PLANNING APPLICATION NUMBER:P07/1504

Type of approval sought	Full Planning Permission
Ward	ST THOMASS
Applicant	Mr Anokh Singh
Location:	**LAND REAR OF 15 ASTON ROAD, DUDLEY, WEST MIDLANDS, DY2 8XR**
Proposal	**ERECTION OF 11 NO. DWELLINGS**
Recommendation Summary:	**APPROVE SUBJECT TO A 106 AGREEMENT**

SITE AND SURROUNDINGS

1 The application site is located on land between Junction Street and Aston Road. The site is surrounding by housing on it western, southern and eastern sides. Most of the northern boundary adjoins an area of open space,

2 The site presently consists of a factory on the eastern part of the site. The western part is presently open and unused with some buildings remaining, Part of the site is also presently used as garden land to No.15 Aston Road. The levels vary on the site with the extreme south eastern part approx 3m lower the majority of the northern and western part of the site.

3 The development pattern in the locality is primarily late Victorian terraces, although there are some later detached and semi detached house types are present. The pattern of development in the locality is almost exclusively two-storey.

4 The site measures approx. 0.31 hectares.

PROPOSAL

5 This is a planning application for the erection of 11 dwelling houses. Two units, are detached, six are semi detached and three are terraced. All are two-storey, although seven of the plots have additional space within the roof space with dormers to the front elevations. The density of the proposed development is approx 48 dwellings to the hectare. Parking is either to the front, or is to the side. The proposed access, despite the site address is from Junction Street.

6 The application is accompanied by a Design and Access Statement, a set of photographs and a protected species survey.

7 During the course of the application modifications have been made to the vehicle access and the parking to plot 1 and the proposed pedestrian walkway which provided a link to Aston Road has been deleted.

HISTORY

APPLICATION No.	**PROPOSAL**	**DECISION**	**DATE**
DB/72/9847	Erection Of One Detached And Pair Semi-Detached Dwellings.	Refused	23/06/1972
DB/72/10617	Residential Development Off Aston Road Dudley (Outline)	Refused	18/10/1972
DB/72/11136	Erection Of Pair Of Semi-Detached Houses.	Granted	16/02/1973
81/52053	Use Of Joinery Workshop As Clothing Manufacturing Workshop.	Granted	05/11/1981
80/51981	Change Of Use Workshop In Builder's Yard To Industrial.	Granted	05/11/1981
87/50094	Continued Use Of Premises For Clothing Manufacture Purposes.	Granted	28/05/1987
91/50517	Application Under Section 73 For Non-Compliance With Condition 02 Of Approval No.	Granted	04-Jul-1991

	87/50094 (Removal Of Temporary Permission/Condition)		
04/0208	Erection of 8 no. 2 bedroom dwellings with new access to highway	Refused	05/08/2004

8 04/0208 was for a smaller residential scheme for 8 units which incorporated a smaller area of land then currently proposed. The application was refused on highway/parking, design and amenity grounds.

PUBLIC CONSULTATION

9 2 letters received:-

- Overlooking into house and garden.
- Development will affect daylight.
- Parking problems in the area
- External lighting will cause light pollution
- Other non-planning issues raised

OTHER CONSULTATION

10 Group Engineer (Development): Amended plans overcome initial objection.

11 Head of Public Protection**:** No adverse comments. (Environmental Health & Air Quality) :Request conditions controlling siting, land contamination and soil gases. (Land Team)

12 West Midlands Police: Concerns about alleyway running from Aston Road and a further one along site plot 8 giving access to the rear of houses onto Aston Road. Make suggestions how concerns can be overcome. Also make suggestions about general boundary fencing and security to the proposed houses.

13 Childrens Services: No education contributions are required.

RELEVANT PLANNING POLICY

Unitary Development Plan

DD1 Urban Design

DD2 Mixed Use

DD4 Development in Residential Areas

DD6 Access and Transport Infrastructure

DD7 Planning Obligations

DD8 Provision of Open Space, Sport and Recreation

Facilities

DD10 Nature Conservation and Development

UR8 Derelict Land

UR9 Contaminated Land

UR10 Unstable Land

AM1 An Integrated, Safe, Sustainable and Accessible

Transport Strategy

H1 New Housing Development

H2 Phasing of Housing Development

H4 Housing Mix

H6 Housing Density

LR3 Children's Play Areas

NC1 Biodiversity

NC6 Wildlife Species

NC8 Temporarily Vacant Sites and Nature Conservation

HE1 Local Character and Distinctiveness

EE3 Existing Employment Uses

Supplementary Planning Guidance/Documents

Supplementary Planning Document on Open Space, Sport and Recreation Provision

Nature Conservation Supplementary Planning Document

Parking Standards and Travel Plans Supplementary Planning Document

New Housing Development Supplementary Planning Document

Design for Community Safety Supplementary Planning Document

PGN3 New Housing Development

PGN12 The 45 Degree Code

ASSESSMENT

14 The main issues in this case are

- Principle & Policy
- Design & Layout
- Neighbour amenity,
- Access and Parking
- Ecology
- Trees
- Ground Contamination.
- Crime
- Planning Obligations

Principle and Policy

15 The site primarily consists of a former employment site (previously developed land), and as such its reuse has to be assessed against policy EE3 – Existing Employment Uses. The policy generally seeks to resist the loss of employment uses unless the site is no longer viable, provides insufficient accommodation for business users, has access difficulties or adversely affects residential amenity.

16 In this case the access to the former employment site is considered to be substandard as it served by a narrow access road way which makes access for larger vehicles difficult if not dangerous. This is coupled by dwellings which are right up against the access road. The use of the access road by larger vehicles would cause unnecessary harm to residential amenity by way of noise and vibration. Therefore the reuse of the site for residential use which would allow the extinguishment of the substandard access and would lead to a material

improvement in highway safety and the amenity of the occupiers either side of the access.

Design and Layout

17 The application site is constrained by its unusual shape and its close proximity of other dwellings, which makes providing a satisfactory layout difficult.

18 In terms of the frontage onto Junction Street the provision of a detached house is considered to be acceptable in the context as the immediate dwellings to the north are-semi detached and detached.

19 Within the site the layout is generally acceptable with garages set back, with only two plots having frontage parking.

20 The design of the house types is fairly simple with steep pitches which generally reflect the character of the Victorian terraces.

21 The provision of the pedestrian link via the former access is considered to be appropriate as it integrates the development into the wider area and prevents the development from being an inward looking cul-de-sac.

22 The garden sizes are generally acceptable coming in at around 10m to 10.5m at little below the advised standard in PGN3, which has to be assessed against the more recent advice in PPS1 and PPS3 which require a more relaxed approach.

Access and Parking

23 Modifications have been made to the proposed vehicular access onto Junction Street, which would provide sufficient visibility for vehicles entering and leaving the site. The plans have also been modified to ensure garages and parking spaces are of useable dimensions to reduce the risk of on street parking.

Neighbour Amenity

24 The site is surrounded by existing housing on almost all sides and as such privacy and lighting issues are paramount.

25 In respect of light I am satisfied that plot 1 meets the Councils adopted 45^{O} (PGN12) code in respect of Junction Street. Similarly, the separation distance from the two storey side elevation of plot 8 to the houses facing onto Aston Road is 18m which more then complies with advice in PGN3. In fact this is an improvement over the present situation where two storey factory buildings are located along the rear boundary of the adjoining gardens. Elsewhere the separation distances are generally at least 21.5m which should not materially affect light to the adjoining dwellings.

26 In respect of privacy there is a slight breach of the guidance within PGN3 with a back to back separation distance of 21.5m between plot 11 and 16 Aston Road as opposed to the required 22m. Considering the advice contained within PPS1 and PPS3, coupled with the minor breach there is no material reason to object on this ground.

Ecology Issues

27 The applicant has submitted an ecological assessment as required by the SPD on the matter. The report concludes that bats are using the site for foraging, but there is no evidence that they are roosting in any of the buildings to be demolished. The report states that other non protected species could be present but there was no evidence. The report outlines a number of mitigation measures to encourage bats at the site and also advises that as many of the existing trees and hedges on the site should be retained

28 Conditions covering tree protection/retention, new landscaping are proposed and bat mitigation are proposed.

Trees

29 The application site is generally devoid of any substantive tree planting except along parts of the boundary. The only trees which will be required to be removed are a small group of poplars. The loss of these trees would not result in any significant loss of amenity which are generally unsuitable species close to buildings.

30 Conditions requiring the retention and protection of other trees on the site together with the provision replacement trees are proposed.

Crime

31 The Police Architectural Liaison Officer (PALO) raised concerns about potential access along the side of plot 8 which would allow access into the rear garden facing the proposed dwelling. The applicant has confirmed no rear access is proposed and that an existing boundary wall is to be retained.

32 The PALO's also raised concerns about the existing vehicular access which was to become a pedestrian walkway. This concern has now been eliminated as the access will be incorporated into the garden of.15 Aston Road

33 Therefore the proposal would not lead to a potential increase in crime and would comply with the general provisions of the Design for Community Safety SPG.

Ground Conditions

34 Due to the nature of the sites last use the potential for ground contamination is highly probable. Conditions requiring ground investigation reports will be imposed as requested by the Public Protection (PP) team.

35 The EP team also requested a condition preventing siting being agreed at this stage. Further clarification from PP advises this is due to the plans showing details of the foundation design. Following discussion with PP they are happy that there are

sufficient controls through the imposition of the standard land contamination and gas conditions coupled with an informative

Planning Obligations

36 The proposal attracts a requirement for a commuted sum paid towards the provision and enhancement of public open space and play areas in the locality. This can be dealt with a legal agreement to accompany the application. The applicant has agreed to this and will be controlled by way of a Grampian style condition. As the application was submitted prior to the adoption of the Planning Obligations Supplementary Planning Document no contributions are required towards local transport, libraries or public realm.

Other Issues

37 The concerns of the neighbour with regards light pollution are noted. However, the installation of security lighting on the outside of residential properties normally are outside the control of the planning system and as such cannot be reasonably be resisted.

CONCLUSION

38 The proposed development is considered to be acceptable from a design point and neighbour amenity point of view, and causes no other material harm. The decision has been taken with regard to policies DD1 DD2 DD4 DD6 DD7 DD8 DD10 UR9 UR10 AM1 H1 H2 H4 H6 LR3 NC1 NC6 NC8 HE1 and EE3.

RECOMMENDATION

It is recommended that the application be approved subject to:

a) The development not beginning until a scheme for the submission and approval of a planning obligation to guarantee the provision, maintenance and enhancement of

off-site public open space and play provision submitted to and agreed in writing by the Local Planning Authority.

Reason for approval

The proposed development is considered to be acceptable from a design point and neighbour amenity point of view, and causes no other material harm. The decision has been taken with regard to policies DD1 DD2 DD4 DD6 DD7 DD8 DD10 UR9 UR10 AM1 H1 H2 H4 H6 LR3 NC1 NC6 NC8 HE1 and EE3.

The decision to grant planning permission has been taken with regard to the policies and proposals in the adopted Dudley UDP (2005) and to all other relevant material considerations.

The above is intended as a summary of the reasons for the grant of planning permission. For further detail on the decision please see the application report.

The development hereby permitted shall be built in accordance with the plans 0442-001A received 7 February 2008, 0442-002A 0442-005A received 8 October 2007, o442-003B 0442-004B, 00442-006B 00442-007B received 4 December 2008, 00unless otherwise agreed in writing by the Local Planning Authority.

Informatives

The design of the foundations to the proposed houses may need to be modified to ensure compliance with conditions 9 and 10.

The applicant is reminded of the recommendations attached to the ecological survey submitted with the planning application.

Buildings are frequently used as roosting sites by bats. Bats and their 'roost' sites are protected under the 1981 Wildlife and Countryside Act and the Habitat Regulations 1994, the latter of which deems them a European Protected Species. It is a criminal offence to recklessly disturb or destroy a bat 'roost'. Where a bat 'roost' is present a licence might be necessary to carry out the works. Further information about species licensing and legislation can be obtained from the Species Licensing Service on 0117 3728000. If evidence of bats is found during works, work should stop immediately and Natural England must be contacted on 01453 764450 for advice on the best way to proceed.

Barn Owls, bats, bat roosts and nesting birds are protected under the 1981 Wildlife and Countryside Act and badgers are protected under the 1992 Badgers Act. if signs of Barn Owls, bats or badgers are found, work should stop whilst English Nature is consulted. In addition, if nesting birds are present, work which might affect them

should not be carried out during the nesting season (approximately March – September).

The site is crossed by a public sewer owned by Severn Trent Water. No works shall commence until the sewer has been diverted with the agreement of the company or other agreement has been entered into.

Conditions and/or reasons:

1. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.
2. Notwithstanding details shown on the approved plans no part of the development hereby permitted shall be commenced until detailed plans and sections showing existing site levels and finished floor levels of the dwellings have been submitted to and approved in writing by the Local Planning Authority and the development thereafter shall only be carried out as approved.
3. No part of the development hereby permitted shall be commenced until a schedule of all materials to be used on the walls and roofs of the buildings has been submitted to and approved in writing by the Local Planning Authority and thereafter the development shall only be constructed in accordance with these details.
4. No part of the development hereby permitted shall be commenced until full details of soft landscaping works have been submitted to and approved in writing by the Local Planning Authority. These details must include, where appropriate, planting plans, written specifications, a schedule of plants including species, plant sizes and proposed numbers/densities and a programme of implementation. Plans must also include accurate plotting of all existing landscape features. The works approved as part of this condition shall be completed within the first planting season following the first occupation of any part of the development Any trees or shrubs planted in pursuance of this permission including any planting in replacement for it which is removed, uprooted, severely damaged, destroyed or dies within a period of five years from the date of planting shall be replaced by trees or shrubs of the same size and species and in the same place unless otherwise agreed in writing by the Local Planning Authority.
5. No part of the development hereby permitted shall be commenced until details of the positions, design, materials and type of boundary treatment or means of enclosure have been submitted to and approved in writing by the Local Planning Authority. No part of the development shall be occupied until these works have been carried out in accordance with the approved details.
6. No development shall take place until there has been submitted, and approved in writing by the local planning authority details of the tree protection measures on site. The details shall include:

   a. A plan showing the location and identification (with reference to a survey schedule if necessary) of all trees on, or directly adjacent to the development site, that are to be retained during construction. These trees are to be marked with a continuous outline.

   b. A plan showing the location and identification (with reference to a survey

schedule if necessary) of all the trees on, or directly adjacent to the development site that are to be removed prior to, or during development. These trees are to be marked with a dashed outline.

c. A plan showing the extent of the Root Protection Area, which is to be protected by physical barriers during development. The extent of the area that is to be protected will be calculated in accordance with Clause 5.2 of British Standard BS: 5837 – 2005 `Trees in Relation to Construction – Recommendations'.

d. Design details of the proposed protective barriers to be erected around the trees during development. Any protection barriers should be designed and constructed in accordance with the provisions set out in section 9.2 of British Standard BS:5837 – 2005 `Trees in Relation to Construction – Recommendations'.

7. No development or other operations shall commence on site in connection with the development hereby approved, (including any tree felling, tree pruning, demolition works, soil moving, temporary access construction and or widening, or any operations involving the use of motorised vehicles or construction machinery) until a detailed service and foul and surface water drainage layout has been submitted to and approved in writing by the Local Planning Authority. Such layout shall provide for the long term retention of the trees. No development or other operations shall take place except in complete accordance with the approved service/drainage layout.
8. The development hereby permitted shall not first commence until a scheme for the provision of-
-Off site public open space and play area improvements has been submitted to and approved in writing by the Local Planning Authority. The scheme shall include the method, timing and arrangements to comply with the Council's policies for the provision of the infrastructure required in connection with the proposed development.
9. Development shall not begin until a comprehensive written site investigation strategy (in a form to be agreed by the local planning authority), has been submitted to and approved by the local planning authority. Such a strategy shall facilitate the identification of methane & carbon dioxide. Where the investigations identify the presence of methane and/or carbon dioxide the development shall not begin until a scheme to protect the development from the effects of such gases has been submitted to and approved by the local planning authority. Such a scheme shall: include provisions for validation monitoring & sampling; be implemented in accordance with the approved details before the development is first occupied; and be retained throughout the lifetime of the development.
10. Development shall not begin until a comprehensive written site investigation strategy (in a form to be agreed by the local planning authority), has been submitted to and approved by the local planning authority. Such a strategy shall facilitate the identification of contaminants and permit the risk based assessment of the development site. Where the investigations identify the presence of contamination, development shall not begin until a scheme to protect the development from the effects of such contamination has been submitted to and approved by the local planning authority. Such a scheme shall: include provisions for validation monitoring & sampling; be implemented in accordance with the approved details before the

development is first occupied; and be retained throughout the lifetime of the development.

11. Prior to the commencement of development details of the stopping up of the vehicular access for vehicular traffic to Aston Road shall be submitted to and approved in writing by the Local Planning Authority. The existing access shall be stopped up for vehicular traffic in accordance with the approved details and shall be implemented before first occupation of any of the approved dwellings. The access shall thereafter be retained as a pedestrian access only and shall be used for vehicular traffic without the express grant of planning permission.
12. The development hereby approved shall not be first occupied until the access, turning and parking areas have been provided in accordance with the approved plans. The access, turning and parking areas shall thereafter be retained for the life of the development.
13. The visibility splays shown on the approved plans shall be kept free of planting, walls, fences or other obstructions which would exceed 600 mm in height.
14. Prior to the commencement of development details of bat mitigation measures shall be submitted to and approved in writing by the Local Planning Authority. The mitigation measures include the details of bat boxes and bat tiles. The mitigation measures shall thereafter be provided in accordance with the approved details and shall thereafter be retained for the life of the development.

WALL TIES
Wall ties to be galvanised mild steel to BS1243 at 5No/m2 vertical twist type at 900 c/c horizontally, 450 c/c vertically centres for 75 mm cavities. Additional walls ties required at reveal MAX 300 mm vertical centres.
Ties to be provided with proprietary integral insulation clips where partial fill insulation is to be used, all in accordance with NHBC Technical Requirement.

LINTEL AND BEAMS
Lintels to be proprietary galvanised steel to BS 5977 1983 in external cavity wall with flexible dpm over where required by manufacturer. Minimum 150 mm end bearing to all steel lintels with stop ends provided over openings in external walls. Profile and gauge of lintels to be in accordance with manufacturerrom building.
Soakaways to be at least 2 m2 capacity filled with graded broken brick hard-core.

ELECTRICAL INSTALLATION
Provide electrical installation in accordance with current IEE regulations. Contractor must be NICEIC approved. Upon completion, the electrical contractor will be responsible for providing a 7671 certificate of completion/compliance to be forwarded to local authority building control, in accordance with Approved Document Part P.

NON-LOAD BEARING INTERNAL STUD PARTITIONS
75 x 50 mm hs studwork at 600 mm centres faced both sides with 9.5/12.5 mm plasterboard with taped and filled joints, all to be fixed as NHBC Standard. Provide sole and head plates to either with noggins at mid height.

ACOUSTIC PARTITIONS
Acoustic studwork partitions to be provided between habitable rooms and WCs with 25 mm mineral wool quilt and for alternative cavities types suitable to provide a min. 35dB sound reduction index over 100 - 3150 hz range.

DPC
A DPC to BS 743: 1970 or similar to be laid a minimum of 150 mm above external finished ground level on both leaves of a cavity wall and lapped a minimum of 100 mm.
Provide vertical DPC sheet backing of all meter boxes where built into external skin of brickwork.

INTERNAL LOAD BEARING WALLS
100 7.0N/mm2 concrete blocks below ground level in 1:4 cement/sand mortar. 3.5 N/mm2 concrete blocks above ground level
Apply 9.5/12.5 mm plasterboard and skim dry lining to all internal block walls as required.

