

Downtown Victoria North

PLANT

Contents

1 Introduction of Principles	5	4 Boundaries	18
2 Hardworks	6	Boundary General Arrangement	19
Hardworks General Arrangement	7	Maintenance Operations	20
Maintenance Operations	8		
Edgings General Arrangement	12	5 Softworks	21
Maintenance Operations	13	Softworks General Arrangement	22
		Trees pruning Schedule	24
3 Site Furniture	14	Management Plan	25
Furniture General Arrangement	15	Herbaceous Planting	30
Maintenance Operations	17	Lawn	34
		Planting Schedule	36

There should be a commitment to the ongoing high quality management and maintenance of any public realm. The long-term success of any landscape is reliant upon a detailed understanding of the parts and how they go together, but that is just the start of the journey. Perhaps the most important aspect and invariably overlooked, is to ensure that there is a defined and committed programme of maintenance.

Brief

The brief below describes the framework:

- The management plan will cover a time period of 1-2 years.
- The Management Plan must give consideration to environmentally sensitive design and management.
- The conservation of existing features will be a prime consideration.
- The Management Plan will seek to provide a net increase in the nature conservation value of the site.

Monitoring

The Management Plan's life span has been divided into key stages of 1-2 yearly intervals. These will be used as the basis for developing the plan and setting reviewing targets.

Monitoring is of fundamental importance, since this is the means by which the success of the plan will be measured. It is therefore important to establish standardised survey and monitoring methods, which enable valid year on year comparisons to be made. There will be a need for flexibility during its implementation. The Management Plan must be an evolving one, able to adapt to the specific needs of the space.

Management principles

Hardworks / Edgings / Site Furniture:

- To put in place procedures for regular inspections of all paved areas.
- To outline specification and requirements for work by Public Utilities and general surface reinstatement.
- To outline specification and sources of materials for repair / reinstatement (NBS Spec Public Realm).
- To establish winter maintenance procedures.
- To put in place procedures for street cleaning.
- To outline procedures for the maintenance of Site Furniture.

Proposed individual trees:

- To ensure satisfactory establishment and continuing health.
- To maintain the plants in a healthy condition and develop the site tree structure.
- To ensure the successful establishment and continuity of the overall design concept.
- To establish a valued and appropriate amenity.

Ornamental, herbaceous planting:

- To ensure satisfactory establishment and continuing health.
- To maintain plants in a healthy and attractive condition.

- To ensure the successful establishment and continuity of the overall design concept.

- To establish a mechanism for the replacement of any failing plant or one which has reached maturity.

- To ensure planting within public areas is maintained below a maximum height of 1m to meet the guidance set within Secure by Design.

Hardworks General Arrangement



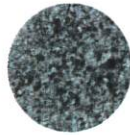
S1 Natural Stone
Paving Mix



S3/S9 Clay
Paving Mix 2



S5 Granite Planks



S7.1/S7.2/
S7.5 Steps



S10 Impermeable
Paving



S2 Clay Paving
Mix 1



S4/S11
Permeable
Paving



S6/S7.4 Natural
Stone Paving



S8 Granite
Corduroy Paving



S12 Tarmac

The drawings to which this section relates to are:
23C002-PLA-XX-XX-XX-DR-L-1001



Maintenance Operations

Natural Stone Paving - S1, S5,S6, S7.1-5, S8

Initial Maintenance

Materials are available for sealing the surface of the paving. These can be either impregnators or sealants to help with stain removal or to provide some benefit in stabilising the sand in the joints in the short and longer term. If a surface sealant is used on paving, it must be applied in strict accordance with the manufacturers instructions. Sealants may affect the colour of the pavement and its slip / skid resistance and may require ongoing maintenance during the life of the paving. It is important that the surface of the paving is dry and clean before any sealant is applied.

Should any paving become loose or start to rock, the reason for the damage should be ascertained and then appropriate measures taken to avoid any ongoing problems. Where new services are to be installed or access is required to existing services under the paved area, the paving should be lifted carefully, cleaned and stockpiled for later use. Devices for removing individual slabs are available. Once the initial paving has been removed, it should be relatively straightforward to uplift the area of paving. During relaying a slight surcharge should be created in the sand bedding course to allow for settlement of the paving following initial compaction and early trafficking.

