ARBORICULTURAL REPORT

OLD FORESTRY DEPOT
CRAIK
October 2021

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PURPOSE OF REPORT

This report is prepared for Mr & Mrs White, concerning a Planning Application and the proposed erection of a dwellinghouse at the site of the Old Forestry Depot, Craik.
As requested a pre-development site arboricultural survey to current British Standard 5837: 2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*, was undertaken within the marked boundaries of the supplied topographical site plan

DEPOT SITE DESCRIPTION

Entering The Old Forestry Depot via the vehicular entrance gate from the Southern boundary, there is a small woodland group of mainly native deciduous, young and semi-mature trees adjacent to the vehicle track and to the South and East of the site, this is the only substantial tree cover within the depot, heading in a Northerly direction past former maintenance buildings and yard area, deciduous and coniferous trees are confined to the site perimeter leading to the stream and pedestrian bridge to the North of the site.
The only area void of trees is to the West of the site bordering open farmland. The age of site trees suggest a tree planting effort was undertaken by The Forestry Commission Scotland once the depot was constructed and established, to screen commercial site operations.

CONSTRAINTS OF SURVEY

A preliminary site inspection in conjunction with the proposed area of development, determined the extent of the site to be surveyed as follows, to the North, extending to the former deer larder, to the East, extending to the drystone wall, to the South and West into the Small Woodland Group of trees, currently a portakabin is sited within this described area.
The survey is limited to the aforementioned "Small Woodland Group". No Trees outside of the site boundary are of close proximity or of large stature, to be in conflict with proposed development. *(See Tree Survey Schedule and Site Plan for details).*

SURVEY METHODOLOGY

A pre-development site arboricultural survey was carried out, using the guidance and criteria recommended in, British Standard 5837: 2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*, within the proposed area of development on the supplied topographical site plan.

To obtain accurate assessment of the "Small Woodland Group", it was decided to inspect, categorise and record trees individually.

All site trees of 75mm diameter and above measured at 1.5m height are numbered and plotted on a site plan, details including, species are recorded and the tree subject to a visual assessment for health, structural integrity, stability in the ground and categorised. A description and recommendations if relevant are recorded, *(See Tree Survey Schedule and Site Plan for details).*

APPRAISAL OF SURVEYED TREES

A site survey in the area of proposed development recorded a woodland group total of 27, individual plotted trees of, Young and Semi-mature age, an equal balanced mix of the following species, Norway Maple, Wild Cherry, Common Alder, Downy Birch, Rowan and Whitebeam.

The group collectively does not have a great visual appeal, nor does it contain outstanding individual trees, with the exception of T4, Norway Maple, which is an excellent, young example of this particular species.

The group has not recently been managed and therefore contains many suppressed/spindly individual trees of poor quality, caused through overpopulation, however, the group of mostly native trees does offer a limited visual and conservation value.

TREES LOST TO DEVELOPMENT

At this stage of planing, the precise location and dimensions of a dwellinghouse are unknown, it is therefore not possible to calculate accurately which trees may be lost to accommodate development. However, it is "estimated" with a modest dwellinghouse, trees numbered, 14 through 27, a total of 14 trees, need to be removed to facilitate a development within the confines of the site.

All trees recommended for removal are either, Category C: Trees of low quality = 9 or Category U: Trees unsuitable for retention = 5. *(See Tree Survey Schedule and Site Plan for details).*

REPLACING TREES LOST TO DEVELOPMENT

It is recommended to replace lost trees like for like, a mixture of the following species are to replace, Alder, Birch, Cherry, Rowan and Whitebeam, other suitable, native trees could be used, totalling at least 14 trees. Careful consideration of tree species suitability for chosen planting locations must be given and allowing also for tree development without conflict to buildings, structures or services above or below ground.
Ideally tree planting should commence in the spring, February through April, avoiding heavily frozen ground conditions. Soil within the tree pit loosened, then backfilled and watered. A treeguard should be fitted to prevent damage from grazing. Aftercare for a period of 3 year, including weeding and watering in dry weather will help establishment. Trees that fail must be replaced.