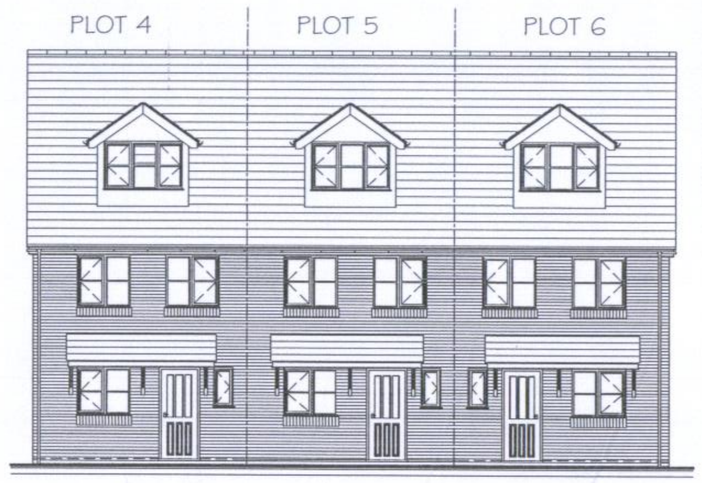
WINDOWS AND DOORS - externally
All new windows and doors to be uPVC with double glazed sealed units with background ventilation equivalent to a minimum of 8,000 mm2 per room with opening window for rapid ventilation. Background ventilation to be provided by ready fitted trickle vents to all window frames prior to delivery on site. Opening lights to equal 1/20th of floor area. Escape windows to be provided to first floor of at least 550 wide by 800 high, clear opening.

GLAZING
All glazing should comply with BS 6206 and part N1 of the 1991 revised Building Regulations. Provide laminated or toughened glass to windows less than 800 mm and door glazing less than 1500 above finished floor level. All new glazing to be in Pilkington K glass to cavity side of inner leaf. Glazing cavity to be 16 mm.

OBSCURE GLAZING To WC's and bathrooms approved obscure to be confirmed by client.

DRAINAGE
All underground drainage to comply with BS 8301, 1985, all drains passing under walls to be ducted with single course pre stressed lintels over. Drains to be supersleve with universal preformed manholes with cast iron covers and frames. Grade C. Drains to be laid at 1:40 connecting onto existing foul water system. Stormwater drainage as above taken to suitably constructed soakaways in rear garden at least 6 m=om building.
Soakaways to be at least 2 m2 capacity filled with graded broken brick hard-core.

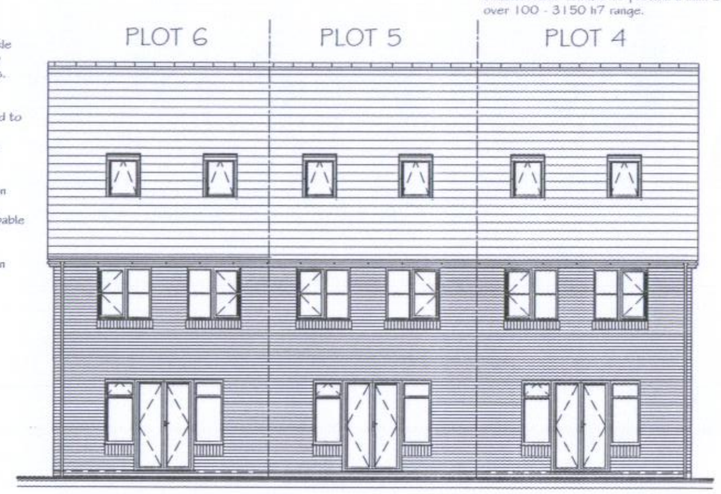
SMOKE DETECTORS
Self contained smoke alarms are to be fitted on each level to every dwelling in the circulation areas. they shall be permanently wired to a separately fused circuit in the distribution board, with a battery back up, all in accordance with BS 5445: Part 1 and Section 1 of PART B of the Building Regulations.



PROPOSED FRONT ELEVATION

VENTILATION
HABITABLE ROOMS Provide background trickle ventilation to give min 8000 sw mm either by solvents within window frames or via air bricks. Vents shall be controllable.

KITCHEN EXTRACT Kitchens shall be ventilated to the external air by either -
Mechanical extractor fan over the cooker in a hood to extract at a rate of 30 litres per second, intermittent operation.
b. Mechanical extract fan capable of extraction 60 litres per second, intermittent operation.
Mechanical extract fan with humidistat capable of extracting 30 litres per second adjacent to centreline of hob (near ceiling) and 4000 mm2 background ventilation required.



PROPOSED REAR ELEVATION

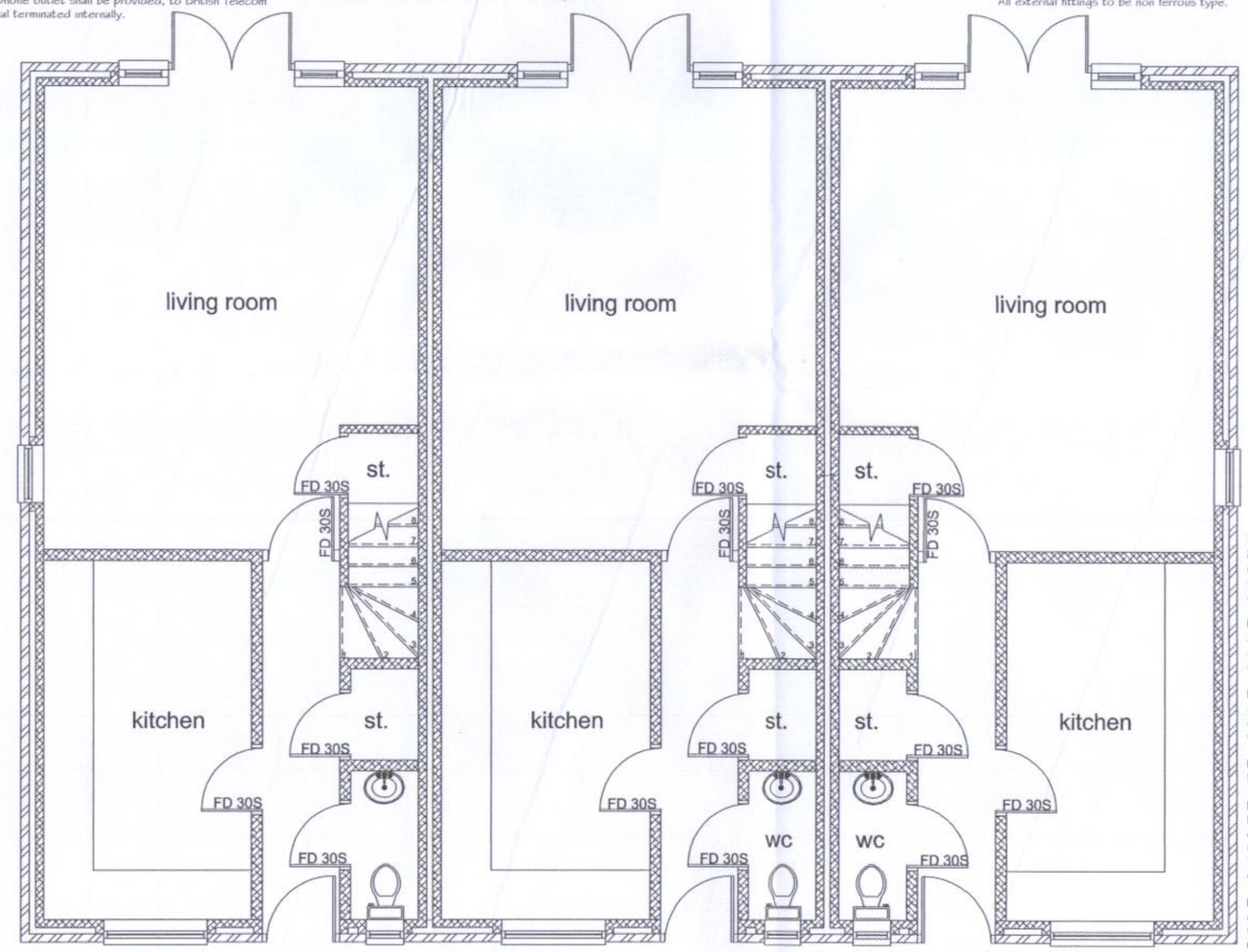
T.V.
TV aerial outlets shall be installed complete with coaxial cable to loft or aerial to positions to be confirmed. But an aerial point should be allowed in each bedroom and to the living room.
nded

TELEPHONE
A telephone outlet shall be provided, to British Telecom approval terminated internally.

HEATING
Generally house main heating system to be Gas fired central heating from balanced flue condensing boiler positioned within kitchen operating in accordance with specification and NHBC temperature specification.
Radiators to be located in positions to be agreed.

BATHROOM & WC EXTRACTS Bathrooms & en-suites shall be fitted with a mechanical extractor fan to give an extract rate of 15 litres per second. Internal WCs to have a mechanical extractor fan to give 3 air changes per hour operated by the light switch with a 15 minute overrun. Also 4000 mm2 background ventilation required.

MATERIALS
TIMBER All carcassing timber to be graded in accordance with BS 5268: and structural timber to be kiln dried. All timber to be stamped in accordance with BS 4978 and BS 5268.
Part 2: 1984. For joist grade refer to working drawings. All external timber/joinery including fascias and barge boards, feature boarding, canopy support, trusses where exposed, etc to be treated with a pressure impregnated clear joinery preservative to BS 1282: 1975.
All cuts ends, joints etc. made after treatment must be flood coated with preservative on site prior to building in.
All external fittings to be non ferrous type.



PROPOSED GROUND FLOOR PLAN

FIRESTOPPING
Cavities to be closed at eaves, verge & reveals.
ate

PLUMBING
Sanitary pipework to be in accordance with BS 5572: clauses 3, 4 & 7 -12.
Soil stack to be 100 mm diameter discharging via ventilation tile minimum 900 mm above highest opening light.r ruled
Soil stack (NOT at head of runs) may be terminated via AAV (air admittance valve) with Agreement Certificate. AAV's must not be fitted externally.

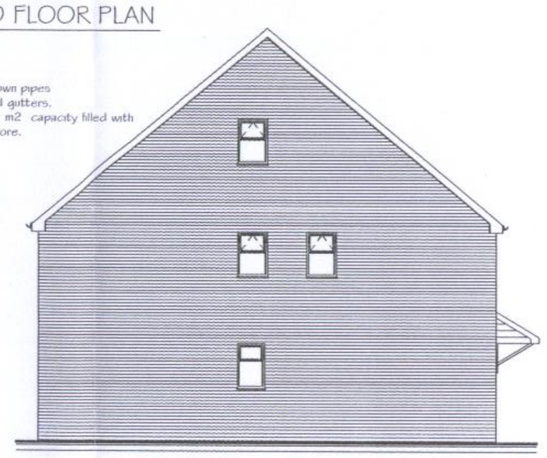
RW GOODS
63 mm diameter circular down pipes
100 mm diameter half round gutters.
Soakaways to be at least 2 m2 capacity filled with graded broken brick hard-core.

FINISHINGS
Provide two coat plaster or 12.7 plasterboard on dabs to walls and provide 12.7 plasterboard and skim to stud walls and ceilings.

SKIRTING BOARDS
Provide softwood moulded skirtings.

ARCHITRAVES
To match skirting boards.

PROPOSED SIDE ELEVATION FACING PLOT 6



PROPOSED SIDE ELEVATION FACING PLOT 4

STAIRCASES
Timber staircase to BS 585 Part 1:1 1989 and Approved Document 'K' of the Building Regulations.
Stairs to be be maximum 42 degrees with a maximum rise of 220 mm and minimum going of 220 mm. A guarding of 900 mm Min above pitch and landings to be provided to stairs and to any drop of more than 600 mm. Openings in balustrades not to exceed 100 mm and to be vertical spindles. Door swings shall not obstruct bottom of flights within 400 mm for full width of flight. Finished minimum clear 20000 mm headroom is to be achieved vertically for the pitch line.rom building. Soakaways to be at least 2 m2 capacity filled with graded broken brick hard-core.

STRUTTING
150 x 38 (200 mm deep joist) softwood solid strutting fixed, 1 row, mid span for joist spans of 2.5 - 4.5 metres, and 2 rows, at equal spacing over 4.5 metres span. Strutting shall be blocked to wall at ends. All in accordance with NHBC requirements

NOTCHING
All notching and drilling of joists to accommodate services must be in accordance with NHBC requirements. Care should be taken to ensure neatness of cuts.

LATERAL RESTRAINT
Joists running parallel to external walls to be restrained by 30 x 5 galvanised Ms. straps at maximum 2000 mm c/c fixed to 3 No. joists with solid blocking under and turned down 150 mm into cavity.

INSULATE FLOORS - FIRST FLOOR
Provide minimum 100 mm Rockwool insulation to floor void

ROOF
Prefabricated trussed rafters as specified on house type drawings and external finishes schedule designed fixed and braced in accordance with BS 5268 Part 1988 and Part 3 1985 by approved manufacturer. Trusses at 600 mm c/c MAX fixed to wall plates with framing anchors or truss clips.

Roof void ventilated to NHBC requirements by use of Glide Vale open eaves ventilator or other equal and approved. All vents to provide the equivalent of a continuous minimum 10 mm air gap together with insulation retainer to achieve adequate cross ventilation.

250 mm glass fibre quilt insulation to roof space, laid in two layers of 150 mm between truss ties and 100 mm over.

Noggins to be inserted at edges of plasterboard where ceiling member is at right angles to masonry to support ceiling finish.

LATEAL RESTRAINT & BRACING
ROOFS 30 x 5 x 1200 mm Galvanised Ms straps at maximum 200 centres fixed to 3 No. trusses at both rafter and tie levels, and turned down 150 mm into cavity with solid blocking underneath.

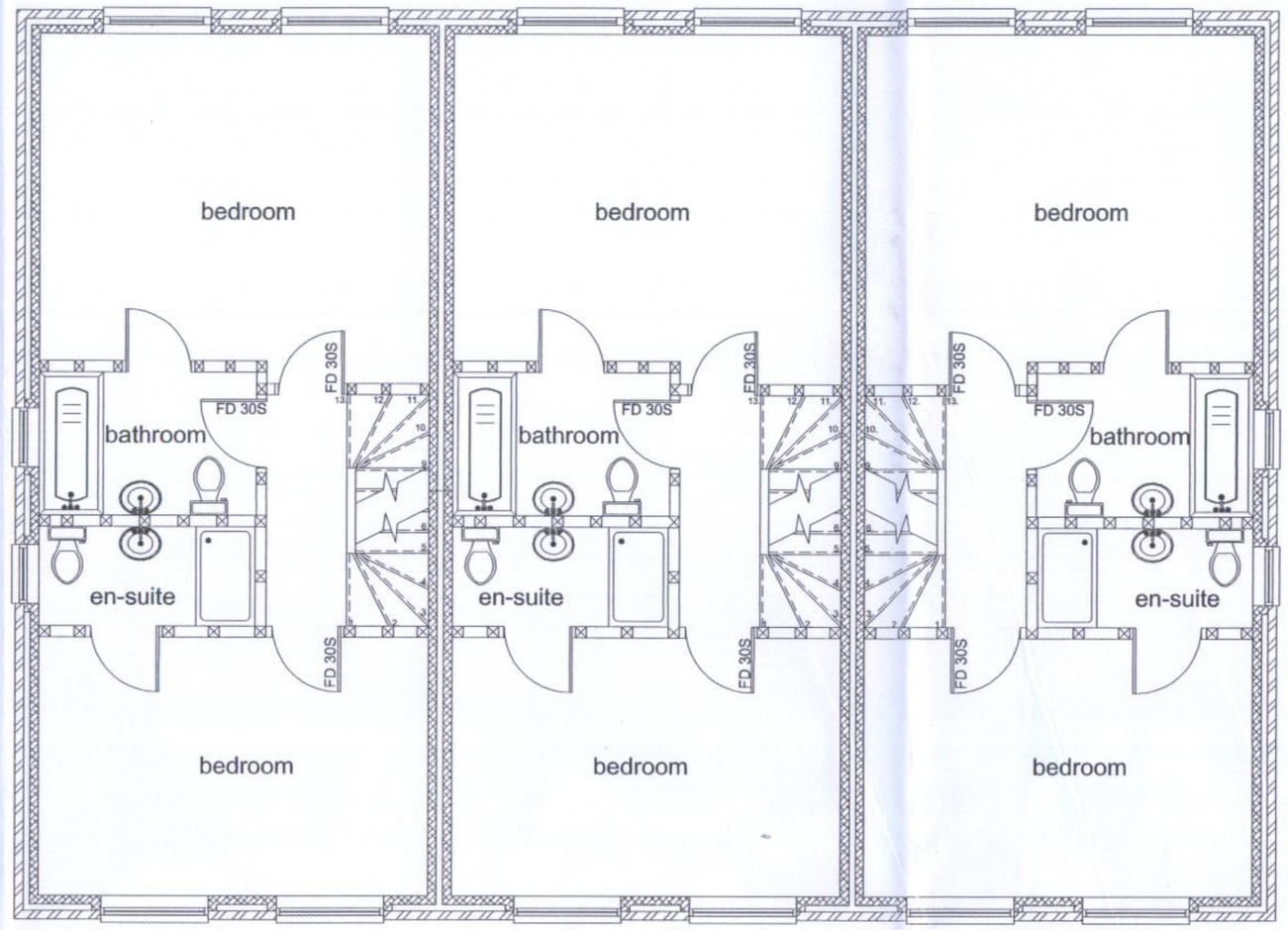
WALL PLATE 30 x 5 x 600 long galvanised MS. Straps fixed at 2000 mm maximum centres.

BRACING Horizontal and diagonal bracing of 100 x 25 mm softwood in accordance with layouts and manufacturers recommendations.

TILES
Concrete interlocking roof tiles the clients choice and to suit pitch on 38 x 25 mm treated softwood battens gauged to suit tiles on breatable sarking felt to BS 747 1977. Tiles to be nailed and fixed in accordance to manufacturers recommendations.

FLASHINGS
Flashings to be in Code 4 lead and soakers in code 3 175 deep 3 ...lead. All leadwork to comply with BS1162 1982 and in accordance with the Lead Development Associations guide for good practice - LEAD SHEET IN BUILDING.

CEILINGS
Generally all ceilings to be 12.5 mm Gyproc Wallboard fixed at maximum 150 mm c/c with 40 mm galvanised nails, with taped and filled joints ready for neat Gypsum skim finish. Perimeter support battens to be provided to support all board edges, noggins to be provided to support all services as required and head rail hung of partition where running parallel to and between trusses/joists.

