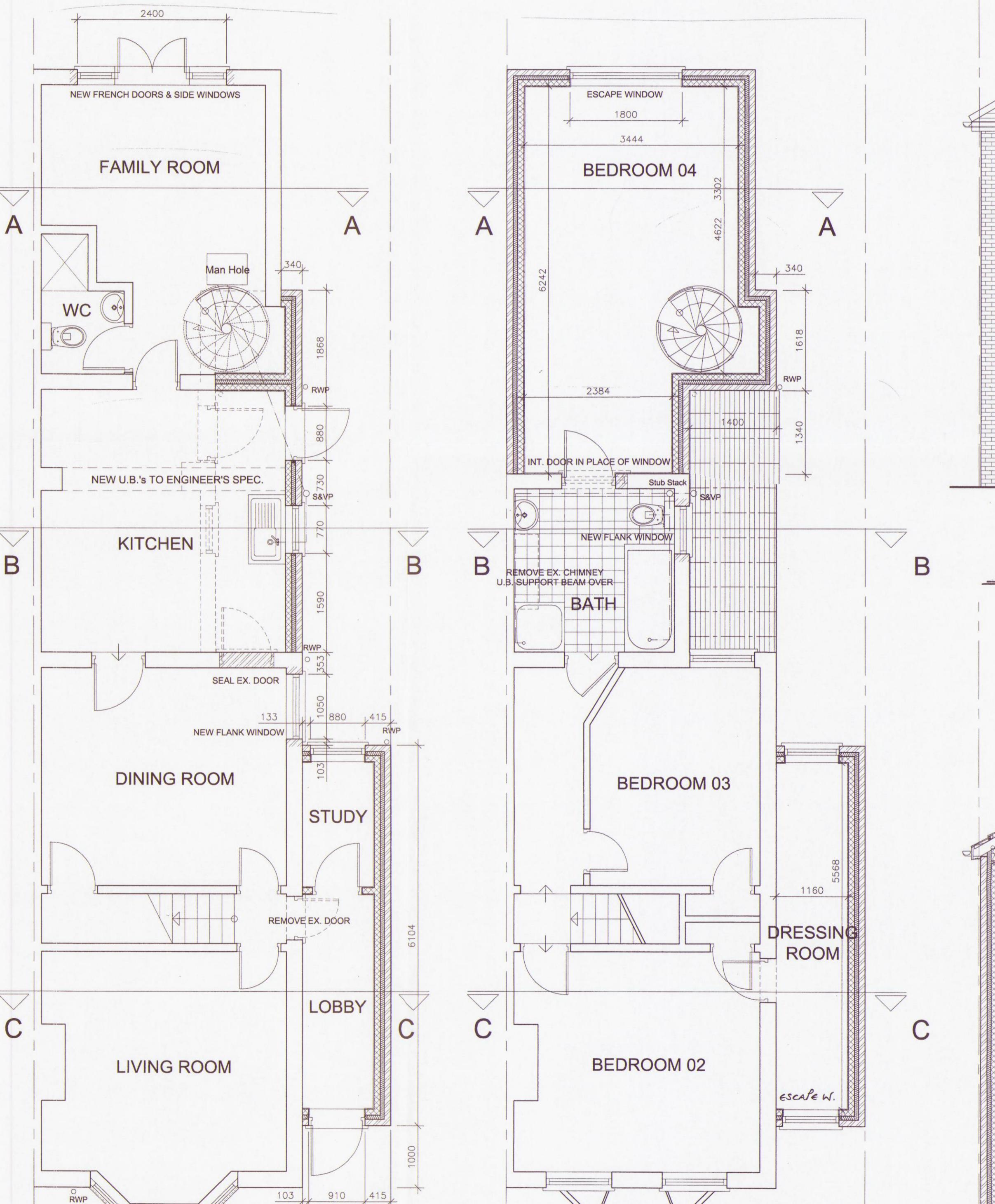
EXISTING SECTION 'C-C' EXISTING FRONT ELEVATION PROPOSED FRONT ELEVATION



EXISTING GROUND FLOOR PLAN



PROPOSED GROUND FLOOR PLAN



PROPOSED GROUND FLOOR PLAN



PROPOSED SECTION 'C-C'

File End

1839 - Sutton



END

Prepared by Resolution Bureau Services

FILE END