Two areas have been identified for group planting to replace trees lost to development, it is also possible that trees could be singular planted on this site in many alternative locations. *(See, Site Plan for details).*

PROTECTIVE MEASURES

As well as direct severance of roots, trees are potentially endangered by compacting of their rooting environments caused by movement of vehicles and general pressures on site. This can result in death of roots and in extreme circumstances the death of trees, for this reason it is important that all trees considered for retention are afforded physical protection during site development as per requirements of British Standard 5837: 2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations"*,
Protective fencing should be erected to safeguard site trees. This should be as far out from the trees as feasible and at least to the extent of the Root Protection Area (RPA) *(See tree schedule for details).* It is further recommended to link protective fencing where trees are in groups to create a continuous barrier offering superior tree protection where possible.

FNCING SPECIFICATION

Fencing would normally consist of a scaffold framework with vertical tubes spaced at 3 metre intervals, weld mesh panels should be fixed to this with wire or scaffold clamps as per BS 5837: *2012 - 6.2 Barriers and Ground Protection – figure 2 – Protective Barrier. A copy is enclosed in the appendix for reference.*

The protection of trees should then be enforced within the fenced areas as follows:

No building work
No trespass by vehicles, machinery or people
No storage of materials
No site huts
No fires
No excavation
No routeing of underground services

Care should also be taken to avoid the above as far as practical outside the protective fence where there is still a risk to the well-being of a tree and overhanging branches.

STORAGE OF MATERIALS

A designated location for the storage of materials is the yard area to the centre of the site. *(See, Site Plan for details).*

HARD ANDSOFT LANDSCAPE WORKS

Once building is complete, the protective fencing can be removed to enable final surfacing and landscape works. Any excavations near to trees, should be by hand where possible for hard surfaces and driveways. Similarly, soft surfaces must also be developed with care to safeguard tree roots, avoiding mechanical cultivation, rotovating and vehicle use within the RPA.

Should further advice or clarification on any points be required, I would be pleased to help.

Date of report: 8th October 2021

Surveyor/Author: Geoff Armstrong
HND (Arb.)

Surveyor: Geoff Armstrong **Location:** Old Forestry Depot, Craik **Date:** October 2021

Tree No.	Species	Overall Height & Clearance (m)		DBH (mm)	Canopy Spread (m)		RPA (m)	Age Class	Physiological & Structural Condition	Recommendation	Ultimate Height & Spread (m)		SULE (years)	BS 5837 Rating
1	Norway Maple *Acer platanoides*	H C	11.0 1.0	470	N 4.0 E 5.0 S 5.0 W 7.0		5.6	SM	Multi stem, damaged basal area re-growth and small basal cavity with decay - **Healthy**	Monitor basal decay	H S	28 24	>30	B, 1
2	Wild Cherry *Prunus avium*	H C	13.0 2.0	500	N 3.0 E 4.0 S 3.0 W 6.0		6.0	SM	Twin Stem - **Healthy**	None	H S	30 18	>30	C, 2
3	Wild Cherry *Prunus avium*	H C	13.5 10.0	170	N 1.0 E 0.0 S 0.0 W 4.0		2.0	SM	Single stem, suppressed small crown - **Poor**	None suppressing adjacent maple (T, 4)	H S	30 18	>10	C,2
4	Norway Maple *Acer platanoides*	H C	14.0 4.0	610	N 4.5 E 5.0 S 6.0 W 7.0		7.3	SM	Twin Stem - **Healthy**	None	H S	28 24	30>	A, 1
5	Norway Maple *Acer platanoides*	H C	14.0 3.0	210	N 2.0 E 6.0 S 4.0 W 0.0		2.5	SM	Single stem, one sided crown - **Reasonable**	None suppressing adjacent maple (T, 4)	H S	28 24	10>	C,2
6	Rowan *Sorbus aucuparia*	H C	5.0 1.5	300	N 0.0 E 0.0 S 0.0 W 5.0		3.6	Y	Multi stem, suppressed small one sided crown - **Poor**	None suppressed by adjacent maple (T, 4)	H S	18 12	>10	C,2
7	Rowan *Sorbus aucuparia*	H C	4.0 1.5	290	N 0.0 E 0.0 S 0.0 W 5.0		3.5	Y	Multi stem, suppressed small one sided crown - **Poor**	None suppressed by adjacent maple (T, 4)	H S	18 12	>10	C,2
8	Wild Cherry *Prunus avium*	H C	11.0 4.0	270	N 2.0 E 5.0 S 3.0 W 3.0		3.2	SM	Single stem, small suppressed crown - **Reasonable**	None	H S	30 18	>20	C, 2
9	Norway Maple *Acer platanoides*	H C	14.0 8.0	250	N 3.0 E 4.0 S 3.0 W 3.0		3.0	SM	Single stem, small suppressed crown - **Reasonable**	None suppressing adjacent maple (T, 4)	H S	28 24	10>	C,2
10	Common Alder *Alnus glutinosa*	H C	13.0 4.0	290	N 3.0 E 4.0 S 3.0 W 5.0		3.5	SM	Single stem, suppressed unbalanced crown - **Reasonable**	None	H S	25 15	>20	C,2

