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Forbes- Laird Arboricultural Consultancy



OUR LADY'S RC PRIMARY SCHOOL

PLANNING SUBMISSION (ARBORICULTURE)

ARBORICULTURAL IMPACT ASSESSMENT

INCLUDING:

- TREE SURVEY TO BS5837:2012
- PROPOSED TREE RETENTION/ REMOVAL
- ARBORICULTURAL IMPACT PLAN
- SECTIONS & LEVELS



Prepared for: Our Lady's RC Primary School

FLAC Instruction ref: CC35-1028

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OUR LADY'S RC PRIMARY SCHOOL : KEY TO TREE SURVEY DATA SCHEDULE

Note

This survey has been undertaken in compliance with BS5837:2012; it is not intended to be a tree safety survey. Any notes offered on structural integrity of trees are incidental, though where trees are considered to be in immediately hazardous condition (identified by red font in the *Structural condition & Notes* column, see below), our recommendations given for immediate intervention should be put in hand by the owner / site manager as soon as can be arranged.

Trees are dynamic living organisms capable of achieving considerable size and structural complexity. They are exposed to and can become damaged by the elements and by human activity, and have co-evolved with decay-causing organisms that can degrade and sometimes destroy their structural integrity. Due to genetic characteristics and local microenvironmental factors this integrity can be innately uncertain. The laws and forces of nature dictate a natural failure rate even among trees that are healthy and structurally sound. By their very nature, therefore, trees cannot be considered entirely hazard-free.

Tree surveys and / or tree inspections are, inherently, only a snapshot in time of the physiological and structural condition of the trees concerned.

Unless otherwise stated in our reporting material, all such surveys and inspections are undertaken from ground level and no internal inspections or tests have been undertaken. Any structural defects present might not be visible, for example being masked by vegetation, whether the tree's foliage, plants growing round the base of the tree, or climbing plants growing on the stem and into the crown.

Unless otherwise stated, the survey data should be considered time-limited **for planning purposes** to a maximum of three years (absent revisions of BS5837, which render pre-existing data obsolete).

FLAC Ref. No.

Tree numbers per FLAC dwg no. 35-1028.01 and subsequent drawings

In line with the advice of BS5837:2012, where trees occur as a cohesive group feature (prefixed TG for tree group or WG for woodland group), they are assessed as such

Size data for TG or WG are given as mean figures for trees at roughly the 80 percentile of the population concerned. Trees in the 90-100 percentile range for the group are identified on the TSP

Trees within TG / WG boundaries that have more than one stem and which are sub-dominant within the TG / WG (i.e. <80 percentile) are subsumed within the TG / WG data; dominant multi-stemmed trees (i.e. >80 percentile) within TG / WG boundaries are listed as individual trees

TG / WG outlines follow the mapping base (typically either topographical survey or geo-rectified aerial imagery)

Hedges (domestic) are recorded prefixed H and are always excluded from the provisions of the Hedgerows Regulations 1997

Hedgerows (rural) are recorded prefixed HR and possibly fall within the provisions of the Hedgerows Regulations 1997

All numbering starts from x001 **for each type of vegetation**, where x identifies the surveyor (3000 series = AJC). Thus:

3000	Individual tree
TG3000	Tree group
WG3000	Woodland group
H3000	Domestic hedge
HR3000	Rural hedgerow

The addition of the FLAC instruction ref. ahead of the tree number provides a unique, non-repeated reference number for the particular tree in question

Any trees omitted from the topo survey are listed on the referenced plan, though their positions are only shown indicatively. Off-site trees are included where deemed relevant, though their positions are also shown indicatively if omitted from the topo base

TPO Ref.

Statutory protection listing for individual trees, TG and WG

ATTENTION: SEE NOTE IMMEDIATELY BELOW

Note

This column is only completed in cases where FLAC has been instructed to undertake a TPO search and correlation to FLAC reference numbers. The absence of data in this column **must not** be taken to indicate that the trees concerned are not under TPO protection. Statutory protection may also arise from the trees' location within a Conservation Area. Further statutory control over tree removal may be conferred by the Forestry Act 1967

Species

Tree species as listed in the schedule by common name. Species present are:

<i>Common name</i>	<i>Botanical name</i>	<i>Provenance</i>	<i>Notes</i>
Common lime	Tilia x europaea	Native	
Gean	Prunus avium	Native	
London plane	Platanus x hispanica	Exotic	
Rowan	Sorbus aucuparia	Native	

Ht. (m)

Tree height in metres

Crown Spread

For individual trees, measured radial crown spread in metres, listed for each of the four cardinal points

Length

Approximate length in metres of hedge or hedgerow

Ht. 1st Br.

