

Existing ditch to be cleared of debris and enlarged to include 500mm wide base.

Outlet to be cleared and sufficiently sized trash scree

OWC to be sought before any construction work commences

To be turfed or seeded with perennial ryegrass and fescues

Upgraded sections of ditch to connect to existing section

Proposed swale
1m wide base
Side slopes as displayed

To be turfed or seeded with perennial ryegrass and fescues, maintained at 75 and 150mm height.

100-200mm clean gabion stone to be placed at inlet for erosion control (Setback 1m from inlet)

0.5m wide flat berm on northern side

Outlet to protrude through retaining wall with 100-200mm gabion stone backing and surrounding the pipe

Proposed inlets to have 100-200mm clean gabion stone, placed at inlet for erosion control. Extent of stone to surround inlet and spread into base of ditch.

Improvement works required to existing outlet, refer to inset A
Gabion stone sump length to be 1m from face of headwall

Hydro-break chamber
SW5 1200Ø
CL:126.100
Swale IL:125.611

Chamber 2:
900mmØ
CL:126.060
IL:124.147

SW7 450Ø
CL:127.175
IL:126.575

Perforated pipe entering into sub-base of permeable pavement, 1.5m length into pavement, 0.9m cover to pipe soffit

Proposed rain garden with overflow gully and outlet into SW1

Chamber 1:
900mmØ
CL:132.500
IL:130.000

Proposed Drainage Layout
Scale 1:200

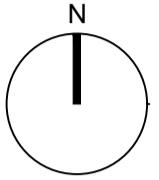
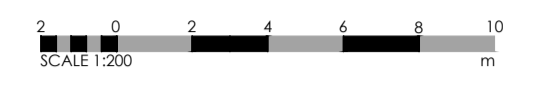
Residual Hazards:

- Unknown location of buried services, contractor to check utility plans and site prior to commencing excavation works.
- Live street lighting ducts at toe of embankment, where turning head installation is required.
- No allowance has been made in the design for managing site run-off during construction.
- Chambers preceding flow controls (Orifice and Hydro-break) require periodic inspection to prevent silt and debris entering soakaway crates.
- Visual inspection of paving, access road, and ditch should be carried out on regular basis, to be cleared of vegetation and debris through brushing / vacuuming a minimum of twice a year. This activity should be carried out during spring and autumn seasons.
- Care to be taken during construction, to ensure site is segregated into clean and dirty areas to avoid the risk of clogging permeable surfaces.
- If issues are encountered during construction, please contact the Berrys engineering team for clarification on 01743 271697.
- Sloping site.
- Surface water flood risk at existing ditch to adjacent properties, care to be taken, ensuring outfall and ditch remains clear.

SUDS Notes:

- Impermeable contributing areas - Building=492m² (0.049ha)
- Parking and front paved area = 508m² (0.058ha)
- Interception calculations:
- 66m² drained within rain gardens, rain garden areas 44.5m² * 5 = 222.5m² OK
- Permeable paving draining own surface water and additional roof and ground areas of 236m² < total permeable area of 398.08m² OK
- Swale draining roof area (308m²), swale base 1m wide x 4m long, 41*25= 1025m² OK
- Simple Index Approach
- Residential roof pollution hazard very low, 0.2 TSS, 0.2 metals and 0.05 hydro-carbons
- Low traffic road pollution hazard low, 0.5 TSS, 0.4 metals, 0.4 hydro-carbons
- Proposed design contains permeable pavement and swale which both provide correct mitigation indices in accordance with CIRIA 753, Table 26.3

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OS MAPPING OBTAINED FROM PROMAP LICENCE No. 100022432 REPRODUCED BY BERRYS UNDER OS LICENCE No. 100009668
DISCLAIMER NOTES:



SCALE BAR & NORTH POINT:

Key:

- Filter drain (0.6m wide)
- Filter drain twinwall perforated pipe
- Filter drain solid twinwall pipe
- Rain garden
- Permeable pavement
- Full carriageway construction
- Green retaining wall (To be designed by manufacturer)
- Retaining wall
- Proposed Swale / Existing ditch improvements
- Flat Berm
- 210l water butt
- Chambers (Size as displayed)
- Headwall
- Swale / ditch inlet
- Twinwall surface water pipe
- Perforated twinwall surface water pipe
- Roof downpipe connections
- Channel drain (Raindrain or similar approved)
- Foul private sewer
- Foul sewer SVP connections
- Existing adopted sewer
- Pipe concrete backfill

Notes:

- To be read in conjunction with supplied supporting drainage design.
- Contractor to check all dimensions and levels, prior to construction.
- Surface water network not factored in urban creep as building is for apartment block use only.
- System sized to convey a 1 in 100 yr storm with 40% climate change.
- Refer to SA46132-BRY-ST-PL-C-0003 and 004 for details.
- Displayed layout for LGF.

A	Building footprint reduced private foul amended	24/10/23	DP	RSH
REV	DESCRIPTION	DATE	BY	CHKD
BEECH HOUSE	SHREWSBURY BUSINESS PARK			
SHREWSBURY	SHROPSHIRE			
SY2 8FG				
ORIGINATING OFFICE:				