Typically, reinstated areas of paving should have a surcharge of 2-3mm over the surrounding paved area. As the majority of paving is rectangular in shape, there should be no difficulty in obtaining replacement paving. Ideally, these should be obtained from the original supplier. Any replacement paving should be mixed with the existing paving to ensure an adequate colour blend between the old and new products.

Cleaning of Paving

General Dirt and Detritus

To remove general dirt and detritus a cyclic maintenance regime is required. If detritus dulls the colour of the paving, it can be re-established by pressure washing or scrubbing with proprietary solutions following the manufacturers guidelines. This can be carried out by hand or by using industrial cleaning equipment. Ensure all soap has been thoroughly washed from the surface on completion of the cleaning.

Moss, Lichen and Algae

Moss, lichen and algae may grow on paving in areas which are heavily shaded or under trees, or are not laid to an adequate fall leading either to slow running off or ponding of surface water. If such growths do occur, the areas should be treated with an appropriate proprietary weed killer, used in accordance with the manufacturers instructions. Such products are most effective when applied during a spell of dry weather.

Rust Stains

If rust stains occur on the paving, the first requirement is to eliminate the source of the staining. To remove rust stains, the surface should be wetted and the affected area treated with a prop solution. After cleaning, the paving should be well washed down to remove all traces of the acid.

Oil Stains

Oil does not penetrate readily into the body of granite paving, but if oil is spilt on the paving the spillage should be removed promptly with an absorbent material. After soaking up the majority of small spills, prompt washing with a prop solution should remove the stain. Steam cleaning can be used on paving to remove more extensive or stubborn stains, but if this is unsuccessful, an emulsifying degreasing agent should be employed. Brush the cleaner onto the affected area and then wash the emulsified oil away with plenty of water. Neither hot water, steam cleaning nor emulsifying agents will affect the colour of the paving.

Bitumen Stains

Bitumen does not penetrate readily into granite. The best method of removal is to leave the bitumen until it has cooled and remove it with a paint scraper or similar mechanical device.

Maintenance Operations

Permeable Paving - S4,S10, S11

Initial Maintenance

For the best results the cleaning of concrete paving requires hot water pressure washing. Initially the surface should be pre-swept to remove any loose debris. Once the debris has been removed then set the machine to between 80 and 100 bar and the temperature to 100 degrees centigrade. The first process is to remove the chewing gum using the lance with the low pressure option, using the high pressure keep the nozzle at a 45 degree angle 5cm away from the gum and remove in a methodical movement, once the gum is removed turn the lance to low pressure lift and move to the next piece without causing joint damage and repeat the process. When the gum is removed attach the rotary floor tool you may need to increase the pressure to 120 bar (depending on your nozzle sizes) use the rotary floor tool in a uniform manner cleaning either up and down or side to side slightly over lapping each pass.

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Surface Protection

To preserve and protect from staining and gum adhesion on the Kellen paving Planit would advise that it is protected using Pavesaver or Pavesaver Ultra a surface Impregnator available from Hardscape.

SUPPLIER:
Tobermore
T: 0844 800 5736
E: sales@tobermore.co.uk

Maintenance Operations

In addition to the recommendations below, also refer to the maintenance and operational instructions from the individual suppliers. Advice from the suppliers can also be sought regarding the maintenance of their products using the contact details supplied.

Natural Stone /Flush/Transition Kerb -E1.1/E1.2/E1.3, E2

Same procedures at hardworks (see above pg 9) Additional maintenance required due to drainage gullies. See previous section.

Supplier : Marshalls
Tel:+44 (0) 3332202737

Raised Steel Edge - E3.1

Check for loose or damaged edging pieces. Tighten or replace screws, bolts or fastening. For sever dents or cracks, replace the damaged section

Supplier : Kinley
Tel:+44 (0) 1580 830 688

Flush Steel Edge -E3

Check for loose or damaged edging pieces. Tighten or replace screws, bolts or fastening. For sever dents or cracks, replace the damaged section.

