

42 NETHERHALL GARDENS, NW3

Arboriculture Reports

Modern Arboricultural Services

info@modernarb.co.uk
www.modernarb.co.uk

18/05/09

Architectural Developments and Investments Limited,
Attn: Hadi Shubber,
20 Avonmore Road,
London,
W14 8RR

Dear, Mr. Shubber,

RE: 42 Netherhall Gardens, London, NW3

Following a recent site inspection, the Beech, Cherry and Norway maple have full canopies and appear not to be impacted physiologically by the development. However, this may only become apparent after several years.

It is not clear if the trees are effected structurally but no movement of the rhizospheres or trunks was evident at the time of inspection.

Should you have any queries please, contact me on the below address.

Yours sincerely



Paul MacQueen
(NCH ARB, ND ARB)

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Modern Arboricultural Services

Arboricultural Report at 42 Netherhall Gardens, London, NW3 5RG 15/01/09
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Pre-development Arboricultural Report

Re: 42 Netherhall Gardens, London, NW3 5RG

Commissioned by: Architectural Developments and Investments Limited,
Attn: Hadi Shubber,
20 Avonmore Road,
London,
W14 8RR

Compiled by: Modern Arboricultural Services
Paul MacQueen (NCH ARB, ND ARB)

Inspection date: Thursday 15th January 2009

Arboricultural Tree Report

1. Instructions, Objectives and limitations

- 1.1 I am instructed by Hadi Shubber of Architectural Developments and Investments Limited to inspect and report on the trees liable to be effected by the resent developments at a construction site at the above address. The London Borough of Camden have express concerns (find attached letter EN09/42 Netherhall Gardens) regarding three trenches excavated within close proximity to a Beech tree within the site. The objective of the report is to advise on the potential impact of the alleged works and provide remedial measures to limit the impact of these works.
- 1.2 The inspection has been carried out from a ground level only. Should more detailed inspection be required then this will be highlighted in survey recommendations.
- 1.3 Trees are living organisms whose health and condition can change rapidly, the health and safety of trees should be checked on a regular basis, preferably at least once a year. The conclusions and recommendations in this report are only valid for one month. This period of validity may be reduced in the case of any change in conditions to or in proximity to the tree.
- 1.4 I visited the site on Tuesday 13th of January 2009. Three trees were present, a Beech, Cherry and Norway Maple.

2 Findings

- 2.1 The tree in question is a mature Beech (*Fagus sylvatica*) and stands at approximately 19m. The trunk diameter is 86cm at 1.5m. The tree is in reasonable health with a well balanced crown.
- 2.2 At the time of inspection the development to the building was near completion and garden landscape works were about to begin. No Materials or machinery were present and tree protection limited to the tree trunks.
- 2.3 Two resent excavations were present. One trench 2.5-3.5m north of the Beech trunk 30-32cm deep running parallel and one trench 3.5-4m south of the Beech trunk 20-25cm deep running parallel. Severed roots were apparent in both trenches up to 2.5cm, however several larger roots were left undisturbed and the digging appeared to be by hand within the previous two weeks.
- 2.4 The soil throughout the site appeared compacted by pedestrian movement with no indication of heavy machinery movement.

3 Conclusions

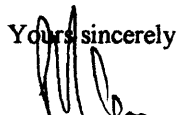
- 3.1 90% of tree roots are found in the top 1m of soil. Therefore, due to the limited depth of the excavations not all the roots could have been severed. The maturity of the tree may also mean that the rhizosphere (rooting area) has had the time to develop deeper in the soil. Direct severance to the roots within the top 20-25cm of soil south of the tree and roots within the top 30-32cm north of the tree is clear, however undisturbed roots will be present beneath the trenching.
- 3.2 The compaction through out the site will cause asphyxiation to roots by forcing out air and limiting gaseous diffusion. The soil will also become impermeable.

4 Recommendations

- 4.1 During my site inspection I pruned all severed roots with a hand saw and sagetares. I instructed the site manager to back fill the trenches immediately.
- 4.2 To alleviate the compaction and create a suitable environment for the roots of all trees to recover, I instructed Noel Brock of Frognal Gardens to organise the hire of a de-compaction machine and operator as soon as available. The de-compaction machine injects air into the soil with fertilizer and Mychorrizae spores (beneficial symbiotic fungus). These works were completed to the entire site on Thursday 15th January (find attached letter 42NG/C003) by Go-roots.
- 4.3 During Landscaping the following processes must be adhered to;
- i) No materials can be stored within 5m of the tree's bole.
Oil, bitumen, cement or other material likely to be injurious to a tree must not be stacked or discharged within 5m of the tree's bole.
 - ii) Concrete mixing must not be carried out within 5m of the tree's bole.
 - iii) It is essential that fire must not be lit beneath or within close proximity to the canopies.
 - iv) The trees must not be used as anchorage for equipment.
 - v) Care must be exercised when using cranes or similar equipment near the spread of the canopy.
 - vi) No changes to soil levels

This report is for the sole use of the above client and refers to only the trees identified within, use by any other person(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.