For individual trees and trees assessed as groups or woodland, height in metres above ground of attachment point of first significant branch (cardinal point may be given indicating growing direction)

Ht. Can.

For individual trees and trees assessed as groups or woodland, mean height in metres of lower extent of tree canopy above ground

Stem Count

For individual trees, number of stems present below 1.5m AGL. Stem count affects diameter entry as follows:

Where the stem count is 1 the diameter should be entered into the 1 column under Stem Dia.

Where the stem count is up to 5 each stem dia. should be listed

Where the stem count exceeds 5, the mean stem diameter should be entered in the 1 column

Either:

Stem Dia. (mm)

Stem diameter(s) at 1.5m above ground level (see measurement system in BS5837:2012 Annex C), given in millimetres

Where entered 1:

Single measured stem diameter

Where entered 2-5:

Multiple measured stem diameters, listed per stem

Where entered >5:

For trees with more than five stems, diameter is listed as an estimated mean

Where the diameter entry for trees with 1 or 2-5 stems appears in italics, this indicates that it was estimated by the surveyor (for example, due to the presence of ivy on the stem)

It is our practice to round up when estimating stem diameters

Or:

Specimen Stem Dia.

For trees assessed as groups or woodland, stem diameter in millimetres at 1.5m above ground level for 80 percentile member of TG or WG. Trees with larger diameters are identified on the TSP

Or:

Mean Stem Dia.

Mean stem diameter in millimetres above the basal flare of hedge or hedgerow component plants

Either:

RPA Rad.

Radius in metres of the notionally circular Root Protection Area

Or:

Specimen RPA Rad.

For trees assessed as groups or woodland, radius in metres of the notionally circular Root Protection Area based on specimen diameter for TG or WG 80 percentile tree

Either:

RPA Area

Conversion of RPA radius to an area, given in m², capped to a maximum of 707m² (in line with BS5837:2012)

Life Stage

Life stage assessment according into:

Y	Young
SM	Semi-mature
EM	Early mature
M	Mature
OM	Over-mature

Phys. Condition

An assessment of the **physiological** condition (i.e. health/vitality) status of the tree summarised according to:

GOOD	Generally in healthy condition
FAIR	Condition satisfactory though below mean species performance
POOR	Tree in decline/retrenching
DEAD	Self explanatory

Structural condition & Notes

Notes on the apparent structural integrity of the tree based on visual tree assessment, including notes on form, taper, forking habit, storm damage, decay fungi, pests, etc. plus other pertinent observations

Management recommendations

Preliminary recommendations for intervention (e.g. tree surgery, felling, etc) in relation to existing context

Trees assessed as being in apparently immediately hazardous condition will be notified to the client separately as soon as practical. Where the recommendation is for further investigation, including removal of ivy and reinspection, the given retention span and quality/value grade (see below) should be treated as provisional

Notes

This is **not** intended to comprise a specification for tree work: further advice should be sought prior to implementation

Change in land use (target value) requires further assessment

Ret. Span

Estimated remaining retention span based on species, condition & context divided into the following bands (relates to quality and value grade achievable as stated):

Years *Best QV grade*

<10	U
10+	C
20+	B
>40	A

QV Grade

Quality & Value grade classification according to BS5837:2012 (see attached extract from BS5837:2012 'Table 1 - Cascade Chart for Tree Quality Assessment') –

<i>Grade</i>	<i>Summary meaning</i>	<i>Ident. colour spot on TSP</i>
U	Trees that are unretainable in viable condition	Dark red
A	High quality & value and consequent high retention priority	Light green
B	Moderate quality and value (moderate priority for retention)	Mid-blue
C	Low quality and value (generally considered to be sacrificial)	Grey

Note

Trees present which we consider to be **exceptional** specimens are identified by the suffix * after the A grade, e.g. A1*

Proposal

This column identifies:

1. Pre-planning (Arboricultural Stages 1, Tree Survey, & 2, Design):
JFL's initial view of a defensible tree retention / removal balance
2. Planning submission (Arboricultural Stage 3):
The actual tree retention / removal balance as proposed

