Building 552 Relocation Scheme

Background

Building 552 (Water Tanks) are two sperate structures of identical appearance located to the south of Camp Road, which were considered to represent an example of functional buildings erected in association with the previous use of the site as a military airbase

The water tanks are required to be removed from their existing location to make way for the residential development permitted in application no. 10/01642/OUT.

The relocation of the tanks weas previously agreed under application 12/00027/DISC which saw the tanks to be relocated to a site located to the west of Parcel B3. It is important to note that this area has now been allocated under Policy Villages 5 as an area with potential for additional development.

However, since the approval of the application, a Condition Report was prepared by Health and Safety Partnership Consultants Ltd which concludes that given the existing condition of the tanks, it would not be possible to move them without significant damage occurring. It also identified that the Braithwaite Tank Panels are readily available. A copy of the Report is provided at **Appendix 1**.

Revised Proposal

In light of the restrictions on, and impracticability's of moving the tanks, it is now proposed to incorporate the tanks into the landscaping of the Heritage Centre, and convert some of the panels into a bench planter with an associated heritage interpretational panel which details the original location, design and function of the tanks.

The layout of the proposed Heritage Centre landscaping is provided at **Appendix 2**, whilst the design of the proposed planter is provided at **Appendix 3**.

Appendix 1: Health & Safety Partnership Consultants Limited Report

Appendix 2: Heritage Centre Landscaping Plan

Appendix 3: Bench Planter Design

APPENDIX 1

Health & Safety Partnership Consultants Limited Report

Heyford Park Settlements LP
14 December 2014

Braithwaite-type Tanks re-location

Introduction.

HSPCL carried out a condition survey of the Braithwaite-type tanks on Camp Road to determine how they can be suitably re-located as part of the redevelopment of the Heyford Park site. Each of these tanks would have held approximately 105,000 litres of water when they were use.

Braithwaite tank panels have been extensively used across the world since patented in 1901, for the storage of fluids, predominately water and particularly used by the military for temporary water storage, due to their ease of erection. They are constructed of pressed steel sections (originally 4' x 4') bolted together with sealant compressed between the flanges. Lightweight internal tensile bracing prevents the tank was separating under the pressure of the contained fluid. The tanks at Heyford Park are highly likely to be original Braithwaite tanks but this cannot be confirmed at this stage as there are a number of other manufacturers who have copied this style of sectional panelling. The apparent age of the tanks at Heyford together with their location indicates that they are original Braithwaite tanks

HSPCL have carried out re-location operations of Braithwaite tanks for military purposes in the 1980's.

A condition survey was carried out by HSPCL and discussions had with Braithwaite Engineers Limited on the possible alternatives for the re-location of these sort of tanks.

Condition Survey

It is the considered impractical to dismantle these in a manner that will maintain the flanges' integrity for re-use. The corrosion affects approximately 60% of the joints for the two Braithwaite-type tanks (approximately 80 of the 132 panels that could be observed during

the inspection. It was not possible to inspect the panels that make up the base of each tanks).

It has been suggested that the tanks could be moved as complete units to a new location on the Heyford Park project.

Both HSPCL and Braithwaite Engineers Limited would recommend that this is not carried out. The tanks are in poor condition and are not structurally manufactured to take tensile or shear loading but for the compressive loads induced by the storage of liquids.

Any attempt to lift the tanks, even with substantial internal bracing and a considerable lifting frame supporting all joints is unlikely to prevent the panels failing due to the shear forces that will occur, particularly on the corroded flanges. It is highly probable that the tanks will fail under the tensile and shear forces imposed under lifting operations.

These tanks are in common use today and offer no significant historic value. Second hand panels (in significantly better condition that the ones at Heyford Park), are available for purchase at less than £5 each. The existing tanks, if relocated or kept in their current location, should not be used for potable water unless they are lined, due to the condition of the inside of the tanks and the potential for contamination. Should these tanks be kept on site they will require significant refurbishment and replacement panels for the most severely corroded.

