

I A N K E E N
LIMITED



**ARBORICULTURAL
METHOD STATEMENT**

**RELATING TO PROPOSED
FOOTPATH**

ALONG

**MoL LAND
ADJACENT TO
TWICKENHAM SORTING OFFICE
LONDON ROAD
TWICKENHAM**

**Consent Reference:
13/1147/FUL**

**Our Reference
JTK/7720/so**

July 2015

**CLIENT
St James Group Ltd
Berkeley House
15b St George Wharf
London
SW8 2LE**

WARNING

Existing trees adjoining these works and on site are protected by Tree Preservation Orders.

That Order protects all parts of the tree, whether above or below ground, and failure to comply with this method statement that results in damage to trees can result in prosecution resulting in a criminal record and substantial fine.

Do not stray from this Arboricultural Method Statement without first obtaining written approval from Craig Ruddick, tree officer at London Borough of Richmond-upon-Thames.

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ABSTRACT

A small block of woodland exists at the east of the MoL through which the path passes. Within the grounds of Heatham House there are several large trees that need to be protected.

Protective barriers are required throughout the construction process to protect the retained trees on the site.

Tree removal and coppicing is required. Minor pruning work will be needed. It is listed in a schedule in this method statement.

A pathway and adjoining soil capping is required close to retained trees. Specialist measures for the pathway installation are set out in this method statement.

A service duct is proposed to follow the route of the pathway. Where it passes close to retained trees specialist measures are to be taken for its installation or an alternative route will be selected.

Space for storage, unloading and welfare can be accommodated within the existing site set up on adjoining land.

1. Statement of purpose

- 1.1 The purpose of this method statement is to demonstrate how works will be undertaken to implement the proposed pathway installation upon the MoL land at Twickenham Rough to avoid unacceptable arboricultural impact and provide an adequate level of protection for those trees that are to be retained.
- 1.2 This method statement has been produced for St James Group Ltd in order to inform the construction team and satisfy the requirements of the Local Planning Authority (LPA), London Borough of Richmond-upon-Thames. The works are the subject of a planning consent and this arboricultural method statement has been prepared to aid the discharge of conditions.
- 1.3 A meeting was held on site on 14th April 2016 at which client representatives, arboriculturist and local authority tree officer were present along with elected members, council planning officers.
- 1.4 This method statement considers the systems of work in relation to the health and safety of retained trees. It does not address requirements of the Health and Safety Executive that should be considered in detail by those parties involved.

2. Related documents and drawings

- 2.1 This method statement should be read in conjunction with the documents in Table 1 below.

Table 1: Documents referred to

Originator	Title/Reference
British Standards Institute	<i>BS5837:2012 Trees in relation to design, demolition and construction – Recommendations</i>

and the following drawings in Table 2 below.

Table 2: Drawings referred to

Originator	Drg No	Title	Scale
JSA Consulting Engineers	4616/CIVIL/70 Rev J	MOL FOOTPATH	1:500@A0
Ian Keen Limited	7720/05/Rev.B	Tree Protection Plan	1:500@A1

3. Arboricultural issues & implications

- 3.1 Detail of the trees and their protection are discussed and detailed in the documents, and shown on the drawings, listed above and should be read in conjunction with this method statement.

- 3.2 The proposed footpath extends in an east-west direction to connect a footbridge at the western end with the London Road at the east. It passes through mainly open space but towards the west it passes within a small block of naturalised woodland and the remnants of formal tree planting within the southern portion of Heatham House grounds.
- 3.3 Tree removal, coppicing and pruning will be undertaken to provide space for the path and its use.
- 3.4 Where the pathway is close to retained trees it will be formed above existing ground levels to avoid root loss.
- 3.5 A capping layer of soil is to be placed on either side of the pathway. Where close to trees the capping layer shall not be built up directly against the tree stem.
- 3.6 A duct is to be installed to serve the length of the pathway. Where it is close to trees specialist techniques will be used for its installation. Where possible an alternative route for the duct will be taken.
- 3.7 Supervision of works is required.

4. Facilitation tree works

- 4.1 It is necessary to remove a selection of trees from along the route of the pathway. In addition trees will be coppiced on either side of the pathway where it passes within the woodland to create a ride edge adding to the habitat value. These aspects are set out in detail in the Woodland Management Plan.
- 4.2 Trees to be removed or coppiced will be marked and agreed with the tree officer in advance of works commencing.
- 4.3 In places tree pruning is required to provide clearance from the pathway.
- 4.4 Tree works are scheduled in the list of tree works at Appendix 1.
- 4.5 All tree works shall be undertaken in accordance with *BS3998:2010: Tree Works – Recommendations* where it is appropriate.