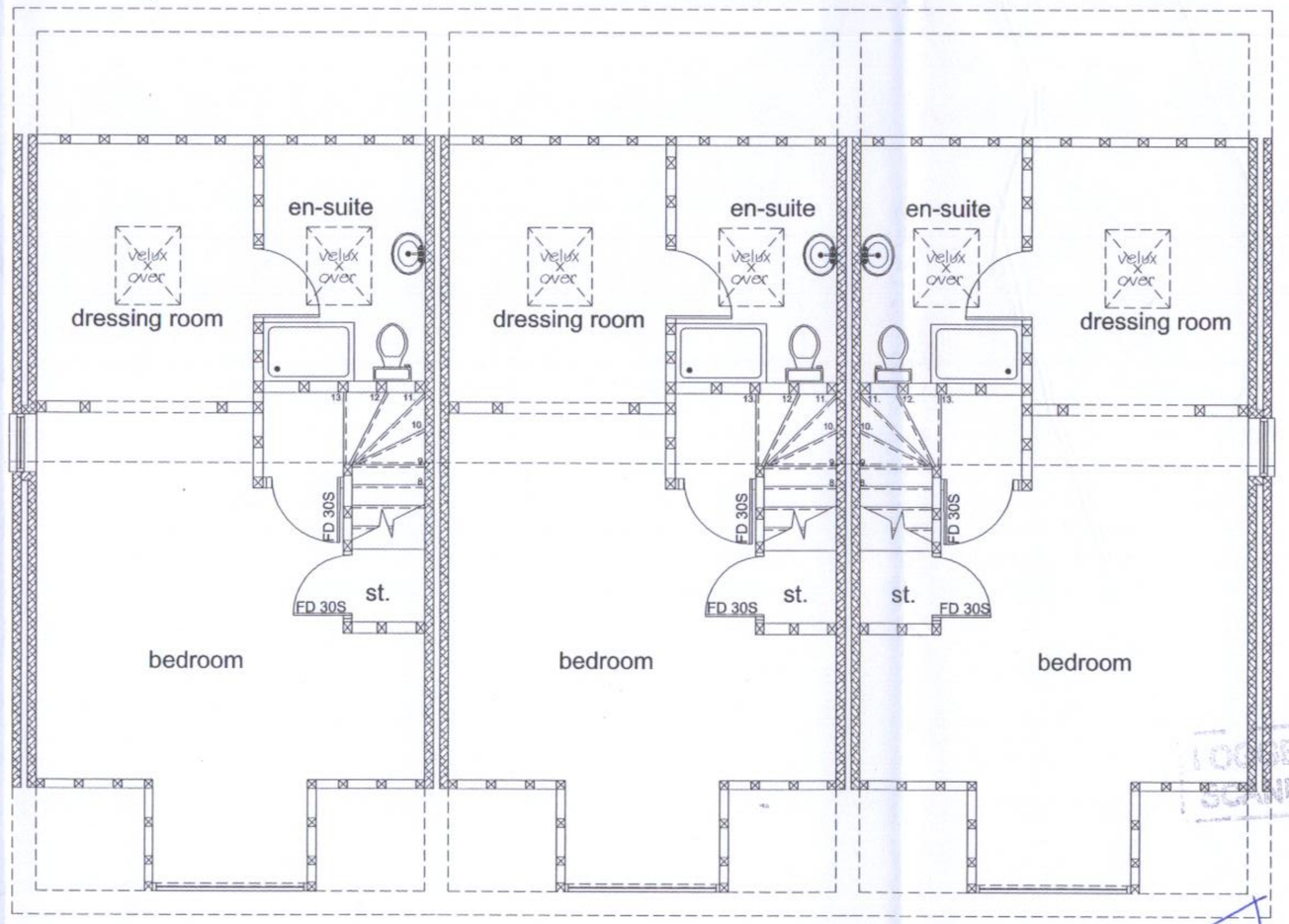


PROPOSED FIRST FLOOR PLAN

SVP
100 mm diameter to terminate with AAV or to a ridge vent at head of runs, to discharge min 900 mm above any openable window. Open SVP discharging through roofs to be fitted with protective cage to top.
Provide rodding access at ground floor level.
Internal stacks to habitable rooms to be fully ducted and insulated with access panels.
AAV's to be installed all in accordance with manufacturers requirements.

GROUND FLOOR WASTES (Normal sizes)
(Unless otherwise indicated minimum sizes shall be)
38 UPVC sink/washing machine/dishwasher to BIG SVP ruled
32 UPVC lavatory basin to BIG SVP
100 UPVC WC to manhole/SVP ext
75 deep seals traps

4/12/07



PROPOSED SECOND FLOOR PLAN

CLASS 1 I APPLIANCES (Where applicable)
Flues to Class II appliances shall have a minimum 90 mm throat and non combustible quilt insulation and vertical dpm when on external cavity wall to prevent cold bridges in p___ dge and damp penetration.
Flues to be terminated at ridge vent tile 127 mm diameter twin walled flue from terminator block above ceiling tie.
Twin walled flues in roof space shall be secured and fixed in accordance with the manufacturers specification and minimum recommended angle achieved at all times.

FIRST FLOOR WASTES (All combined wastes to be Min 50 diameter)
38 UPVC bath, shower
32 UPVC lavatory, basin
100 UPVC WC to 100 SVP
75 deep seal traps.
IRCAS
Note Wastes should not be notched through floor joists or trimmers.

COLD WATER
Wholesome supply from local company mains minimum 750 mm below finished ground level rising in building minimum 900 mm from external wall (if uninsulated) then to stopcock.
Water installation to comply with local conditions bye-laws current editions.

Note Where pipes pass through floors, voids or hollow constructions, all holes to be adequately sealed.

All dimensions and levels to be checked on site by contractor prior to commencement of work.

FOUNDATION
Type, design and construction all subject to site conditions and in accordance with Engineers recommendations.
Strip foundations shall be minimum 200 mm thick and of a minimum width as specified on the working drawings. Strip foundations shall have a minimum cover of 600 mm.
Foundations shall be taken down below the invert of any adjacent drains and suitable load bearing strata to the satisfaction of the Local Authority/NHBC.
Foundations surrounding a RC suspended ground floor slab shall have a ground bearing capacity of 100kN/m2.
Concrete grading shall be as specified by the Consulting Engineer.
Where foundations are in close proximity to both hedgerows and trees, protection of such foundations shall be provided in accordance with NHBC 'Building Near Trees' Supplement.
Where steps occur in foundations, the length of overlap is to be at least twice the rise of the step and in no case less than 300 mm. If concrete depth is 500 mm or over then minimum lap is to be 1000 mm.

BRICKWORK/BLOCKWORK BELOW DPC LEVEL
100 mm dense concrete block 7N/mm2 outer leaf.
85 mm cavity filled with weak concrete to within 225 mm below DPC
100 mm dense concrete block 7N/mm2 inner leaf
Mortar to be 1:4 frost resistant cement/sand mortar.

Note: The outer leaf to have a minimum of one course below and two courses above finished ground level to be in frost resistant brick up to DPC level.

WHERE DEEP STRIP FOUNDATIONS ARE USED PROVIDE MINIMUM OF 450 MM BETWEEN TOP OF FOUNDATION AND DPC.

Provide precast concrete lintels overall services passing through external and internal loadbearing walls below DPC level.

GROUND FLOOR
Provide 50 mm sand/cement screed laid on 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 85 mm DOW floormate insulation on 25 mm sand blinding on 150 mm well consolidated hard-core.

GARAGE FLOOR
Provide 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 25 mm sand blinding on 150 mm well consolidated hard-core.

EXTERNAL WALLS ABOVE DPC:
Load bearing brick and blockwork to have a minimum crushing strength of 5N/mm2 and 2.8 N/mm2 respectively unless otherwise specified by Consulting Engineer.
Cavity closures at reveals and jambs to be thermabate. All cavity closures at eaves, to be made with blockwork to seal cavities.
At roof abutments fit plastic cavity trays with stop ends linked with Code 4 flashing with minimum 150 mm up stands at abutment.
Mortar to be natural sand and cement 1:1/6 with bucket handle pointing.
(285 mm overall wall)
100 mm facing brickwork outer skin
85mm cavity fully filled with dri therm or Rockwool
100 mm thermal blockwork inner skin, MAX density 1350 kg/m3 at 3% moisture content. Mortar mix 1:1/6 cement/lime/sand.
9.5/12.5 plasterboard and skim on dabs with taped and filled joints.

FIRST FLOOR
DECKING 19 mm T & G flooring grade chipboard type V313 grade C4 to BS 5669: 1989, to be fixed strictly in accordance with manufacturers recommendations. All cut edges to be fully supported on solid noggins.
All floor joists to be regularised timber grade SC3/4 to BS5268 part 2 1988 use 50 x 200 at 400 mm centres. Joists to be built into gable walls and supported on hangers at party wall. Joists at right angles to party walls to be supported with proprietary Ms. Hangers, or built into walls in accordance with NHBC approval. A 25 mm minimum gap is to be maintained to wall face where joists run parallel.
Joists to be doubled up under parallel non loadbearing partitions and within bathroom areas.IRCAS
Trimmer either single section to size as indicated on working drawings or doubled joists with galvanised Ms. Proprietary hangers at junctions where application, or doubled joists bolted together with M16 bolts at 750 mm centres with 64 mm double sided toothed plate connectors. Ends to be strapped down to internal masonry with 30 x 5 galvanised Ms. Straps 1200 mm long bolted with min, 3 No M12 anchors or as Engineers requirements.
Noggins to be inserted at all edges where joists are at right angles to masonry for edge support to floor and ceiling finishes. 150 x 38 softwood noggins to be fixed below softwood partitions running at 900 to joists.

REV.	REVISION NOTE	DATE.
B	GARAGE OMITTED FROM PLOT 6	30/11/07
A	FOR COMMENT	02/07/07

CLIENT
MR A. SINGH

PROJECT
RESIDENTIAL DEVELOPMENT AT:
LAND BETWEEN 16-20 JUNCTION STREET, DUDLEY

DRAWING TITLE
PROPOSED PLOT No. 4,5 & 6

SCALE	DATE		
1:50 & 1:100	02.07.07		

DRAWING No. 0442-003 REV. B

PD7/1504

SMOKE DETECTORS
Self contained smoke alarms are to be fitted on each level to every dwelling in the circulation areas. they shall be permanently wired to a separately fused circuit in the distribution board, with a battery back-up, all in accordance with BS 5445: Part 1 and Section 1 of PART B of the Building Regulations.

T.V.
TV aerial outlets shall be installed complete with coaxial cable to loft or aerial to positions to be confirmed. But an aerial point should be allowed in each bedroom and to the living room.

COLD WATER
Wholesome supply from local company mains minimum 750 mm below finished ground level rising in building minimum 750 mm from external wall (if uninsulated) then to stopcock.
Water installation to comply with local companies bye-laws current editions.

Note Where pipes pass through floors, voids or hollow constructions all holes to be adequately sealed.

FIRESTOPPING
Cavities to be closed at eaves, verge & reveals.

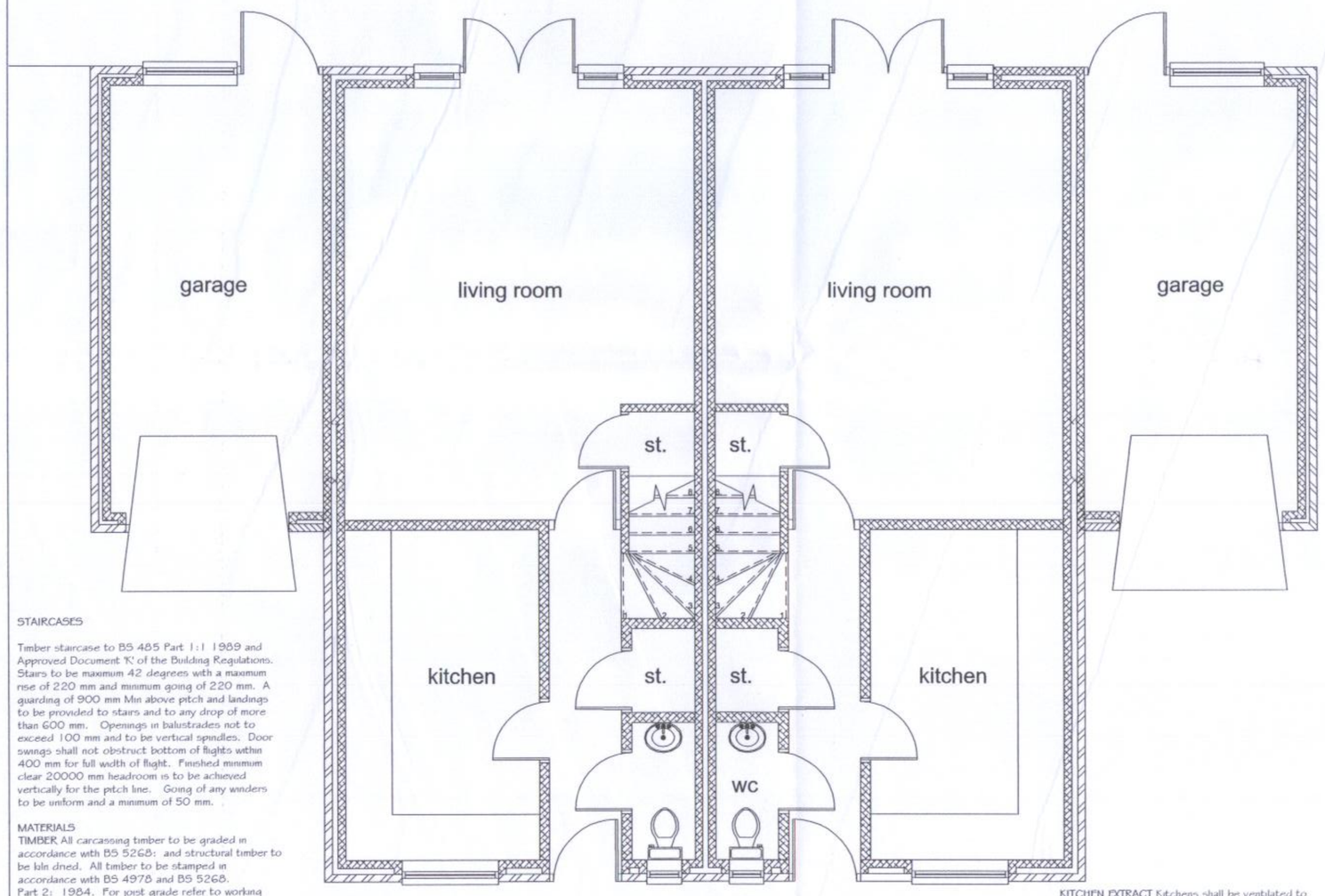
PLUMBING
Sanitary pipework to be in accordance with BS 5572: clauses 3, 4 & 7 -12.
Soil stack to be 100 mm diameter discharging via ventilation tile minimum 900 mm above highest opening light.
Soil stack (NOT at head of runs) may be terminated via AAV (air admittance valve) with Agreement Certificate. AAVs must not be fitted externally.

PLOT 7 PLOT 8

PROPOSED FRONT ELEVATION

PLOT 8 PLOT 7

PROPOSED REAR ELEVATION



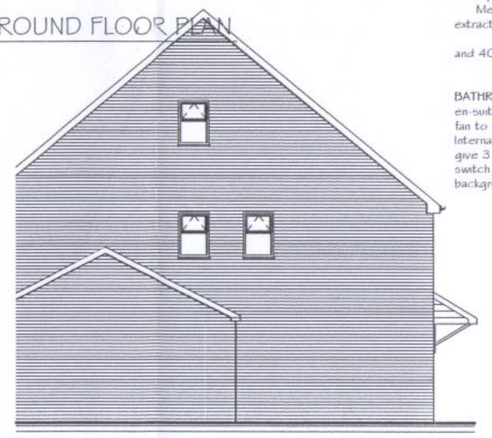
PROPOSED GROUND FLOOR PLAN

STAIRCASES

Timber staircase to BS 485 Part 1:1 1989 and Approved Document 'K' of the Building Regulations. Stairs to be maximum 42 degrees with a maximum rise of 220 mm and minimum going of 220 mm. A guarding of 900 mm Min above pitch and landings to be provided to stairs and to any drop of more than 600 mm. Openings in balustraders not to exceed 100 mm and to be vertical spindles. Door swings shall not obstruct bottom of flights within 400 mm for full width of flight. Finished minimum clear 20000 mm headroom is to be achieved vertically for the pitch line. Going of any winders to be uniform and a minimum of 50 mm.

MATERIALS
TIMBER All carcassing timber to be graded in accordance with BS 5268: and structural timber to be kiln dried. All timber to be stamped in accordance with BS 4978 and BS 5268. Part 2: 1984. For joist grade refer to working drawings. All external timber/joinery including fascias and barge boards, feature boarding, canopy support, trusses where exposed, etc to be treated with a pressure impregnated clear joinery preservative to BS 1282: 1975.
All cuts ends, joints etc. made after treatment must be flood coated with preservative on site prior to building in.
All external fittings to be non ferrous type.

PROPOSED SIDE ELEVATION FACING PLOT 8



PROPOSED SIDE ELEVATION FACING PLOT 7

LATEAL RESTRAINT & BRACING
ROOFS 30 x 5 x 1200 mm Galvanised Ms straps at maximum 200 centres fixed to 3 No. trusses at both rafter and tie levels, and turned down 150 mm into cavity with solid blocking underneath.

WALL PLATE 30 x 5 x 600 long galvanised MS. Straps fixed at 2000 mm maximum centres.

BRACING Horizontal and diagonal bracing of 100 x 25 mm softwood in accordance with layouts and manufacturers recommendations.

TILES
Concrete interlocking roof tiles the clients choice and to suit pitch on 38 x 25 mm treated softwood battens gauged to suit tiles on untearable sarking felt to BS 747 1977. Tiles to be nailed and fixed in accordance to manufacturers recommendations.

FLASHINGS
Flashings to be in Code 4 lead and soakers in code 3 175 deep 3 ... read. All leadwork to comply with BS1182 1982 and in accordance with the Lead Development Associations guide for good practice - LEAD SHEET IN BUILDING.

CEILINGS
Generally all ceilings to be 12.5 mm Gyproc Wallboard fixed at maximum 150 mm c/c with 40 mm galvanised nails, with taped and filled joints ready for neat Gypsum skim finish. Perimeter support battens to be provided to support all board edges, noggins to be provided to support all services as required and head rail fixing of partition where running parallel to and between trusses/joists.

WALL TIES
Wall ties to be galvanised mild steel to BS 1243 at 5No/m2 vertical twist type at 900 c/c horizontally, 450 c/c vertically centres for 75 mm cavities. Additional walls ties required at reveal MAX 300 mm vertical centres.
Ties to be provided with proprietary integral insulation clips where partial fill insulation is to be used, all in accordance with NHBC Technical Requirement.

LINTEL AND BEAMS
Lintels to be proprietary galvanised steel to BS 5977 1983 in external cavity wall with flexible dpm over where required by manufacturer. Minimum 150 mm end bearing to all steel lintels with stop ends provided over openings in external walls. Proble and gauge of lintels to be in accordance with manufacturers details.
Beams and padstones shall be in accordance with Consulting Engineers Specification and calculations and indicated on working drawings. Galvanised MS angles to be supplied and fitted over all meter box positions with cavity tray over.

DPC
A DPC to BS 743: 1970 or similar to be laid a minimum of 150 mm above external finished ground level on both leaves of a cavity wall and lapped a minimum of 100 mm.
Provide vertical DPC sheet backing of all meter boxes where built into external skin of brickwork.

INTERNAL LOAD BEARING WALLS
100 7.0N/mm2 concrete blocks below ground level in 1.4 cement/sand mortar. 3.5 N/mm2 concrete blocks above ground level Apply 9.5/12.5 mm plasterboard and skim dry lining to all internal block walls as required.

NON LOAD BEARING INTERNAL STUD PARTITIONS
75 x 50 mm fin studwork at 600 mm centres faced both sides with 9.5/12.5 mm plasterboard with taped and filled joints, all to be fixed as NHBC Standard. Provide sole and head plates together with noggins at mid height.

ACOUSTIC PARTITIONS
Acoustic studwork partitions to be provided between habitable rooms and WCs with 25 mm mineral wool quilt and for alternative constructions suitable to provide a min. 38dB sound reduction index over 100 - 3150 h7 range.

WINDOWS AND DOORS - externally
All new windows and doors to be uPVC with double glazed sealed units with background ventilation equivalent to a minimum of 8,000 mm2 per room with opening window for rapid ventilation. Background ventilation to be provided by ready fitted trickle vents to all window frames prior to delivery on site. Opening lights to equal 1/20th of floor area. Escape windows to be provided to first floor of at least 550 wide by 800 high, clear opening.

