

Existing inspection chamber within Terrace Catacombs to be excavated and inspected.

Existing inspection chamber

Drainage strategy above terrace catacombs to be developed.

Drainage pipe (including culvert) to be replaced between Terrace Catacombs chamber and chamber to entrance of Beer Mausoleum.

Existing drainage within Circle of Lebanon to be retained and restored.

New Circle of Lebanon Soakaway  
- Volume of storage: 75m<sup>3</sup>  
- Flat soakaway, without weir  
- 1m deep soakaway

Existing drainage pipe to be excavated on new pipework connected to connect to Egyptian Avenue.

New linear drain to slow flow of water into newly surfaced Egyptian Avenue.

New Fielding & Dickens Path Soakaway  
- Volume of storage: 12m<sup>3</sup>  
- Weir spaced every 3m  
- 0.55m deep soakaway

New inspection chamber to be formed.

New shallow gravel sub-base/soakaway without impacting tree roots

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Re-use/restore 300mm concrete drain within sub base of new path build up.

New linear channel drains spaced every 20m to collect surface water into underground piped system

New The Meadow Path Soakaway  
- Volume of storage: 6m<sup>3</sup>  
- Weir spaced every 9.5m  
- 0.85m deep soakaway

New shallow gravel sub-base/soakaway without impacting tree roots.

New linear channel drains spaced every 25m to collect surface water into underground piped system

New 300mm pipe drain dog-legged to avoid tree protection zones and steep gradient through entry gates. Pipe route under path and enter new backdrop manhole next to ticket office. Surface water drop level below floor level and connect to existing drainage on main path

0.5m deep soakaway formed along tertiary path to infiltrate potential stream ponding. New 100mm perforated pipe under soakaway to direct excess water into piped drainage network.

Foul water drainage from Visitor and Operations building connect to existing combined manhole next to utility block that drains into public sewer on Swain's Lane

Retain/restore existing combined manhole MH11 outside utility block to combine surface water from landscape, courtyard and foul drainage from chapel, Visitor and Operations Building. Retain existing connection from MH11 to Thames Water sewage network.

New Main Drive Upper Soakaway  
- Volume of storage: 17m<sup>3</sup>  
- Weir spaced every 10m  
- 1m deep soakaway

New Faraday Path Soakaway (1)  
- Volume of storage: 3m<sup>3</sup>  
- Weir spaced every 2m  
- 0.625m deep soakaway

Re-use/restore 300mm concrete drain within sub base of new path build up.

New Faraday Path Soakaway (2)  
- Volume of storage: 2m<sup>3</sup>  
- Flat soakaway  
- 0.7m deep soakaway

New linear channel drains spaced every 30m to collect surface water into underground piped system

Drainage strategy around siding catacombs to be developed.

New linear channel drains spaced every 20m to collect surface water into underground piped system

New shallow gravel sub-base/soakaway without impacting tree roots

New Faraday Path Soakaway (3)  
Volume of storage: 2m<sup>3</sup>  
- Weir spaced every 2m  
- 0.65m deep soakaway

Existing inspection chamber to be excavated and inspected.

Surface water in courtyard collected by channel drains and via existing piped drainage route.

Re-use/restore existing 110mm surface water drain from chapel to collect surface water in courtyard. Existing foul water drainage pipe from chapel to be capped.

Foul water from education and community building discharge to existing drainage system to Swain's Lane

Re-use/restore existing 300mm drain pipe within sub base of new path build up.

Gravel sub-base to attenuate water and direct water to piped drainage.

New 300mm drain pipe within sub base of new path build up.

Gravel sub-base to attenuate water and direct water to piped drainage.

Re-use/restore existing 300mm drain pipe within sub base of new path build up.

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Gravel sub-base to attenuate water and direct water to piped drainage.