Supplier : Kinley
Tel:+44 (0) 1580 830 688

Free Standing Planter - E3.2

Check for loose or damaged edging pieces. Tighten or replace screws, bolts or fastening. For sever dents or cracks, replace the damaged section

Supplier : Kinley
Tel:+44 (0) 1580 830 688

Furniture General Arrangement

The drawings to which this section relates to
are: 23C002-PLA-XX-XX-DR-L-4000



Maintenance Operations

In addition to the recommendations below, also refer to the maintenance and operational instructions from the individual street furniture suppliers. Advice from the suppliers can also be sought regarding the maintenance of their products using the contact details supplied.

Timber To Benches / Seating - F1, F1.2, F2, F3, F4

The timber should be treated with Osmo or Owatrol Rubbing Oil. Every 2 years the wood should be cleaned down using the a pre treatment solution which de-oxidises the wood before re-coating with the Oil. As long as this is done, the wood will keep its colour and will have a much greater lifespan than if left untreated. Osmo/Owatrol Oil are commercially available products and will be available through any good wholesaler or exterior furniture supplier.

Powder Coated Finishes -F8,F9,F10,F11,F12,F13,F14,F15,F16

Powder coatings can be treated like most other paints and will benefit from regular washing. If the powder coating is chipped or the steel is exposed in anyway, it is recommended that this should be 'touched up' using external grade paint. Cleaning should take place every 6 months. A mild detergent applied by cloth, sponge or soft brush should be used. The aesthetic life will be prolonged by waxing or polishing with good quality car shampoos and waxes.

