KILDARE COUNTY COUNCIL

TAKING IN CHARGE POLICY & SPECIFICATIONS

Appendix 8

Storm Water Infrastructure Taking in Charge Specification

Q2 2023

Application for Taking in Charge Storm Water Assets

Development Control in Kildare County Council (KCC) is responsible for the taking in charge of storm water infrastructure. It should be noted that the Water Services Act, 2007 states that “storm water” means run off rainwater that enters any pipe.

The Developer is required to complete assigned parts of the Storm Water Infrastructure TIC Form, as contained in ‘Appendix 8 - KCC TIC Storm Water Infrastructure Checklist’, and to provide all of the relevant information to support the assessment of the Schedule by KCC.

Please note the following in relation to the taking in charge of water and wastewater infrastructure: For all applications with planning permission granted after the 1st of April 2019, the taking in charge process will be undertaken directly by Uisce Éireann; the Developer is required to contact Uisce Éireann to commence the taking in charge process for all water and wastewater infrastructure.

Storm Water Infrastructure

The Developer shall design and complete all storm water drainage and infrastructure to comply with the requirements of the “Greater Dublin Regional Code of Practice for Drainage Works”

In addition to the relevant Code of Practice and associated standards, the following key requirements should be noted:

1. The standards affecting storm water drainage infrastructure are:

    - Regional Code of Practice for Drainage Works
    - Greater Dublin Strategic Drainage Study (GDSDS) and Sustainable Urban Drainage Systems (SuDs).
    - The SuDS Manual, CIRIA C753, or the most recent version.
    - Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas - Water Sensitive Urban Design Best Practice Interim Guidance Document.
    - DOEHLG Recommendations for Site Development Works in Housing Areas.

2. The DRAFT SuDS and Drainage Strategy for larger developments are to be agreed in consultation with Kildare County Council Water Services Department, at Pre-Planning Stage and the final strategy shall be agreed prior to commencement of the development. This is to ensure that the assets are suitable for Taking in Charge by KCC. It should be noted that failure to agree the details in advance of the works, may result in an inability for these assets to be Taken in Charge by KCC.

3. Drawings are to be submitted to Development Control department in both pdf and AutoCAD compatible (.dwg) format, with the storm water infrastructure shown on a separate layer or xref and a standard legend included. Refer to the relevant section in the main Taking in Charge Policy Document/Appendix 12 for details. This will also outline the format in relation to colours, legends etc. that

are required.

All drawings to be geo-coordinated & scaled to the Ordinance Survey Ireland Irish National Grid (ING) and all levels related to fixed Ordnance Survey Datum (Malin Head). As constructed drawings shall be provided for the storm water network showing all pipe sizes, manhole invert and cover levels and connections or discharge points. Plan scales should be in common use, i.e., 1:500, 1:1000, or 1:2500, as appropriate.

These drawings shall contain the following information:

- SuDS, attenuation, flow control manholes and outfall non-return valves
- Manhole, pipe, service connection and all other infrastructure locations to +/- 100mm accuracy in the horizontal plane, with dimensions relating to fixed Ordnance Survey co-ordinates;
- Cover level and invert levels relating to fixed Ordnance Survey Datum (Malin Head) to an accuracy of +/- 20mm;
- Longitudinal sections, to an exaggerated vertical scale, (such as 1:1000 horizontal and 1:100 vertical) showing pipe installed levels, finished ground levels, pipe invert levels, pipe sizes, bedding type, haunch and surround details, backfill details, together with manhole locations, fitting and inspection chamber locations, chainages, gradients, pipe materials, etc. All manholes should be identified and provided with a location to an Irish National Grid co-ordinate (Information in Tabular Format on a Schedule of Manholes)
- Residential or commercial building numbers, with details of any services and structures on the site, existing and proposed, especially those in close proximity to the Works.
- Utility layout plan showing the layout of all wastewater, water and utility infrastructure (ESB Networks, Gas Networks Ireland, telecommunication provider ducting, etc.)

4. Photographs at key construction milestones before covering over are required. This shall include photos of the installation of SuDS, attenuation, etc. and shall be submitted with the Taking in Charge Application. Photos should also include all individual house drainage connection to the collector storm water sewers before covering over.

5. A full CCTV and manhole survey is to be carried out prior to the taking in charge process, by a competent surveying contractor procured by the Developer. CCTV and manhole survey information should be submitted in accordance with current Water Research Centre (WRc) specifications, and the following (to ensure compatibility with Uisce Éireann standards for the Wastewater network):

    - Sewer Condition Classification Format for each survey shall be undertaken in accordance with the WRc Manual for Sewer Condition Classification (MSCC) 5th Edition.
    - Sewer Condition Scoring Scheme will be in accordance with the Sewerage Risk Management (SRM) Manual 5 produced by WRc.
    - Qualifications and Training Requirements – all personnel involved in the classification shall have completed relevant training and achieved successful

accreditation. Evidence of appropriate training and qualifications shall be provided upon request.