Conclusions and Recommendations

These tanks will not withstand a lifting operation to relocate them without significant supporting internal and external frames being constructed to maintain their integrity, nor the mechanical damage that will occur of they are dismantled by hand. It is recommended that they are not moved unless a significant investment in this operation is carried out. It would be a much more cost effective solution to purchase 192 second hand panels (which will be in better condition) and provide tanks that look exactly the same and have a longer life-span, if there is a need to maintain or relocate the tanks for for nostalgic / local interest reasons.

Peter W Robertshaw

Managing Director HSPCL

APPENDIX 2

Heritage Centre Landscaping Plan

KEY

- Site Boundary
- Trees to be retained to BS5837:2012 within site boundarylas per D.0341_105A)
- Trees outside site boundary
- Existing Amenity grass
- Existing Hardstanding
- Proposed Hardstanding eg. tarmac.
- Bark
- Proposed Bench Planter
- Proposed Ornamental Shrub/Herbaceous/Bulb Planting
- Proposed Specimen Shrub
- Proposed Information Panel - to include information on the bench and history of the Braithwaite - type tanks. Content to be confirmed. eg. Lecturn sign by Woodscape or similar approved.

PLANTING SCHEDULE

Specimen Shrub

Qty	Species	Height (cm)	Form	Root Condition
2	Amelanchier lamarckii	180-200cm	multi-stemmed	50L

Ornamental Shrub and Herbaceous Planting

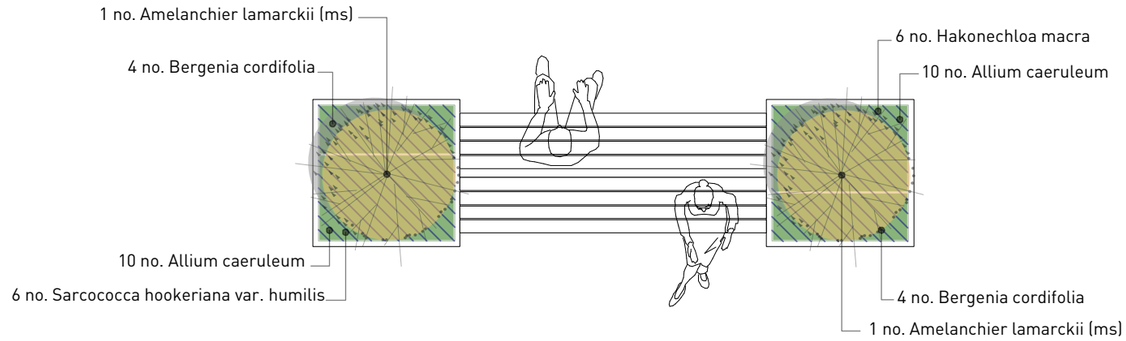
Qty	Species	Height (cm)	Form	Container Size
8	Bergenia cordifolia	n/a	Full Pot	2L
6	Hakonechloa macra	n/a	Full pot	2L
6	Sarcococca hookeriana var. humilis	30-40	Bushy, C	3L

Bulb Species:

Qty	Species	Grade (cm)
20	Allium caeruleum	4+ topsize

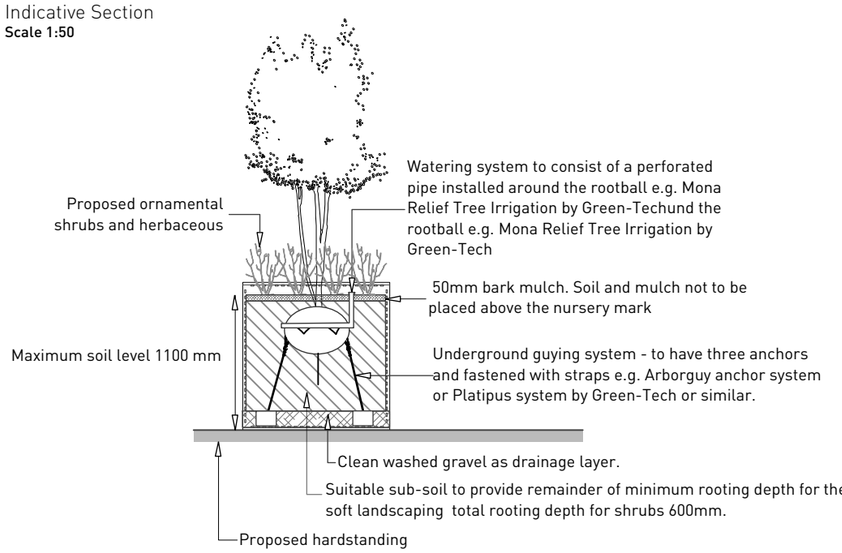
Detailed Landscape Proposals

Scale 1:50



Indicative Section

Scale 1:50



Revisions:
First Issue- 14/05/2018 ASK

Landscape Proposals Phase 1A

Buildings 103 - Heritage Centre Heyford Park

Client: Dorchester Group
DRWG No: D.0371_09 Sheet No:_ REV:
Drawn by: ARW/ASK Approved by: RVF
Date: 14/05/2018
Scale: 1:500 and 1:50 @A3