The following codes are used:





RET	1. Trees preferably retained 2. Trees that would be retained
REM	1. Trees defensibly removed to facilitate development 2. Trees that would be removed
U	Trees identified to be unsuitable for retention

OUR LADY'S RC PRIMARY SCHOOL : TREE SURVEY DATA TABLE

Data for individual trees

FLAC Ref. No.	TPO Ref	Species	Ht. (m)	Crown Spread (m)				Ht. 1 st Br. (m)	Ht. Can. (m)	Stem Count	Stem Dia. (mm)					RPA Rad. (m)	RPA Area (m2)	Life Stage Y-SM-EM-M-OM	Phys. Condition G-F-P-D	Structural condition & Notes	Management recommendations	Ret. Span <10, 10+ 20+, >40	QV Grade U-A-B-C	Proposal	
				N	S	W	E				1 / mean	2	3	4	5										
				3001		London plane	25				11.5	11	11.5	12.5	9 W										5
3002		Common lime	10.5	4.2	3.1	3.2	4.2	2.2 W	2.2	1	370						4.44	62	EM	G	Historic lean to east from ground level of approximately 10 to 12 degrees off vertical. Tarmac laid right up to stem base. Stem sweeps to upright from around 2.5 metres above ground level. Although rather heavily suppressed by the dominant London planes to east and west overall condition which has had an impact on overall form, general condition is satisfactory and the specimen contributes to the screening/greening of the site.	No action required at time of survey.	>40	B1	RET
3003		London plane	25	9	8.6	10	13	6.5 S	5	1	1545						15.00	707	M	G	Stout upright stem within a very small fenced area of unmade ground. Stem bifurcates just below 8 metres above ground level. The crown appears to have regrown from past topping at 15 metres. Some recent pruning is evident to the crown and a section of the upper central leader has been removed, this has resulted in two off-vertical leaders at the upper crown becoming exposed through loss of past companion shelter and intervention pruning is advised to reduce these to promote better form and stability. There is a small dead hanging limb above the steps at the south end of the adjacent classroom.	Shorten two leaders at upper crown north and south that project above the mean crown dimensions by 3 metres. Remove hanging limb above roof and steps at south end of adjacent classroom.	>40	A1	RET
3004		Gean	7.2	3.5	5	5	2.6	2 E	2.3	1	180						2.16	15	SM	G	Upright specimen in very close proximity to adjacent fence with scaffold limb in tight abrasive contact with top of fence. Low future potential because of proximity issues.	Fell.	<10	U	U
3005		Rowan	7.5	3.3	3	3.3	3.3	2 N	2.5	1	223						2.68	23	EM	F	Highway tree, closest to south-west corner of site. Probably <i>S. x thuringiaca</i> . Typical form and structure for the cultivar. Vehicle impact wounds on highway side.	No action required at time of survey.	20+	B1	RET