Surveyor: Geoff Armstrong

Location: Old Forestry Depot, Craik

Date: October 2021

Tree No.	Species	Overall Height & Clearance (m)		DBH (mm)	Canopy Spread (m)	RPA (m)	Age Class	Physiological & Structural Condition	Recommendation	Ultimate Height & Spread (m)		SULE (years)	BS 5837 Rating
11	Whitebeam *Sorbus aria*	H C	8.0 2.0	500	N 3.0 E 3.0 S 3.0 W 0.0	6.0	SM	Multi stem, suppressed unbalanced crown - **Reasonable**	None	H S	20 8	>20	C, 2
12	Rowan *Sobus aucuparia*	H C	6.0 1.5	220	N 3.0 E 1.0 S 2.0 W 4.0	2.6	SM	Twin stem, suppressed unbalanced crown - **Reasonable**	None	H S	18 12	>20	C, 2
13	Common Alder *Alnus glutinosa*	H C	13.0 10.0	220	N 3.0 E 3.0 S 3.0 W 3.0	2.6	SM	Single stem, small suppressed crown - **Poor**	None	H S	26 12	>10	C, 2
14	Downy Birch *Betula pubescens*	H C	13.0 3.0	240	N 2.0 E 2.0 S 3.0 W 4.0	2.9	SM	Single stem, suppressed unbalanced crown - **Reasonable**	**Remove**	H S	23 9	>20	C, 2
15	Whitebeam *Sorbus aria*	H C	5.0 1.0	140	N 4.0 E 3.0 S 0.0 W 0.0	1.7	SM	Single stem, small suppressed crown, moderate lean - **Poor**	**Remove**	H S	20 8	<10	U
16	Wild Cherry *Prunus avium*	H C	12.0 8.0	220	N 3.0 E 3.0 S 2.0 W 2.0	2.6	SM	Single stem, small suppressed crown - **Reasonable**	**Remove**	H S	30 18	>20	C, 2
17	Common Alder *Alnus glutinosa*	H C	12.0 8.0	460	N 4.0 E 2.0 S 3.0 W 4.0	5.5	SM	Twin stem, suppressed unbalanced crown - **Reasonable**	**Remove**	H S	26 12	>20	C, 2
18	Common Alder *Alnus glutinosa*	H C	12.0 9.0	240	N 3.0 E 3.0 S 2.0 W 2.0	2.9	SM	Single stem, small suppressed crown - **Reasonable**	**Remove**	H S	26 12	>20	C, 2
19	Downy Birch *Betula pubescens*	H C	13.0 5.00	220	N 3.0 E 5.0 S 1.0 W 2.0	2.6	SM	Single stem, small suppressed crown - **Reasonable**	**Remove**	H S	23 9	>10	C, 2
20	Common Alder *Alnus glutinosa*	H C	13.0 10.0	130	N 2.0 E 2.0 S 1.0 W 1.0	1.6	SM	Single stem, small suppressed crown - **Poor**	**Remove**	H S	26 12	<10	U