Pegasus Design

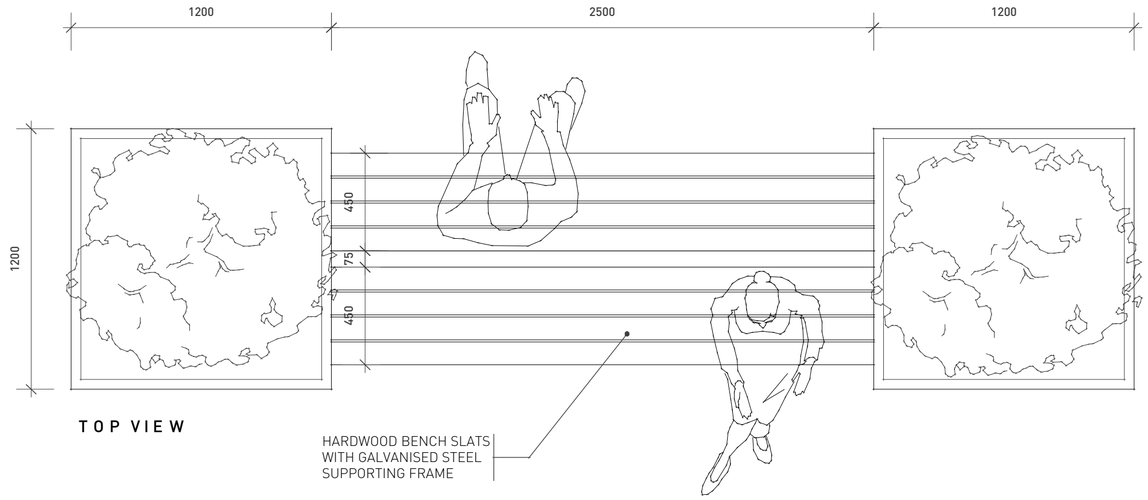
PLANNING | DESIGN | ENVIRONMENT | ECONOMICS

0 25m

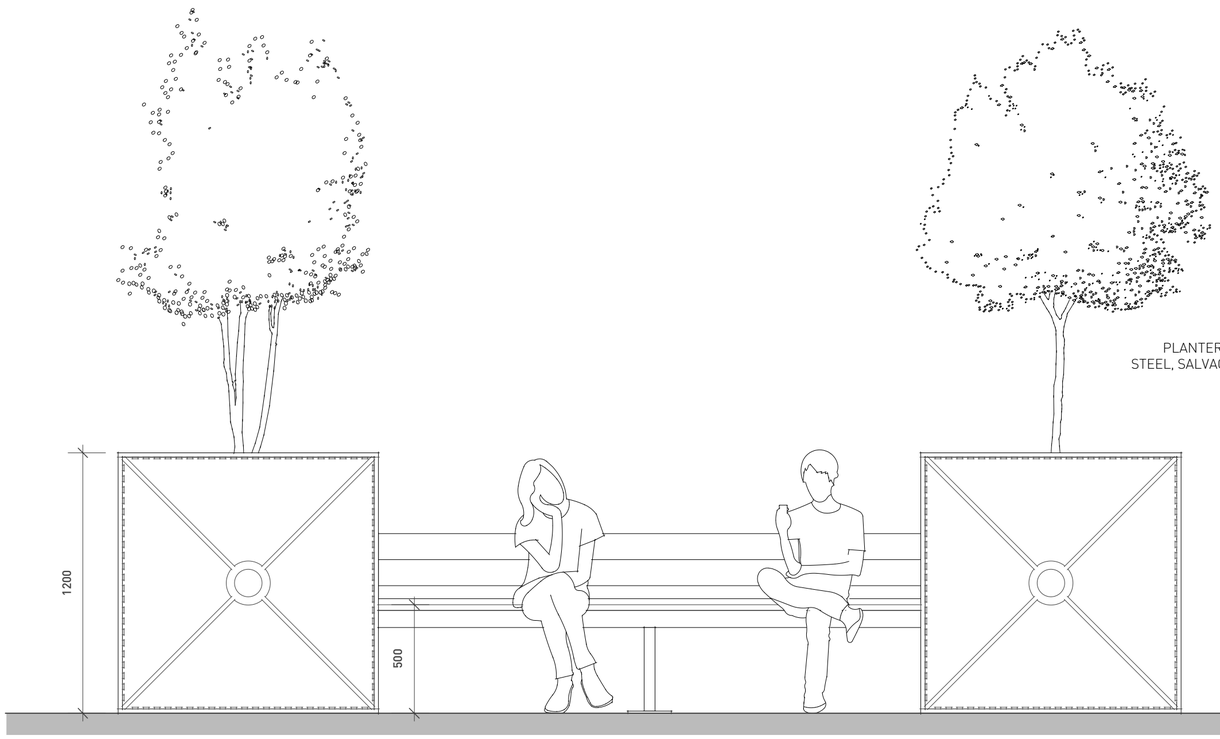
N

APPENDIX 3

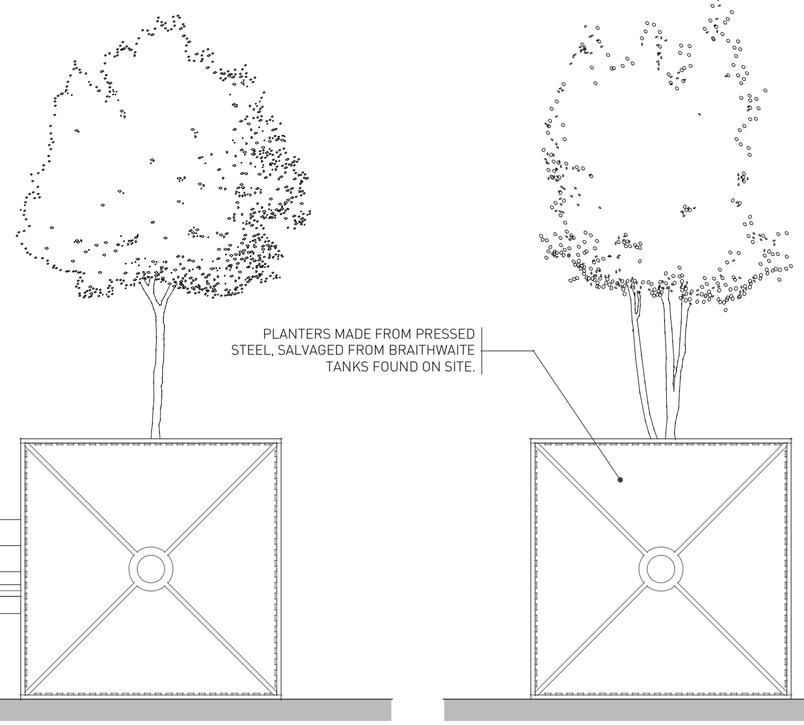
Bench Planter Design



TOP VIEW



FRONT VIEW



SIDE VIEW

1:20 SCALE BAR

0M 0.2 0.4 1M

HEYFORD PARK - **BENCH/PLANTER DESIGN**

Pegasus Design

PLANNING | DESIGN | ENVIRONMENT | ECONOMICS | WWW.PEGASUSPG.CO.UK | TEAM/DRAWN BY OW | APPROVED BY P.M: AR | DATE: 01/12/17 | SCALE: 1:20 @ A2 | DRWG: **D.0371**_08 SHEET NO: __ REV: _ | CLIENT: **DORCHESTER GROUP** |