GLAZING
All glazing should comply with BS 6206 and part N1 of the 1991 revised Building Regulations. Provide laminated or toughened glass to windows less than 800 mm and door glazing less than 1500 above finished floor level. All new glazing to be in Pilkington K glass to cavity side of inner leaf. Glazing cavity to be 16 mm.

OBSCURE GLAZING To WCs and bathrooms approved obscure to be confirmed by client.

VENTILATION

HABITABLE ROOMS Provide background trickle ventilation to give min 8000 sw mm either by solvents within window frames or via air bricks. Vents shall be controllable.

KITCHEN EXTRACT Kitchens shall be ventilated to the external air by either :-
Mechanical extractor fan over the cooker in a hood to extract at a rate of 30 litres per second, intermittent operation.
b. Mechanical extract fan capable of extraction 60 litres per second, intermittent operation.
Mechanical extract fan with humidistat capable of extracting 30 litres per second adjacent to centreline of hob (near ceiling) and 4000 mm2 background ventilation required.

BATHROOM & WC EXTRACTS Bathrooms & en-suites shall be fitted with a mechanical extractor fan to give an extract rate of 15 litres per second. Internal WCs to have a mechanical extractor fan to give 3 air changes per hour operated by the light switch with a 15 minute overrun. Also 4000 mm2 background ventilation required..

GROUND FLOOR WASTES (Normal sizes)
(Unless otherwise indicated minimum sizes shall be)
38 UPVC sink/washing machine/dishwasher to BIG/SVP
32 UPVC lavatory basin to BIG/SVP
100 UPVC WC to manhole/SVP ext
75 deep seals traps

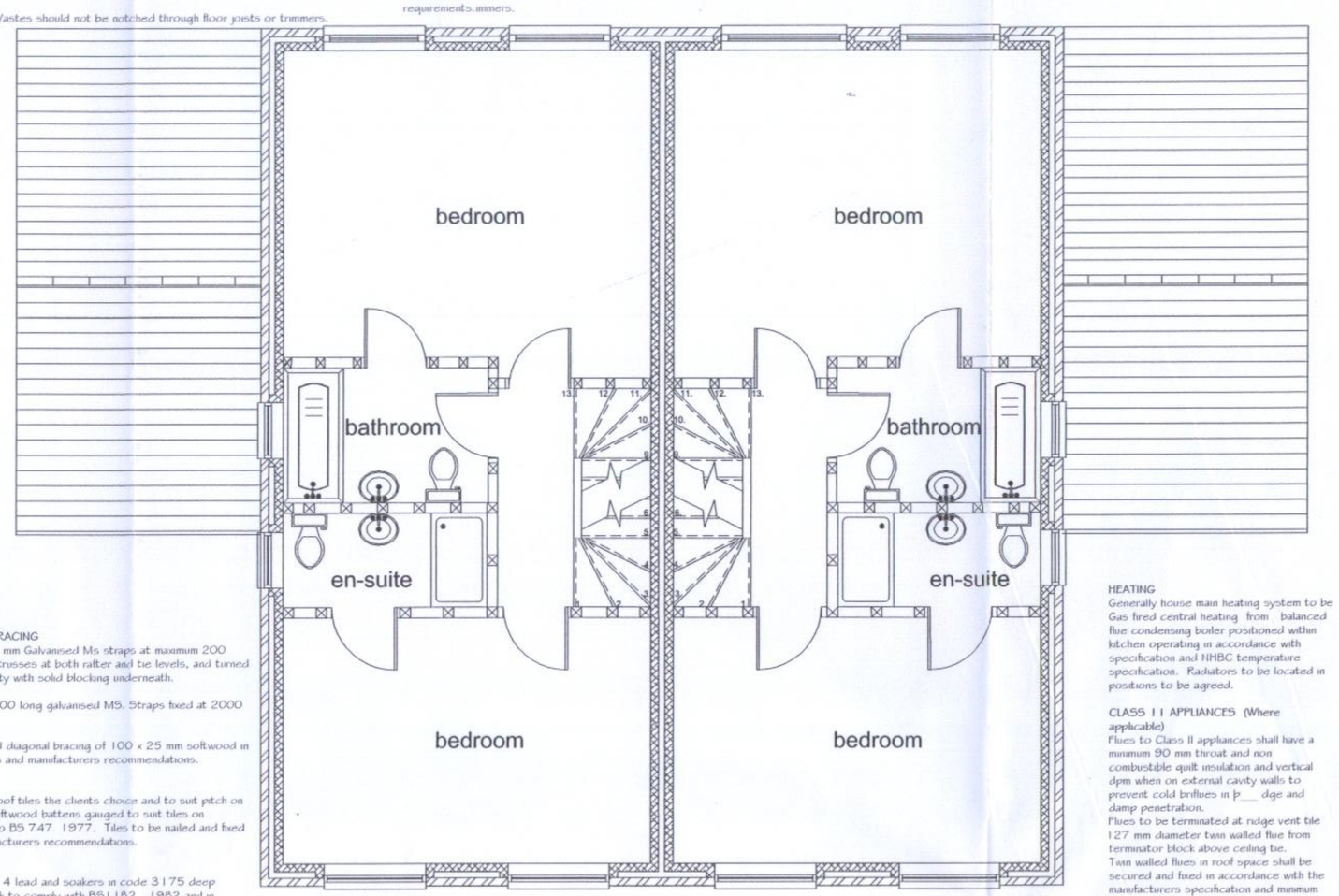
FIRST FLOOR WASTES (All combined wastes to be Min 50 diameter)
38 UPVC bath, shower
32 UPVC lavatory, basin
100 UPVC WC to 100 SVP
75 deep seal traps.

Note Wastes should not be notched through floor joists or trimmers.

RW GOODS
63 mm diameter circular down pipes
100 mm diameter half round gutters

SVP
100 mm diameter to terminate with AAV or to a ridge vent at head of runs, to discharge mm 900 mm above any openable window. Open SVP discharging through roofs to be fitted with protective cage to top.
Provide rodding access at ground floor level.
Internal ducts to habitable rooms to be fully ducted and insulated with access panels.
AAVs to be installed all in accordance with manufacturers requirements.mmers.

DRAINAGE
All underground drainage to comply with BS 8301, 1985, all drains passing under walls to be ducted with single course pre stressed lintels over. Drains to be supersieve with universal preformed manholes with cast iron covers and frames. Grade C. Drains to be laid at 1:40 connecting onto existing foul water system. Stormwater drainage as above taken to suitably constructed soakaways in rear garden at least 6 m from building. Soakaways to be at least 2 m2 capacity filled with graded broken brick hard core.



PROPOSED FIRST FLOOR PLAN

ELECTRICAL INSTALLATION
Provide electrical installation in accordance with current IEE regulations. Contractor must be NICEIC approved. Upon completion, the electrical contractor will be responsible for providing a 7671 certificate of completion/compliance to be forwarded to local authority building control, in accordance with Approved Document Part P.

HEATING
Generally house main heating system to be Gas fired central heating from balanced flue condensing boiler positioned within kitchen operating in accordance with specification and NHBC temperature specification. Radiators to be located in positions to be agreed.

CLASS II APPLIANCES (Where applicable)
Flues to Class II appliances shall have a minimum 90 mm throat and non combustible quilt insulation and vertical dpm when on external cavity walls to prevent cold bridges in p___ dge and damp penetration.
Flues to be terminated at ridge vent tile 127 mm diameter twin walled flue from terminator block above ceiling tie.
Twin walled flues in roof space shall be secured and fixed in accordance with the manufacturers specification and minimum recommended angle achieved at all times.

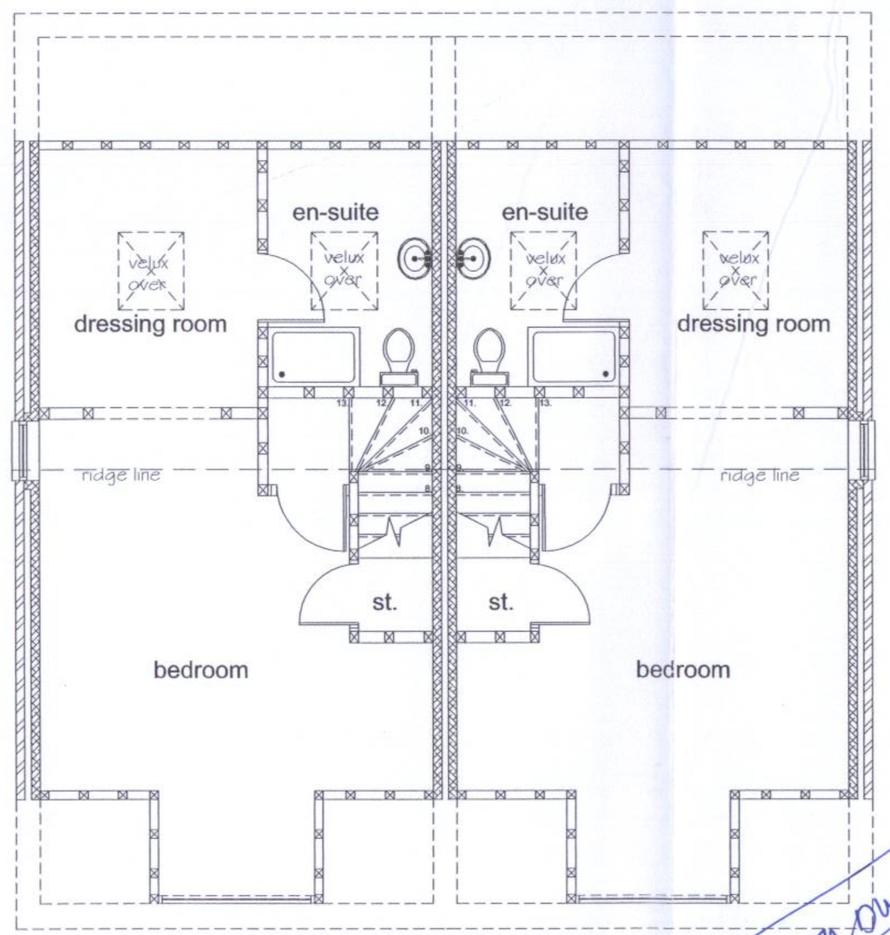
TELEPHONE
A telephone outlet shall be provided, to British Telecom approval terminated internally.

FINISHINGS
Provide two coat plaster or 12.7 plasterboard on dabs to walls and provide 12.7 plasterboard and skim to stud walls and ceilings.

SKIRTING BOARDS
Provide softwood moulded skirtings.

ARCHITRAVES
To match skirting boards.

4/12/07



PROPOSED SECOND FLOOR PLAN

LOGGED SCANNED

Amendment

P07/1504

All dimensions and levels to be checked on site by contractor prior to commencement of work.

FOUNDATION
Type, design and construction all subject to site conditions and in accordance with Engineers recommendations.
Strip foundations shall be minimum 200 mm thick and of a minimum width as specified on the working drawings. Strip foundations shall have a minimum cover of 600 mm.
Foundations shall be taken down below the invert of any adjacent drains and suitable load bearing strata to the satisfaction of the Local Authority/NHBC.
Foundations surrounding a RC suspended ground floor slab shall have a ground bearing capacity of 100kn/m2.
Concrete grading shall be as specified by the Consulting Engineer.
Where foundations are in close proximity to both hedgerows and trees, protection of such foundations shall be provided in accordance with NHBC Building Near Trees' Supplement.
Where steps occur in foundations, the length of overlap is to be at least twice the rise of the step and in no case less than 300 mm. If concrete depth is 500 mm or over then minimum lap is to be 1000 mm.

BRICKWORK/BLOCKWORK BELOW DPC LEVEL
100 mm dense concrete block 7N/mm2 outer leaf.
85 mm cavity filled with weak concrete to within 225 mm below DPC
100 mm dense concrete block 7Nmm2 inner leaf
Mortar to be 1:4 frost resistant cement/sand mortar.

Note: The outer leaf to have a minimum of one course below and two courses above finished ground level to be in frost resistant brick up to DPC level.

WHERE DEEP STRIP FOUNDATIONS ARE USED PROVIDE MINIMUM OF 450 MM BETWEEN TOP OF FOUNDATION AND DPC.

Provide precast concrete lintels overall services passing through external and internal loadbearing walls below DPC level.

GROUND FLOOR
Provide 50 mm sand/cement screed laid on 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 85 mm DOW floormate insulation on 25 mm sand blinding on 150 mm well consolidated hard-core.

GARAGE FLOOR
Provide 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 25 mm sand blinding on 150 mm well consolidated hard-core.

EXTERNAL WALLS ABOVE DPC:
Load bearing brick and blockwork to have a minimum crushing strength of 5N/mm2 and 2.8 N/mm2 respectively unless otherwise specified by Consulting Engineer.
Cavity closures at reveals and jambs to be thermabate. All cavity closures at eaves, to be made with blockwork to seal cavities.
At roof abutments lit. plastic cavity trays with stop ends linked with Code 4 flashing with minimum 150 mm up stands at abutement.
Mortar to be natural sand and cement 1:1:6 with bucket handle pointing.
(275 mm overall wall)
100 mm facing brickwork outer skin
75mm cavity fully filled with dri therm or Rockwool
100 mm thermal blockwork inner skin, MAX density 1350 kg/m3 at 3% moisture content. Mortar mix 1:1:6 cement/lime/sand.
9.5/12.5 plasterboard and skim on dabs with taped and filled joints.

FIRST FLOOR
DECKING 19 mm T & G flooring grade chipboard type V313 grade C4 to BS 5669: 1989, to be fixed strictly in accordance with manufacturers recommendations. All cut edges to be fully supported on solid noggins.
All floor joists to be regularised timber grade SC3/4 to BS5268 part 2 1988 use 50 x 200 at 400 mm centres. Joists to be built into gable walls and supported on hangers at party wall. Joists at right angles to party walls to be supported with proprietary Ms. Rangers, or built into walls in accordance with NHBC approval. A 25 mm minimum gap is to be maintained to wall face where joists run parallel. Joists to be doubled up under parallel non loadbearing partitions and within bathroom areas.
Trimmer either single section to size as indicated on working drawings or doubled joists with galvanised Ms. Proprietary hangers at junctions where application, or doubled joists bolted together with M16 bolts at 750 mm centres with 64 mm double sided toothed plate connectors. Ends to be strapped down to internal masonry with 30 x 5 galvanised Ms. Straps 1200 mm long bolted with mn, 3 No M12 anchors or as Engineers requirements.
Noggins to be inserted at all edges where joists are at right angles to masonry for edge support to floor and ceiling finishes. 150 x 38 softwood noggins to be fixed below softwood partitions running at 900 to joists.

STRUTTING
150 x 38 (200 mm deep joist) softwood solid strutting fixed, 1 row, mid span for joist spans of 2.5 - 4.5 metres, and 2 rows, at equal spacing over 4.5 metres span. Strutting shall be blocked to wall at ends. All in accordance with NHBC requirements

NOTCHING
All notching and drilling of joists to accommodate services must be in accordance with NHBC requirements Care should be taken to ensure neatness of cuts.

LATERAL RESTRAINT
Joists running parallel to external walls to be restrained by 30 x 5 galvanised Ms. straps at maximum 2000 mm c/c fixed to 3 No. joists with solid blocking under and turned down 150 mm into cavity.

INSULATE FLOORS - FIRST FLOOR
Provide minimum 100 mm Rockwool insulation to floor void

ROOF
Prefabricated trussed rafters as specified on house type drawings and external finishes schedule designed fixed and braced in accordance with BS 5268 Part 1988 and Part 3 1985 by approved manufacturer. Trusses at 600 mm c/c MAX fixed to wall plates with framing anchors or truss clips.
Roof void ventilated to NHBC requirements by use of Glide Vale open eaves ventilator or other equal and approved. All vents to provide the equivalent of a continuous minimum 10 mm air gap together with insulation retainer to achieve adequate cross ventilation.

250 mm glass fibre quilt insulation to roof space, laid in two layers of 150 mm between truss ties and 100 mm over.

Noggins to be inserted at edges of plasterboard where ceiling member is at right angles to masonry to support ceiling finish.

REV.	REVISION NOTE	DATE.
B	GARAGE SIZE INCREASED TO 6m by 3m	02/07/07
A	FOR COMMENT	02/07/07

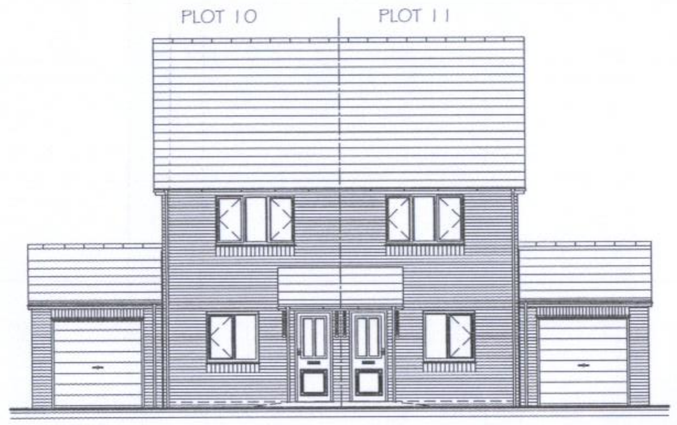
CLIENT
MR A. SINGH

PROJECT
RESIDENTIAL DEVELOPMENT AT:
LAND BETWEEN 16-20 JUNCTION STREET, DUDLEY

DRAWING TITLE
PROPOSED PLOT No. 7& 8

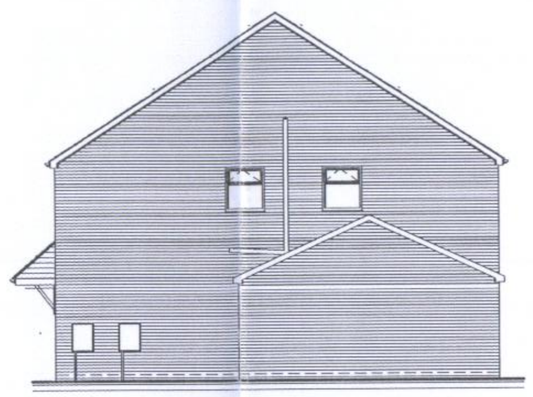
SCALE	DATE		
1:50 & 1:100	02.07.07		

DRAWING No.	REV.
0442-004	B

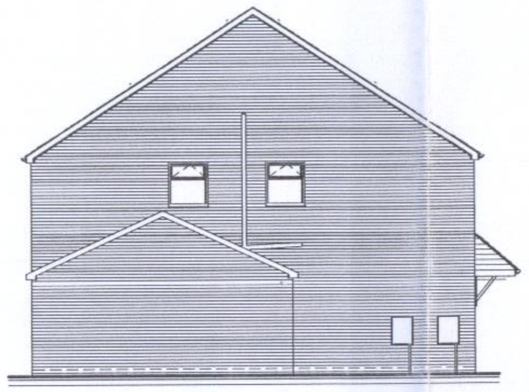


PROPOSED FRONT ELEVATION

PROPOSED REAR ELEVATION



PROPOSED SIDE ELEVATION
FACING PLOT 11



PROPOSED SIDE ELEVATION
FACING PLOT 10

GROUND FLOOR WASTES (Normal sizes)
(Unless otherwise indicated minimum sizes shall be)
38 UPVC sink/washing machine/dishwasher to BIG/SVP
32 UPVC lavatory basin to BIG/SVP
100 UPVC WC to manhole/SVP ext
75 deep seals traps

FIRST FLOOR WASTES (All combined wastes to be Min 50 diameter)
38 UPVC bath, shower
32 UPVC lavatory, basin
100 UPVC WC to 100 SVP
75 deep seal traps.