5. General site care

- 5.1 To ensure that the trees to be retained are afforded an adequate degree of protection during the works, the following general precautions will be observed:
 - 5.1.1 No works shall proceed until appropriate tree protection barriers are in place, with the exception of initial tree works.
 - 5.1.2 No fires shall be lit on site.

- 5.1.3 No access will be permitted within the temporarily barriered areas, unless and only where otherwise approved herein. Ground levels will not be changed within them and existing vegetation and topsoil will be left undisturbed but may be treated with approved herbicides if eradication is required.
- 5.1.4 No materials, equipment or debris will be stored within any of the barriered areas and no chemicals, petrol or diesel will be allowed to spill where they may contaminate the root protection areas of retained trees
- 5.1.5 All heavy plant, machinery, cranes and delivery vehicles shall be excluded from the areas demarcated for protection on the Tree Protection Plan and shall operate only upon areas of ground protection or existing hard surfaces.
- 5.1.6 No equipment, signage, fencing, tree protection barriers, materials, components, vehicles or structures shall be attached to or supported by a retained tree.

6. Sequencing of works

6.1 A logical sequence of events is to be observed as follows:

- Stage 1 Pre-commencement site meeting (See Section 11)
- Stage 2 Undertake tree removal, coppicing and pruning in accordance with the schedule of work.
- Stage 3 Erect protective barriers as shown on drawing 7720/05/Rev.B in Table 2 (specifications given in Section 7).
- Stage 4 Implement pathway and install duct.
- Stage 5 Take down protective barriers and complete soft landscape works.

7. Protective barriers and ground protection

7.1 Temporary barriers will be erected as indicated on the Tree Protection Plan 7720/05/Rev.B listed at Table 2 around the large London Plane tree identified on that plan. The specification for these barriers will be in accordance with the recommendations given in *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations* Section 9.2 and will comprise 2.0m mesh barriers (Heras type panels are a simple, readily available solution) supported by secured bracing as shown on the Tree Protection Plan drawing. Clear signs will be attached at 6 metre intervals along the line of barriers stating 'Tree Protection Area – No Access'.

7.2 Tree protection barriers for the remaining areas will comprise pedestrian barriers that have been securely cable-tied together. The detail of a typical barrier is shown on the Tree Protection Plan.

7.3 The barriers shall remain in place until soft landscape operations require their full or partial removal. No other construction activity will take place within those areas formerly protected by the fence (see Section 5).

8. Pathway installation

8.1 A location and typical detail of the pathway is given on the drawing at Appendix 2

8.2 Detail 5 on that drawing will be used in the locations shown on the Tree Protection Plan number 7720/05/Rev.B. In all other locations Detail 6 shall be used.

8.3 The capping layer placed abutting the pathway shall not be built up against the base of tree stems. Any make-up in soil levels shall be dished around tree bases to ensure the original soil level remains. Evidence of retention of original soil levels shall be looked for during supervision and monitoring visits.

8.4 Close to trees machinery used to install the pathway shall operate from the route of the pathway only and not stray on to adjoining land.

9. Duct installation

9.1 The route of the proposed duct installation is shown on the drawing at Appendix 2 and on the Tree Protection Plan.

9.2 Where it is remote from trees it can be installed normally.

9.3 Where it is close to retained trees it must be installed using hand excavated trenching to ensure significant (those over 25mm diameter) roots are retained.

9.4 The route of the duct has been altered to select the least detrimental option that permits ease of installation but retains significant trees unharmed.

9.5 Prior to commencement the route of the duct shall be marked out.

10. Reinstatement and landscaping

10.1 Any final grading to marry in new levels with existing ground, following works such as trenching, will be achieved by importing topsoil and spreading by hand equipment only. The newly graded areas will be grass seeded or turfed by hand.