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Tree No.	Species	Overall Height & Clearance (m)		DBH (mm)	Canopy Spread (m)	RPA (m)	Age Class	Physiological & Structural Condition	Recommendation	Ultimate Height & Spread (m)		SULE (years)	BS 5837 Rating
21	Wild Cherry *Prunus avium*	H C	7.0 1.5	240	N 2.0 E 3.0 S 3.0 W 3.0	2.9	SM	Twin stem, small suppressed crown - **Poor**	**Remove**	H S	30 18	<10	U
22	Rowan *Sorbus aucuparia*	H C	5.0 2.0	240	N 3.0 E 3.0 S 2.0 W 1.0	2.9	SM	Multi stem, suppressed small sparse crown - **Poor**	**Remove**	H S	18 12	<10	U
23	Downy Birch *Betula pubescens*	H C	14.0 5.0	530	N 7.0 E 6.0 S 2.0 W 3.00	6.4	SM	Twin stem, moderate Northerly lean, unbalanced crown - **Reasonable**	**Remove**	H S	23 9	>10	C, 2
24	Common Alder *Alnus glutinosa*	H C	11.0 5.0	200	N 6.0 E 0.0 S 0.0 W 3.0	2.4	SM	Single stem, heavy Northerly lean, suppressed unbalanced crown - **Poor**	**Remove**	H S	26 12	<10	U
25	Wild Cherry *Prunus avium*	H C	11.0 4.0	390	N 6.0 E 3.0 S 5.0 W 5.0	4.7	SM	Single stem, unbalanced - **Resonable**	**Remove**	H S	30 18	>10	C,2
26	Whitebeam *Sorbus aria*	H C	8.0 2.0	220	N 4.0 E 3.0 S 2.0 W 3.0	2.7	SM	Twin stem, moderate Northerly lean, unbalanced crown - **Reasonable**	**Remove**	H S	20 8	>10	C,2
27	Downy Birch *Betula pubescens*	H C	11.0 4.0	140	N 4.0 E 2.0 S 0.0 W 3.0	1.7	SM	Single stem, moderate Northerly lean, suppressed unbalanced crown - **Reasonable**	**Remove**	H S	23 9	>10	C,2

SURVEY GLOSSARY OF TERMS

Species: Common tree name, with botanical name in italics

Overall Height & Clearance (m): Total height of tree measured in metres, crown clearance from ground measured in metres

DBH (mm): Diameter of stem at Breast Height (1.5 metres height), measured in millimetres

Canopy Spread (m): Measured at four points of the compass

RPA (m): Root Protection Area, calculated to BS 5737: 2012 Recommendations

Age Class: Y = Young, Mi = Middle Aged, Ma = Mature, Ov = Over Mature

Physiological & Structural Condition: Abbreviated tree description, trees are assessed in the following manner: Crown condition, Stem condition & Overall condition which considers the combined crown and stem physiological and structural condition in conjunction with immediate ground conditions and tree stability, other relevant details may be recorded.

Crown	Healthy crown = (full balanced or as full as surroundings will allow) Reasonable crown = (restricted, unbalanced or sparse) Poor crown = (small, suppressed, declining or diseased)
Stem	Healthy stem = (no significant cavities or defects) Reasonable stem = (acceptable cavities or defects) Poor stem = (major defects)
Overall Condition	**Healthy** **Reasonable** **Poor**

Recommendation: Work required, explanatory details

Ultimate Height & Spread (m): Potential height & spread of identified tree, measured in metres

SULE (years): Safe Useful Life Expectancy, estimated in years

BS 5837 rating: A category = High quality – Colour GREEN on site plan

B category = Moderate quality – Colour BLUE on site plan

C category = Low quality – Colour GREY on site plan

U category = Up to 10 year life expectancy – Colour RED on site plan

on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray (Figure 3b).