BS5837:2012 Table 1 – Cascade chart for tree quality assessment

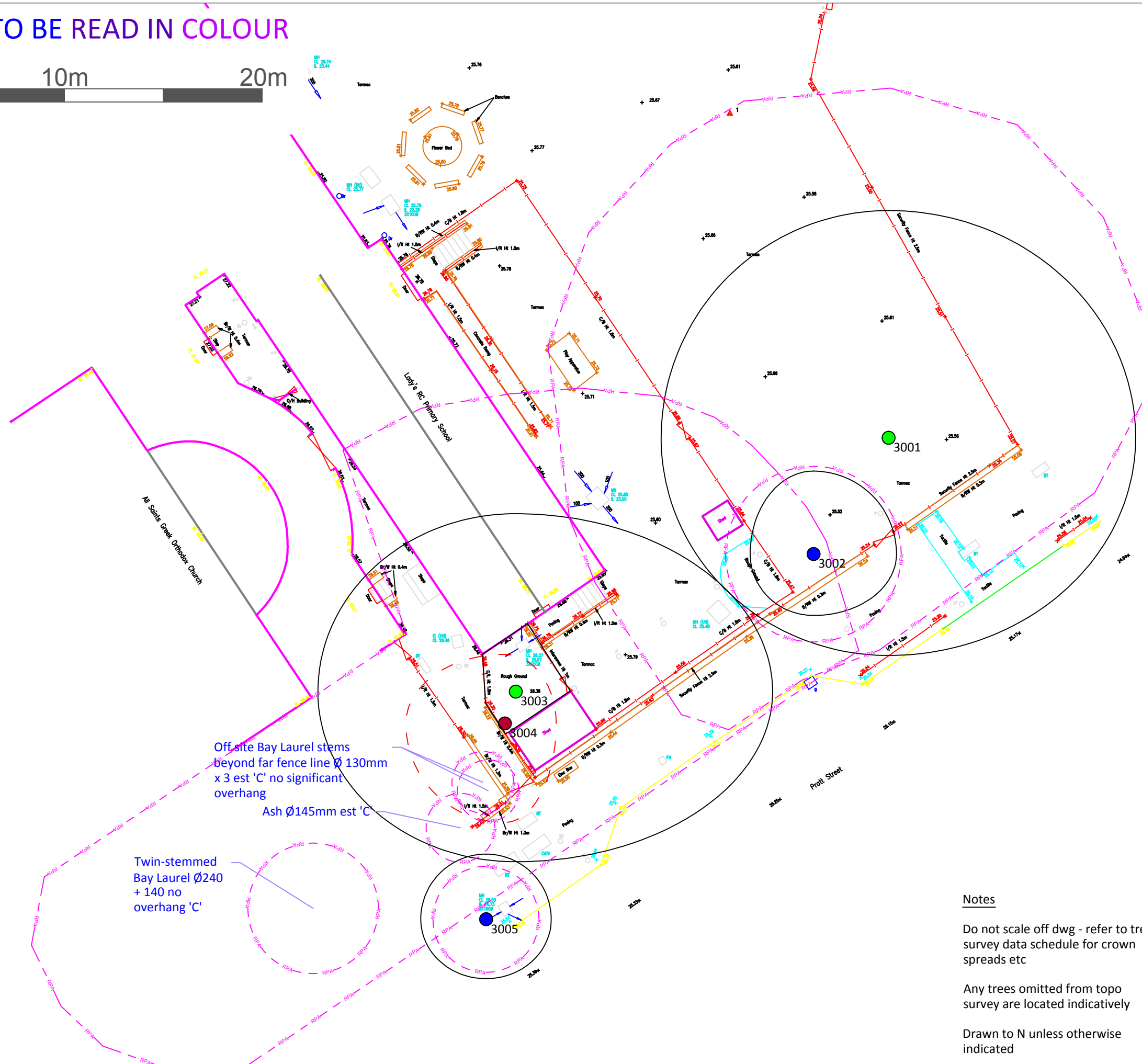
Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<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 category U trees (e.g. 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, or very low quality trees suppressing adjacent trees of better quality <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</i></p>			
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	

FLAC Note

The original contents of the column *Identification on plan* have been replaced by FLAC in the version above; spot colours to RGB codes given in BS5837:2012 Table 2

CAUTION: THIS DRAWING IS

INTENDED TO BE READ IN COLOUR



Off-site Bay Laurel stems beyond far fence line Ø 130mm x 3 est 'C' no significant overhang
Ash Ø145mm est 'C'

Twin-stemmed Bay Laurel Ø240 + 140 no overhang 'C'



Client
Our Lady's RC Primary School

Instruction
Our Lady's RC Primary School

Instruction ref.
CC35-1028

Dwg title
Tree Survey & Retention Plan

Dwg no.
35-1028.01A

Revision date
22.10.15

Scale
1:200 @ A3

- Quality & value grades:
- Category A ● High
 - Category B ● Moderate
 - Category C ● Low
 - Category U ● Unretainable

- Trees recommended for retention
- Trees defensibly removed to facilitate development
- Trees for removal for arboricultural reasons
- Indicative tree root protection area (retention trees only)