10.2 Any tree and shrub planting pits will be dug by hand within the root protection areas of existing trees.

10.3 Any areas of compacted soil will be forked over by hand to restore permeability.

11. Planning, communication and supervision

- 11.1 A pre-commencement meeting will take place on site attended by the appointed arboricultural consultant, the tree contractor, the site manager and the local authority arboricultural officer. The purpose of this meeting is to ensure that everyone fully understands the implications of the arboricultural method statement and to agree on finer points of detail prior to any works commencing.
- 11.2 An induction session will be held with personnel working on the the project to ensure they understand the protection and reasoning behind their use. At the induction key personnel will be identified and their individual responsibilities set out. Any hierarchy of delegated powers will be established with each of the key personnel.
- 11.3 The appointed arboricultural consultant shall directly supervise the works at the following key stages:
 - 11.3.1 Tree removal and coppicing
 - 11.3.2 Marking of footpath route
 - 11.3.3 Marking of duct route
 - 11.3.4 Erection of protective barriers and ground protection
 - 11.3.5 Installation of footpath where close to trees
 - 11.3.6 Excavation of trench for duct where within root protection areas
 - 11.3.7 Removal of protective barriers and re-grading of ground levels adjacent to the new hard surface
- 11.4 At the completion of each supervisory visit the appointed arboricultural consultant will circulate a short site supervision report to the client, site and the local authority arboricultural officer to advise on works and if they are progressing in accordance with the requirements. Failures to adhere to the requirements will be reported.
- 11.5 Monitoring visits will be undertaken by the arboricultural consultant at intervals commensurate with site progress to make sure that all tree protection measures are in place. A record of these visits will be kept and maintained for inspection on site.
- 11.6 Should any problems arise on site, the site manager will immediately inform the appointed arboricultural consultant who will assess the situation and make recommendations accordingly. If any modifications to the method statement are proposed, the arboricultural consultant will immediately advise the local authority arboricultural officer. Only upon written approval from the local authority may those variations be undertaken.

11.7 The site manager will brief all site personnel on the implications of the arboricultural method statement. A copy of this method statement will be available on site at all times. The progress reports detailed in Section 11.3 will be kept with the method statement so that both are readily available for inspection.

11.8 A list of contacts is attached at Appendix 3.

12. Transgression

12.1 Failure to adhere to the requirements in this method statement may result in a Stop Notice being issued by the local authority. This will bring all operations at the site to a halt until the local authority permits resumption.

12.2 Failure to adhere to the requirements of this method statement that results in damage to a tree subject to a Tree Preservation Order may result in prosecution of the individual, the contractor and St James.

12.3 The following measures will be required, but do not absolve the perpetrator from action, if the identified transgression occurs:

- a) Breakage of branches – the damaged shall be assessed by an arboriculturist, they shall advise on requirements and any pruning shall be undertaken in accordance with BS3998:2010 to remove the damaged section.
- b) Damage to bark – the damage shall be assessed by an arboriculturist and they shall advise on the measures that can be taken to optimise the reparation of the damage. Some paring back of damage may be required.
- c) Damage to roots – the damage shall be assessed by an arboriculturist and they shall advise on the pruning or reparation required.
- d) Compaction of soil – where machinery operates outside of ground protection and hard surfaces, leading to the compaction of soil, the compaction shall be alleviated by using compressed air injected to circa 1m deep to create fissures in the ground and lift the compacted areas. The compaction shall be assessed by an arboriculturist. A specialist company (for example Terrain Aeration Ltd) shall be appointed by the contractor to undertake the work.

12.4 All items of transgression shall be reported to the Local Authority tree officer to consider if action should be taken.

13. Conclusion

13.1 If the provisions of this arboricultural method statement are complied with in full, the proposed works will be able to proceed without detrimental impact to retained trees.

14. Health and safety method statement and risk assessment

- 14.1 Each trade is responsible for preparing their own health and safety method statement and risk assessment for each area.
- 14.2 Always consult the site manager or their Health and Safety representative to obtain guidance on any particular hazards you may encounter on this site.
- 14.3 All trades and their operatives must comply with site safety rules at all times.