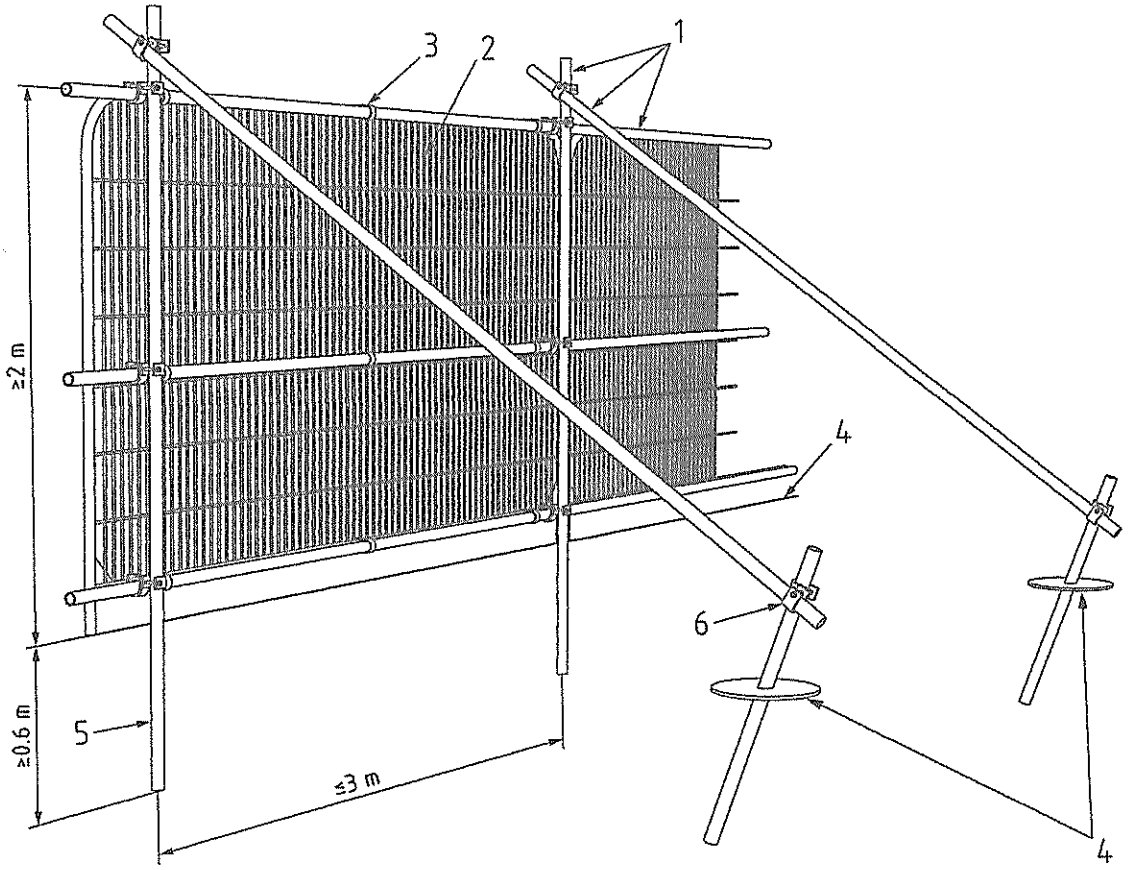
NOTE 1 Examples of configurations for steel mesh perimeter fencing systems are given in BS 1722-18.

NOTE 2 It might be feasible on some sites to use temporary site office buildings as components of the tree protection barriers, provided these can be installed and removed without damaging the retained trees or their rooting environment.

6.2.2.4 All-weather notices should be attached to the barrier with words such as:

"CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

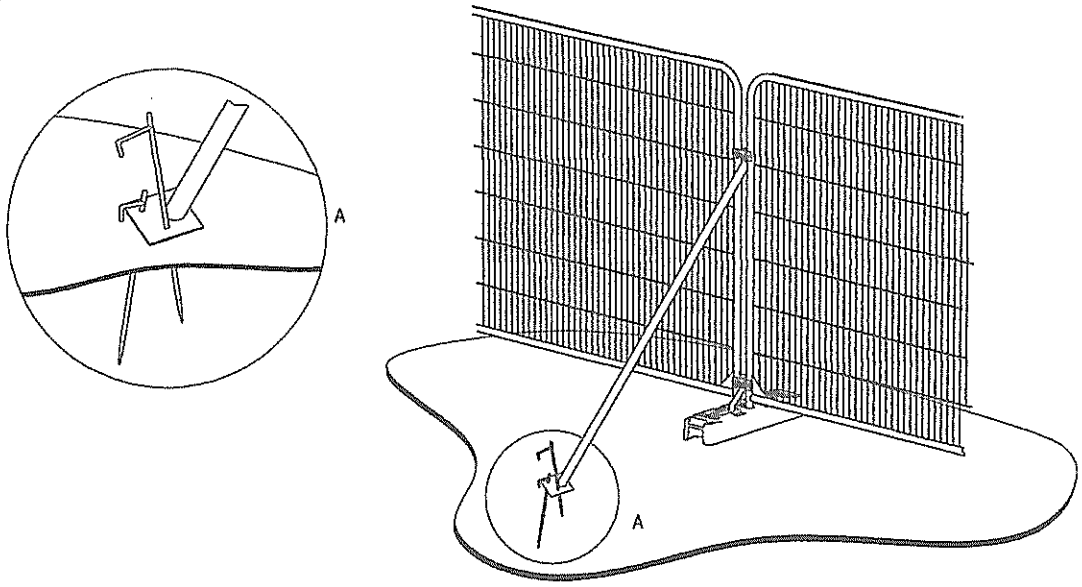
Figure 2 **Default specification for protective barrier**