Yours sincerely



Paul Macqueen
(NCH ARB, ND ARB)

Pre-development Arboricultural Report

Re: 42 Netherhall Gardens, London, NW3 5RG

Commissioned by: Schneider Designers,
15 Eldon Grove,
London,
NW3 5PT

Compiled by: Modern Arboricultural Services
Paul Macqueen (NCH ARB, ND ARB)

Inspection date: Friday 17th March 2006

Pre-development Tree Report

1. Instructions, Objectives and limitations

- 1.1 I am instructed by Schneider Designers to inspect and report on the trees liable to be effected by the renovation, excavation and construction of a basement level at the above property. The objectives of the report are to advise on the current condition of the trees, identify trees for retention and limit damage to the tree/s during construction in the interests of both health and safety, and to continue to promote the visual character and amenity of the area.
- 1.2 The following report is in accordance with BS 5837:2005 Trees in Relation to Construction-Recommendations.
- 1.3 The report includes;
- i) **Tree Survey:** Including tree categorisation and identification of trees suitable for retention.
 - ii) **Tree Constraints Plan (TCP):** Showing the Root Protection Area (RPA) and representing the effect that the mature height and spread of trees suitable for retention will have on layouts through shade, dominance etc.
 - iii) **Arboricultural Implications Assessment (AIA) and Design Issues:** Whilst the TCP should inform site layout design, it is recognised that the competing needs of development mean that trees are only one factor requiring consideration.
Tree constraints and design: The presents of Tree Preservation orders or conservation area, above and below ground constraints, possible design modifications etc.
Proximity of trees to structures: A realistic assessment of the probable impact of any proposed development on trees and vice versa etc.
 - iv) **Arboricultural Method Statement (AMS):** To include details of tree protection prior to and during construction. Also tree pruning recommendations to promote the trees health and maximise the juxtaposition between development and post construction remedial methods to promote recovery.
 - v) **Tree Protection Plan (TPP):** Showing finalised layout proposals, tree retention and tree and landscape protection measures detailed within the AMS, which can be shown graphically.
- 1.4 The inspection has been carried out from a ground level only. Should more detailed inspection be required then this will be highlighted in survey recommendations.
- 1.5 Trees are living organisms whose health and condition can change rapidly, the health and safety of trees should be checked on a regular basis, preferably at least once a year. The conclusions and recommendations in this report are only valid for one year. This period of validity may be reduced in the case of any change in conditions to or in proximity to the tree.

- 1.6 I have been informed by Schneider Designers that the site is within a Conservation Area and the trees are subject to Tree Preservation Orders (TPO). Therefore it would be necessary to obtain permission before undertaking any work.

2 Information Received

- 2.1 The following correspondence and drawings of the existing site and the proposed development have been received on which this report is based;
- i) An existing digital land survey including a preliminary site layout. This drawing is used as a basis for the TCP and TPP.
- 2.2 These correspondence and drawings have been copied and attached within Appendix.

3 Site description

- 3.1 The proposed development site is a residential house within an urban setting, therefore tree cover is limited.
- 3.2 The basis to this report is a proposed demolition and a subsequent construction of two storey building with basement level.

4 Tree Survey

- 4.1 The following information is provided:
- a) Reference number (recorded on plans)
 - b) Species
 - c) Height in metres
 - d) Stem diameter in millimetres at 1.5m or immediately above the root flare for multi-stemmed trees
 - e) Branch spread in metres taken at the four cardinal points to derive an accurate representation of the crown
 - f) Height in metres of crown clearance above ground level
 - g) Age class (young, middle aged, mature, over-mature, veteran)
 - h) Physiological condition (e.g. good, fair, poor, dead)
 - i) Structural condition, e.g. presence of decay
 - j) Preliminary management recommendations
 - k) Estimated remaining contribution in years (e.g. less than 10, 10-20, 20-40, more than 40)
 - l) R or A to C category grading (see Table 1) (recorded on TCP)
 - m) Restrictions i.e. Conservation Area (CA) or (Tree Preservation Order) TPO
- 4.2 The trees are categorized in accordance with the BS 5837 Table 1 – Cascade chart for tree quality assessment. A copy is enclosed within the appendix.
- 4.3 On the date of inspection a limited visual inspection from the ground was achieved. A copy of the Tree Survey is enclosed within the appendix.

5 Tree Constraints Plan (TCP)

- 5.1 The influence that trees on and adjacent to the site will have on the layout is plotted on a plan called the TCP. This design tool shows how the below ground constraints, represented by the RPA, and the above ground constraints that the trees pose by virtue of their size and position. Also their future potential sizes and influence.
- 5.2 In order to avoid damage to the rhizosphere (rooting area) of retained trees, the RPA is plotted around each of the category A, B and C trees. This is a minimum area in m², which must be left undisturbed around each retained tree.
- 5.3 The RPA is calculated using BS 5837 Table 2 (A copy of Table 2 is enclosed within the appendix) as an area equivalent to a circle with a radius 12 times the stem diameter at 1.5m for single stem trees and 10 times basal diameter for trees with more than one stem.
- 5.4 A copy of the TCP is enclosed within the appendix.

6 Arboricultural Implications Assessment (AIA) and Design Issues

- 6.1 Due to the juxtaposition of T1 and the current building. The RPA falls within its footprint. The foundations will have acted as a barrier and restricted the root growth. The roots will have penetrated below or around the foundations. A section of the basement falls within a small percentage of the RPA. However due to this being located within the current building it will have a limited impact. The RPA that falls outside of the building requires protection as outlined within the AMS and TPP.
- 6.2 Access to the site for the removal of debris, delivery of materials and general access is limited to the current driveway. This falls within the RPA of T1, remedial measures are outlined within the AMS and TPP to prevent compaction during operations.
- 6.3 The trees T2 and T3 RPA are of limited significance to the construction, however protection is still required as outlined in the AMS and TPP.
- 6.4 The current constraints and the future growth potential of all the trees highlighted for retention are of limited significance with regards to both shade and lateral encroachment of the foliage.