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APPENDIX 1

Schedule of tree works

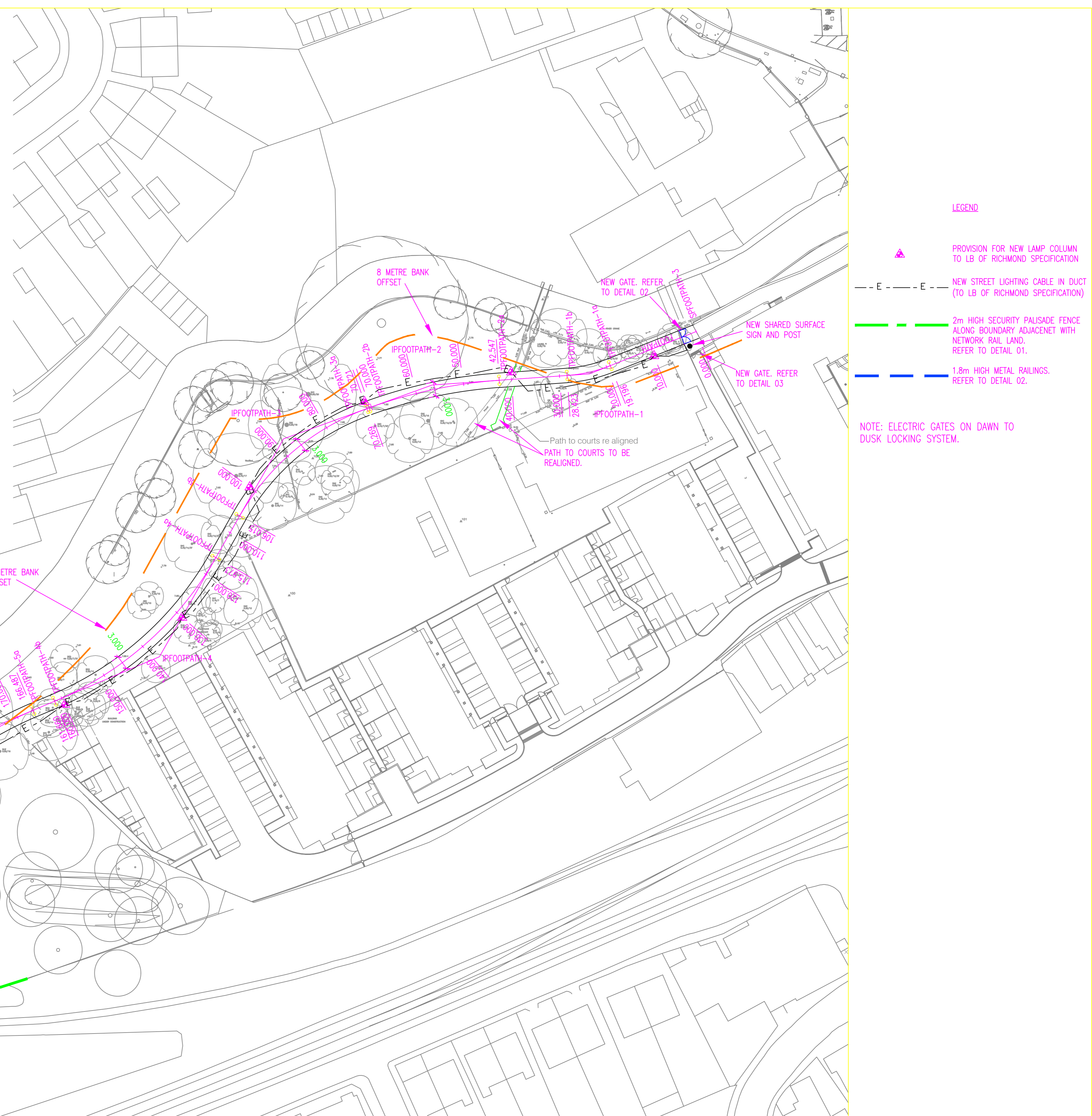
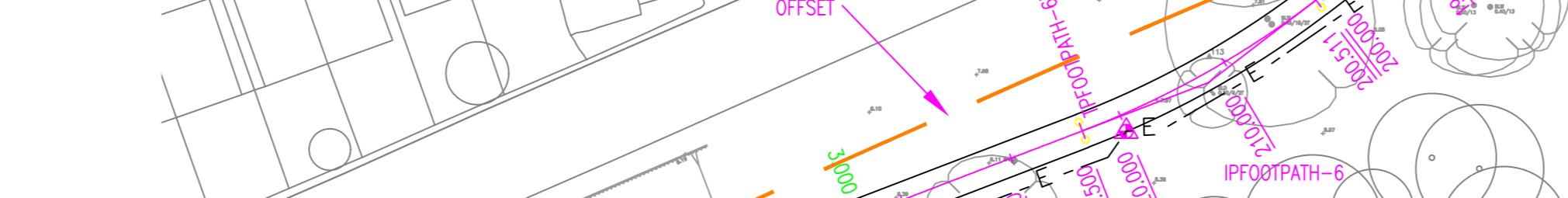