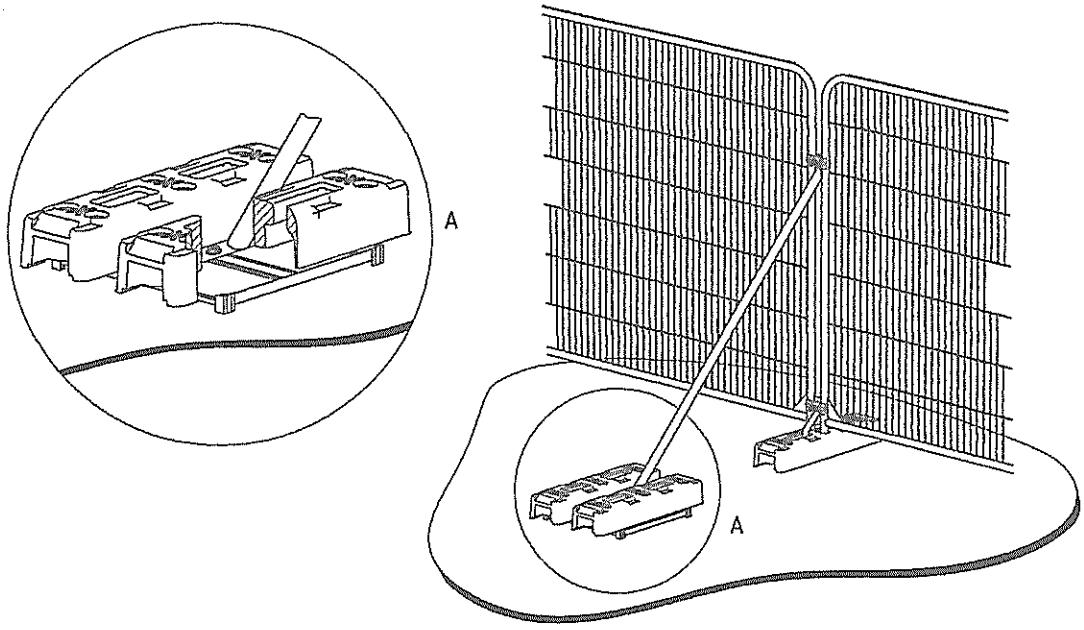
Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

6.2.3 Ground protection during demolition and construction

6.2.3.1 Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable existing hard surfacing that is not proposed for re-use as part of the finished design should be retained to act as temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.

PROJECT MANAGER/CONSULTANT
RM Architecture Ltd
Bloomfield
Heatherlie Park
Selkirk. TD7 5AL.

SCALE 1: 350
0 1 2 3 4 5 7.5 10
All Dimensions in metres

Survey Tied to National Grid & Ordnance Datum
By Leica Smartnet RTK GPS

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SURVEYED FOR :
Mr & Mrs White
Old Forestry Depot
Craik
Hawick. TD9 7PS.

SITE SURVEY :
Old Forestry Depot
Craik
Hawick. TD9 7PS.

DATE SURVEYED : 2nd July 2021

DRAWING NO : Craik/07/21/250

LEGEND

	Building/Structure
	Fence as described
	Wall
	Matching OS Building
	Matching OS Feature
	ROX14172 Extents
	Vehicular and pedestrian Servitude Right of Access
	Overhead Power Cable
	Overhead Telephone Cable
	Verge/Path Edge/Surface Change
	Limit of Vegetation Canopy
	Hedge
	Gate
	Individual Tree
MH14.32	Manhole with Cover Level
MH14.32	Manhole with Cover Level
BT	British Telecom Inspection Cover
Elec	Electricity Inspection Cover
FH	Fire Hydrant
JB	Junction Box
EP	Electricity Pole
LP	Lamp Post/Lighting Point
×	Marker as Described
Post	Timber/Plastic/Metal Post
RE	Rodding Eye/Rodding Point
23.65	Spot Level
SC/AV	Stop Cock/Air Valve
TP	Telegraph Pole