

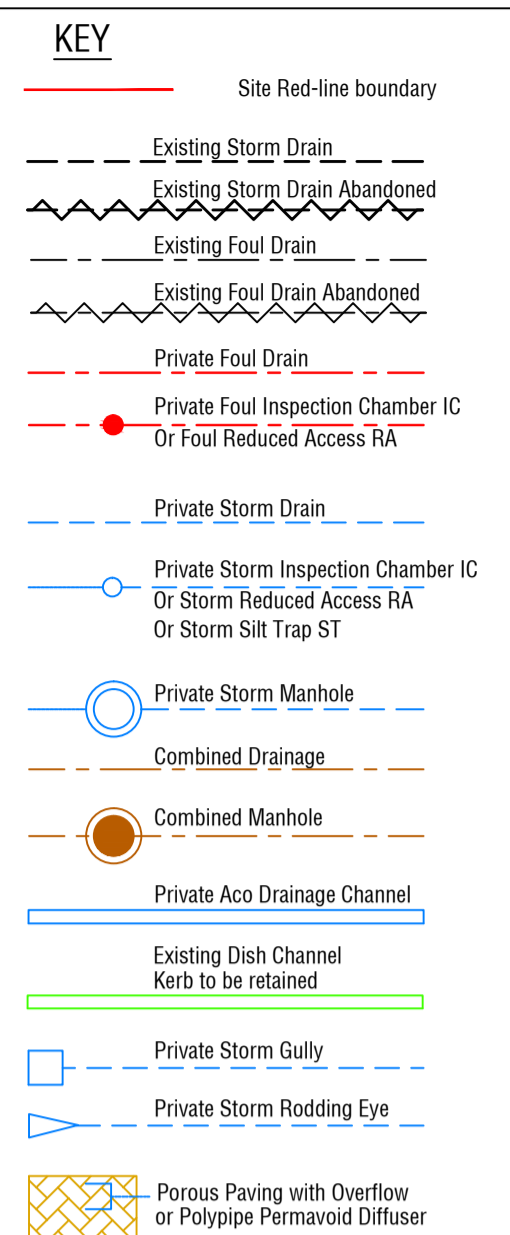
Storm Design Details
 Attenuated Area:
 Private Roof Area = 1,920m²
 Private Patio/Path Area = 145m²
 Private Access Drive = 405m²
 Private Parking Bays = 380m²
Total = 2,850m²

Existing Facade Roof drainage through existing.
 Area drained by Facade = 330m²

Private Storage:
 Cellular Attenuation Tank storage design based upon 1 in 100 year +40% storm event range, 1:500 Slope.
 75m² = 11 x 8.5 x 0.8m deep

Flow Control:
 1500 ϕ FCC with Hydro-brake Vortex Device.
 Max Discharge 20.0 l/s (STWL Approved via email)
 850mm Operating Head

NOTE:
 All existing roads surrounding the site contain numerous services as shown on the existing survey. Construction within these roads may cause issues with services and adequate provision for moving, crossing or diverting may need to be arranged with the Stats providers.



EX sewer's invert level and location need to be checked prior to any drainage works. Any differences between actual and drawn details are to be reported immediately

Invert Levels for existing manholes have been taken from Sewer Records. Any differences between actual and drawn details are to be reported immediately to the Engineers prior to any sewage diversion works.

Construct new manhole on line of existing public sewer, invert level and location need to be checked prior to any drainage works. Any differences between actual and drawn details are to be reported immediately

Architect to confirm drainage requirements for bin stores and Cycle storage areas. Areas to discharge into foul drainage

Any 475 Inspection chamber greater than 1.2m deep to be reduced access

All abandoned sewers are to be grouted up or removed

Attenuation tank will require a 1000 vent pipe

RWP To Discharge Into Trapped Gullies.

GENERAL NOTES

- THIS DRAWING IS COPYRIGHT AND SHOULD NOT BE REPRODUCED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF PATRICK PARSONS LTD. DO NOT SCALE FROM THIS DRAWING.
- LOCATIONS OF ALL EXISTING SERVICES ON-SITE TO BE CONFIRMED & PROVIDED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORKS.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT PATRICK PARSONS LTD DRAWINGS & SPECIFICATIONS.