Gravel sub-base to attenuate water and direct water to pumped soakaway

Sump pump in infiltration well to discharge excessive surface water back to central attenuation tank.  
Duty: 2Us@3bar

#### KEY

- Site Boundary
- Character Areas
- Compost & Maintenance Area

#### HARDSCAPE

- PAV01 Primary Path  
Exposed Aggregate Concrete  
Stone Edge 150mm  
Upgrade Existing Drainage
- PAV02 Secondary Path  
Self Binding Gravel  
Metal Edging  
SUDs Drainage  
Horizontal Stone Sleepers as retaining structure for gravel every 5m on paths above 6%
- PAV03 Tertiary Path  
Mulch as appropriate  
Timber Edge  
French Drains
- PAV04 Entrance Granite Setts
- PAV05 Entrance Yorkstone Setts
- PAV06 Entrance Self Binding Gravel
- PAV07 Metal Boardwalk

#### SOFTSCAPE

- Existing Trees
- Proposed Trees
- Entrance Planting
- Native Hedgerow

#### MF KEY

- Piped surface water drainage
- Piped foul water drainage
- Pressurised piped surface water drainage
- French Drain
- Gravel sub-base
- Soakaway
- Channel drain
- Inspection Chamber
- Attenuation Tank
- Infiltration well with sump pump

#### MF NOTES

- Hand dig investigation to be carried out to establish feasibility of passing through tree protection zone.
- Locations shown are indicative only. Exact locations subject to further investigation.
- Excavation extents and depths are indicative and may be adjusted in later design stages as the locations of roots near footpaths are identified.

Gravel sub-base to attenuate water and direct water to piped drainage.

New 300mm drain pipe within sub base of new path build up.

New foul water inspection chamber for gardeners building

New foul drainage pipe for new Gardener's building

New 300mm drain pipe within sub base of new path build up.

ø40mm MDPE pressurised surface water pipe to discharge water from infiltration well to attenuation tank.

ø40mm MDPE pressurised surface water pipe to discharge water from infiltration well to piped drainage system.

Sump pump in infiltration well to discharge excessive surface water back to central attenuation tank.  
Duty: 2Us@3bar

Pumped soakaway to infiltrate water collected from Maintenance and Skip location. Excessive water to be picked up by sump pump to discharge to attenuation tank.

53m<sup>3</sup> underground active attenuation tank.

2no. drainage chambers.  
1. Vortex flow control chamber  
2. Demarcation chamber  
Outflow from attenuation tank is controlled by vortex flow control unit and combines with foul water drainage at demarcation chamber before discharging to sewer.

ø40mm MDPE pressurised surface water pipe to discharge water from infiltration well to piped drainage system.

French drain around bottom of east cemetery to collect water from lower east cemetery, which to be picked up by sump pump to discharge to attenuation tank.