Notes

Do not scale off dwg - refer to tree survey data schedule for crown spreads etc

Any trees omitted from topo survey are located indicatively

Drawn to N unless otherwise indicated

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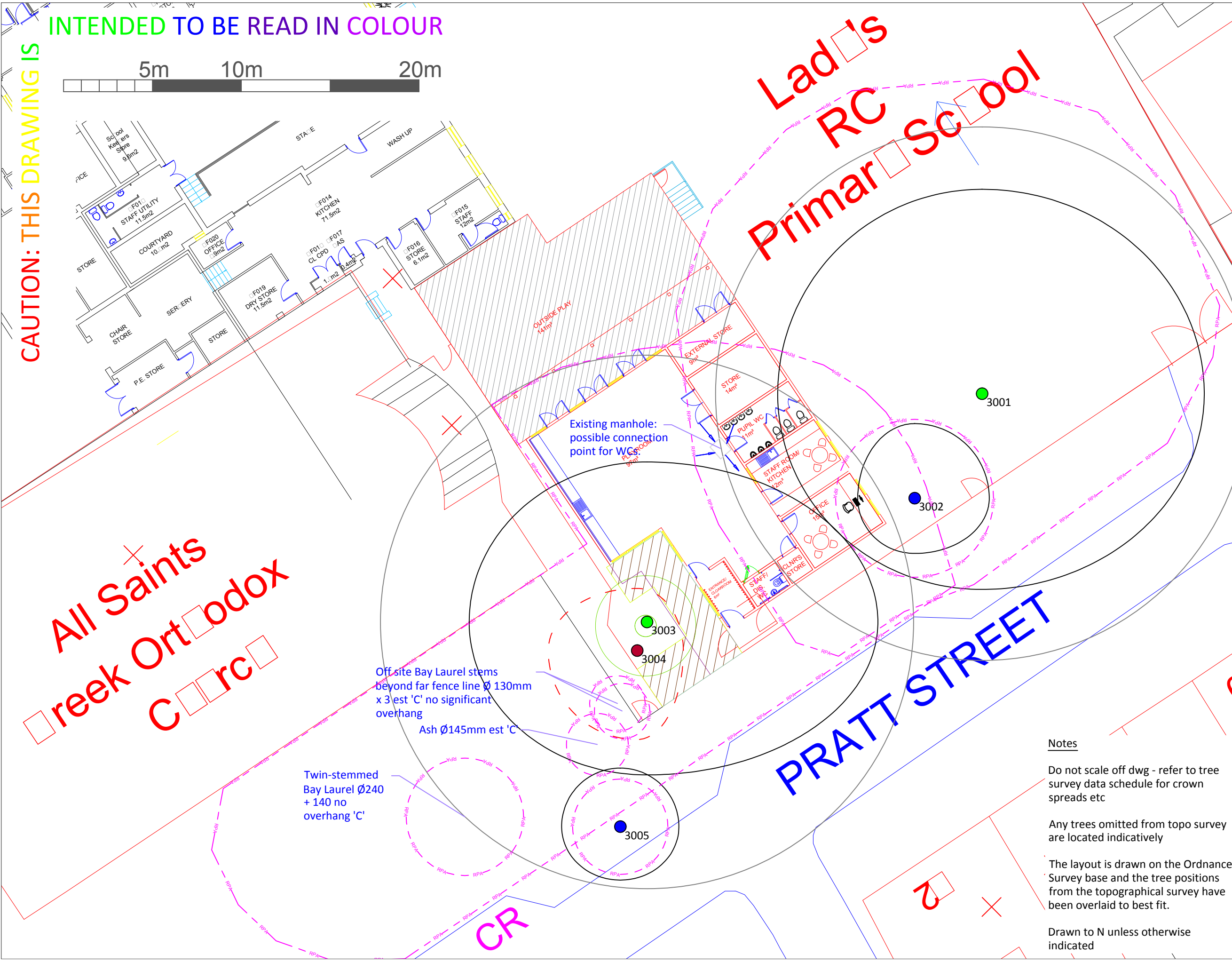
INTENDED TO BE READ IN COLOUR



CAUTION: THIS DRAWING IS

Ladys RC Primary School

All Saints
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C RC



Client
Our Lady's RC Primary School

Instruction
Our Lady's RC Primary School

Instruction ref.
CC35-1028

Dwg title
Tree Survey & Retention Plan with layout

Dwg no.
35-1028.02

Date
22.10.15

Scale
1:200 @ A3

Quality & value grades:
Key

- Category A ● High
- Category B ● Moderate
- Category C ● Low
- Category U ● Unretainable

- Trees recommended for retention
- ⋯ Trees defensibly removed to facilitate development
- ⋯ Trees for removal for arboricultural reasons
- ⋯ Indicative tree root protection area (retention trees only)

Notes

Do not scale off dwg - refer to tree survey data schedule for crown spreads etc

Any trees omitted from topo survey are located indicatively

The layout is drawn on the Ordnance Survey base and the tree positions from the topographical survey have been overlaid to best fit.