- Due to a change in legislation on 1st October 2011, there could be formerly private sewers which have transferred over to the responsibility of the Sewerage Undertaker. If such sewers are located on site during construction works, please contact Stewart and Harris so that a Section 195 Agreement can be prepared to divert these sewers.
- The survey information used in the preparation of this drawing is not warranted. The contractor shall check all dimensions and levels on site. This drawing must be read in conjunction with the site investigation report. Before work commences contractor should consult the engineer and the ST report regarding any contamination issues. All necessary health and safety measures to be taken.
- Before work commences, the contractor shall liaise with all Statutory Authorities to determine the exact location of all apparatus and take all precautions deemed necessary to locate, protect and where necessary divert such equipment.
- This drawing is subject to approval by Local Authority, Building Control, Sewerage Undertaker and the Environment Agency. Any works undertaken prior to the granting of these approvals is carried out at risk to others.
- Should any surplus excavated material require disposal off site, it should be taken to a suitably licensed landfill site.
- The contractor shall check all levels and levels on site. Setting out to be confirmed by the Architect.
- Prior to commencing work on the drainage, all existing drains, sewers manholes and outfalls to remain shall be located, identified and a CCTV condition survey carried out. Where necessary, protection to the existing drainage infrastructure shall be provided.
- All existing sewers and manholes abandoned due to the proposed works are to be either removed, and suitably backfilled or grouted up.
- All external drainage works shall be constructed in accordance with civil engineering specification for the water industry and Sewers for Adoption 6th Edition for adoptable drainage, for private drainage in accordance with the Building regulations Part H and BS EN 12252.
- All existing drainage levels, diameters & locations need to be checked on site prior to any drainage works, and any discrepancies need to be reported back to the Engineer.
- Cover levels for manholes are approximate only and should be adjusted to match surrounding levels.
- All manhole and drainage covers shall comply with BS EN124. Manhole covers within block paved area and buildings shall be recessed. Cover strengths to be: Class E600 in areas of heavy loading. Class D400 in heavy trafficked areas (roads, services yards). Class C250 Lightly trafficked areas (car parks). Class B125 in landscape and non trafficked areas (min. 100mm dp frame).
- Pipes to be - Vitrified clay to BS EN 295 or Concrete to BS 5911 or UPVC pipes to BS EN 1452 or Thermoplastic Structured wall pipes complying with BS 4353. All BSI marked. Class B4M nominal short term ring stiffness.
- All pipes to be laid with soffits level, unless noted otherwise.
- Where cover to pipes is less than 1200mm under carriageway - concrete bed and surround or concrete protection slab is required.
- All pipes beneath buildings to be BS in concrete. Where cover is less than 300mm the concrete is to be cast integrally with the floor slab.
- Pipes Penetrating Walls. An opening is to be formed through walls to give pipes at least 50mm clearance all round. Brickwork over shall be supported by an intel. Opening to be masked each side with rigid sheet material. Pipes embedded in walls shall have joints formed within 150mm of either wall face. Adjacent rocker pipes of max 600mm length with flexible joints shall continue the pipework.
- Pipe runs near Buildings. If a trench is within 1m of a building it shall be filled with concrete up to the lowest level of the adjacent foundation. If a trench is greater than 1m from a building the trench shall be filled with concrete up to a level below the building equal to the distance from the building less 150mm.
- Ventilation shall be provided at the head of the foul drainage runs.
- For setting out of any and any, see architect's layout.
- Threshold drainage is required where levels fall towards a building entrance. Architect to confirm if not required.
- Yard Gully positions are indicative, should be adjusted on site to suit levels.
- All gully positions to suit low points and to be trapped.
- Drainage channels shall be trapped 4500 x 900mm deep with Class D 400 frame and grating to BS EN 124.
- Drainage channel detailed design to be undertaken by manufactures. Alternative channels may be used, subject to Engineers approval.
- All concrete to drainage, manholes bases, surrounds etc to be in accordance with the BRE speciality digest 1 - Concrete in aggressive ground. Refer to site investigation report for sulphate requirements.
- All manholes, pipe trenches etc. to be backfilled with imported granular fill to Class 6/1-6/5 (Capping material) to (SHW) Table 6/1 & compacted in accordance with Table 6/4.
- All pipelines shall be tested both before and after backfilling, using either air test or water test, in accordance with BS EN 1610.
- Demarcation manholes and lateral drains need to be constructed in accordance with the Water UK/WRU "Sewers For Adoption 6th Edition" and the Adopting Water Authority's recommendations.
- All works to sewers/manholes being offered for adoption on an existing public sewer should be in accordance with "Sewers for Adoption 6th Edition" and the Adopting Water Authority's recommendations.
- Requirement for Land Drains to be assessed on site by the Site Manager

Rev.	Amendments	Date	By
C	Layout Revised to latest from IDP. Exposed brickwork symbol extended along eastern boundary. Some level and RF amendments to northern boundary.	29.09.17	RM
B	Layout Revised by IDP as instructed. Mc&S	08.03.17	CS
A	Layout Revised by IDP as instructed. Mc&S	07.03.17	DGW

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Client

McCarthy & Stone

Project
 Portland Mills
 Buxton Road
 Leek

Rev.	Amendments	Date	By
D	Layout Revised to McC Comments received 02-10-2017. Portland mill outfall revised in position and changes to drainage runs suit.	19.10.17	RM
C	Layout Revised to latest from IDP. Exposed brickwork symbol extended along eastern boundary. Some level and RF amendments to northern boundary.	29.09.17	RM

Status Co-ordinated Design

Drawing No. **B16332-202** Rev. **D**

McCarthy & Stone
 Drawing No. **MI-2416-03-DE-002 D**