7 Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP)

- 7.1 All trees must be adequately protected before development operations start. Therefore the following sequence of operations must work hand in hand with the development process.
 - i) **Tree Works:** No Tree works are required prior to construction.
 - ii) **Design implications:** As outlined within 6.1, remedial measures are required to limit the disruption to T1's rhizosphere.

The construction exclusion zone. Barriers and ground protection: The location of the protective barriers and ground protection are plotted accurately on the TPP. The barriers and ground protection must be erected and installed prior to any materials or machinery is brought onto the site.

The Barriers: Must consist of a scaffold framework in accordance with BS 5837 Figure 2 (a copy of which is enclosed within the appendix).

The Ground Protection: Pedestrian movement is necessary within the RPA of T1 due to the necessity of the foundations of the development being installed up to the edge of the RPA.

Therefor the installation of ground protection is required in the form of a single thickness of scaffold boards on top of a compressible layer laid onto geotextile in accordance with BS 5837 Figure 3 (a copy of which is enclosed within the appendix).

Due to the site access being within the RPA, Pedestrian and loaded vehicular movement is necessary. Therefor the installation of a ground protection in the form of a raised temporary drive incorporating a compressible geotextile layer is required. (Contact: Geosynthetics Ltd. 0145 5617139). This must be designed by an engineer to adequately absorb and distribute the loads to prevent compaction within the RPA.

All weather notices should be erected on the barrier with words such as

"Construction exclusion zone-Keep out"

- iii) During construction the following processes must be adhered to:
 - a) No materials can be stored within 5m of the tree's bole.
 - b) Oil, bitumen, cement or other material likely to be injurious to a tree must not be stacked or discharged within 5m of the tree's bole.
 - c) Concrete mixing must not be carried out within 5m of the tree's bole.
 - d) It is essential that fire must not be lit beneath or within close proximity to the canopies.
 - e) The trees must not be used as anchorage for equipment.
 - f) Care must be exercised when using cranes or similar equipment near the spread of the canopy.
- iii) Removal of fencing must only occur at the end of construction.
- iv) A de-compaction method such as compressed air and Mycorrhizae injections with a Terravent within the ground protection area of the RPA of T1 post construction, must be carried out prior to landscaping and the installation of the driveway to improve the trees recovery. Contact: Goroots (0208 429 8049). The driveway must incorporate geotextile material must be installed prior to resurfacing a porous material.
- v) The post construction landscaping process to include the terrace and Decking. Must not change soil levels and all excavations be made by hand.

7.2 The tree's should be inspected by a competent arboriculturalist following the completion of development for safety, any deterioration in the trees condition, and any accidental damage to identify the need for tree works.

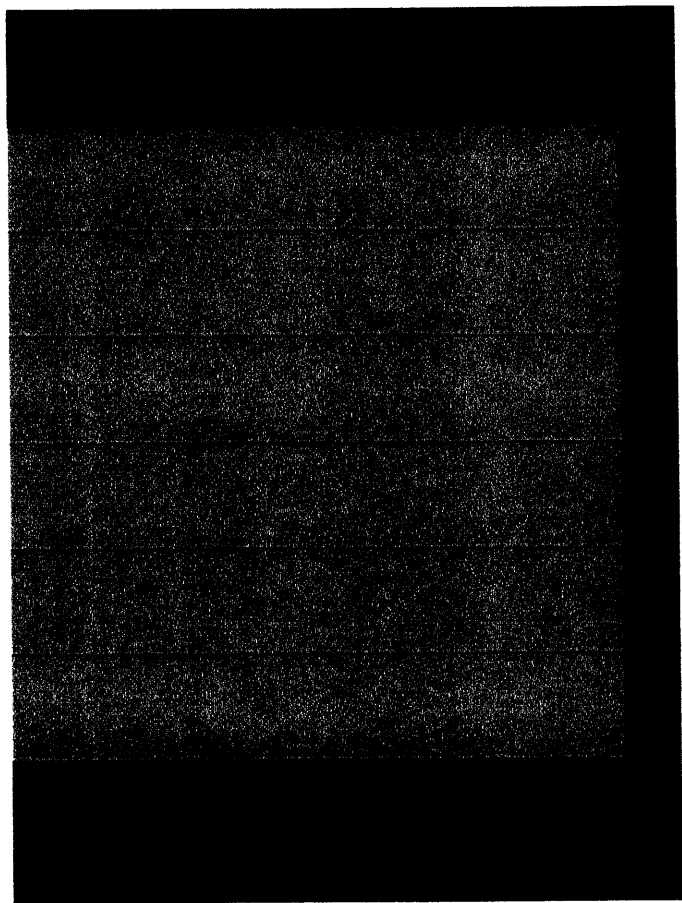
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Yours sincerely



Paul Macqueen
(NCH ARB, ND ARB)