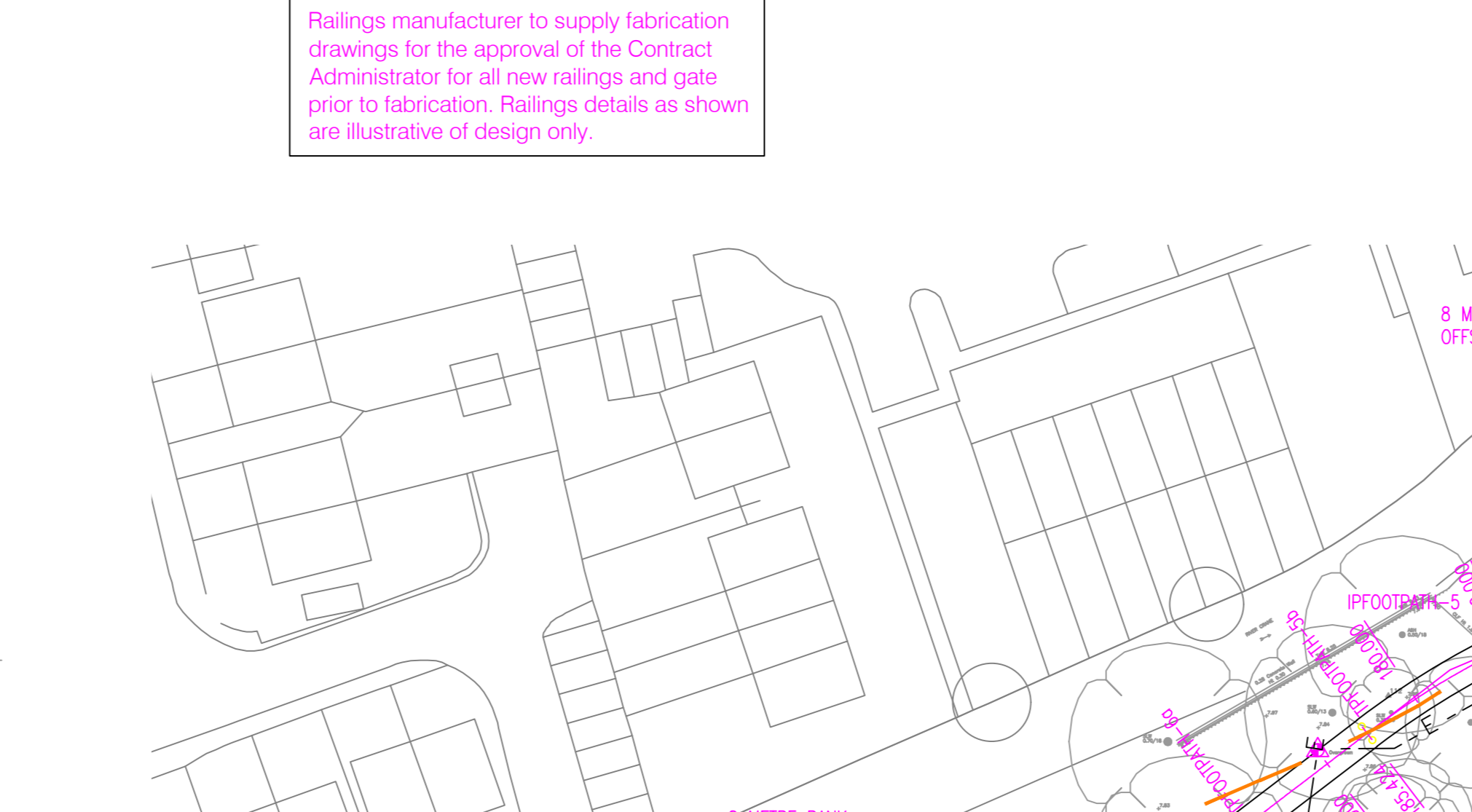
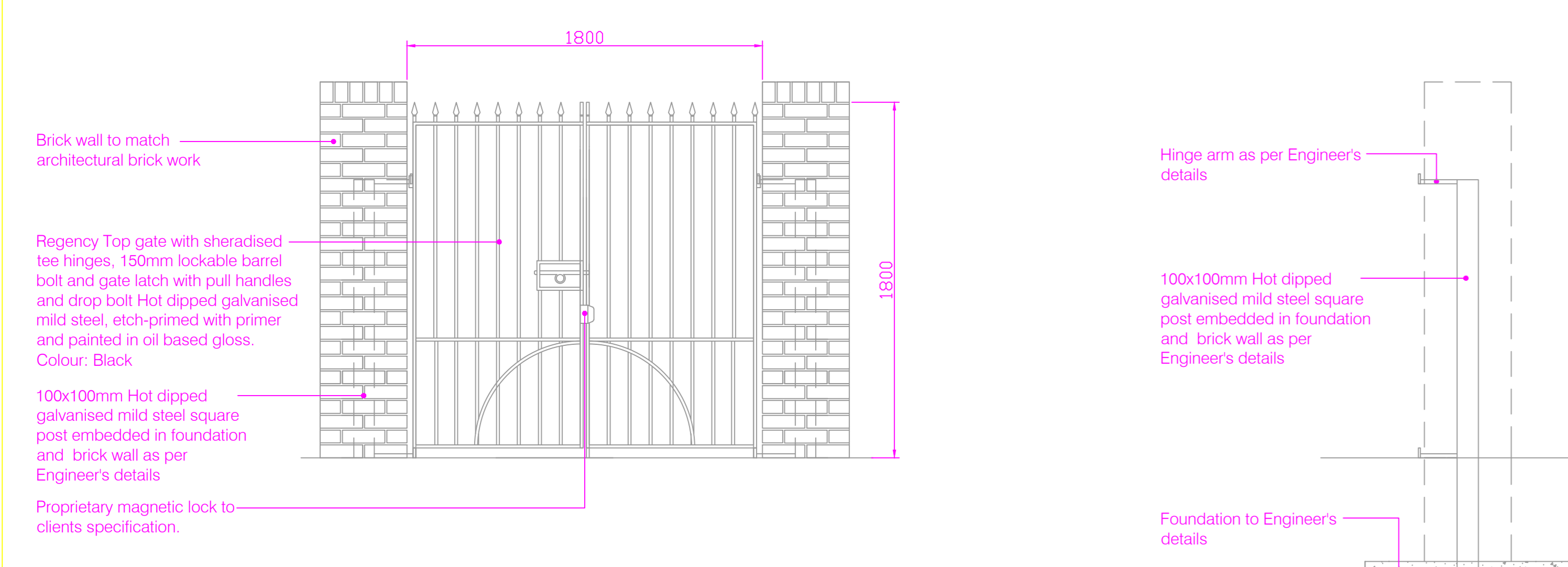