**MAX FORDHAM**  
max@fordham.com

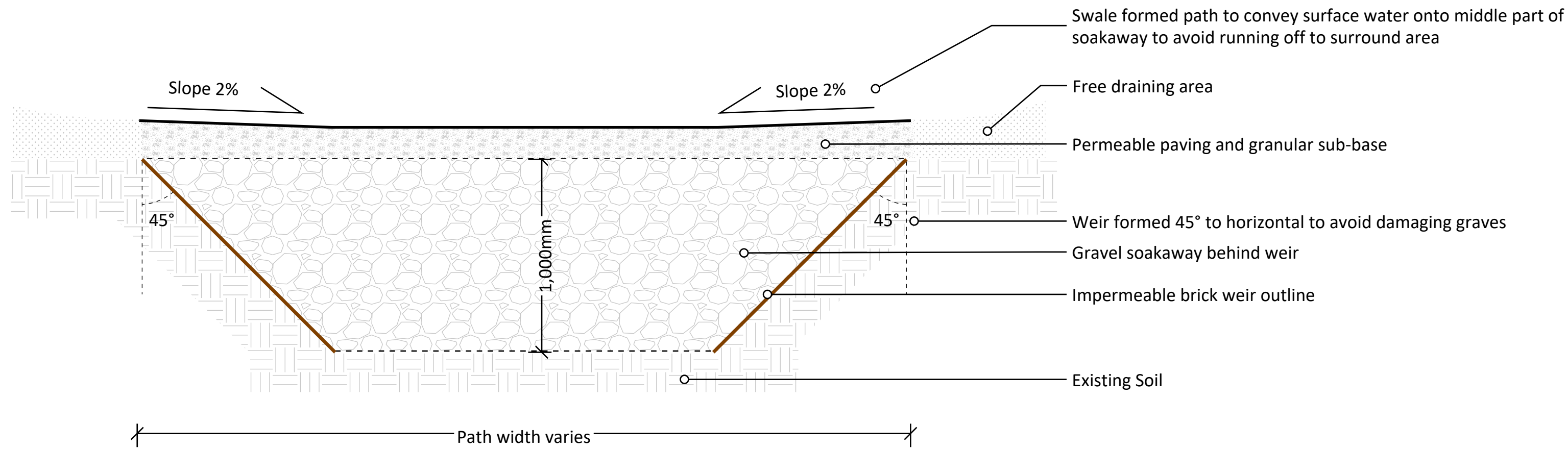
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job no. project leader  
**7048 CD**  
scale at AD  
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status code and description  
**S4 - Suitable for Stage Approval**