Appendix



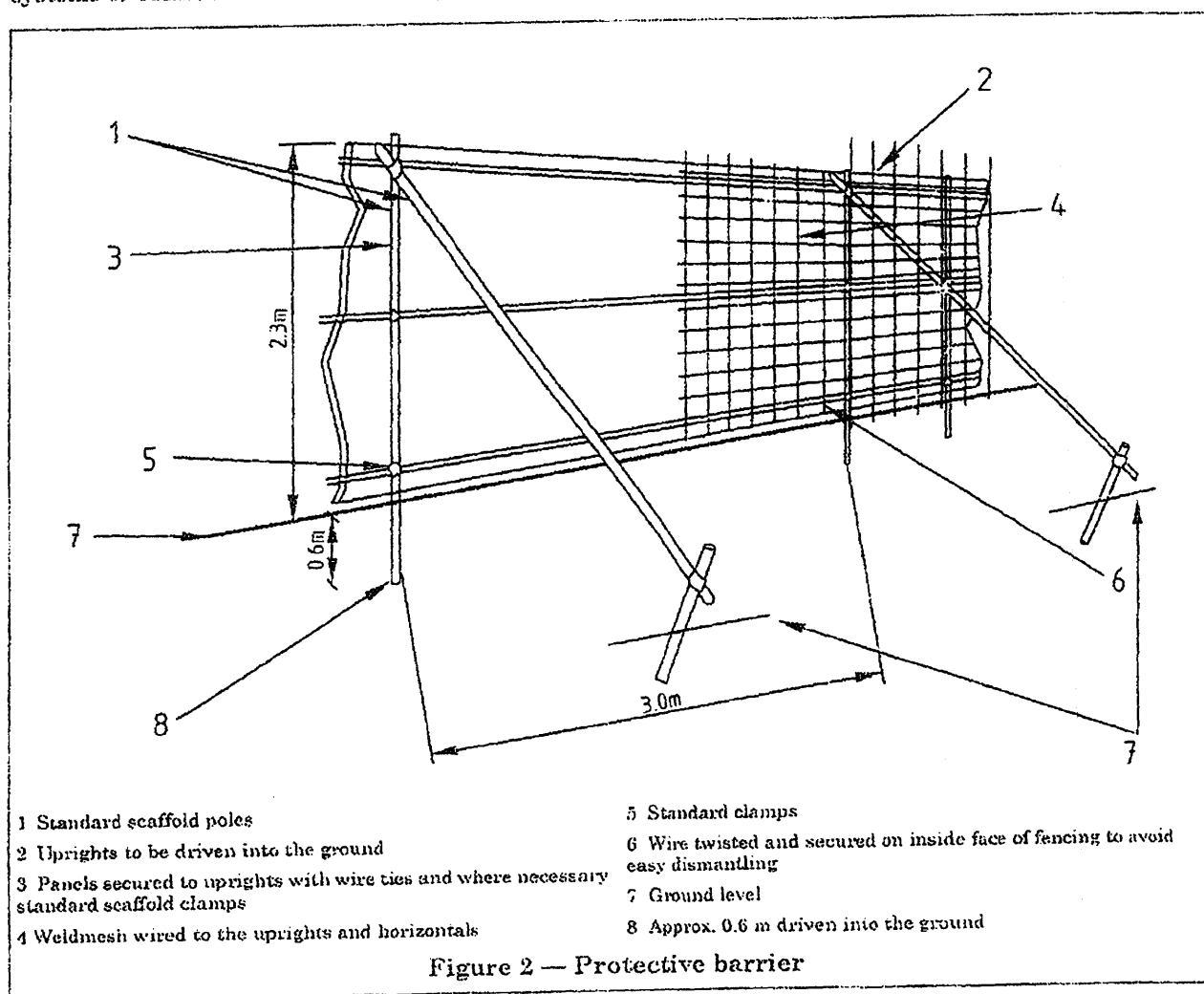
Tree Survey at 42 Netherhall Road											
No.	Species	Ht.	DBH	Spr. N,S,E,W	C/C	Age	Phys. Cond.	Stru. Cond.	Pre. Recommendations	Rem. Con	Cat.
T1	Beech (Fagus sylvatica)	19	86	6,6,6,6	6	Mature	Fair. Ganoderma bracket on South side at	Good	N/A	10 to 20	B1
T2	Cherry (Prunus Padus)	17	38	2,2,2,2	2	Middle	Fair	Good	N/A	20 to 40	B1
T3	Norway Maple (Acer plataniodes)	14	74	4,4,4,4	4	Mature	fair	Average	N/A	10to20	B1

9.3 Ground protection

9.3.1 Where it has been agreed during the design stage, and shown on the tree protection plan, that vehicular or pedestrian access for the construction operation may take place within the root protection area (RPA), the possible effects of construction activity should be addressed by a combination of barriers and ground protection. The position of the barrier may be shown within the RPA at the edge of the agreed working zone but the soil structure beyond the barrier to the edge of the RPA should be protected with ground protection.

9.3.2 For pedestrian movements within the RPA the installation of ground protection in the form of a single thickness of scaffold boards on top of a compressible layer laid onto a geotextile, or supported by scaffold, may be acceptable (see Figure 3).

9.3.3 For wheeled or tracked construction traffic movements within the RPA the ground protection should be designed by an engineer to accommodate the likely loading and may involve the use of proprietary systems or reinforced concrete slabs (see 11.8 and 11.9).