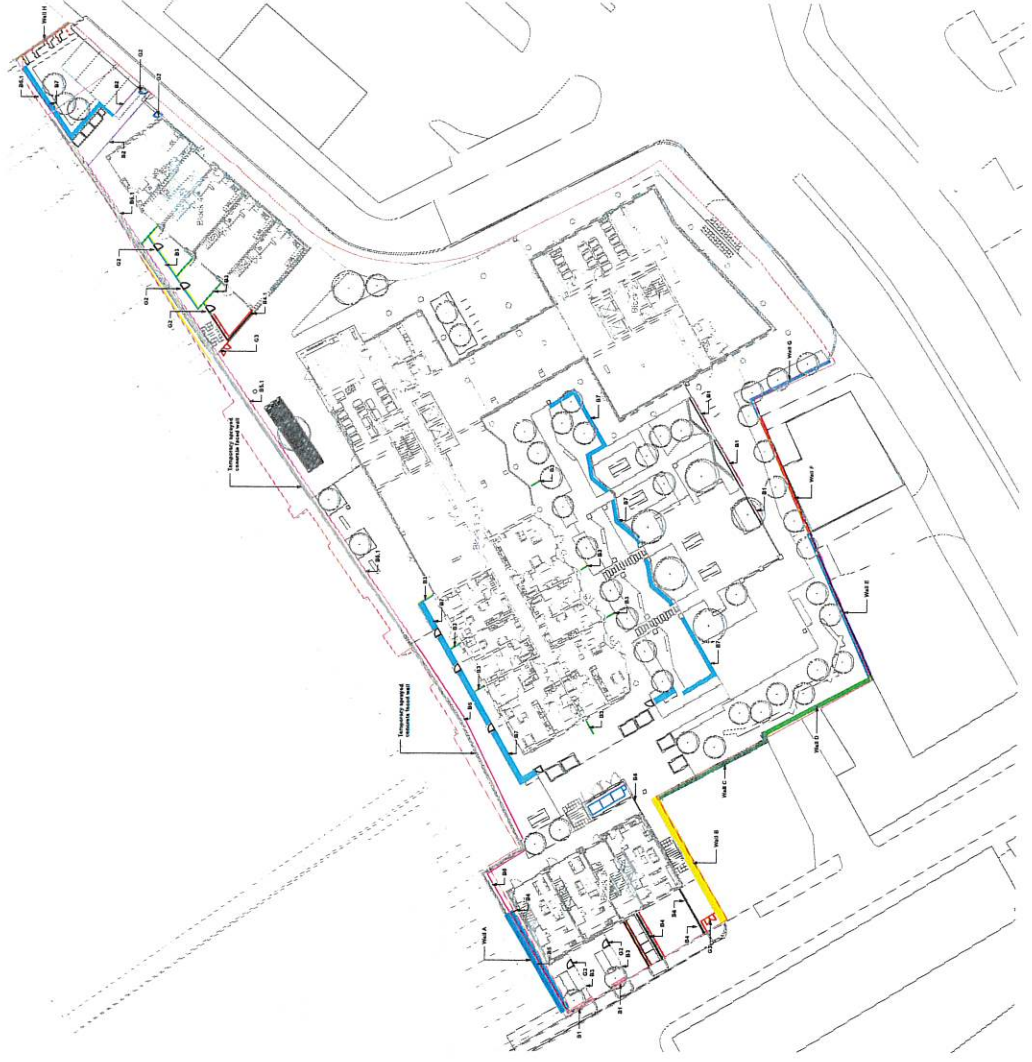
Supplier: Bailey Streetscene Furniture

Tel: +44 (0) 1625 855 900

Email: enquiries@baileystreetscene.co.uk

Boundary General Arrangement

The drawings to which this section relates to are:
23C002-PLA-XX-XX-DR-L-1002



5 SOFTWARES



Trees
A combination of single & multi-stem trees. Refer to drawing 2426-PLA-XX-XX-DR-L-2000 for specification.



Clipped Instant Hedge
To be used in landscape.
Size: 800mmW x 1200mmH approx.
Refer to drawing 2426-PLA-XX-XX-DR-L-2000 for specification.



Ornamental Shrub and Herbaceous Planting
Biodiversity rich planting. Refer to drawing 2426-PLA-XX-XX-DR-L-2000 for specification.



Lawn
Medallion turf
Supplier: Rollawn or similar approved



Planting Bed
800mm high timber planter, planting to residential community choice



Structural Root Cell Modules
To be used in landscape.
Refer to drawing 23C002-PLA-XX-XX-DR-L-6004 for further details

The drawings to which this section relates to are:
23C002-PLA-XX-XX-DR-L-2000

Management Plan

Objectives

Consideration has been given to the future management requirements of the softworks elements within the public realm associated with the Ancoats Green development. As a result the following objectives have been identified:

- To ensure the successful establishment and continuity of the overall design concept.
- To prescribe all necessary management and maintenance principles and management tasks to ensure satisfactory establishment and to maintain plants in a continuing healthy and attractive condition.
- To establish appropriate amenity and biodiversity value.
- To provide a mechanism for the ongoing monitoring and reviewing of the management plan and the specific maintenance operations contained therein.
- To establish a mechanism for the replacement of any failing plant or one which has reached maturity.
- To ensure planting within public areas is maintained below a maximum height of 1m to meet the guidance set within Secure by Design.

Duration

Once the construction defects and maintenance period is complete, all of the general activities highlighted below will need to be addressed by the maintenance team as part of the standard maintenance procedures.

The management plan will cover a time period of 15 years. After this time a full review of the site should be undertaken and a new management and maintenance plan produced.

Monitoring

The Management Plan's life span has been divided into key stages of 5 yearly intervals. These will be used as the basis for developing the plan and setting reviewing targets.

Monitoring is of fundamental importance, since this is the means by which the success of the plan will be measured. It is therefore important to establish standardised survey and monitoring methods, which enable valid year on year comparisons to be made. There will be a need for flexibility during its implementation. The Management Plan must be an evolving one, able to adapt to the specific needs of the site.

This maintenance provider should undertake an annual review of the site, providing written documentation as to the ongoing establishment of the planting.

This report should include a condition review of all new and existing plant material, success rates of newly planted material, and recommendations for future management regimes and immediate management requirements.

Health and Safety

A Health and Safety plan is an important consideration for any area of public realm. The landscape maintenance team will be expected to produce a risk assessment and method statement for the maintenance of the planting areas.

Highways

Maintenance works associated with works adjacent to highways will need to be considered as part of the general management and maintenance procedures.

Chemicals

Chemicals generally should be restricted in use. All chemicals, herbicides, pesticides and fertilisers, should be approved by English Nature and should be used, stored and disposed of in accordance with EN guidelines and COSHH Regulations 2002.