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INTENDED TO BE READ IN COLOUR

5m 10m 20m

CAUTION: THIS DRAWING IS

ARBORICULTURAL IMPACT ASSESSMENT

Impact on ground conditions in RPAs

The existing ground treatment is tarmac. The installation of the new structure, which will sit on top of the existing hard surface with a 150mm void between the ground and the structure, will not change the current levels of moisture percolation and gaseous diffusion. Outside of the footprint of the new modular building the existing tarmac will be retained unaltered.

Impact on levels within RPAs (Ref Section C & Plan Sketch; dwg. no. SK01 appended to this document)

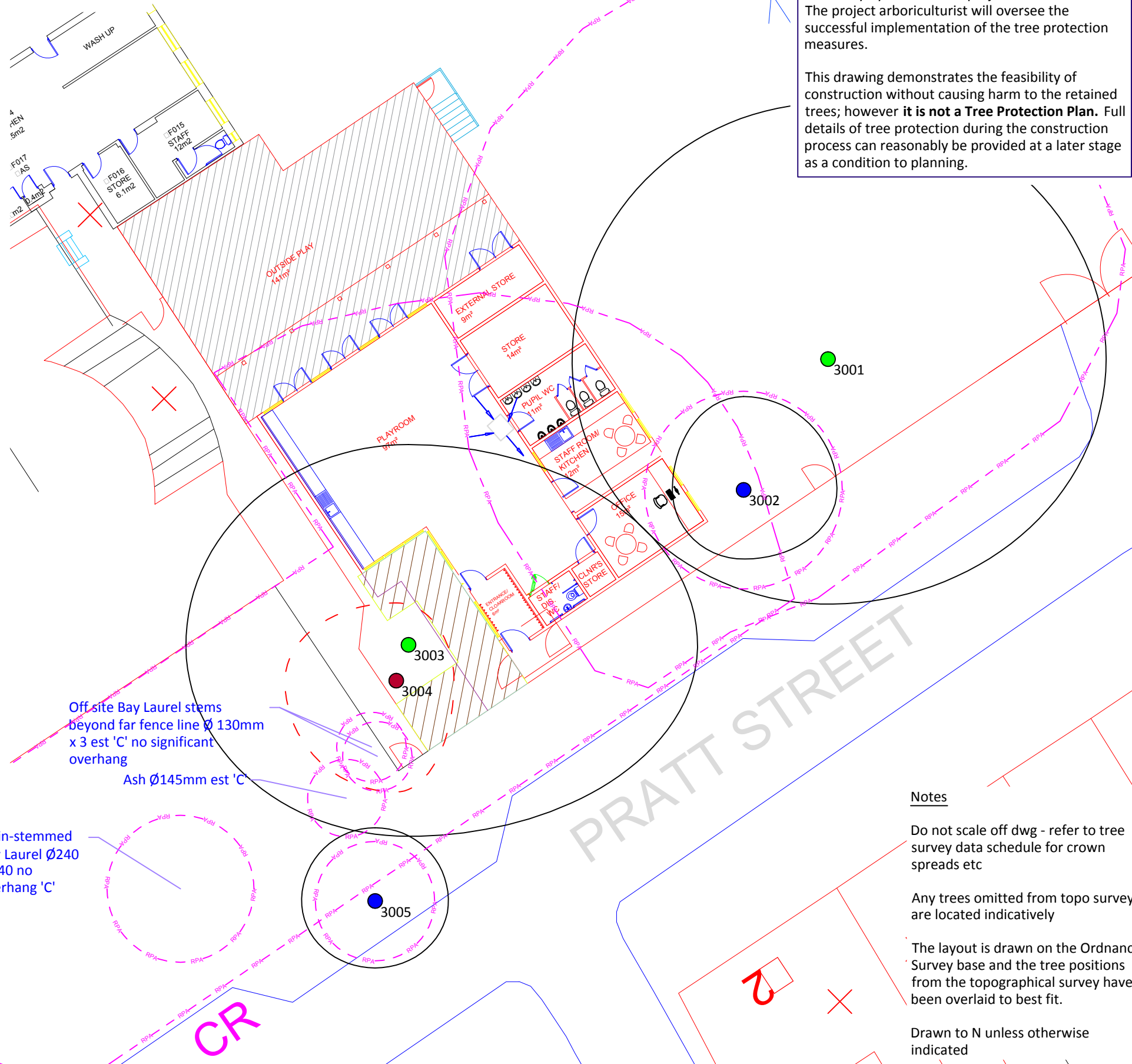
The existing levels will be maintained throughout. Localised excavation will be made into an existing raised access ramp by the proposed entrance/cloakroom (see section C-C on the above referenced drawing). This ramp sits above existing ground and does not form part of the rooting environment for the retention trees.