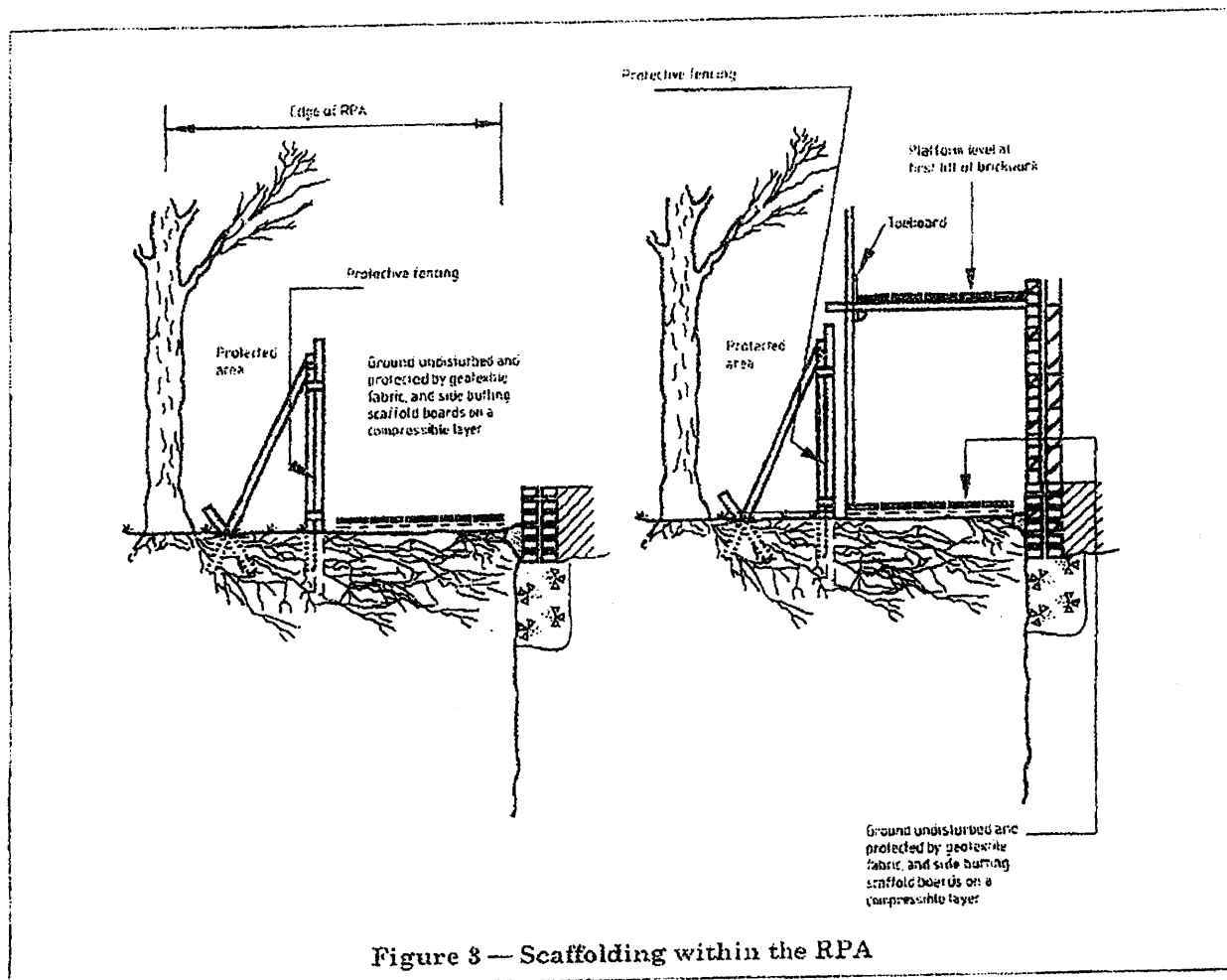


Figure 3 — Scaffolding within the RPA

9.4 Additional precautions outside the exclusion zone

9.4.1 Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence. All weather notices should be erected on the barrier with words such as:

"Construction exclusion zone -- Keep out".

9.4.2 In addition the following should be addressed or avoided.

- Care should be taken when planning site operations to ensure that wide or tall loads, or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to them and might make their safe retention impossible. Consequently, any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banksman to ensure that adequate clearance from trees is maintained at all times. In some circumstances it may be impossible to maintain adequate clearance thus necessitating access facilitation pruning (see 11.2.1).
- Material which will contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, should not be discharged within 10 m of the tree stem.
- Fires should not be lit in a position where their flames can extend to within 5 m of foliage, branches of trunk. This will depend on the size of the fire and the wind direction.
- Notice boards, telephone cables or other services should not be attached to any part of the tree.

Table 1 — Cascade chart for tree quality assessment

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category R Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	<ul style="list-style-type: none">• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline• Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality <p>NOTE: Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree).</p>			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria -- Subcategories			Identification on plan
	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	GREY
	NOTE: Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation.			

4.4.3 The tree survey may identify the presence of veteran trees on the site. Such trees should be considered carefully in relation to new development, as it is rarely acceptable to locate them within developed areas, rather than open space. The implications of their presence on the land use of the surrounding site should be assessed at the earliest possible stage of the planning process. Veteran trees should be assessed according to the recommendations in 4.3.1. By this assessment, most genuine veteran trees are likely to be included in category A3.

4.5 Tree survey — post-planning

It is recognized that, on occasions, arboricultural advice is not sought until after a preliminary site layout has been prepared. Although this is not the ideal situation, timely and appropriate expert advice can still make a valuable contribution to the process of tree retention and protection. In cases where the arboriculturist is provided with a layout, the tree survey should be undertaken as described in 4.2 to provide advice on tree retention, protection, remedial or mitigation works and new landscape design. It is essential that the trees are assessed objectively and without reference to site layout proposals.

5 Tree constraints plan

5.1 General

The influence that trees on and adjacent to the site will have on the layout should be plotted on a plan called the tree constraints plan (TCP). This is a design tool which should show the below ground constraints, represented by the RPA, and the above ground constraints the trees pose by virtue of their size and position.

5.2 Root protection area (RPA)

5.2.1 In order to avoid damage to the roots or rooting environment of retained trees, the RPA should be plotted around each of the category A, B and C trees (see 4.3). This is a minimum area in m² which should be left undisturbed around each retained tree.