Maintenance Operation

- Identification: Before starting work agree which trees are to be removed or pruned
- Protection: Avoid damage to neighbouring trees, plants and buildings
- Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'
- Removing branches: Cut as shown in Arboricultural Association Leaflet No 8 'Mature tree maintenance'. Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater

- Appearance: Leave trees with a well balanced natural appearance
- Chain saw work: Operatives must hold a Certificate of Competence
- Tree work: To be carried out by an approved member of the Arboricultural Association

Additional Work

Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

Prevention of Wound Bleeding

Standard: To BS 3998, clause 8.

Prevention Of Disease Transmission

Standard: To BS 3998, clause 9 and Appendix B.

Water Restrictions

General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

Prescription	Year (s)	Season	Frequency (per year)
TREE PLANTING			
To establish new planting, maintain a 1m diameter weed free area around all trees	1 – 15	Spring - Autumn	1
UNDERGROUND TREE GUY WIRES			
Inspection / maintenance times: Quarterly and after strong winds	1 – 15	Throughout year	2
Operations: Replace or re-secure loose or missing guy wires			
Adjust to suit stem growth and to provide correct and uniform tension			

Prescription	Year (s)	Season	Frequency (per year)
New Tree Planting-Orchard Tree			
Exclude aggressively competitive plants from around the base of each plant. Weed control to be carried out by hand or by strimming (using appropriate guards to avoid damage to the plant) and / or herbicide application	1 - 3	As required	As required
Check stakes and ties for looseness, breaks or decay and adjust, re-fix or replace defective items	1 - 5	As required	Each maintenance visit / 12 visits
Remove all stakes and ties	5	Autumn	As required
Plants are to be maintained upright and adjustments to be made during strong winds. Ensure trees remain firmly bedded after disturbance and re-firm as necessary	1 - 5	As required	Each maintenance visit / required
New trees to be inspected by a suitably experienced arborist. Monitoring to inform action required to aid establishment, including watering and application of mulch and / or fertilisers	1 - 5	May-September	1
Water as necessary to ensure establishment and continuing health	1 - 3	As required	As required
Control all pests and diseases as necessary	1 - 5	As required	As required
Replace any dead or dying trees with trees of similar species and local origin	1 - 5	Autumn	1
Pruning-To be carried out in Winter to encourage growth. Deadwood and diseased limbs to be removed in Spring / Summer	1 - 5	Winter/Spring	As required

Prescription	Year (s)	Season	Frequency (per year)
Control all pests and diseases as necessary	1 - 15	As required	As required
Replace any dead / under performing plants. Where planting continually fails to establish, undertake investigations to ascertain any underlying cause.	1 - 15	March / October	As required
Watering – Regular checks using a moisture probe testing on a monthly cycle during the first two years after planting on a monthly cycle during the summer months of May-September.	1 - 2	May-September	5
Water as necessary to ensure healthy growth. If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.	1 - 15	As required	As required
Top up mulch planting to original specification at the start of each year after the cutting back of tender perennials.	1 - 15	Spring	1
Divide large groups of perennials every 3 years:			
Divide summer flowering plants in spring or autumn providing that the ground is dry enough to work.	3	Spring / Autumn	1
Divide spring flowering plants in summer after flowering.	3	Summer	1
Gaps in planting: Refill by replanting, allow 5 % replacement planting, species to be agreed with the LA.	1 - 15	As required	1

Apply a winter fertilizer at a rate of 60g/m ² or as per manufacturers recommendations	1-5	Autumn	1
Undertake hand weeding operations to remove broad leaved weeds, only apply herbicide when absolutely necessary. Maintain the sward substantially free (95%) of broad leaved weeds	1-5	March - November	1
Reinstatement of damaged areas	1-5	As required	As required
Remove damaged turf to a depth of 40mm, cultivate substrate to a fine tilth, re-seed or turf and water as needed to ensure establishment. Quality and appearance of the grassed area is to match existing	1-5	Spring	As required