Excavations within the RPAs

Suppliers of the modular buildings have confirmed the new building will be supported by either geological screw piles or an engineered raft. Both systems can be designed to minimize the impact on the trees and avoid the need for a conventional strip foundation. Full details of the foundation design, including an arboricultural method statement for installation, can reasonably be provided at a later stage as a condition to planning. The proposed sewer connection to the existing system within the RPA of tree 3003 is technically feasible with only localised excavations to make the connection and without the need for open trench excavation. Full details of the services connections, including an arboricultural method statement for installation, can reasonably be provided at a later stage as a condition to planning.

Post construction

There is an existing classroom under the canopy of tree which the proposed modular building will replace. The relationship between the tree and building will not be significantly different.



TREE PROTECTION DURING CONSTRUCTION

The retained trees shall be protected during the construction process with robust scaffold-braced barriers to exclude access and proprietary ground protection to prevent soil compaction, as deemed necessary by the retained project arboriculturist. The project arboriculturist will oversee the successful implementation of the tree protection measures.

This drawing demonstrates the feasibility of construction without causing harm to the retained trees; however it is not a Tree Protection Plan. Full details of tree protection during the construction process can reasonably be provided at a later stage as a condition to planning.



Client
Our Lady's RC Primary School

Instruction
Our Lady's RC Primary School

Instruction ref.
CC35-1028

Dwg title
Arboricultural Impact Plan

Dwg no.
35-1028.03

Date
18.02.16

Scale
1:200 @ A3

- Quality & value grades:
- Key**
- Category A ● High
 - Category B ● Moderate
 - Category C ● Low
 - Category U ● Unretainable

- Trees recommended for retention
- Trees for removal for arboricultural reasons
- Indicative tree root protection area (retention trees only)

Notes

Do not scale off dwg - refer to tree survey data schedule for crown spreads etc

Any trees omitted from topo survey are located indicatively

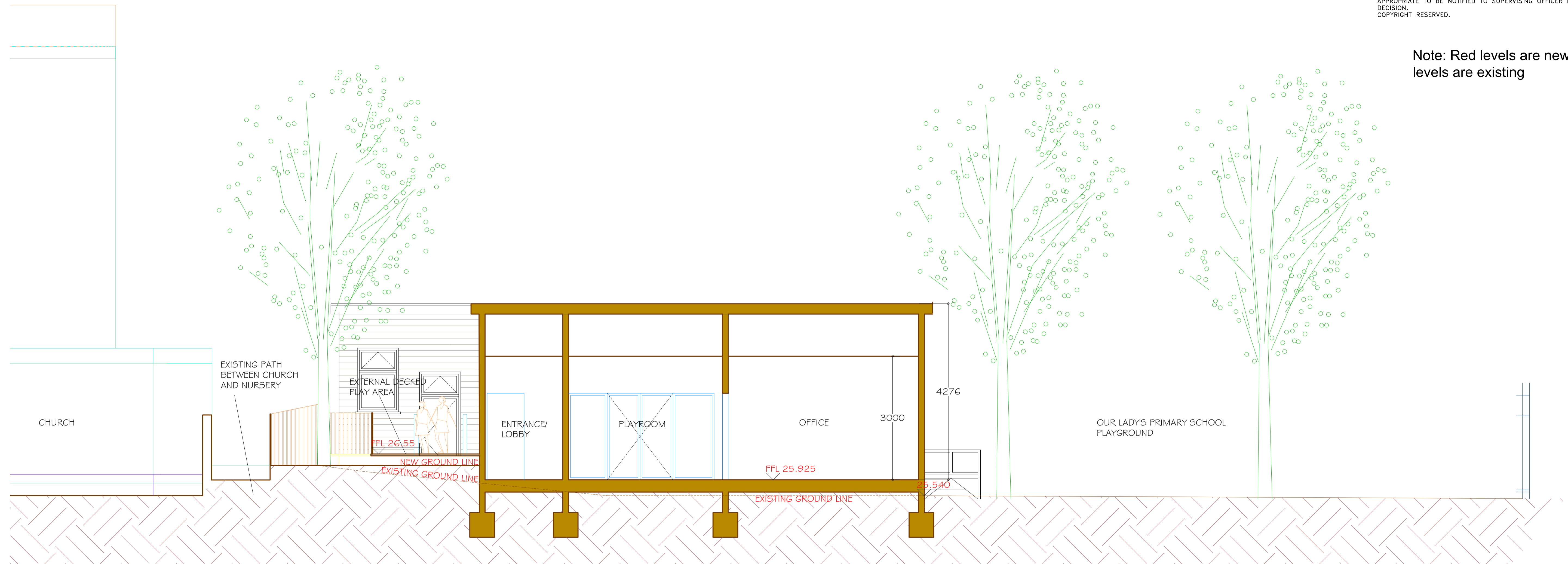
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Drawn to N unless otherwise indicated