project  
**Highgate Cemetery - Landscape**  
issue date  
**22/10/24**  
revision  
**P04**  
classification  
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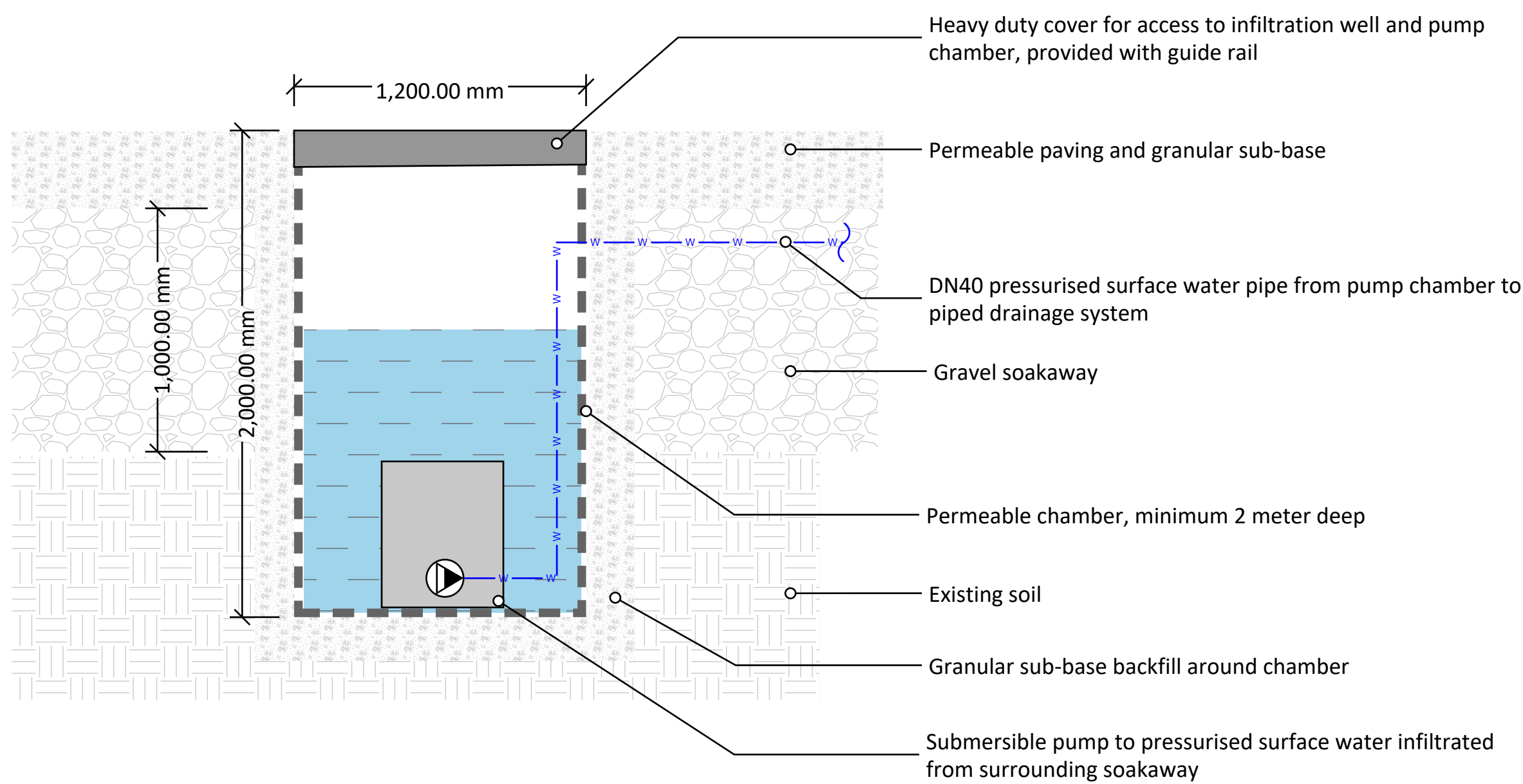
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Site Wide Landscape Drainage Layout**  
