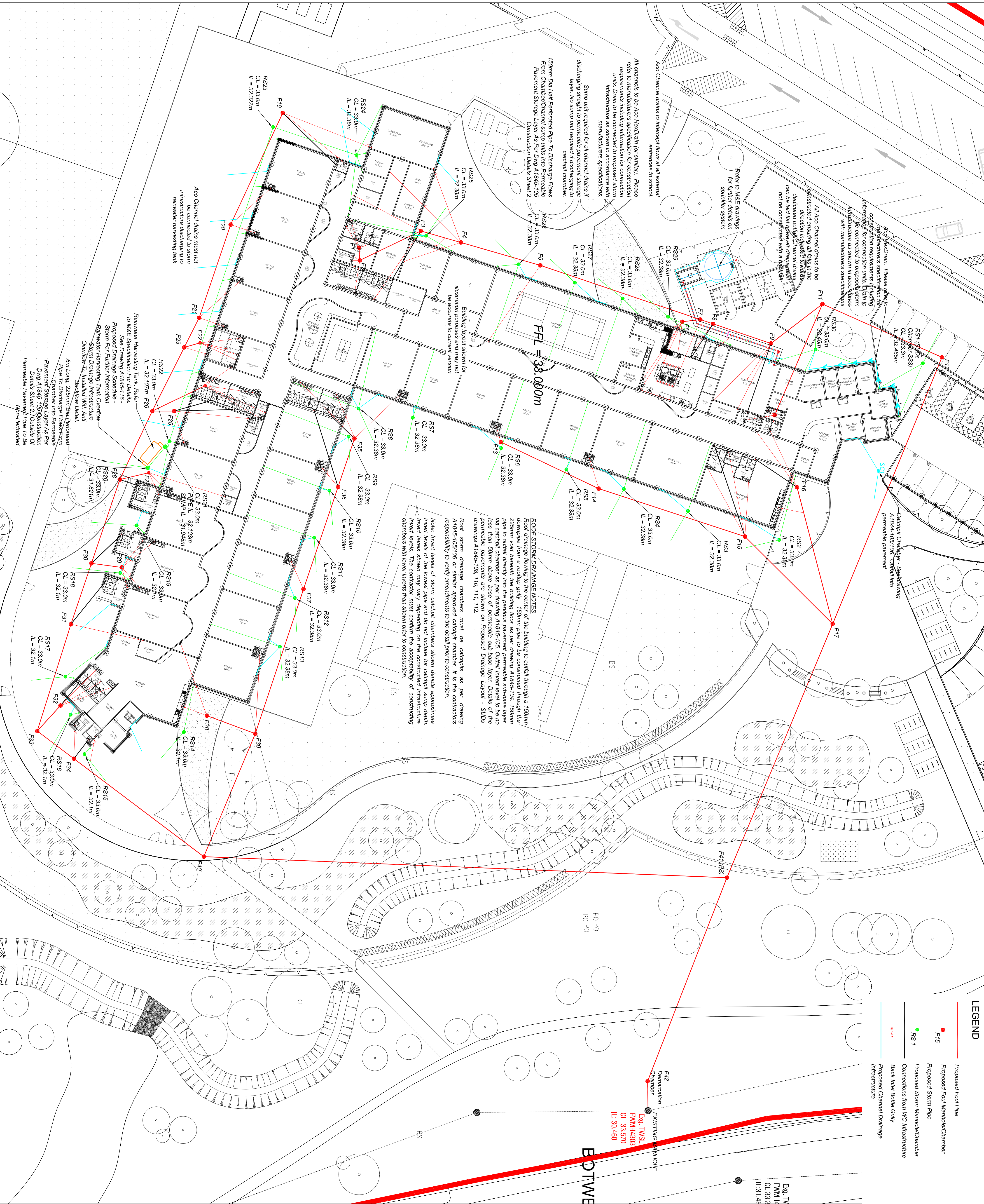




LEGEND

- Proposed Foul Pipe
- Proposed Foul Manhole/Chamber
- Proposed Storm Pipe
- Proposed Storm Manhole/Chamber
- Connections from WC Infrastructure
- Back Inlet Bottle Gully
- Proposed Storm Drainage Infrastructure

Notes:

- Drainage designed in accordance with BS EN 752: 2008
- Drain and sewer systems outside buildings.
- Drainage works to be carried out in accordance with Civil Engineering Specification for the Water Industry 6th Edition, published by WfC plc 2004.
- Pipes to be uPVC to BS EN 1401-1:1998 for sizes Ø110mm & Ø150mm. Pipes to be uPVC to BS EN 1401-1:1998 for sizes Ø110mm & Ø150mm. Pipes to be concrete to BS EN 12412-1 and BS EN 1916 for sizes Ø375mm & Ø450mm.
- Manholes to be constructed from precast concrete rings to BS EN 1917:2002 & BS 5911-3:2002 with a D400 heavy duty cover for driveway/carpark and B125 for remaining surface (in accordance with BS EN 1241:1994).
- All in-culvert pipes to be minimum Ø110mm uPVC laid in accordance with 'The Building Regulations 2010, HM Government, Approved Document H'.
- All levels and dimensions are in meters unless stated otherwise.
- Position of all sewers and services are indicative only. It shall be the Contractor's responsibility to verify position and level prior to commencing construction. The Contractor shall also be responsible for the arrangement of all necessary permits as required prior to commencement.
- Levels and positions of existing discharge sewers to be checked on site prior to commencement of pipe laying.
- Man cover to drainage infrastructure to be 500mm under road/surfaces. Pipes to be installed with a lean mix concrete surround. Perforated pipes are to have concrete surround (where necessary) around the upper half of the pipe to ensure drainage through perforations are not affected.
- Changes in invert levels at a manhole (not requiring a drop manhole) shall be made by raising the manhole in order to avoid an abrupt change in invert level.
- When concrete surround is specified for uPVC pipes the pipes shall be fixed in place with an approved plastic pipe hanger. Flexibility approved at each point to break the continuity of the concrete surround. However the plastic membrane shall be continuous at these locations to protect rubber-jointing rings from ingress of grout.
- Any manhole not positioned in a paved area shall have the cover and frame surrounded by a 1.2m square paved hard standing.
- Ventilation pipe shall terminate in the external air at least 900mm above any opening into a building within 3m, with a cage or cover which does not restrict the air flow, or with an air admission valve.
- A drain which is at a level lower than the foundations of a building (a) where the trench is within 1m of the foundations, be filled with concrete up to the level of the underside of the foundations (b) where the trench is more than 1m from the foundations be filled with concrete up to a level, below the level of the underside of the foundations, equal to the distance from the foundations less 150mm in concrete. The minimum thickness of the concrete surround should be 150mm or the diameter of the pipe whichever is the greater.
- All connections to the proposed foul drainage network from WC internal infrastructure to be via Backdrop manhole as per detail shown on drawing number A1845-104, or similar approved. All other internal infrastructure (sinks, dishwasher's, floor grilles etc) to be connected to the proposed foul drainage infrastructure via a Back Inlet Bottle Gully as shown on drawing number A1845-105.
- Backdrop manhole details to be confirmed by the Contractor on site following the alterations to the proposed levels / gradients of the constructed internal drainage infrastructure.
- This drawing should be read in conjunction with all relevant drawings (Architectural and Engineering).
- Existing sewers to be maintained and kept in service at all times.
- Pipes Entering Pavement Sub-Base To Be Perforated as Per Drawing A1845-105 Construction Details Sheet 2. All Pipes Outside Of Permeable Pavement To Be Non-Perforated.

CONSTRUCTION

H	22/05/14	Spurline System Added	EA	P.A	M.M.G
G	30/04/14	Pumping Station Location Amended	EA	P.A	M.M.G
F	09/04/14	Foul Outfall Infrastructure Amended	EA	P.A	M.M.G
E	28/03/14	Alterations following T.A Review	EA	P.A	M.M.G
D	10/02/14	Storm Amended Following M&E Review	EA	P.A	M.M.G
C	19/12/13	Foul Drainage Layout amended & notes added. Building Storm details amended.	EA	P.A	M.M.G
B	02/12/13	Root Storm Drainage Added.	EA	P.A	M.M.G
-	29/11/13	Drawing status changed to Construction.	EA	G.B	M.M.G
A	18/11/13	Position of M.H's F10 & F16 amended.	EA	G.B	M.M.G
Rev	Date	Description	Dm	Chd	App
Client: Farrans (Construction) Ltd					
Project: Lake Farm Primary School					
Drawing: Proposed Drainage Layout					
Scale: 1:250 @ A1					
McAdam Design Ltd 11 Montgomery House 178 Castlefield Road Belfast, BT5 8BC T: 028 9040 2000 F: 028 9079 4144 email@mcadamdesign.co.uk www.mcadamdesign.co.uk					
Drawn: E.Ashman	Checked: P.Ashman	Approved: M.McGilligan			
Date: 02/12/13	Date: 02/12/13	Date: 02/12/13			
Project No: A1845	Drawing No: 103	Revision: H			

All dimensions are in millimetres. Figure dimensions to be taken in preference to scale dimensions. Dimensioning to be based on A1845-105 Construction Details Sheet 2.