Plants and shrubs	Common name	Pot	Size (height) (mm)	Density (m ²)	Plant Code	Quantity
<i>Ajuga reptans</i> 'Atropurpurea'	Dark purple bugle	5L	Full pot	7	AA	14
<i>Alchemilla mollis</i>	Lady's Mantle	5L	Full pot	5	Am	28
<i>Heucherella</i> 'Tapestry'	Heucherella 'Tapestry'	5L	Full pot	7	HT	35
<i>Liriope muscarifolia</i> 'Big Blue'	Big Blue Lily Turf	5L	Full pot	5	Lm	17
<i>Luzula nivea</i>	Snowy Wood Rush	5L	Full pot	5	Ln	40
<i>Calamagrostis x acutiflora</i> 'Karl Foerster'	Feather Reed Grass	5L	Full pot	5	Ca	25
<i>Iris pseudacorus</i>	Yellow Iris	5L	Full pot	8	Ip	10
<i>Persicaria affinis</i> 'Darjeeling Red'	Knotted 'Darjeeling Red'	5L	Full pot	5	Pa	28
<i>Sarcococca hookeriana</i> var. <i>humilis</i>	Dwarf sweet box	5L	Full pot	4	Sh	14

Climbers	Common name	Pot	Size (height) (mm)	Density (m ²)	Plant Code	Quantity
<i>Clematis amandii</i>	Armand Clematis	10L	1.8-2m	As shown	Ca	23
<i>Hedera helix</i> 'Buttercup'	Ivy 'Buttercup'	10L	1.8-2m	As shown	HHB	22
<i>Wisteria floribunda</i>	Japanese Wisteria	10L	1.8-2m	As shown	Wf	19

Hedge	Common name	Specification	Size (height) (mm)	Density (m ²)	Plant Code	Quantity
<i>Ortaegus monogyna</i>	Hawthorn	Instant hedge	1.2m	40%	Cm	288
<i>Fagus sylvatica</i>	Beech	Instant hedge	1.2m	40%	Fs	288
<i>Taxus baccata</i>	Yew	Instant hedge	1.2m	20%	Tb	146

Bulbs	Common name	Pot	Size (height) (mm)	Density (m ²)	Plant Code	Quantity
<i>Allium caeruleum</i>	Azure-flowered garlic	Full pot	Grade 6/7	15%		969
<i>Camassia leichtlinii</i>	White-flowered quamash	Full pot	Grade 14+	15%		969
<i>Colchicum autumnale</i>	Meadow saffron	Full pot	Grade 16+	20%		1295
<i>Hyacinthoides non-scripta</i>	English Bluebell	Full pot	Grade 6/8	15%		969
<i>Galanthus nivalis</i>	Common Snowdrop	Full pot	Grade 4+	20%		1295
<i>Camassia leichtlinii</i> 'Alba'	White Indian Lily	Full pot	Grade 14+	15%		969

Plants and shrubs	Common name	Specification	Size (height) (mm)	Density (m ²)	Plant Code	Quantity
AXF	Acer x freemanii	Acer Autumn Blaze	Specimen, min. 4x breaks	30-35	5-5.5	1
AG-7	Acer greselum	Paperbark Maple	Specimen, min. 4x breaks	30-35	5-5.5	1
ALJ-3	Albizia julibrissin	Pink Silk Tree	Specimen, min. 3x breaks (multi-stem)	16-18	4-5.5	5
AL-9	Alnus glutinosa 'Laciniata'	Cut leaved common Alder	Specimen, min. 4x breaks	30-35	5-5.5	8
AmL	Amelanchier lamarckii	Snowy Mesquit	Specimen, min. 3x breaks (multi-stem)	20-25	4-5.5	2
CS-8	Cercis siliquastrum	Judas Tree	Specimen, min. 4x breaks	16-18	4-5.5	4
CLPS-2	Crataegus laevigata 'Paul's Scarlet'	Hawthorn 'Paul's Scarlet'	Specimen, min. 4x breaks	20-25	4-5.5	2
Ms	Malus sylvestris	Crab Apple	Specimen, min. 4x breaks (multi-stem)	30-35	5-5.5	13
SP-11	Pinus sylvestris	Scots Pine	Specimen, min. 4x breaks	20-25	4-5.5	3
PAP-4	Prunus avium 'plena'	Wild Cherry Tree	Specimen, min. 4x breaks	20-25	4-5.5	3
PS-5	Prunus Serrula	Tibetan Cherry	Specimen, min. 3x breaks (multi-stem)	16-18	4-5.5	5

b o

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