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**- MXF**  
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level  
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code  
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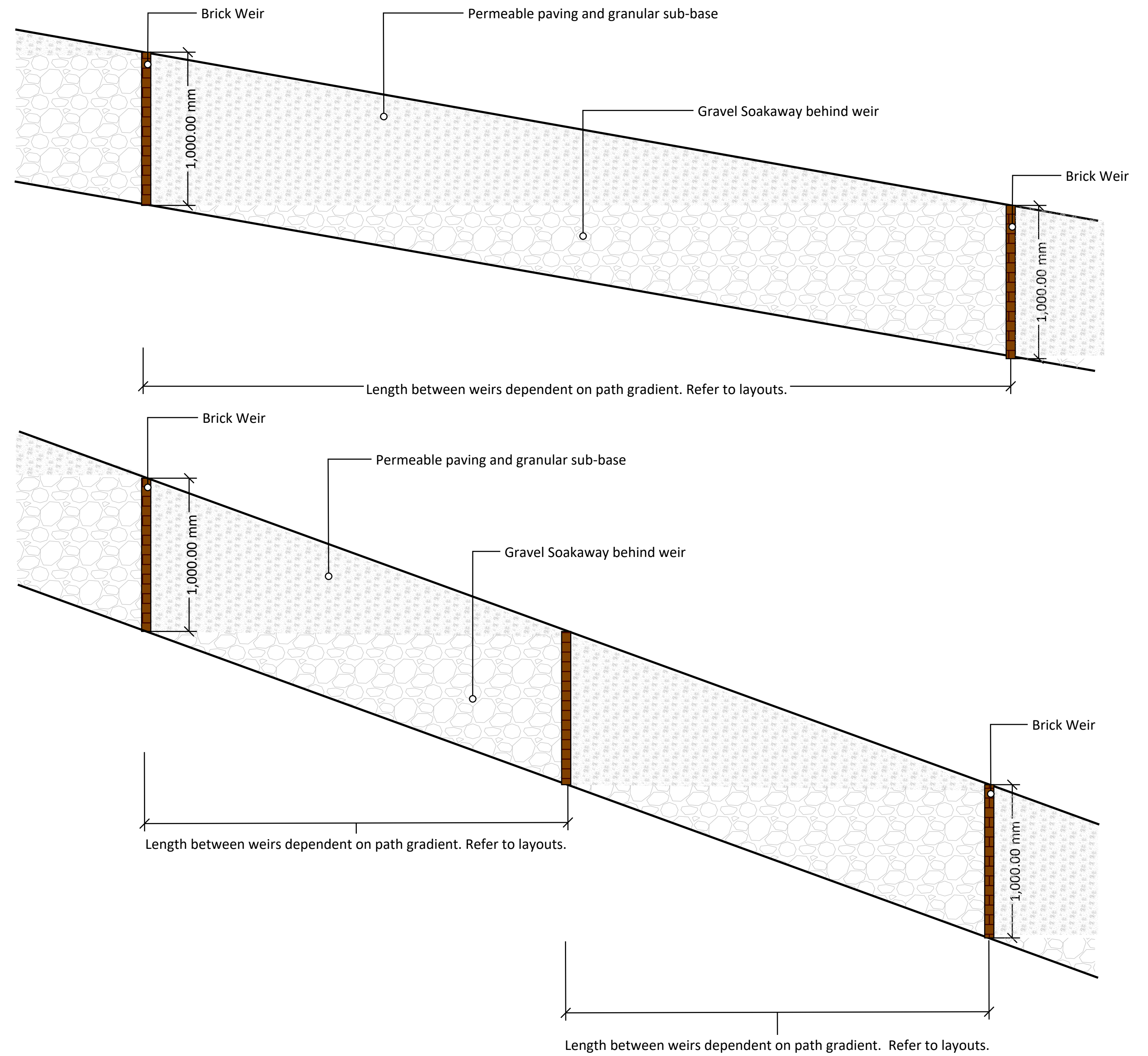