5.2.2 The RPA should be calculated using Table 2 as an area equivalent to a circle with a radius 12 times the stem diameter for single stem trees and 10 times basal diameter for trees with more than one stem arising below 1.5 m above ground level.

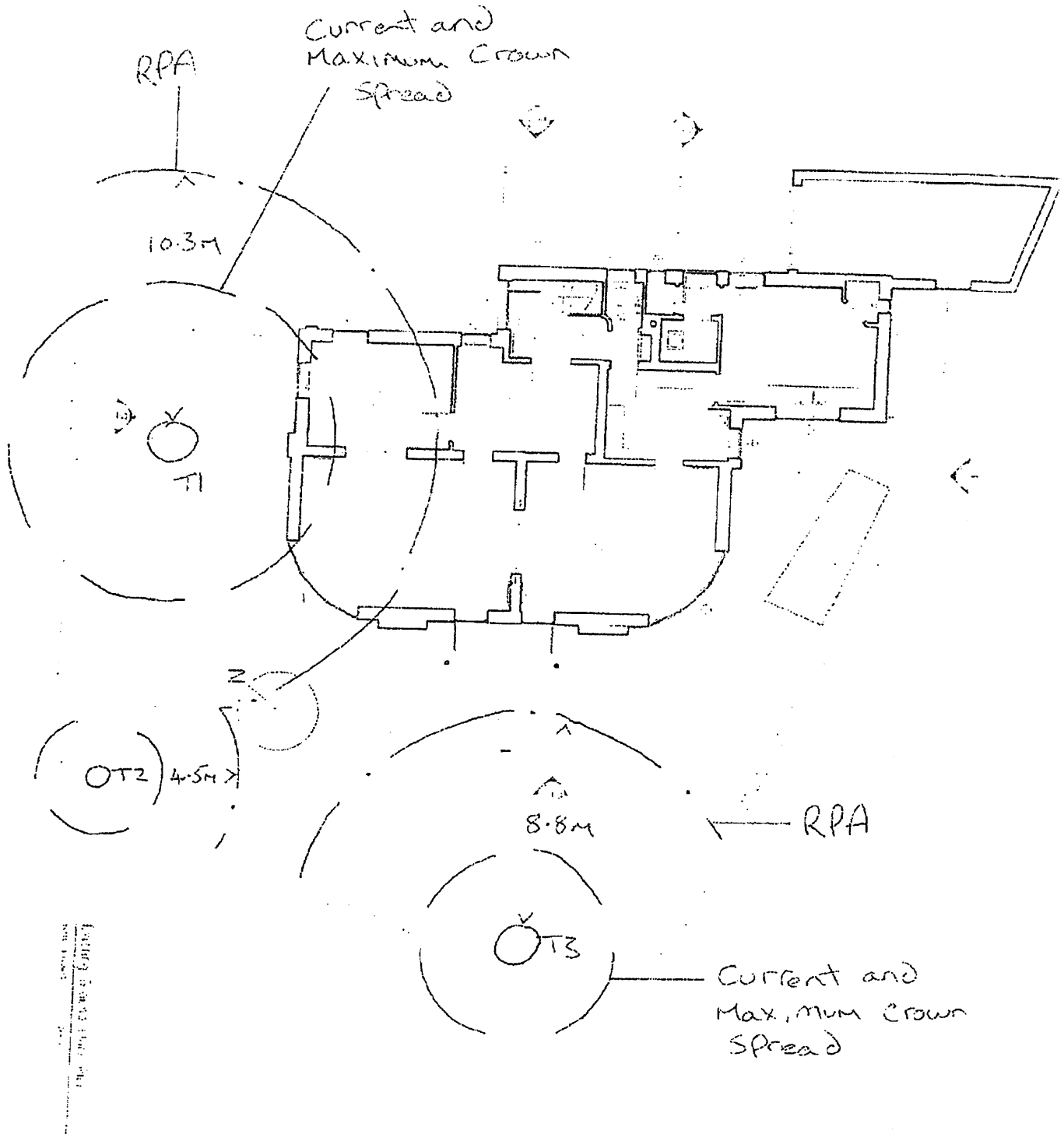
Table 2 — Calculating the RPA

Number of stems	Calculation
Single stem tree	$RPA(m^2) = \left(\frac{\text{stem diameter (mm)} @ 1.5 \text{ m} \times 12}{1\ 000} \right)^2 \times 3.142$
Tree with more than one stem arising below 1.5 m above ground level	$RPA(m^2) = \left(\frac{\text{Basal diameter (measured immediately above root flare (mm))} \times 10}{1\ 000} \right)^2 \times 3.142$
NOTE The 12× multiplier is based on NJUG 10 [9] and published work by Matheny and Clark [10].	

5.2.3 The calculated RPA should be capped to 707 m², e.g. which is equivalent to a circle with a radius of 15 m or a square with approximately 26 m sides.

Tree Constraints Plan

17/03/06.