Note Wastes should not be notched through floor joists or trimmers.

RW GOODS
63 mm diameter circular down pipes
100 mm diameter half round gutters

SVP
100 mm diameter to terminate with AAV or to a ridge vent at head of runs, to discharge min 900 mm above any openable window. Open SVP discharging through roofs to be fitted with protective cage to top. Provide rodding access at ground floor level.
Internal stacks to habitable rooms to be fully ducted and insulated with access panels.
AAV's to be installed all in accordance[] with manufacturers requirements.ar

DRAINAGE
All underground drainage to comply with BS 8301, 1985, all drains passing under walls to be ducted with single coarse pre stressed lintels over. Drains to be supersleve with universal preformed manholes with cast iron covers and frames. Grade C. Drains to be laid at 1:40 connecting onto existing foul water system.
Stormwater drainage as above taken to suitably constructed soakaways in rear garden at least 6 m from building. Soakaways to be at least 2 m2 capacity filled withto the external air by either -
Mechanical extractor fan over the cooker in a hood to extract at a rate of 30 litres per second, intermittent operation.
b. Mechanical extract fan capable of extraction 60 litres per second, intermittent operation.
Mechanical extract fan with humidestat capable of extracting 30 litres per second
adjacent to centreline of hob (near ceiling) and 4000 mm2 background ventilation required.

ELECTRICAL INSTALLATION
Provide electrical installation in accordance with current IEE regulations. Contractor must be NICEIC approved. Upon completion, the electrical contractor will be responsible for providing a 7671 certificate of completion/compliance to be forwarded to local authority building control, in accordance with Approved Document Part P.

SMOKE DETECTORS
Self contained smoke alarms are to be fitted on each level to every dwelling in the circulation areas. they shall be permanently wired to a separately fused circuit in the distribution board, with a battery back-up, all in accordance with BS 5445: Part 1 and Section 1 of PART B of the Building Regulations.

T.V.
TV aerial outlets shall be installed complete with coaxial cable to loft or aerial to positions to be confirmed. But an aerial point should be allowed in each bedroom and to the living room.

TELEPHONE
A telephone outlet shall be provided, to British Telecom approval terminated internally.

FINISHINGS
Provide two coat plaster or 12.7 plasterboard on dabs to walls and provide 12.7 plasterboard and skim to stud walls and ceilings.

rSKIRTING BOARDS
Provide softwood moulded skirtings.

ARCHITRAVES
To match skirting boards.

GLAZING
All glazing should comply with BS 6206 and part N1 of the 1991 revised Building Regulations. Provide laminated or toughened glass to windows less than 800 mm and door glazing less than 1500 above finished floor level. All new glazing to be in Pilkington K glass to cavity side of inner leaf. Glazing cavity to be 16 mm.

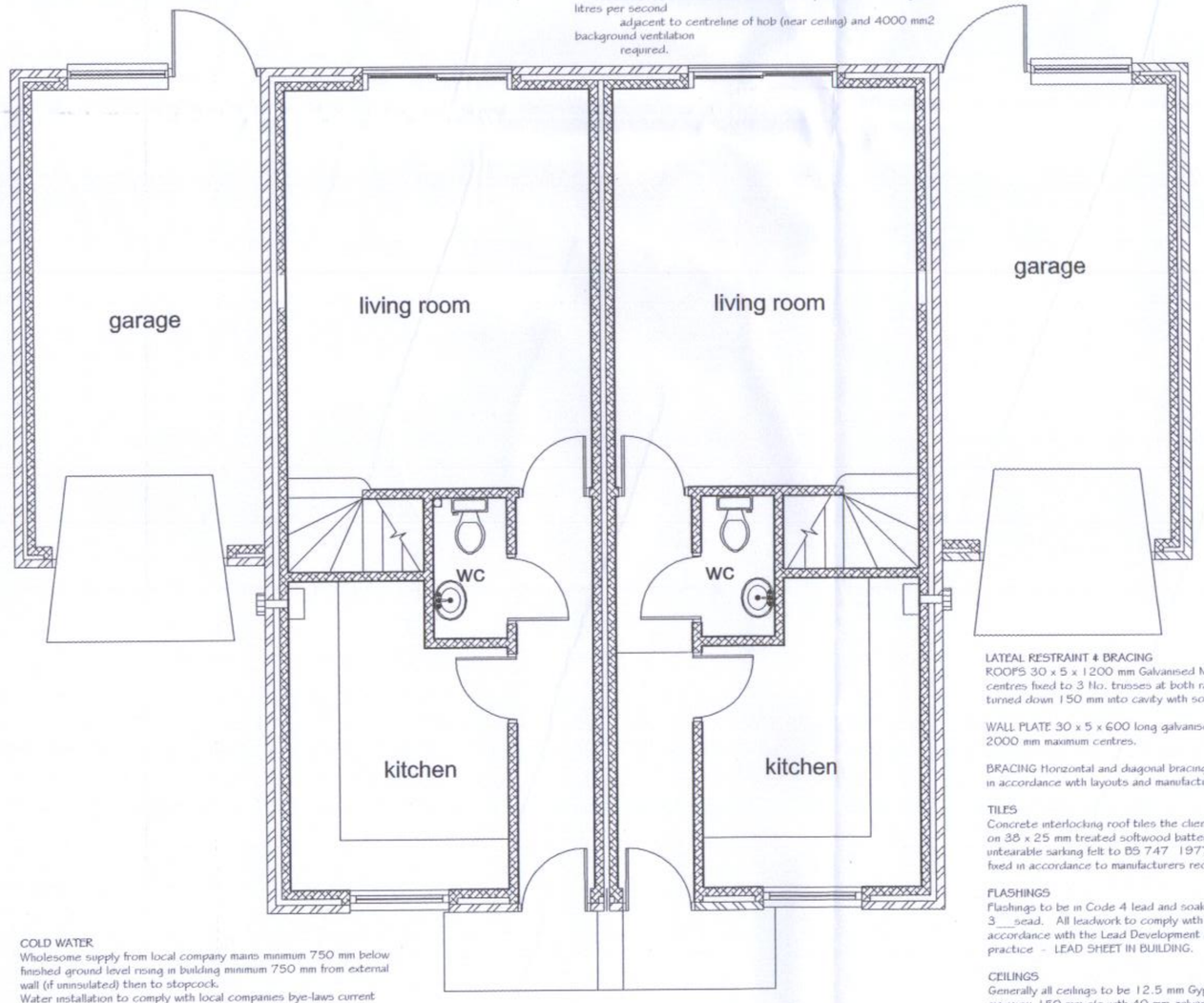
OBSCURE GLAZING To WC's and bathrooms approved obscure to be confirmed by client.

VENTILATION

HABITABLE ROOMS Provide background trickle ventilation to give min 8000 sw mm either by solvents within window frames or via air bricks. Vents shall be controllable.

HEATING
Generally house main heating system to be Gas fired central heating from balanced flue condensing boiler produced within kitchen operating in accordance with specification and NHBC temperature specification. Radiators to be located in positions to be agreed.

CLASS 11 APPLIANCES (Where applicable)
Flues to Class II appliances shall have a minimum 90 mm throat and non combustible quilt insulation and vertical dpm when on external cavity walls to prevent cold bridges in p___ dge and damp penetration.
Flues to be terminated at ridge vent tile 127 mm diameter twin walled flue from terminator block above ceiling tie.
Twin walled flues in roof space shall be secured and fixed in accordance with the manufacturers specification and minimum recommended angle achieved at all times.



PROPOSED GROUND FLOOR PLAN

COLD WATER
Wholesome supply from local company mains minimum 750 mm below finished ground level rising in building minimum 750 mm from external wall (if uninsulated) then to stopcock.
Water installation to comply with local companies bye-laws current editions.

Note Where pipes pass through floors, vouds or hollow constructions all holes to be adequately sealed.

FIRESTOPPING
Cavities to be closed at eaves, verge & reveals.

PLUMBING
Sanitary pipework to be in accordance with BS 5572: clauses 3, 4 & 7 -12.
Soil stack to be 100 mm diameter discharging via ventilation tile minimum 900 mm above highest opening light.
Soil stack (NOT at head of runs) may be terminated via AAV (air admittance valve) with Agreement Certificate. AAV's must not be fitted externally.

LINTEL AND BEAMS
Lintels to be proprietary galvanised steel to BS 5977 1983 in external cavity wall with flexible dpm over where required by manufacturer.
Minimum 150 mm end bearing to all steel lintels with stop ends provided over openings in external walls. Profile and gauge of lintels to be in accordance with manufacturers details.
Beams and padstones shall be in accordance with Consulting Engineers Specification and calculations and indicated on working drawings.
Galvanised MS angles to be supplied and fitted over all meter box positions with cavity tray over.

LATEAL RESTRAINT & BRACING
ROOFS 30 x 5 x 1200 mm Galvanised Ms straps at maximum 200 centres fixed to 3 No. trusses at both rafter and tie levels, and turned down 150 mm into cavity with solid blocking underneath.

WALL PLATE 30 x 5 x 600 long galvanised MS. Straps fixed at 2000 mm maximum centres.

BRACING Horizontal and diagonal bracing of 100 x 25 mm softwood in accordance with layouts and manufacturers recommendations.

TILES
Concrete interlocking roof tiles the clients choice and to suit pitch on 38 x 25 mm treated softwood battens gauged to suit tiles on untearable sarking felt to BS 747 1977. Tiles to be nailed and fixed in accordance to manufacturers recommendations.

FLASHINGS
Flashings to be in Code 4 lead and soakers in code 3 175 deep 3___sead. All leadwork to comply with BS1182 1982 and in accordance with the Lead Development Associations guide for good practice - LEAD SHEET IN BUILDING.

CEILINGS
Generally all ceilings to be 12.5 mm Gyproc Wallboard fixed at maximum 150 mm c/c with 40 mm galvanised nails, with taped and filled joints ready for neat Gypsum skim finish. Perimeter support battens to be provided to support all board edges, noggins to be provided to support all services as required and head rail fixing of partition where running parallel to and between trusses/joints.

WALL TIES
Wall ties to be galvanised mild steel to BS1243 at 5No/m2 vertical twist type at 900 c/c horizontally, 450 c/c vertically centres for 75 mm cavities. Additional walls ties required at reveal MAX 300 mm vertical centres.
Ties to be provided with proG[]metary integral insulation clips where partial fill insulation is to be used, all in accordance with NHBC Technical Requirement.

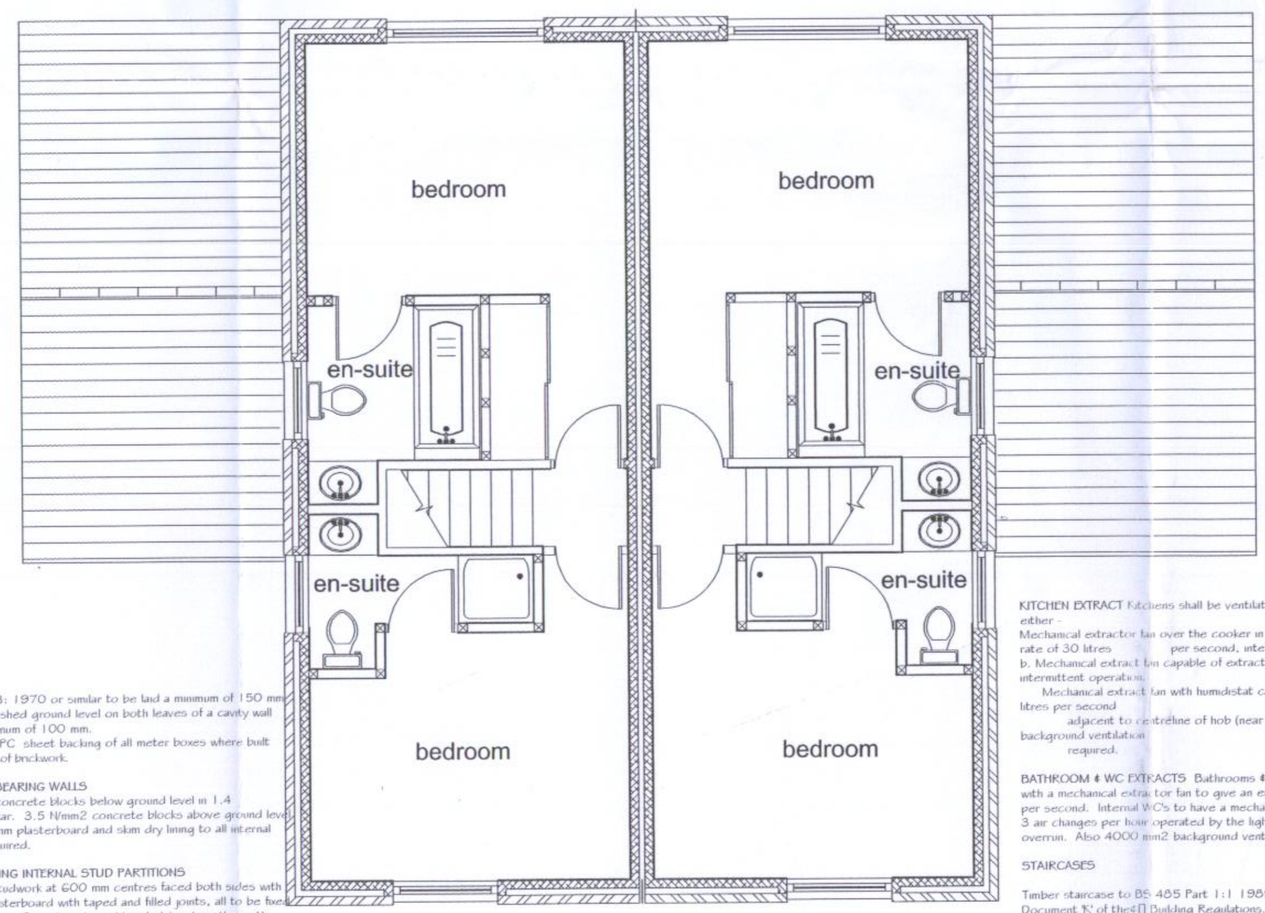
DPC
A DPC to BS 743: 1970 or similar to be laid a minimum of 150 mm above external finished ground level on both leaves of a cavity wall and lapped a minimum of 100 mm.
Provide vertical DPC sheet backing of all meter boxes where built into external skin of brickwork.

INTERNAL LOAD BEARING WALLS
100 7.0N/mm2 concrete blocks below ground level in 1.4 cement/sand mortar. 3.5 N/mm2 concrete blocks above ground level. Apply 9.5/12.5 mm plasterboard and skim dry lining to all internal block walls as required.

NON-LOAD BEARING INTERNAL STUD PARTITIONS
75 x 50 mm ht studwork at 600 mm centres faced both sides with 9.5/12.5 mm plasterboard with taped and filled joints, all to be fixed as NHBC Standard. Provide sole and head plates together with noggins at mid height.

ACOUSTIC PARTITIONS
Acoustic studwork partitions to be provided between habitable rooms and WCs with 25 mm mineral wool quilt and for alternative constructions suitable to provide a min. 38dB sound reduction index over 100 - 3150 h7 range.

WINDOWS AND DOORS - externally
All new windows and doors to be uPVC with double glazed sealed units with background ventilation equivalent to a minimum of 5,000 mm2 per room with opening window for rapid ventilation.
Background ventilation to be provided by ready fitted trickle vents to all window frames prior to delivery on site. Opening lights to equal 1/20th of floor area. Escape windows to be provided to first floor of at least 550 wide by 800 high, clear opening.



PROPOSED FIRST FLOOR PLAN

4/12/07

KITCHEN EXTRACT Kitchens shall be ventilated to the external air by either -
Mechanical extractor fan over the cooker in a hood to extract at a rate of 30 litres per second, intermittent operation.
b. Mechanical extract fan capable of extraction 60 litres per second, intermittent operation.
Mechanical extract fan with humidestat capable of extracting 30 litres per second
adjacent to centreline of hob (near ceiling) and 4000 mm2 background ventilation required.

BATHROOM & WC EXTRACTS Bathrooms & en-suites shall be fitted with a mechanical extractor fan to give an extract rate of 15 litres per second. Internal WCs to have a mechanical extractor fan to give 3 air changes per hour operated by the light switch with a 15 minute overrun. Also 4000 mm2 background ventilation required..

STAIRCASES

Timber staircase to BS 485 Part 1:1 1988 and Approved Document K of the[] Building Regulations.
Stairs to be maximum 42 degrees with a maximum rise of 220 mm and minimum going of 220 mm. A guarding of 900 mm Min above pitch and landings to be provided to stairs and to any drop of more than 600 mm. Openings in balustrades not to exceed 100 mm and to be vertical spindles. Door swings shall not obstruct bottom of flights within 400 mm for full width of flight. Finished minimum clear 2000D mm headroom is to be achieved vertically for the pitch line. Going of any winders to be uniform and a minimum of 50 mm.

TIMBER All carcassing timber to be graded in accordance with BS 5268: and structural timber to be kiln dried. All timber to be stamped in accordance with BS 4978 and BS 5268: Part 2: 1984. For joist grade refer to working drawings. All external timber/joinery including fascias and barge boards, feature boarding, canopy support, trusses where exposed, etc to be treated with a pressure impregnated clear joinery preservative to BS 1282: 1975.
All cuts ends, joint etc. made after treatment must be flood coated with preservative on site prior to building in.
All external fittings to be non ferrous type.

All dimensions and levels to be checked on site by contractor prior to commencement of work.

FOUNDATION
Type, design and construction all subject to site conditions and in accordance with Engineers recommendations.
Strip foundations shall be minimum 200 mm thick and of a minimum width as specified on the working drawings. Strip foundations shall have a minimum cover of 600 mm.
Foundations shall be taken down below the invert of any adjacent drains and suitable load bearing strata to the satisfaction of the Local Authority/NHBC.
Foundations surrounding a RC suspended ground floor slab shall have a ground bearing capacity of 100kn/m2.
Concrete grading shall be as specified by the Consulting Engineer.
Where foundations are in close proximity to both hedgerows and trees, protection of such foundations shall be provided in accordance with NHBC 'Building Near Trees' Supplement.
Where steps occur in foundations, the length of overlap is to be at least twice the rise of the step and in no case less than 300 mm. If concrete depth is 500 mm or over then minimum lap is to be 1000 mm.

BRICKWORK/BLOCKWORK BELOW DPC LEVEL
100 mm dense concrete block 7N/mm2 outer leaf.
85 mm cavity filled with weak concrete to within 225 mm below DPC
100 mm dense concrete block 7Nmm2 inner leaf
Mortar to be I:4 frost resistant cement/sand mortar.

Note: The outer leaf to have a minimum of one course below and two courses above finished ground level to be in frost resistant brick up to DPC level.

WHERE DEEP STRIP FOUNDATIONS ARE USED PROVIDE MINIMUM OF 450 MM BETWEEN TOP OF FOUNDATION AND DPC.

Provide precast concrete lintels overall services passing through external and internal loadbearing walls below DPC level.

GROUND FLOOR
Provide 50 mm sand/cement screed laid on 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 65 mm DOW floormate insulation on 25 mm sand blinding on 150 mm well consolidated hard core.

GARAGE FLOOR
Provide 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 25 mm sand blinding on 150 mm well consolidated hard core.