**A**  
01  
Section A01 - Typical drainage detail for soakaway  
Scale: 1:20



**B**  
01  
Section B - Typical detail of pump chamber for pumped soakaway  
Scale: 1:20



**A**  
02  
Section A02 - Typical drainage detail for soakaway  
Scale: 1:20

#### NOTES

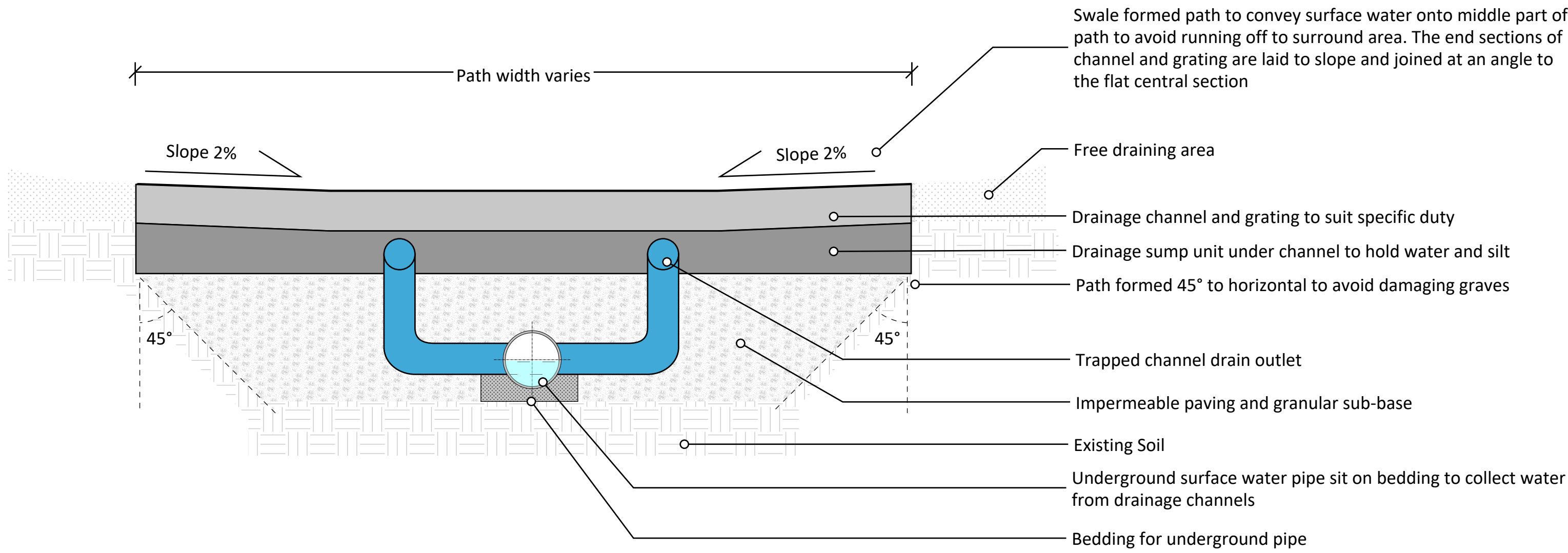
1. Excavation extents and depths are indicative and may be adjusted in later design stages as the locations of roots near footpaths are identified.