SCHNEIDER DESIGNERS

Project: Richmond Farming

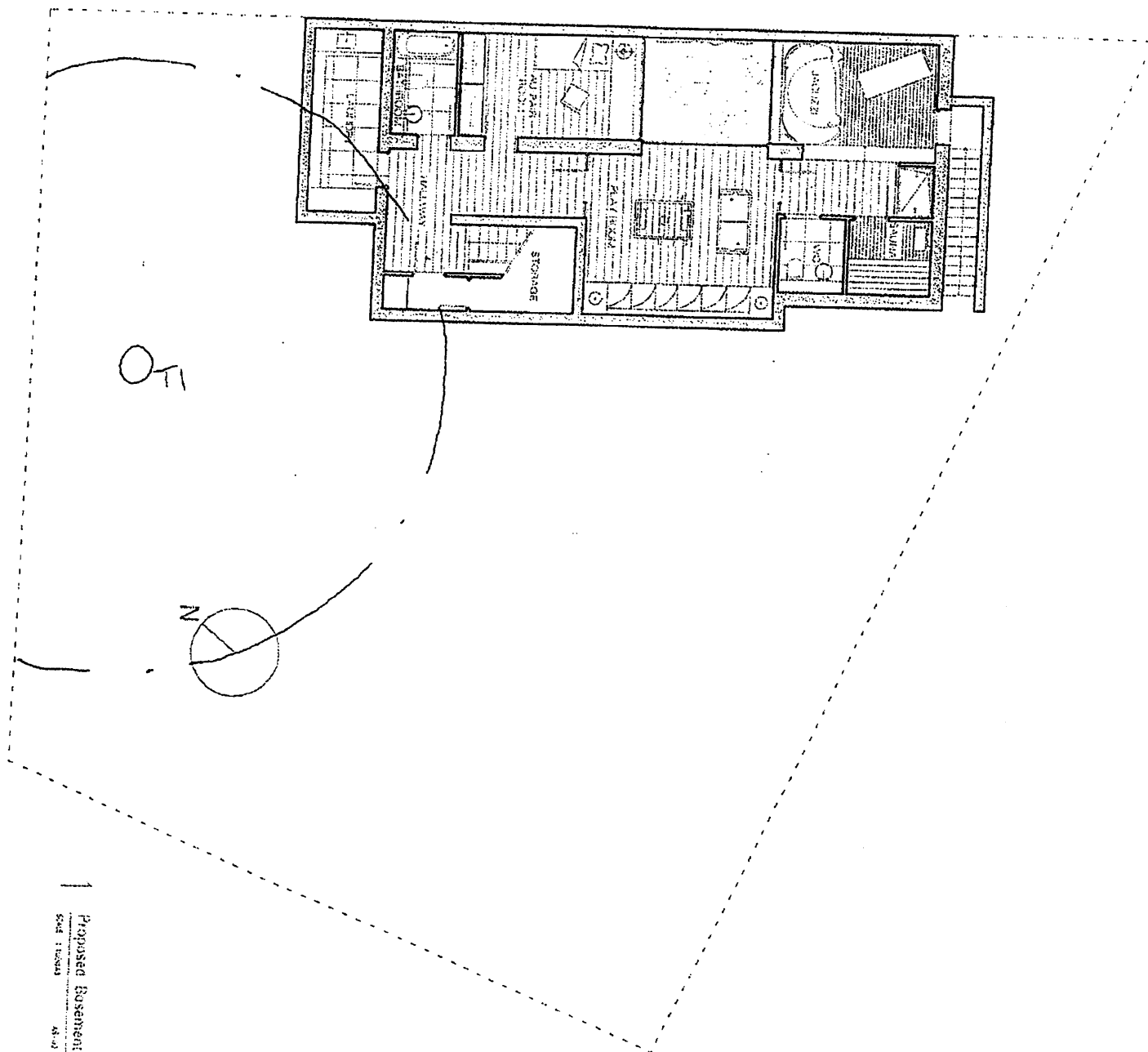
Drawn by: ENGINEER/ARCHITECT/PLANNING

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Proposed Basement Plan
Scale: 1/8" = 1'-0"

SCHNEIDER DESIGNERS

Project:
Netherland Gardens

Drawing No.
Proposed Basement Plan

15 Wilson Grove Road, Suite 501 Tel: 620 7435 7105 Fax: 620 7435 7108

Scale:
1" = 0'08 1/2"