EXTERNAL WALLS ABOVE DPC:
Load bearing brick and blockwork to have a minimum crushing strength of 5N/mm2 and 2.8 N/mm2 respectively unless otherwise specified by Consulting Engineer.
Cavity closures at reveals and jambs to be thermabute. All cavity closures at eaves, to be made with blockwork to seal cavities.
At roof abutments fit plastic cavity trays with stop ends linked with Code 4 flashing with minimum 150 mm up stands at abutment.
Mortar to be natural sand and cement 1:1:6 with bucket handle pointing.
(275 mm overall wall)
100 mm facing brickwork outer skin
75mm cavity fully filled with dri therm or Rockwool
100 mm thermal blockwork inner skin, MAX density 1350 kg/m3 at 3% moisture content. Mortar mix 1:1:6 cement/lime/sand.
9.5/12.5 plasterboard and skim on dabs with taped and filled joints.

FIRST FLOOR
DECKING 19 mm T & G flooring grade chipboard type V313 grade C4 to BS 5669: 1989, to be fixed strictly in accordance with manufacturers recommendations. All cut edges to be fully supported on solid noggins.
All floor joists to be regularised timber grade SC3/4 to BS5268 part 2 1988 use 50 x 200 at 400 mm centres. Joists to be built into gable walls and supported on hangers at party wall. Joists at right angles to party walls to be supported with proprietary Ms. Hangers, or built into walls in accordance with NHBC approval. A 25 mm minimum gap is to be maintained to wall face where joists run parallel. Joists to be doubled up under parallel non loadbearing partitions and within bathroom areas.
Trimmer either[] single section to size as indicated on working drawings or doubled joists with galvanised Ms. Proprietary hangers at junctions where application, or doubled joists bolted together with M16 bolts at 750 mm centres with 64 mm double sided toothed plate connectors. Ends to be strapped down to internal masonry with 30 x 5 galvanised Ms. Straps 1200 mm long bolted with mm, 3 No M12 anchors or as Engineers requirements.
Noggins to be inserted at all edges where joists are at right angles to masonry for edge support to floor and ceiling finishes. 150 x 38 softwood noggins to be fixed below softwood partitions running at 900 to joists.

STRUTTING
150 x 38 (200 mm deep joist) softwood solid strutting fixed, 1 row, mid span for joist spans of 2.5 - 4.5 metres, and 2 rows, at equal spacing over 4.5 metres span. Strutting shall be blocked to wall at ends. All in accordance with NHBC requirements

NOTCHING
All notching and drilling of joists to accommodate services must be in accordance with NHBC requirements Care should be taken to ensure neatness of cuts.

LATERAL RESTRAINT
Joists running parallel to external walls to be restrained by 30 x 5 galvanised Ms. straps at maximum 2000 mm c/c fixed to 3 No. joists with solid blocking under and turned down 150 mm into cavity.

INSULATE FLOORS - FIRST FLOOR
Provide minimum 100 mm Rockwool insulation to floor void

ROOF
Prefabricated trussed rafters as specified on house type drawings and external finishes schedule designed fixed and braced in accordance with BS 5268 Part 1988 and Part 3 1985 by approved manufacturer. Trusses at 600 mm c/c MAX fixed to wall plates with framing anchors or truss clips.

Roof void ventilated to NHBC requirements by use of Glide Vale open eaves ventilator or other equal and approved. All vents to provide the equivalent of a continuous minimum 10 mm air gap together with insulation retainer to achieve adequate cross ventilation.

250 mm glass fibre quilt insulation to roof space, laid in two layers of 150 mm between truss ties and 100 mm over.

Noggins to be inserted at edges of plasterboard where ceiling member is at right angles to masonry to support ceiling finish.

REV.	REVISION NOTE	DATE.
B	GARAGE SIZE INCRESED TO 6m by 3m	30/11/07
A	FOR COMMENT	02/07/07

CLIENT
MR A. SINGH

PROJECT
RESIDENTIAL DEVELOPMENT AT:
LAND BETWEEN 16-20 JUNCTION STREET, DUDLEY

DRAWING TITLE
PROPOSED PLOT No. 10 & 11

SCALE	DATE		
1:50 & 1:100	02.07.07		

DRAWING No. 0442-006 REV. B

Approved
A07/1504

Ordnance Survey®

location Plan for 1/5a+

OS Sitemap™

Metres
0 20 40

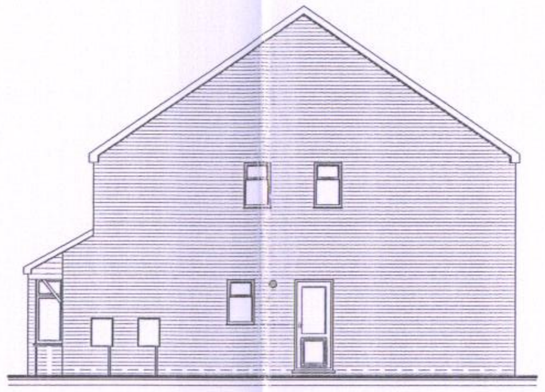
Scale 1:1250

Supplied by: **Outlet User**
Serial number: 00357800
Centre coordinates: 393783 289656

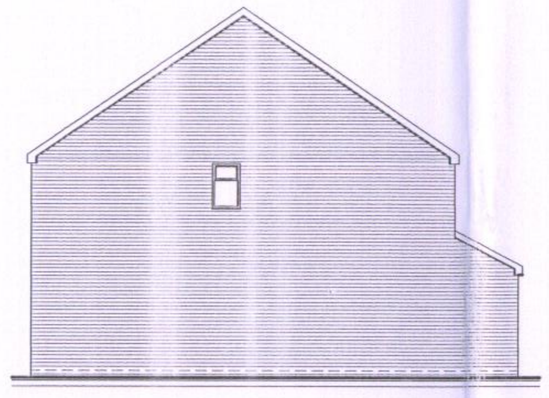
Further information can be found on the OS Sitemap Information leaflet or the Ordnance Survey web site:
www.ordnancesurvey.co.uk

PROPOSED FRONT ELEVATION

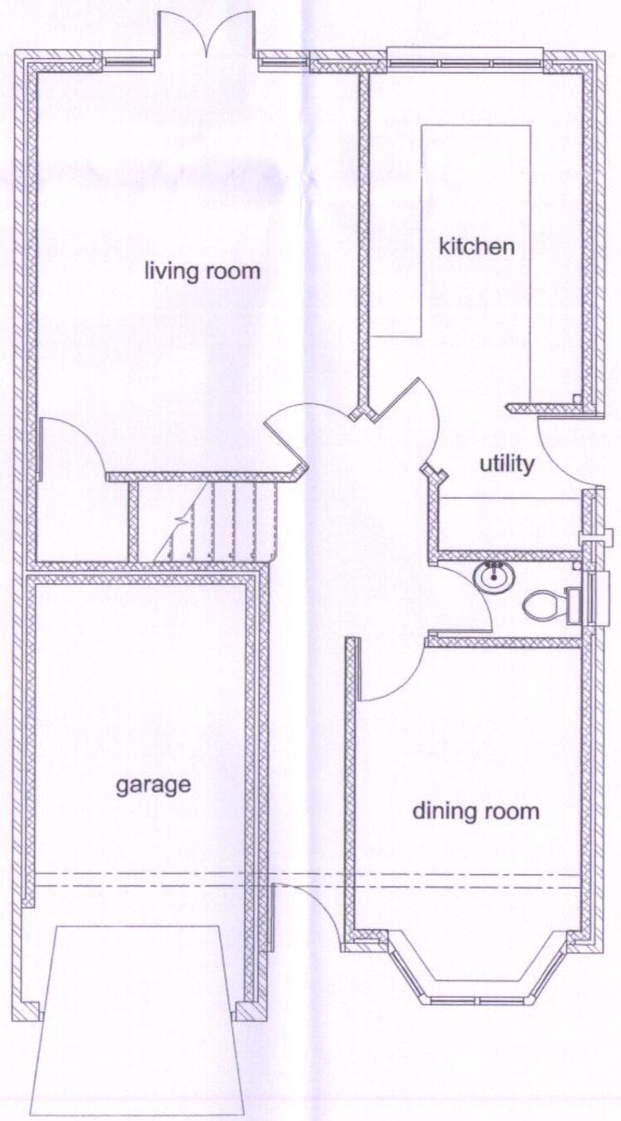
PROPOSED REAR ELEVATION



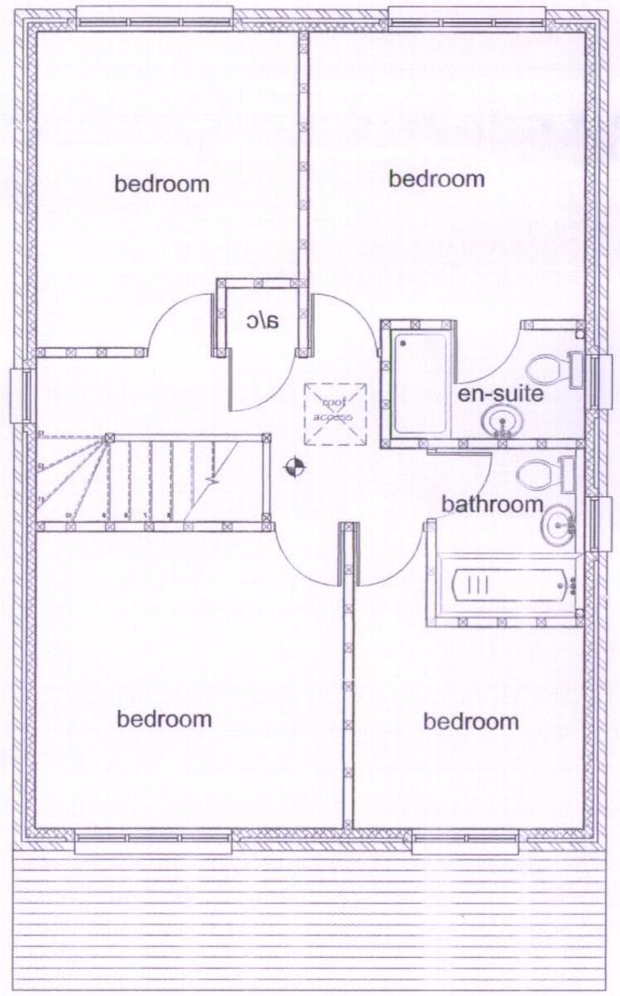
PROPOSED SIDE ELEVATION



PROPOSED SIDE ELEVATION



PROPOSED GROUND FLOOR PLAN



PROPOSED FIRST FLOOR PLAN

LATEAL RESTRAINT & BRACING
ROOFS 30 x 5 x 1200 mm Galvanised Ms straps at maximum 200 centres fixed to 3 No. trusses at both rafter and tie levels, and turned down 150 mm into cavity with solid blocking underneath.

WALL PLATE 30 x 5 x 600 long galvanised MS. Straps fixed at 2000 mm maximum centres.

BRACING Horizontal and diagonal bracing of 100 x 25 mm softwood in accordance with layouts and manufacturers recommendations.

TILES
Concrete interlocking roof tiles the clients choice and to suit pitch on 38 x 25 mm treated softwood battens gauged to suit tiles on untearable sarking felt to BS 747 1977. Tiles to be nailed and fixed in accordance to manufacturers recommendations.

FLASHINGS
Flashings to be in Code 4 lead and soakers in code 3 175 deep 3__ sead. All leadwork to comply with BS1182 1982 and in accordance with the Lead Development Associations guide for good practice - LEAD SHEET IN BUILDING.

CEILINGS
Generally all ceilings to be 12.5 mm Gyproc Wallboard fixed at maximum 150 mm c/c with 40 mm galvanised nails, with taped and filled joints ready for neat Gypsum skim finish. Perimeter support battens to be provided to support all board edges, noggins to be provided to support all services as required and head rail fixing of partition where running parallel to and between trusses/joists.

WALL TIES
Wall ties to be galvanised mild steel to BS1243 at 5No/m2 vertical twist type at 900 c/c horizontally, 450 c/c vertically centres for 75 mm cavities. Additional walls ties required at reveal MAX 300 mm vertical centres.
Ties to be provided with proprietary integral insulation clips where partial fill insulation is to be used, all in accordance with NHBC Technical Requirement.

LINTEL AND BEAMS
Lintels to be proprietary galvanised steel to BS 5977 1983 in external cavity wall with flexible dpm over where required by manufacturer. Minimum 150 mm end bearing to all steel lintels with stop ends provided over openings in external walls.
Profile and gauge of lintels to be in accordance with manufacturers details.
Beams and padstones shall be in accordance with Consulting Engineers
Specification and calculations and indicated on working drawings.
Galvanised MS angles to be supplied and fitted over all meter box positions with cavity tray over.

DPC
A DPC to BS 743: 1970 or similar to be laid a minimum of 150 mm above external finished ground level on both leaves of a cavity wall and lapped a minimum of 100 mm.
Provide vertical DPC sheet backing of all meter boxes where built into external skin of brickwork.

INTERNAL LOAD BEARING WALLS
100 7.0N/mm2 concrete blocks below ground level in 1.4 cement/sand mortar.
3.5 N/mm2 concrete blocks above ground level
Apply 9.5/12.5 mm plasterboard and skim dry lining to all internal block walls as required.

NON-LOAD BEARING INTERNAL STUD PARTITIONS
75 x 50 mm ln studwork at 600 mm centres faced both sides with 9.5/12.5 mm plasterboard with taped and filled joints, all to be fixed as NHBC Standard.
Provide sole and head plates together with noggins at mid height.

ACOUSTIC PARTITIONS
Acoustic studwork partitions to be provided between habitable rooms and WC's with 25 mm mineral wool quilt and for alternative constructions suitable to provide a min. 38dB sound reduction index over 100 - 3150 h7 range.

WINDOWS AND DOORS - externally
All new windows and doors to be uPVC with double glazed sealed units with background ventilation equivalent to a minimum of 8,000 mm2 per room with opening window for rapid ventilation. Background ventilation to be provided by ready fitted trick
BRACING Horizontal and diagonal 27 mm diameter twin walled flue from terminator block above ceiling tie.
Twin walled flues in roof space shall be secured and fixed in accordance with the manufacturers specification and minimum recommended angle achieved at all times.

COLD WATER
Wholesome supply from local company mains minimum 750 mm below finished ground level rising in building minimum 750 mm from external wall (if uninsulated) then to stopcock.
Water installation to comply with local companies b[]bracing of 100 x 25 mm softwood in accordance with layouts and manufacturers recommendations.

TILES
Concrete interlocking roof tiles the clients choice and to suit pitch on 38 x 25 mm treated softwood battens gauged to suit tiles on untearable sarking felt to BS 747 1977. Tiles to be nailed and fixed in accordance to manufacturers recommendations.

FLASHINGS
Flashings to be in Code 4 lead and soakers in code 3 1[]le vents to all window frames prior to delivery on site. Opening lights to equal 1/20th of floor area. Escape windows to be provided to first floor of at least 550 wide by 800 high, clear opening.

GLAZING
All glazing should comply with BS 6206 and part N1 of the 1991 revised Building Regulations. Provide laminated or toughened glass to windows less than 800 mm and door glazing less than 1500 above finished floor level. All new glazing to be in Pilkington K glass to cavity side of inner leaf. Glazing cavity to be 16 mm.

OBSCURE GLAZING To WC's and bathrooms approved obscure to be confirmed by client.

VENTILATION

HABITABLE ROOMS Provide background trickle ventilation to give min 8000 sw mm either by solvents within window frames or via air bricks. Vents shall be controllable.

KITCHEN EXTRACT Kitchens shall be ventilated to the external air by either :-
Mechanical extractor fan over the cooker in a hood to extract at a rate of 30 litres per second, intermittent operation.
b. Mechanical extract fan capable of extraction 60 litres per second, intermittent operation.
Mechanical extract fan with humidistat capable of extracting 30 litres per second
adjacent to centreline of hob (near ceiling) and 4000 mm2 background ventilation
required.

BATHROOM & WC EXTRACTS Bathrooms & en-suites shall be fitted with a mechanical extractor fan to give an extract rate of 15 litres per second. Internal WC's to have a mechanical extractor fan to give 3 air changes per hour operated by the light switch with a 15 minute overrun. Also 4000 mm2 background ventilation required..

STAIRCASES

Timber staircase to BS 485 Part 1:1 1989 and Approved Document 'K' of the Building Regulations.
Stairs to be maximum 42 degrees with a maximum rise of 220 mm and minimum going of 220 mm. A guarding of 900 mm Min above pitch and landings to be provided to stairs and to any drop of more than 600 mm. Openings in balustrades not to exceed 100 mm and to be vertical spindles. Door swings shall not obstruct bottom of flights within 400 mm for full width of flight. Finished minimum clear 2000O mm headroom is to be achieved vertically for the pitch line. Going of any winders to be uniform and a minimum of 50 mm.

MATERIALS

TIMBER All carcassing timber to be graded in accordance with BS 5268: and structural timber to be kiln dried. All timber to be stamped in accordance with BS 4978 and BS 5268.
Part 2: 1984. For joist grade refer to working drawings. All external timber/joinery including fascias and barge boards, feature boarding, canopy support, trusses where exposed, etc to be treated with a pressure impregnated clear joinery preservative to BS 1282: 1975.
All cuts ends, joists etc. made after treatment must be flood coated with preservative on site prior to building in.
All external fittings to be non ferrous type.

HEATING
Generally house main heating system to be Gas fired central heating from balanced flue condensing boiler positioned within kitchen operating in accordance with specification and NHBC temperature specification. Radiators to be located in positions to be agreed.

CLASS II APPLIANCES (Where applicable)
Flues to Class II appliances shall have a minimum 90 mm throat and non combustible quilt insulation and vertical dpm when on external cavity walls to prevent cold bridges in p___ dge and damp penetration.
Flues to be terminated at ridge vent tile 127 mm diameter twin walled flue from terminator block above ceiling tie.
Twin walled flues in roof space shall be secured and fixed in accordance with the manufacturers specification and minimum recommended angle achieved at all times.

COLD WATER
Wholesome supply from local company mains mmm
BRACING Horizontal and diagonal bracing of 100 x 25 mm softwood in accordance with layouts and manufacturers recommendations.

TILES
Concrete interlocking roof tiles the clients choice and to suit pitch on 38 x 25 mm treated softwood battens gauged to suit tiles on untearable sarking felt to BS 747 1977. Tiles to be nailed and fixed in accordance to manufacturers recommendations.

FLASHINGS
Flashings to be in Code 4 lead and soakers in code 3 1[]um 750 mm below finished ground level rising in building minimum 750 mm from external wall (if uninsulated) then to stopcock.
Water installation to comply with local companies bye laws current editions.

Note Where pipes pass through floors, voids or hollow constructions all holes to be adequately sealed.

FIRESTOPPING
Cavities to be closed at eaves, verge & reveals.

PLUMBING
Sanitary pipework to be in accordance with BS 5572: clauses 3, 4 & 7 -12.
Soil stack to be 100 mm diameter discharging via ventilation tile minimum 900 mm above highest opening light.
Soil stack (NOT at head of runs) may be terminated via AAV (air admittance valve) with Agreement Certificate. AAV's must not be fitted externally.

GROUND FLOOR WASTES (Normal sizes)
(Unless otherwise indicated minimum sizes shall be)
38 UPVC sink/washing machine/dishwasher to BIG/SVP
32 UPVC lavatory basin to BIG/SVP
100 UPVC WC to manhole/SVP ext
75 deep seals traps

FIRST FLOOR WASTES (All combined wastes to be Min 50 diametre)
38 UPVC bath, shower
32 UPVC lavatory, basin
100 UPVC WC to 100 SVP
75 deep seal traps.

Note Wastes should not be notched through floor joists or trimmers.