STATUS: **PRELIMINARY**

CLIENT: SY Homes Ltd

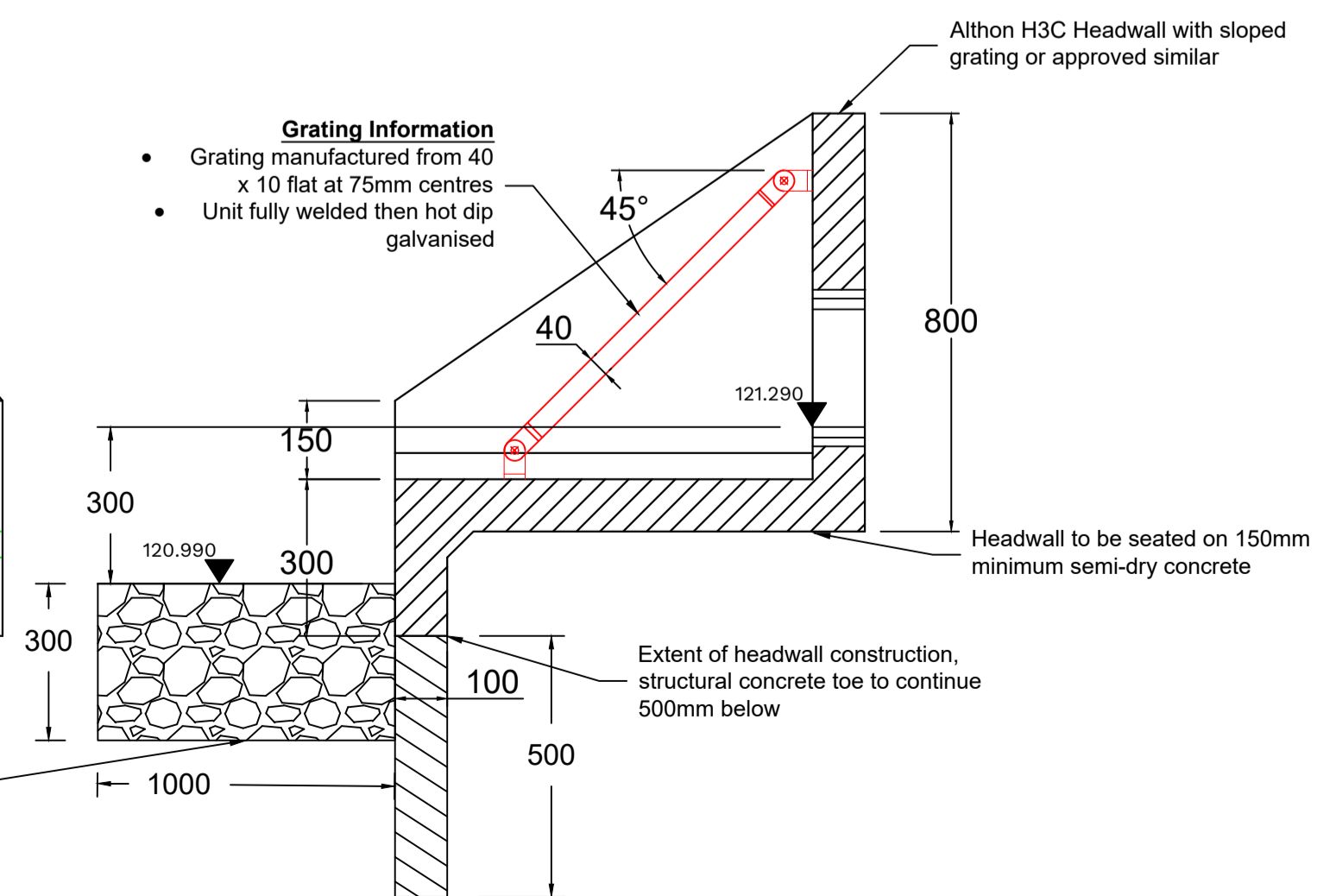
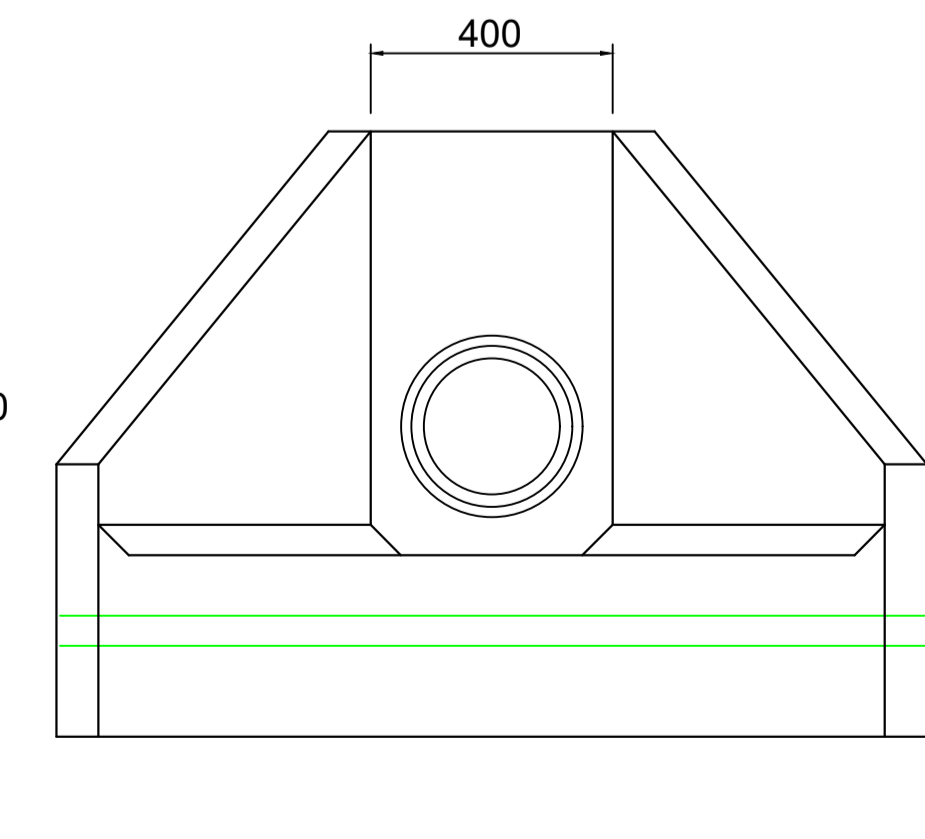
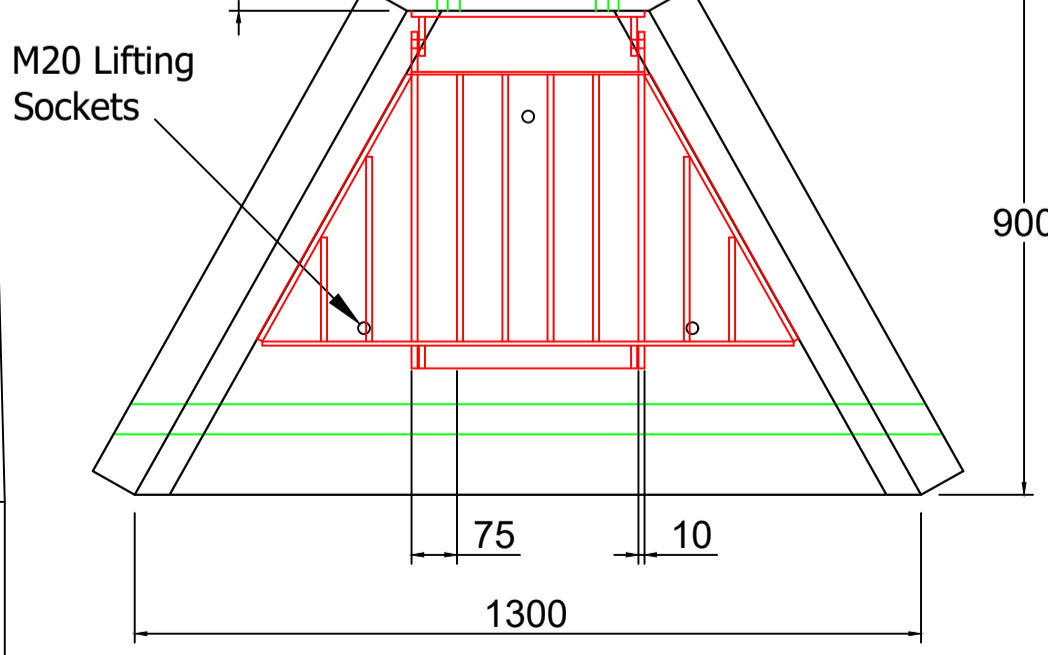
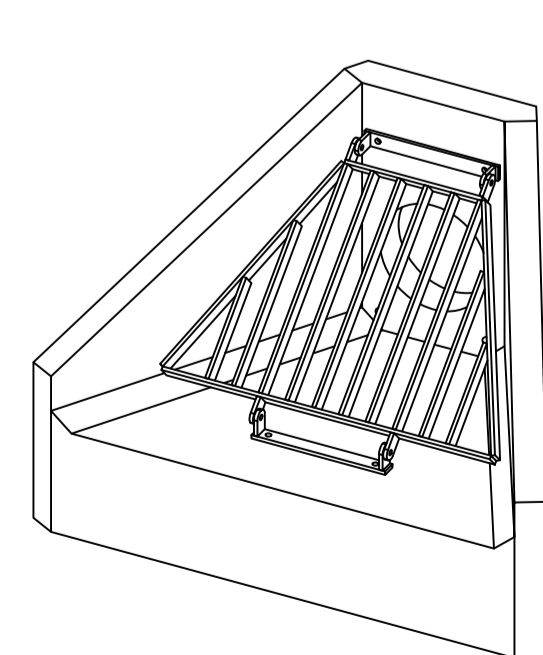
PROJECT: Garth Owen Newtown Phase 2

DRAWING: Proposed Drainage Layout

SCALE @ A1: DRAWN BY: DP; CHKD BY: RSH; DATE: 21/11/22

DRAWING No: SA46132 -BRY-ST -PL - C - 0001_A

Note: Isometric drawing is for reference only, details may not accurately represent actual design - please see detailed views for technical information



100 - 200mm gabion stone sump forebay, set minimum 300mm below outlet at headwall
Inset A
Existing Ditch Outfall Improvements
NTS

Grating Information
• Grating manufactured from 40 x 10 flat at 75mm centres
• Unit fully welded then hot dip galvanised

Althon H3C Headwall with sloped grating or approved similar
Headwall to be seated on 150mm minimum semi-dry concrete
Extent of headwall construction, structural concrete toe to continue 500mm below