Date:
30/06/06

Drawn by:
DS

Project No.
02_24_A_1

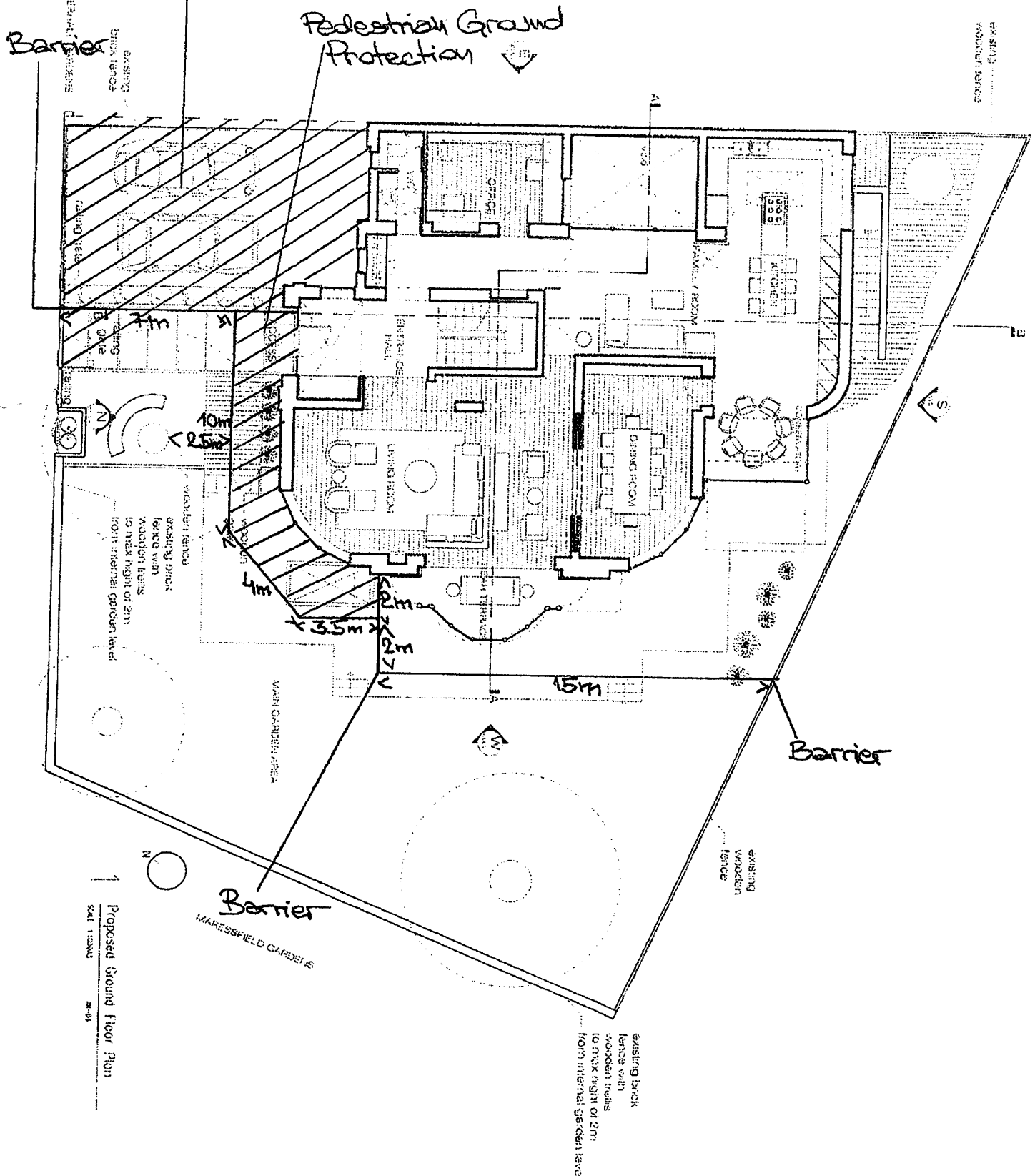
Drawing No.
AR-02

Revision:
02

30/03/06

Pedestrian Guard
Protection 

Barrier



Proposed Ground Floor Plan
Scale 1:50000
28-03

SCHNEIDER DESIGNERS

Project
Netherhall Gardens

Proposed Ground Floor Plan

15 eldon grove london, nw3 5pt tel.020 7435 7105 fax.020 7435 7106

100643

30 06.06

55

05-24-1-6

4442 12
12-03

02

FA09031 – 42 Netherhall Gardens, London, NW3

Sequence of Works

Final scheme

1. Establish on site
2. Install 300mm diameter open auger temporary support piles leaving reinforcement projecting such that it can be cranked into the new RC ground floor slab.
3. Install the RC Stem Underpinning within the main body of the house using a hit and miss underpinning sequence, leaving the top 300mm down from SSL, with reinforcement projecting such that it can be incorporated into the new RC ground floor slab, and 2 No. AP standard support stools per base.
4. Install 300mm diameter Contiguous Bored Pile walls
5. Break out existing brickwork and install AP standard stools to all structural walls in the area of the first pour.
6. Fix reinforcement and cast new RC ground floor slab on 1000 gauge polythene on sand blinding to the area of the first pour.
7. Break out existing brickwork and install AP standard stools to all structural walls in area of the second pour.
8. Fix reinforcement and cast new RC ground floor slab on 1000 gauge polythene on the sand blinding to the area of the second pour, taking care to form aperture for new stairwell to basement at the required location.
9. Install the RC Stem Underpinning along the boundary using a hit and miss underpinning sequence. In order to maintain stability of the adjoining property as each underpinning base is completed temporary propping should be installed between the head of the underpinning base and the edge of the new RC raft previously installed.
10. Once the RC Stem Underpinning along the boundary line is completed and each base has been temporarily propped as described above, the RC ground floor slab should be completed through to the boundary line underpinning. A soffit shutter can be constructed over the access spaces and beneath the temporary propping, fix the reinforcement and cast the rear 70% of the external area of the ground floor slab, incorporating the temporary props such that lateral support is provided continually to the RC underpinning thus maintaining stability of the adjoining property and minimising the potential for any damage.
11. Excavate ramped access from the driveway into the new basement and dig out the new basement stockpiling on the driveway.

12. Install necessary sub-floor drainage from bathroom etc. locations as advised by the Architect to the foul sump location.
13. Fix reinforcement and cast RC basement slab, on 1000 gauge polythene on sand blinding, leaving localised areas boxed out around the temporary bearing piles so that the reinforcement from the piles can be cranked into the slab once the piles are cut down.
14. Construct RC wall across access ramp with dowel bars into the underpinning adjacent to tie the new wall to the underpinning previously constructed.
15. MRE Builders to attend site and construct the new permanent structural walls for the basement area and dry pack up tight to the underside of the RC ground floor slab.
16. Following a satisfactory curing time for the structural walls Abbey Pynford to return to site and cut out the temporary piles, remove from site, crank the pile reinforcement into the basement slab and cast the previously boxed out sections in the basement slab.
17. Construct soffit shutter, fix reinforcement and cast the remaining 30% of the external area of ground floor slab.
18. Clear site.