**MAX FORDHAM**  
maxfordham.com

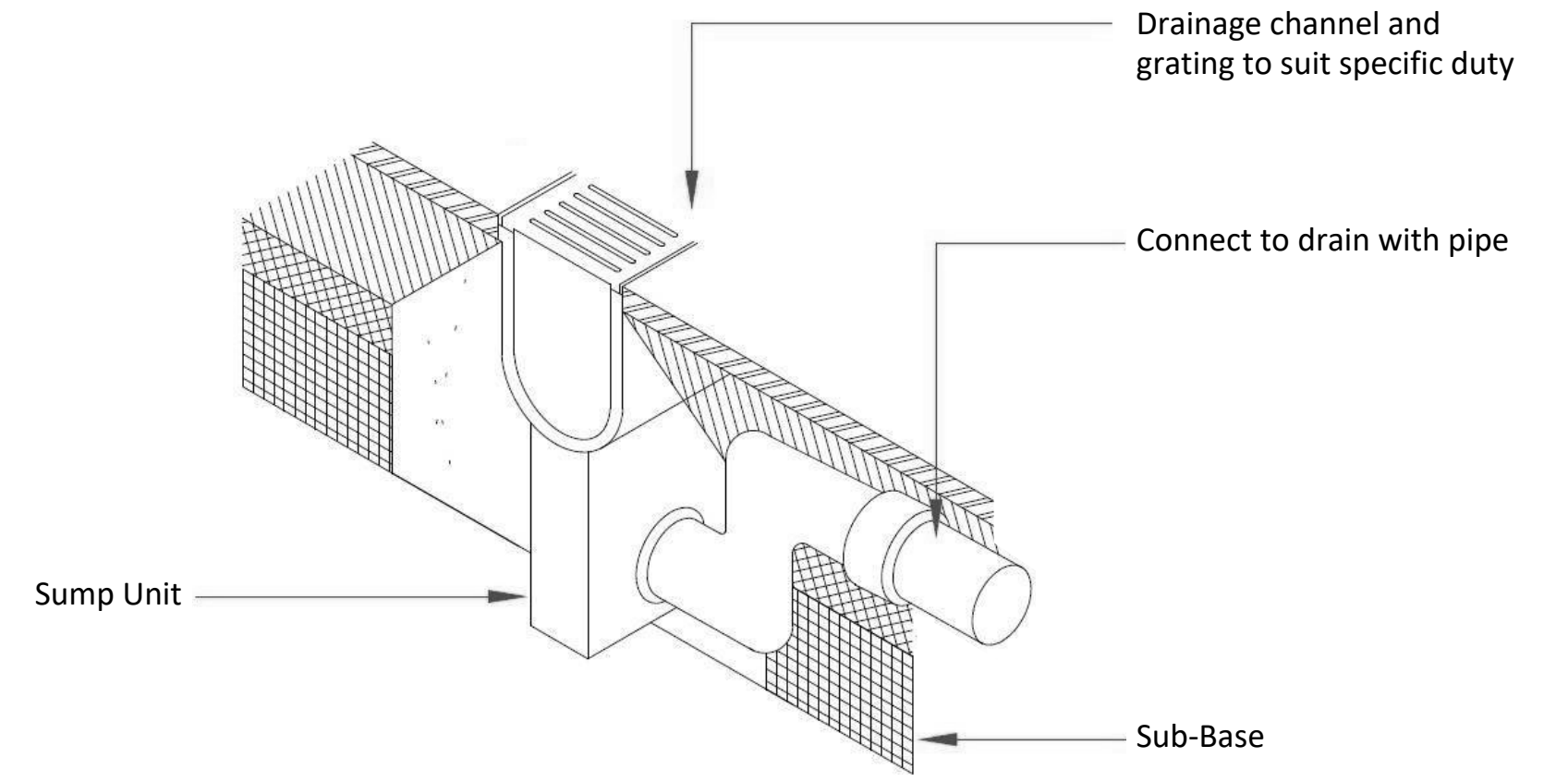
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status code and description  
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**Highgate Cemetery - Landscape**  
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revision  
**P01**  
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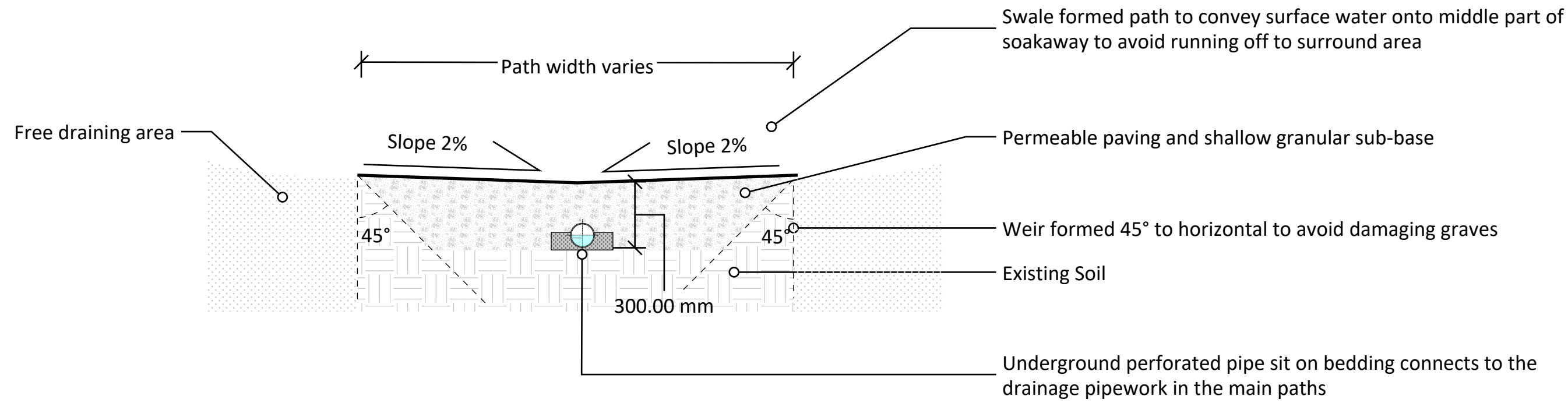
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**West & East Cemetery  
Drainage Detail 1/2**  
project code orig. volume level type role number  
**J7048 - MXF - XX - XX - DR - P - 11001**



**C**  
01  
Section C - Typical drainage detail for Piped Surface Water Drainage  
Scale: 1:20



**D**  
01  
Detail D - Typical drainage detail for Drainage Channel  
Scale: NTS



**E**  
01  
Section E - Typical drainage detail for French Drain  
Scale: 1:20

#### NOTES

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MAX FORDHAM

maxfordham.com

client <b>Gustafson Porter + Bowman</b>	project <b>Highgate Cemetery - Landscape</b>	drawing title <b>West &amp; East Cemetery Drainage Detail 2/2</b>
job no. <b>7048</b>	project leader <b>CD</b>	scale at A1 <b>1:20</b>
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