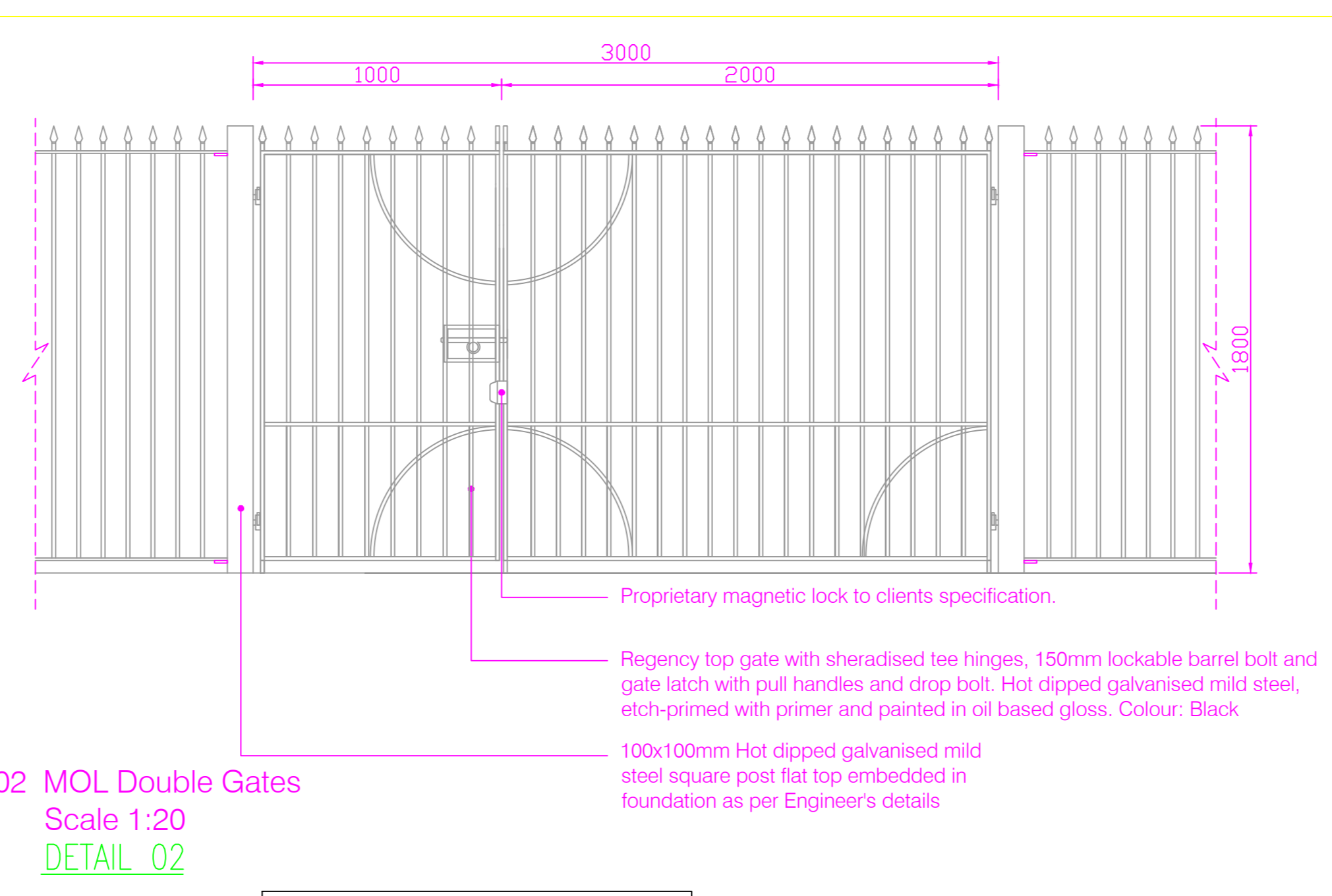
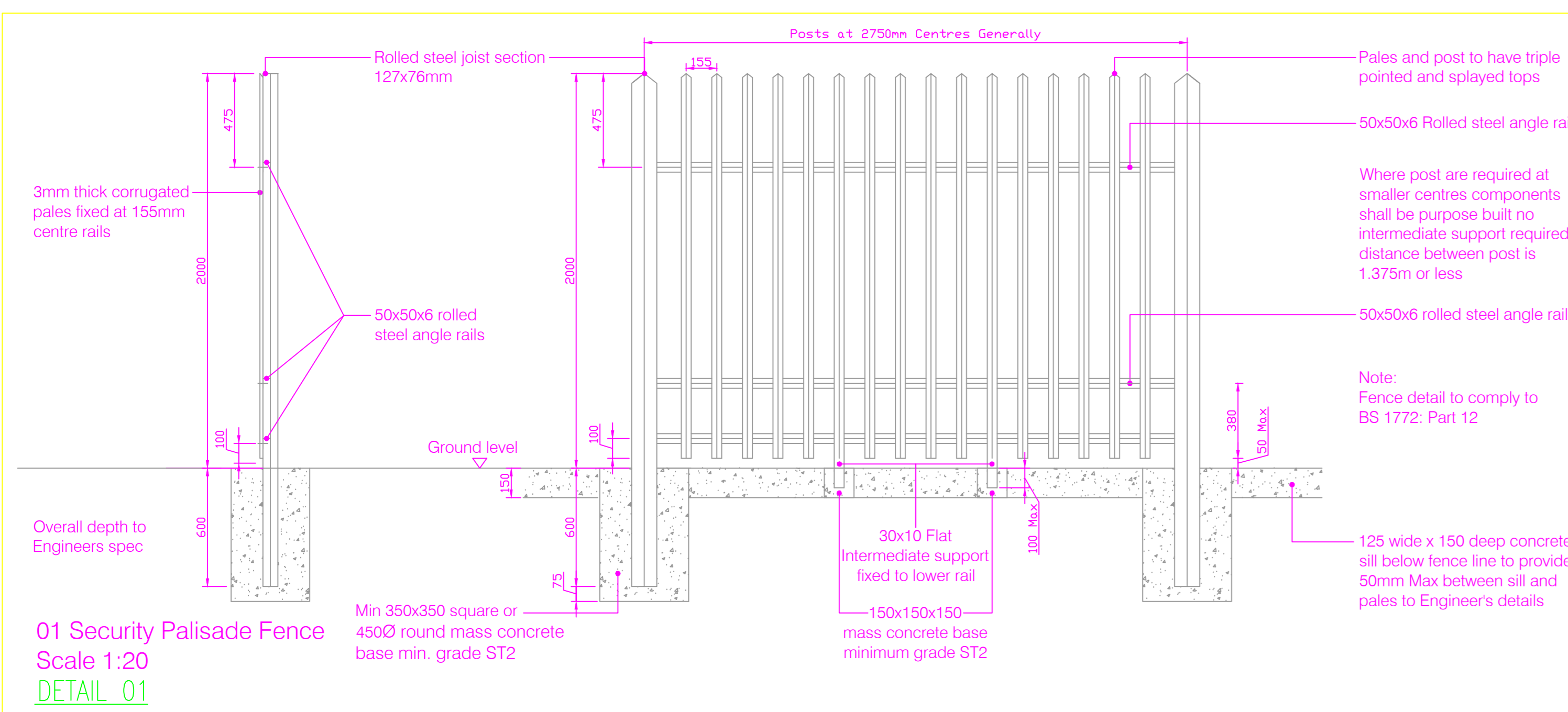
Schedule of tree works