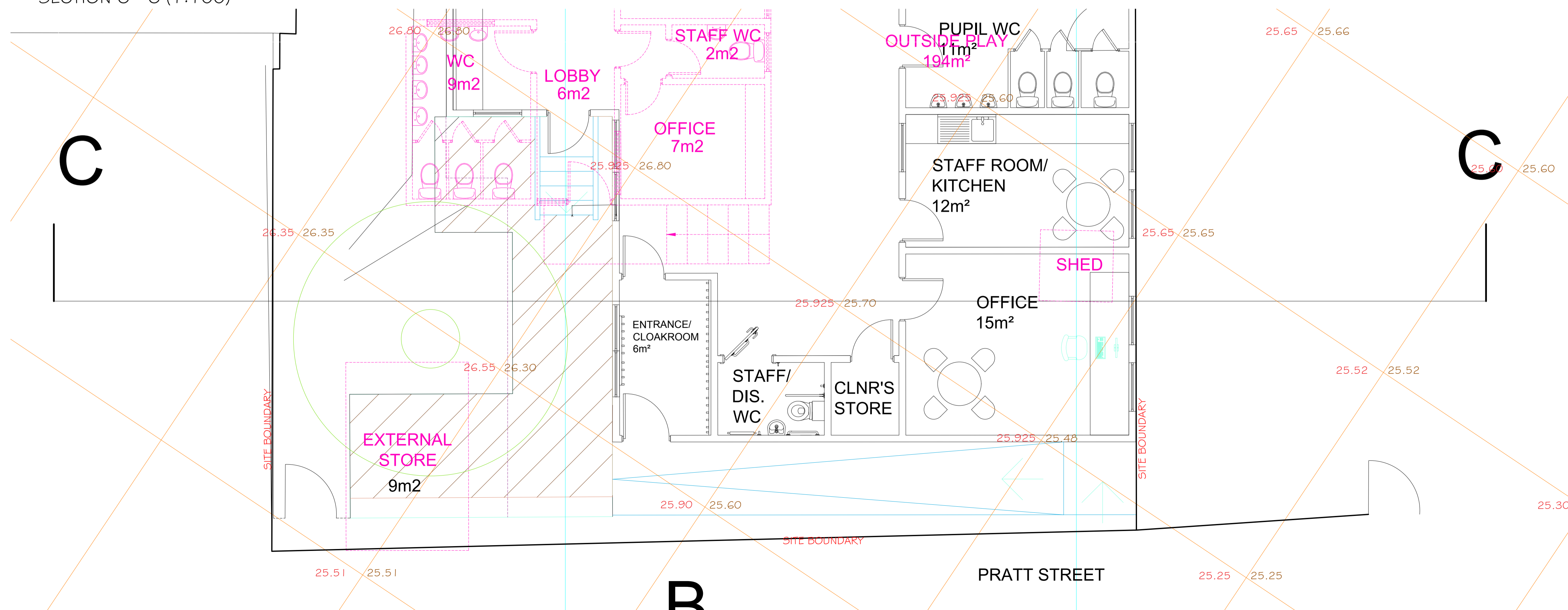
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Note: Red levels are new, black levels are existing



SECTION C - C (1:100)



NEW NURSERY
 OUR LADY'S R.C. PRIMARY
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SECTION C & PLAN SKETCH

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