RW GOODS
63 mm diameter circular down pipes
100 mm diameter half round gutters

SVP
100 mm diameter to terminate with AAV or to a ridge vent at head of runs, to discharge min 900 mm above any openable window. Open SVP discharging through roofs to be fitted with protective cage to top. Provide rodding access at ground floor level.
Internal stacks to habitable rooms to be fully ducted and insulated with access panels.
AAV's to be installed all in accordance with manufacturers requirements.ar

DRAINAGE
All underground drainage to comply with BS 8301:, 1985, all drains passing under walls to be ducted with single course pre stressed lintels over. Drains to be supersleve with universal preformed manholes with cast iron covers and frames. Grade C. Drains to be laid at 1:40 connecting onto existing foul water system. Stormwater drainage as above taken to suitably constructed soakaways in rear gardens at least 6 m from building. Soakaways to be at least 2 m3 capacity filled with graded broken brick hard core.

ELECTRICAL INSTALLATION
Provide electrical installation in accordance with current IEE regulations.
Contractor must be NICEIC approved. Upon completion, the electrical contractor will be responsible for providing a 7671 certificate of completion/compliance to be forwarded to local authority building control, in accordance with Approved Document Part P.

SMOKE DETECTORS
Self contained smoke alarms are to be fitted on each level to every dwelling in the circulation areas. They shall be permanently wired to a separately fused circuit in the distribution board, with a battery back-up, all in accordance with BS 5445: Part 1 and Section 1 of PART B of the Building Regulations.

T.V.
TV aerial outlets shall be installed complete with coaxial cable to loft or aerial to positions to be confirmed. But an aerial point should be allowed in each bedroom and to the living room.

TELEPHONE
A telephone outlet shall be provided, to British Telecom approval terminated internally.

FINISHINGS
Provide two coat plaster or 12.7 plasterboard on dabs to walls and provide 12.7 plasterboard and skim to stud walls and ceilings.

SKIRTING BOARDS
Provide softwood moulded skirtings.

ARCHITRAVES
To match skirting boards.

All dimensions and levels to be checked on site by contractor prior to commencement of work.

FOUNDATION
Type, design and construction all subject to site conditions and in accordance with Engineers recommendations.
Strip foundations shall be minimum 200 mm thick and of a minimum width as specified on the working drawings. Strip foundations shall have a minimum cover of 600 mm.
Foundations shall be taken down below the invert of any adjacent drains and suitable load bearing strata to the satisfaction of the Local Authority/NHBC.
Foundations surrounding a RC suspended ground floor slab shall have a ground bearing capacity of 100kn/m2.
Concrete grading shall be as specified by the Consulting Engineer.
Where foundations are in close proximity to both hedgerows and trees, protection of such foundations shall be provided in accordance with NHBC 'Building Near Trees' Supplement.
Where steps occur in foundations, the length of overlap is to be at least twice the rise of the step and in no case less than 300 mm. If concrete depth is 500 mm or over then minimum lap is to be 1000 mm.

BRICKWORK/BLOCKWORK BELOW DPC LEVEL
100 mm dense concrete block 7N/mm2 outer leaf.
85 mm cavity filled with weak concrete to within 225 mm below DPC
100 mm dense concrete block 7N/mm2 inner leaf
Mortar to be 1.4 frost resistant cement/sand mortar.

Note: The outer leaf to have a minimum of one course below and two courses above finished ground level to be in frost resistant brick up to DPC level.

WHERE DEEP STRIP FOUNDATIONS ARE USED PROVIDE MINIMUM OF 450 MM BETWEEN TOP OF FOUNDATION AND DPC.

Provide precast concrete lintels overall services passing through external and internal loadbearing walls below DPC level.

GROUND FLOOR
Provide 50 mm sand/cement screed laid on 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 85 mm DOW floormate insulation on 25 mm sand blinding on 150 mm well consolidated hard-core.

GARAGE FLOOR
Provide 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 25 mm sand blinding on 150 mm well consolidated hard-core.

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Load bearing brick and blockwork to have a minimum crushing strength of 5N/mm2 and 2.8 N/mm2 respectively unless otherwise specified by Consulting Engineer.
Cavity closures at reveals and jambs to be thermabate. All cavity closures at eaves, to be made with blockwork to seal cavities.
At roof abutments lit plastic cavity trays with stop ends linked with Code 4 flashing with minimum 150 mm up stands at abutment.
Mortar to be natural sand and cement 1:1/6 with bucket handle pointing. (265 mm overall wall)
100 mm facing brickwork outer skin
85mm cavity fully filled with dri therm or Rockwool
100 mm thermal blockwork inner skin, MAX density 1350 kg/m3 at 3% moisture content. Mortar mix 1:1/6 cement/lime/sand.
9.5/12.5 plasterboard and skim on dabs with taped and filled joints.

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DECKING 19 mm T & G flooring grade chipboard type V313 grade C4 to BS 5669: 1989, to be fixed strictly in accordance with manufacturers recommendations. All cut edges to be fully supported on solid noggins.
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Twin walled flues in roof space shall be secured and fixed in accordance with the manufacturers specification and minimum recommended angle achieved at all times.

COLD WATER
Wholesome supply from local company mains minimum 750 mm below finished ground level rising in building minimum 750 mm from external wall (if uninsulated) then to stopcock.
Water installation to comply with local companies b[]
Trimmer either single section to size as indicated on working drawings or doubled joists with galvanised Ms. Proprietary hangers at junctions where application, or doubled joists bolted together with M16 bolts at 750 mm centres with 64 mm double sided toothed plate connectors. Ends to be strapped down to internal masonry with 30 x 5 galvanised Ms. Straps 1200 mm long bolted with min, 3 No M12 anchors or as Engineers requirements.
Noggins to be inserted at all edges where joists are at right angles to masonry for edge support to floor and ceiling finishes. 150 x 38 softwood noggins to be fixed below softwood partitions running at 900 to joists.

STRUTTING
150 x 38 (200 mm deep joist) softwood solid strutting fixed, 1 row, mid span for joist spans of 2.5 - 4.5 metres, and 2 rows, at equal spacing over 4.5 metres span. Strutting shall be blocked to wall at ends. All in accordance with NHBC requirements

NOTCHING
All notching and drilling of joists to accommodate services must be in accordance with NHBC requirements Care should be taken to ensure neatness of cuts.

LATERAL RESTRAINT
Joists running parallel to external walls to be restrained by 30 x 5 galvanised Ms. straps at maximum 2000 mm c/c fixed to 3 No. joists with solid blocking under and turned down 150 mm into cavity.

INSULATE FLOORS - FIRST FLOOR
Provide minimum 100 mm Rockwool insulation to floor void

ROOF
Prefabricated trussed rafters as specified on house type drawings and external finishes schedule designed fixed and braced in accordance with BS 5268 Part 1988 and Part 3 1985 by approved manufacturer. Trusses at 600 mm c/c MAX fixed to wall plates with framing anchors or truss clips.

Roof void ventilated to NHBC requirements by use of Glide Vale open eaves ventilator or other equal and approved. All vents to provide the equivalent of a continuous minimum 10 mm air gap together with insulation retainer to achieve adequate cross ventilation.

250 mm glass fibre quilt insulation to roof space, laid in two layers of 150 mm between truss ties and 100 mm over.

Noggins to be inserted at edges of plasterboard where ceiling member is at right angles to masonry to support ceiling finish.

REV.	REVISION NOTE	DATE.
A	FOR COMMENT	02/07/07

CLIENT
MR A. SINGH

PROJECT
RESIDENTIAL DEVELOPMENT AT:
LAND BETWEEN 16-20 JUNCTION STREET, DUDLEY

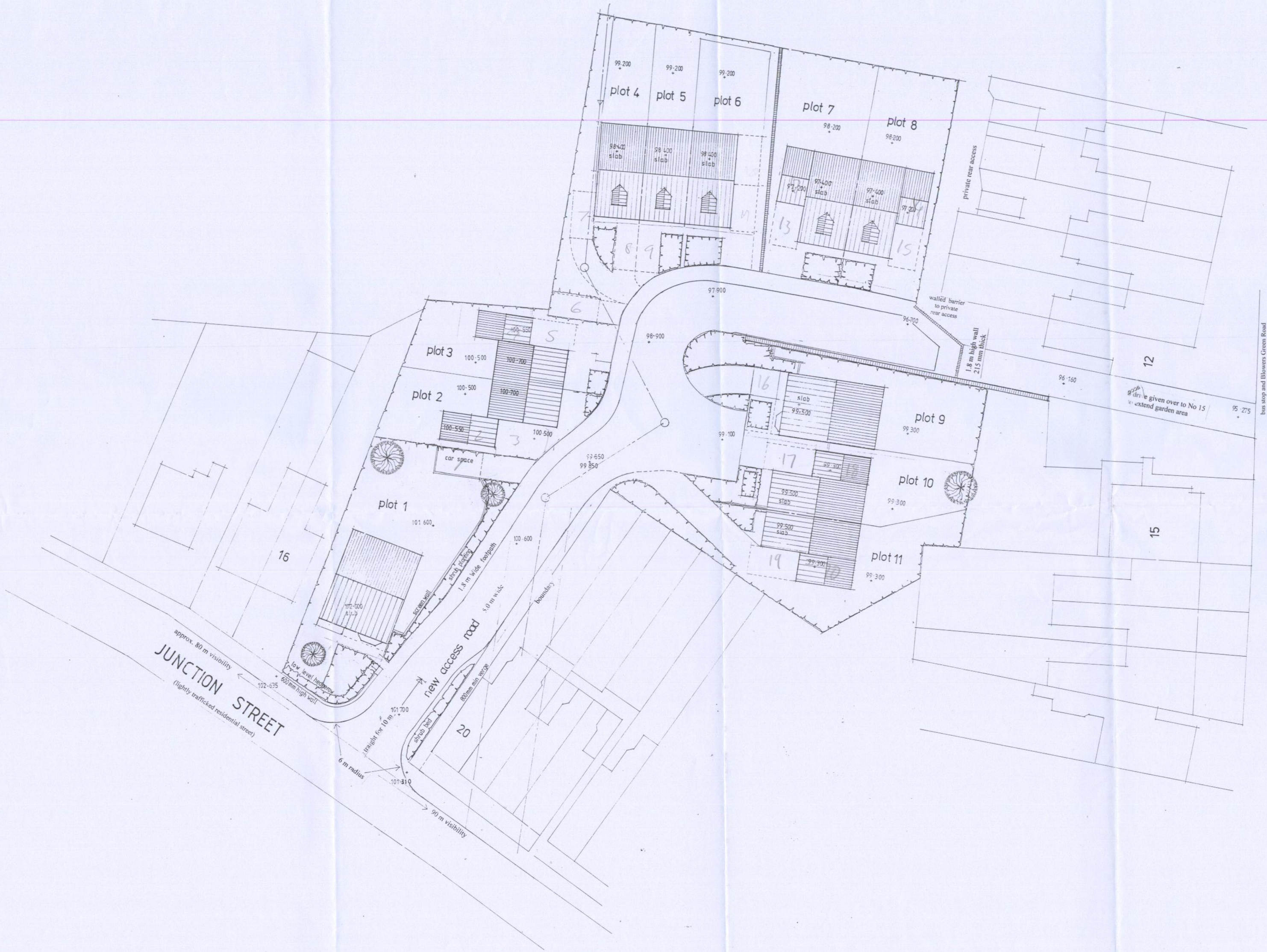
DRAWING TITLE
PROPOSED PLOT No. 9

SCALE	DATE		
1:50 & 1:100	02.07.07		

DRAWING No. 0442-005

REV. A

All dimensions and levels to be checked on site by contractor prior to commencement of work.



PROPOSED SITE PLAN

NBCD 7/2/2008

P07/1504

AMENDMENT

REV.	REVISION NOTE	DATE.
c.	Revised after Highways comments	06/12/07
b.	Revised after Plannning requirements	29/11/07
A.	FOR COMMENT	02/07/07

CLIENT
MR A. SINGH

PROJECT
RESIDENTIAL DEVELOPMENT AT:
LAND BETWEEN 16-20 JUNCTION STREET, DUDLEY

DRAWING TITLE
PROPOSED SITE PLAN

SCALE	DATE		
1:200	02.07.07		

DRAWING No. 0442-001 | REV. A

LATERAL RESTRAINT & BRACING
ROOFS 30 x 5 x 1200 mm Galvanised Ms straps at maximum 200 centres fixed to 3 No. trusses at both rafter and tie levels, and turned down 150 mm into cavity with solid blocking underneath.

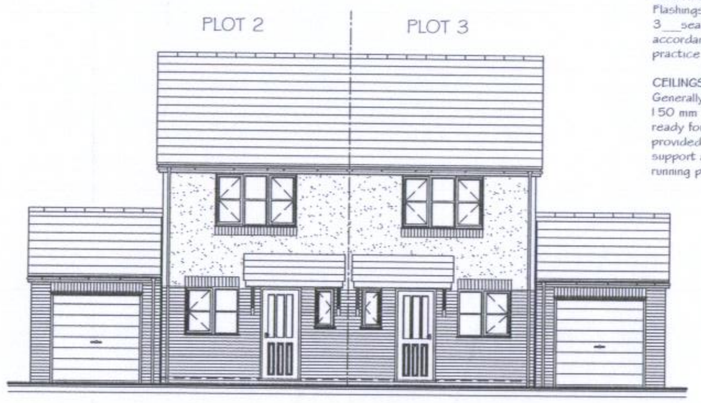
WALL PLATE 30 x 5 x 600 long galvanised MS. Straps fixed at 2000 mm maximum centres.

BRACING Horizontal and diagonal bracing of 100 x 25 mm softwood in accordance with layouts and manufacturers recommendations.

TILES
Concrete interlocking roof tiles the cheats choice and to suit pitch on 38 x 25 mm treated softwood battens gauged to suit tiles on untearable sarking felt to BS 747 1977. Tiles to be nailed and fixed in accordance to manufacturers recommendations.

FLASHINGS
Flashings to be in Code 4 lead and soakers in code 3 175 deep 3___sead. All leadwork to comply with BS1182 1982 and in accordance with the Lead Development Associations guide for good practice - LEAD SHEET IN BUILDING.

CEILINGS
Generally all ceilings to be 12.5 mm Gyproc Wallboard fixed at maximum 150 mm c/c with 40 mm galvanised nails, with taped and filled joints ready for neat Gypsum skim finish. Perimeter support battens to be provided to support all board edges, noggans to be provided to support all services as required and head rail hung of partition where running parallel to and between trusses/joints.



PROPOSED FRONT ELEVATION

WALL TIES
Wall ties to be galvanised mild steel to BS1243 at 5No/m2 vertical twist type at 900 c/c horizontally, 450 c/c vertically centres for 75 mm cavities. Additional walls ties required at reveal MAX 300 mm vertical centres.
Ties to be provided with proprietary integral insulation clips where partial fill insulation is to be used, all in accordance with NHBC Technical Requirement.

LINTEL AND BEAMS
Lintels to be proprietary galvanised steel to BS 5977 1983 in external cavity wall with flexible dpm over where required by manufacturer. Minimum 150 mm end bearing to all steel lintels with stop ends provided over openings in external walls. Profile and gauge of lintels to be in accordance with manufacturers details.
Beams and padstones shall be in accordance with Consulting Engineers Specification and calculations and indicated on working drawings.
Galvanised MS angles to be supplied and fitted over all meter box positions with cavity tray over.

PROPOSED REAR ELEVATION

DPC
A DPC to BS 743: 1970 or similar to be laid a minimum of 150 mm above external finished ground level on both leaves of a cavity wall and lapped a minimum of 100 mm.
Provide vertical DPC sheet backing of all meter boxes where built into external skin of brickwork.

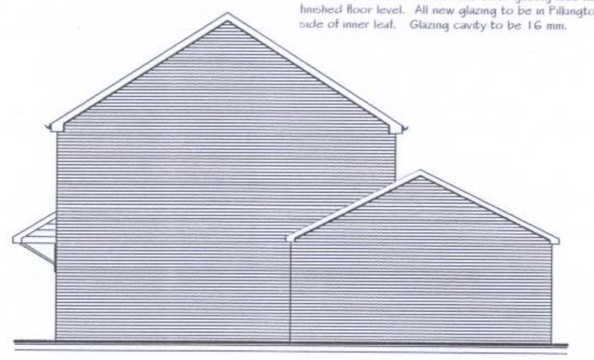
INTERNAL LOAD BEARING WALLS
100 7.0N/mm2 concrete blocks below ground level in 1.4 cement/sand mortar. 3.5 N/mm2 concrete blocks above ground level
Apply 9.5/12.5 mm plasterboard and skim dry lining to all internal block walls as required.

NON LOAD BEARING INTERNAL STUD PARTITIONS
75 x 50 mm ha studwork at 600 mm centres faced both sides with 9.5/12.5 mm plasterboard with taped and filled joints, all to be fixed as NHBC Standard. Provide sole and head plates together with noggins at mid height.

ACOUSTIC PARTITIONS
Acoustic studwork partitions to be provided between habitable rooms and WCs with 25 mm mineral wool quilt and for alternative constructions suitable to provide a min. 35dB sound reduction index over 100 - 3150 h7 range.

WINDOWS AND DOORS - externally
All new windows and doors to be uPVC with double glazed sealed units with background ventilation equivalent to a minimum of 8,000 mm2 per room with opening window for rapid ventilation. Background ventilation to be provided by ready fitted trickle vents to all window frames prior to delivery on site. Opening lights to equal 1/20th of floor area. Escape windows to be provided to first floor of at least 550 wide by 800 high, clear opening.

GLAZING
All glazing should comply with BS 6206 and part N1 of the 1991 revised Building Regulations. Provide laminated or toughened glass to windows less than 800 mm and door glazing less than 1500 above finished floor level. All new glazing to be in Pilington K glass to cavity side of inner leaf. Glazing cavity to be 16 mm.



PROPOSED SIDE ELEVATION
FACING PLOT 3

OBSCURE GLAZING To WC's and bathrooms approved obscure to be confirmed by client.

VENTILATION

HABITABLE ROOMS Provide background trickle ventilation to give min 5000 sw mm either by solvents within window frames or via air bricks. Vents shall be controllable.

KITCHEN EXTRACT Kitchens shall be ventilated to the external air by either -
Mechanical extractor fan over the cooker in a hood to extract at a rate of 30 litres per second, intermittent operation.
b. Mechanical extract fan capable of extraction 60 litres per second, intermittent operation.
c. Mechanical extract fan with humidestat capable of extracting 30 litres per second
adjacent to centreline of hob (near ceiling) and 4000 mm2 background ventilation required.

BATHROOM & WC EXTRACTS Bathrooms & en-suites shall be fitted with a mechanical extractor fan to give an extract rate of 15 litres per second. Internal WC's to have a mechanical extractor fan to give 3 air changes per hour operated by the light switch with a 15 minute overrun. Also 4000 mm2 background ventilation required..

STAIRCASES

Timber staircase to BS 485 Part 1:1 1969 and Approved Document K of the Building Regulations.
Stairs to be maximum 42 degrees with a maximum rise of 220 mm and minimum going of 220 mm. A guarding of 900 mm Min above pitch and landings to be provided to stairs and to any drop of more than 600 mm. Openings in balustrades not to exceed 100 mm and to be vertical spindles. Door swings shall not obstruct bottom of flights within 400 mm for full width of flight. Finished minimum clear 2000 mm headroom is to be achieved vertically for the pitch line. Going of any winders to be uniform and a minimum of 50 mm.

MATERIALS

TIMBER All carcassing timber to be graded in accordance with BS 5268: and structural timber to be kiln dried. All timber to be stamped in accordance with BS 4978 and BS 5268 Part 2: 1984. For joist grade refer to working drawings. All external timber/joinery including fascias and barge boards, feature boarding, canopy support, trusses where exposed, etc to be treated with a pressure impregnated clear joinery preservative to BS 1282: 1975. All cuts ends, joints etc. made after treatment must be flood coated with preservative on site prior to building in.
All external fittings to be non ferrous type.