For tree locations refer to Ian Keen Ltd Tree Protection Plan reference 7720/05

Item	Action
1	Fell trees within path footprint
2	Undertake work in accordance with Woodland Management Plan

APPENDIX 2

MoL Footpath



LOCATION	CHANGING	EASTING	NORTHING	RADIUS	BEARING	ANGLE	ARC LENGTH	TANG
SFFOOTPATH-3	0.000	515970.055	173686.881					
TFFOOTPATH-1a	19.196	515952.212	173679.800		248.35413	17.62218	9.227	4.650
TFFOOTPATH-1b	28.423	515943.251	173677.758	30.000	265.97631			
TFFOOTPATH-2a	42.547	515929.162	173676.767		265.97631			
TFFOOTPATH-2b	70.269	515902.129	173671.038		250.09303	15.88328	27.722	13.950
TFFOOTPATH-3a	70.721	515901.704	173670.884	50.000	250.09303	40.44439	35.294	18.418
TFFOOTPATH-3b	106.015	515875.275	173668.606		209.64865			
TFFOOTPATH-4a	115.973	515870.349	173639.952		209.64865			
TFFOOTPATH-4b	161.660	515856.630	173619.363	70.000	247.04357	37.39492	45.687	23.690
TFFOOTPATH-5a	166.487	515836.816	173610.123		247.04357			
TFFOOTPATH-5b	185.424	515823.606	173604.528	75.000	232.57660	14.46687	18.937	9.519
TFFOOTPATH-6a	200.511	515804.065	173598.743		232.57660			
TFFOOTPATH-6b	223.500	515784.064	173578.401	80.000	249.04136	16.46476	22.989	11.574
TFFOOTPATH-7a	299.322	515713.259	173551.280		249.04136			
TFFOOTPATH-7b	319.100	515694.999	173547.742	350.000	245.80369	3.23767	19.778	9.892
TFFOOTPATH-8a	361.899	515665.961	173526.146		245.80369			
TFFOOTPATH-8b	426.413	515605.160	173487.309	140.000	219.40085	26.40284	64.514	32.840
TFFOOTPATH-9a	432.878	515601.056	173482.313		219.40085			
TFFOOTPATH-9b	465.210	515574.562	173464.604	55.000	253.08164	33.68079	32.331	16.648
TFFOOTPATH-3	511.377	515530.393	173451.169		253.08164			

- LEGEND
- PROVISION FOR NEW LAMP COLUMN TO LB OF RICHMOND SPECIFICATION
 - NEW STREET LIGHTING CABLE IN DUCT (TO LB OF RICHMOND SPECIFICATION)
 - 2m HIGH SECURITY PALISADE FENCE ALONG BOUNDARY ADJACENT WITH NETWORK RAIL LAND. REFER TO DETAIL 01.
 - 1.8m HIGH METAL RAILINGS. REFER TO DETAIL 02.
- NOTE: ELECTRIC GATES ON DAWN TO DUSK LOCKING SYSTEM.

Rev.	Date	Revision	By	CHK
E	01.07.15	DETAILS S AND B AMENDED. CLEAN COVER HORIZON REMOVED FROM PATH.	PR	AD
D	17.06.15	MINOR AMENDMENTS AS PER ST JAMES REQUEST. DATE ADDED AT BOTTOM OF EA RAMP. FENCE LINES AMENDED.	PR	AD
C	10.06.15	FENCE AND GATE DETAILS 03-05 ADDED. KEY AND PLAN AMENDED TO SHOW FENCES AND GATES.	PR	AD
B	29.05.15	DETAIL 2 AMENDED TO SUIT MURDOCH WICKHAM COMMENTS.	PR	AD
A	20.04.15	DETAIL 2 ADDED.	MB	AD
0	20.03.15	ISSUED FOR APPROVAL.	AD	CM

FOR APPROVAL

Project: TWICKENHAM SORTING OFFICE

Drawing Title: MOL FOOTPATH

Drawn by: AD, Checked by: [blank], Scale: 1:500(BA0)

Drawing No: 4616/CIVIL/70, Revision: E

jsa CONSULTING ENGINEERS

34 Candler Mews, Aynard Park Rd, Twickenham TW1 3JF
T: 020 8538 9555
F: 020 8538 9666
E: design@jasonaut.co.uk



DIAGRAM NUMBER 956. ROUTE FOR USE BY PEDESTRIANS AND CYCLISTS ONLY. TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS 2011

APPENDIX 3

List of contacts

LIST OF CONTACTS

Site Address:	Twickenham Rough, West of sorting office, London Road, Twickenham	
Site Manager: *	TBA	Tele No: *
Constructor:		
Address:		
Contact Name: *		Tele No:
Arboricultural Consultant:	Jago Keen, MSc, Dip. Arb., MArborA, MICFor	
Address:	Redlands Farm, Redlands Lane, Ewshot Farnham, Surrey GU10 5AS	
Tele No:	01252 850096 (office)	07836 279935 (mobile)
Local Authority Tree Officer	Craig Ruddick, Esq.	
Address:	London Borough of Richmond-upon-Thames Arboricultural Section Environment Directorate London Borough of Richmond upon Thames Second Floor Civic Centre 44 York Street Twickenham TW1 3BZ	
Tele No:	0208 891 1411	

* To be inserted