HEATING
Generally house main heating system to be Gas fired central heating from balanced flue condensing boiler positioned within kitchen operating in accordance with specification and NHBC temperature specification. Radiators to be located in positions to be agreed.

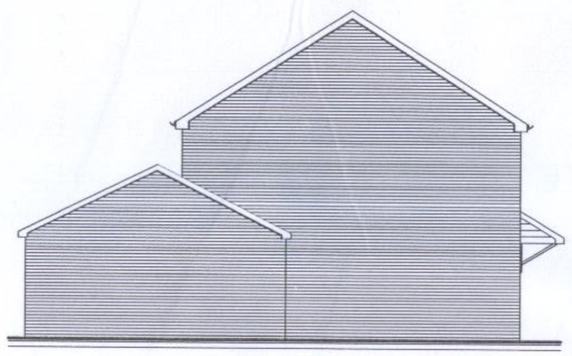
CLASS II APPLIANCES (Where applicable)
Flues to Class II appliances shall have a minimum 90 mm throat and non combustible quilt insulation and vertical dpm when on external cavity walls to prevent cold bridges in p_ _ age and damp penetration.
Flues to be terminated at ridge vent tile 127 mm diameter twin walled flue from terminator block above ceiling tie.
Twin walled flues in roof space shall be secured and fixed in accordance with the manufacturers specification and minimum recommended angle achieved at all times.

COLD WATER
Wholesome supply from local company mains minimum 750 mm below finished ground level rising in building minimum 750 mm from external wall (if uninsulated) then to stopcock.
Water installation to comply with local companies bye-laws current edditions.

Note Where pipes pass through floors, voids or hollow constructions all holes to be adequately sealed.

FIRESTOPPING
Cavities to be closed at eaves, verge & reveals.

PLUMBING
Sanitary pipework to be in accordance with BS 5572: clauses 3, 4 & 7.12.
Soil stack to be 100 mm diameter discharging via ventilation tile minimum 900 mm above highest opening light.
Soil stack (NOT at head of runs) may be terminated via AAV (air admittance valve) with Agreement Certificate. AAV's must not be fitted externally.



PROPOSED SIDE ELEVATION
FACING PLOT 2

ELECTRICAL INSTALLATION
Provide electrical installation in accordance with current IEE regulations. Contractor must be NICEIC approved. Upon completion, the electrical contractor will be responsible for providing a 7671 certificate of completion/compliance to be forwarded to local authority building control, in accordance with Approved Document Part P.

SMOKE DETECTORS
Self contained smoke alarms are to be fitted on each level to every dwelling in the circulation areas. they shall be permanently wired to a separately fused circuit in the distribution board, with a battery back-up, all in accordance with BS 5445: Part 1 and Section 1 of PART B of the Building Regulations.

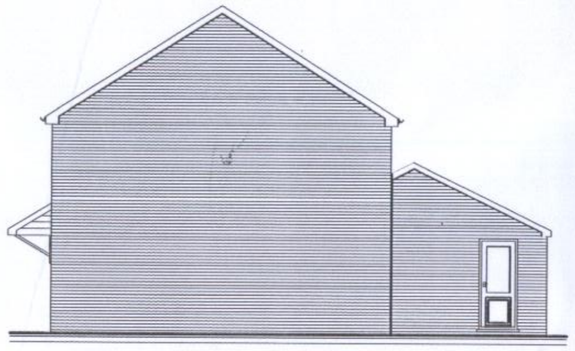
T.V.
TV aerial outlets shall be installed complete with coaxial cable to loft or aerial to positions to be confirmed. But an aerial point should be allowed in each bedroom and to the living room.

TELEPHONE
A telephone outlet shall be provided, to British Telecom approval terminated internally.

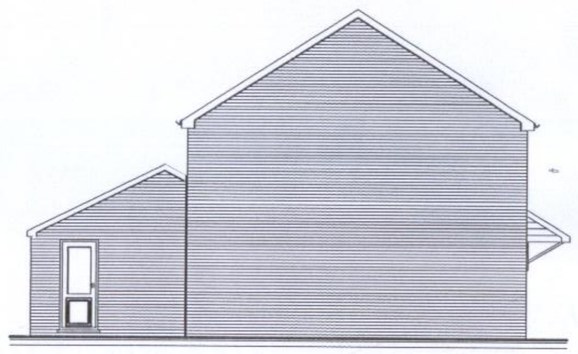
FINISHINGS
Provide two coat plaster or 12.7 plasterboard on dabs to walls and provide 12.7 plasterboard and skim to stud walls and ceilings.

SKIRTING BOARDS
Provide softwood moulded skirtings.

ARCHITRAVES
To match skirting boards.



PROPOSED SIDE INTENAL ELEVATION
FACING PLOT 2



PROPOSED SIDE INTENAL ELEVATION
FACING PLOT 3

FOUNDATION
Type, design and construction all subject to site conditions and in accordance with Engineers recommendations.
Strip foundations shall be minimum 200 mm thick and of a minimum width as specified on the working drawings. Strip foundations shall have a minimum cover of 600 mm.
Foundations shall be taken down below the invert of any adjacent drains and suitable load bearing strata to the satisfaction of the Local Authority/NHBC.
Foundations surrounding a RC suspended ground floor slab shall have a ground bearing capacity of 100kn/m2.
Concrete grading shall be as specified by the Consulting Engineer.
Where foundations are in close proximity to both hedgerows and trees, protection of such foundations shall be provided in accordance with NHBC 'Building Near Trees' Supplement.
Where steps occur in foundations, the length of overlap is to be at least twice the rise of the step and in no case less than 300 mm. If concrete depth is 500 mm or over then minimum lap is to be 1000 mm.

BRICKWORK/BLOCKWORK BELOW DPC LEVEL
100 mm dense concrete block 7N/mm2 outer leaf.
85 mm cavity filled with weak concrete to within 225 mm below DPC
100 mm dense concrete block 7N/mm2 inner leaf
Mortar to be 1.4 frost resistant cement/sand mortar.

Note: The outer leaf to have a minimum of one course below and two courses above finished ground level to be in frost resistant brick up to DPC level.

WHERE DEEP STRIP FOUNDATIONS ARE USED PROVIDE MINIMUM OF 450 MM BETWEEN TOP OF FOUNDATION AND DPC.

Provide precast concrete lintels overall services passing through external and internal loadbearing walls below DPC level.

GROUND FLOOR
Provide 50 mm sand/cement screed laid on 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 85 mm DOW floormate insulation on 25 mm sand blinding on 150 mm well consolidated hard-core.

GARAGE FLOOR
Provide 150 mm thick concrete sub floor on 1200 g. Visqueen dpc turned up walls and lapped into horizontal dpc on 25 mm sand blinding on 150 mm well consolidated hard-core.

EXTERNAL WALLS ABOVE DPC
Load bearing brick and blockwork to have a minimum crushing strength of 5N/mm2 and 2.8 N/mm2 respectively unless otherwise specified by Consulting Engineer.
Cavity closures at reveals and jambs to be thermabate. All cavity closures at eaves, to be made with blockwork to seal cavities.
At roof abutments fit plastic cavity trays with stop ends linked with Code 4 flashing with minimum 150 mm up stands at abutment.
Mortar to be natural sand and cement 1:1:6 with bucket handle pointing.
(265 mm overall wall)
100 mm facing brickwork outer skin
85mm cavity fully filled with dri therm or Rockwool
100 mm thermal blockwork inner skin, MAX density 1350 kg/m3 at 3% moisture content. Mortar mix 1:1:6 cement/lime/sand.
9.5/12.5 plasterboard and skim on dabs with taped and filled joints.

Where walls are to be rendered outerleaf to be constructed in dense concrete block to receive two coat render. Flat and smooth to receive paint finish

FIRST FLOOR
DECKING 19 mm T & G flooring grade chipboard type V313 grade C4 to BS 5669: 1989, to be fixed strictly in accordance with manufacturers recommendations. All cut edges to be fully supported on solid noggins.
All floor joists to be regularised timber grade SC3/4 to BS5268 part 2 1988 use 50 x 200 at 400 mm centres. Joists to be built into gable walls and supported on hangers at party wall. Joists at right angles to party walls to be supported with proprietary Ms. Hangers, or built into walls in accordance with NHBC approval. A 25 mm minimum gap is to be maintained to wall face where joists run parallel.
Joists to be doubled up under parallel non loadbearing partitions and within bathroom areas.
Trimmer either single section to size as indicated on working drawings or doubled joists with galvanised Ms. Proprietary hangers at junctions where applicable, or doubled joists bolted together with M16 bolts at 750 mm centres with 64 mm double sided toothed plate connectors. Ends to be strapped down to internal masonry with 30 x 5 galvanised Ms. Straps 1200 mm long bolted with min, 3 No M12 anchors or as Engineers requirements.
Noggins to be inserted at all edges where joists are at right angles to masonry for edge support to floor and ceiling finishes. 150 x 38 softwood noggins to be fixed below softwood partitions running at 900 to joists.

STRUTTING
150 x 38 (200 mm deep joist) softwood solid strutting fixed, 1 row, mid span for joist spans of 2.5 - 4.5 metres, and 2 rows, at equal spacing over 4.5 metres span. Strutting shall be blocked to wall at ends. All in accordance with NHBC requirements

NOTCHING
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LATERAL RESTRAINT
Joists running parallel to external walls to be restrained by 30 x 5 galvanised Ms. straps at maximum 2000 mm c/c fixed to 3 No. joists with solid blocking under and turned down 150 mm into cavity.

INSULATE FLOORS - FIRST FLOOR
Provide minimum 100 mm Rockwool insulation to floor void

ROOF
Prefabricated trussed rafters as specified on house type drawings and external finishes schedule designed fixed and braced in accordance with BS 5268 Part 1988 and Part 3 1985 by approved manufacturer. Trusses at 600 mm c/c MAX fixed to wall plates with framing anchors or truss clips.

Roof void ventilated to NHBC requirements by use of Glide Vale open eaves ventilator or other equal and approved. All vents to provide the equivalent of a continuous minimum 10 mm air gap together with insulation retainer to achieve adequate cross ventilation.

250 mm glass fibre quilt insulation to roof space, laid in two layers of 150 mm between truss ties and 100 mm over.

Noggins to be inserted at edges of plasterboard where ceiling member is at right angles to masonry to support ceiling finish.

REV.	REVISION NOTE	DATE.
B	SIZE OF GARAGE INCREASED TO 6m by 3m	30/11/07
A	FOR COMMENT	02/07/07

All dimensions and levels to be checked on site by contractor prior to commencement of work.

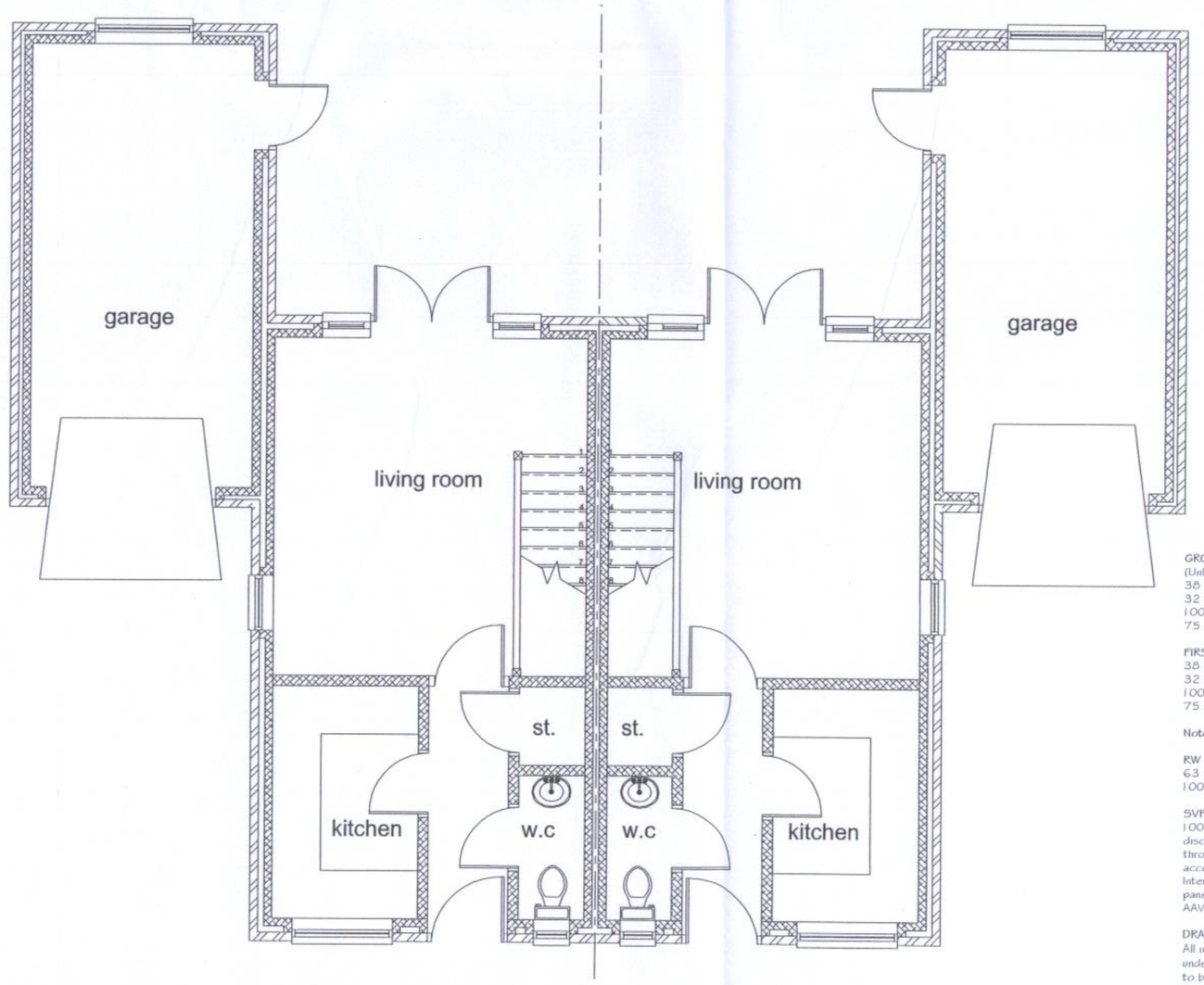
CLIENT
MR A. SINGH

PROJECT
RESIDENTIAL DEVELOPMENT AT:
LAND BETWEEN 16-20 JUNCTION STREET, DUDLEY

DRAWING TITLE
PROPOSED PLOT No. 2 & 3

SCALE	DATE		
1:50 & 1:100	02.07.07		

DRAWING No. 0442-007 REV. B



PROPOSED GROUND FLOOR PLAN

GROUND FLOOR WASTES (Normal sizes)
(Unless otherwise indicated minimum sizes shall be)
38 UPVC sink/washing machine/dishwasher to BIG/SVP
32 UPVC lavatory basin to BIG/SVP
100 UPVC WC to manhole/SVP est
75 deep seals traps

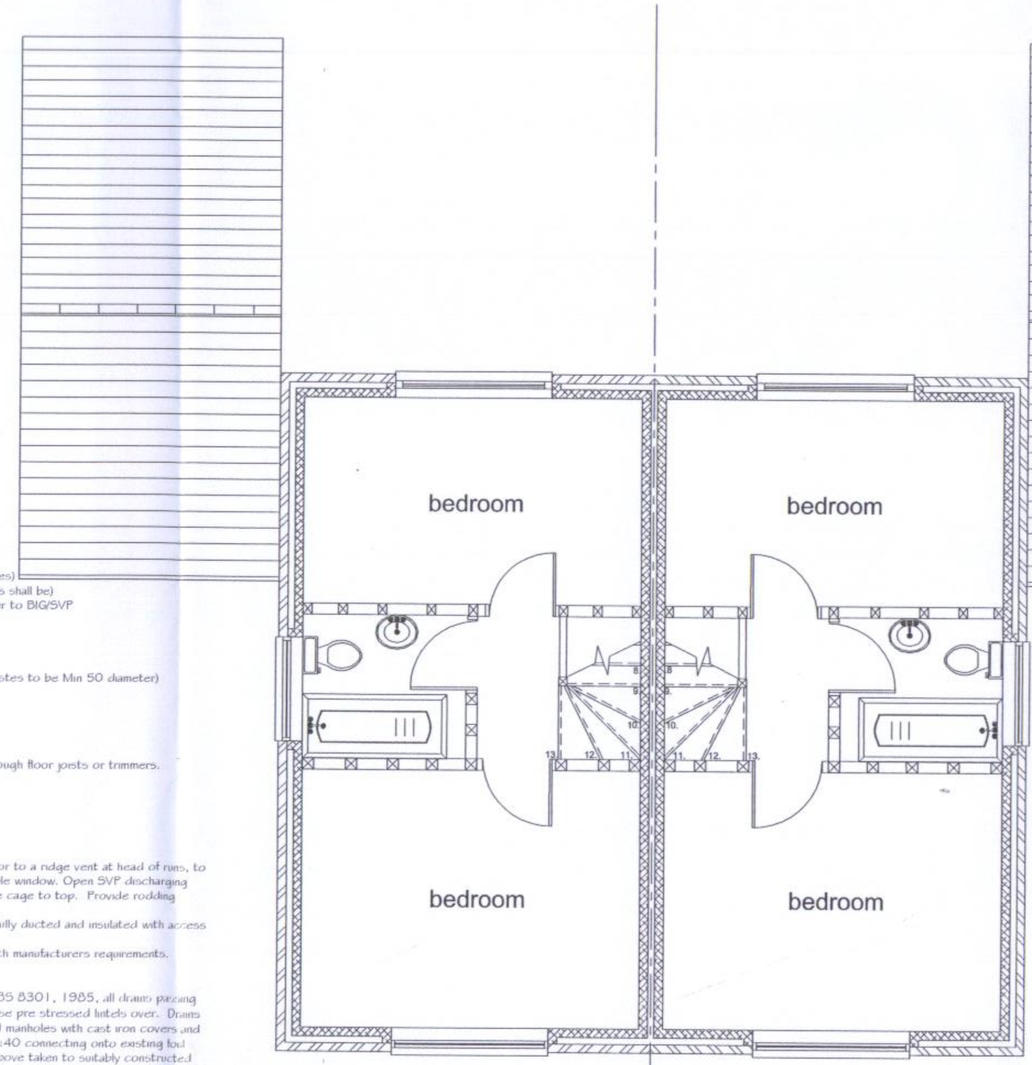
FIRST FLOOR WASTES (All combined wastes to be Min 50 diameter)
38 UPVC bath, shower
32 UPVC lavatory, basin
100 UPVC WC to 100 SVP
75 deep seal traps.

Note Wastes should not be notched through floor joists or trimmers.

RW GOODS
63 mm diameter circular down pipes
100 mm diameter half round gutters

SVP
100 mm diameter to terminate with AAV or to a ridge vent at head of runs, to discharge min 900 mm above any openable window. Open SVP discharging through roofs to be fitted with protective cage to top. Provide rodding access at ground floor level.
Internal stacks to habitable rooms to be fully ducted and insulated with access panels.
AAVs to be installed all in accordance with manufacturers requirements.

DRAINAGE
All underground drainage to comply with BS 8301, 1985, all drains passing under walls to be ducted with single course pre stressed lintels over. Drains to be supersleve with universal preformed manholes with cast iron covers and frames. Grade C. Drains to be laid at 1:40 connecting onto existing foul water system. Stormwater drainage as above taken to suitably constructed soakaways in rear garden at least 6 m from building. Soakaways to be at least 2 m2 capacity filled with graded broken brick hard-core.



PROPOSED FIRST FLOOR PLAN

6/12/07

LOGGED & SCANNED

Amendments

R07/1506