- Calibration of Equipment – all plant and equipment used during surveys shall be maintained and calibrated in accordance with the manufacturer's requirements. Calibration certificates shall be made available when requested.
- CCTV Recording – recordings shall show a continuous record of data displayed.
- CCTV Recording – recordings shall include all branches from gullies to the mainline.
- Camera Speed – the speed of the camera shall be limited to 0.10m/s for pipelines of diameter less than 200mm, 0.15m/s for diameters exceeding 200mm but not exceeding 300mm and 0.20m/s for those exceeding 300mm, or such other speed as agreed with KCC, to ensure all details are captured by the DVD recording.
- Digital colour photographs shall be taken at the following points in all surveys:
    - General condition at 20m intervals.
    - Service connections (photograph taken at a right angle to service connections to identify obstructed service connections).
    - Protruding pipework; defective connections and junctions; debris/roots; cracks; fractures; broken pipes; deformation; open joints; displaced joints.
    - At the point where the survey is required to be abandoned.
- Photographs must show clear definition and accurately reflect what is shown on the monitor, which shall be in proper adjustment. Photographs shall be of sufficient quality to enable clear interpretation of the defect on a screen or A4 print out. The photographs shall clearly identify the following:
    - Automatic update of the camera's position in metres along the pipeline.
    - Sewer dimensions
    - Upstream and downstream manhole references
    - Direction of the survey
    - Photograph reference number in the report and date of photograph
    - Reason for the photograph
- Manhole Condition Surveys shall be completed in accordance with the WRc Manual of Sewer Classification 5th edition. Survey report cards should include:
    - Grid reference of manhole, to Irish National Grid Coordinates
    - Cover material and integrity
    - Biscuit integrity
    - Chamber material and size and chamber integrity, with confirmation of no infiltration
    - Material and diameter of all incoming and outgoing pipes, and a diagram clearly illustrating the location of these pipes
    - Benching quality
    - Step material and integrity
- Manhole Condition Survey Photographs shall be submitted in digital 'jpeg' or similar suitable format, with a minimum resolution of 1024 x 768 pixels.
- Manhole Survey Format – data collection during the survey shall be available in a format compatible with InfoNet/ InfoAsset.

- Developer Quality Control Responsibility – before submitting CCTV and manhole survey information, the Developer is responsible for checking that no defects or debris has been identified by the survey and that any such defects identified are rectified, followed by the generation of final survey reports.
- Reporting and Deliverables – the Final Reports and Deliverables provided shall include the following:
    - CCTV Survey footage: files shall be submitted to Kildare SharePoint in accordance with MSCC 5th Edition.
    - CCTV Footage shall be playable in Google Chrome. Acceptable formats for this are AVI and MP4.
    - CCTV Reports: reports submitted identifying that no defects exist shall be submitted to Kildare SharePoint.
    - Manhole Survey Reports: Reports submitted identifying that no defects exist. Reports submitted in 'csc' format shall be submitted to Kildare County Council SharePoint. Manhole referencing shall be consistent with the As Constructed Drawings (ACDs) (to Irish National Grid Coordinates to +/- 100mm accuracy in the horizontal plane, with dimensions relating to fixed Ordnance Survey coordinates)
    - Certification from the Developer's Consultant Engineer, that confirms a quality control regime has been implemented with the result that no defects exist in either the pipelines or manholes.

All CCTV and manhole reports will be reviewed by KCC and will include visual site inspection against the information submitted. It is the responsibility of the Developer to ensure that defects do not exist. Should the Developer fail in their responsibility to adequately enforce quality checking ahead of the submission to KCC, then a charge may be levied by KCC for additional review of CCTV and manhole reports.

In the event of the identification of deficiencies in the works, repairs of these deficiencies shall be carried out by the Developer and confirmation obtained that the repairs achieved an adequately watertight system by a re-run of the CCTV survey at the defect location.

If the Developer does not carry out the CCTV and manhole surveys or does not undertake required repairs of any deficiencies, then KCC retains the right not to take in charge the infrastructure.

6. It is the responsibility of the Contractor/Developer to ensure that all appropriate licences and permits in relation to storm water management and discharges are in place, including EPA discharge licences where relevant.

7. All design plans and design criteria utilised shall be provided for storm water infrastructure. Detailed As Construed Drawings (ACDs) are to be provided, along with clear operational and maintenance requirements (O&M).

8. A Safety File is to be provided, in accordance with current Safety and Health Construction Regulations.

9. The Developer shall furnish evidence that all necessary wayleaves for pipelines

and services are in place and that access to wayleaves for inspection and maintenance has been provided for, and that such access shall be kept free of any development. The Developer shall indicate restrictions, if any, imposed on the use or development of land within a wayleave, that have been or are to be imposed on the owners or occupiers of land within such wayleaves.

10. Inspection of construction may be inspected by the relevant Inspectorate within the Development / Building Control Authority.

11. The Calendar of Inspections should include key stages or milestones which should be rigorously met at the earliest possible time and certainly no later than the commissioning/ connection/ occupancy stage.

12. The Developer shall implement a drainage and SuDS Maintenance Plan in accordance with the condition of the planning permission and keep detailed records of all maintenance and repairs carried out on the drainage and SuDS and hand them over to new owners when site sold or to Kildare County Council at Taking in Charge stage in a file akin to the statutory Safety File.

Schedule 2 - Inspection Form

Storm Water Infrastructure TIC Form
KCC Taking in Charge Requirements (Q2 2022)

Notes:

1. To be completed jointly by the Developer & Development Control KCC - This inspection form is to assess condition and compliance with standards of Water Services assets for the transfer of assets to KCC on conclusion of the taking in charge process. It is a visual survey and unless otherwise indicated no testing of the infrastructure was undertaken.

2. All drawings are to be submitted in accordance with the drawing specification outlined in KCC's Guidance document for Taking in Charge.

3. Works are required to be designed and completed in accordance with the Greater Dublin Strategic Drainage Study (GDSDS), 2005, and any subsequent revisions, and the requirements set out in Greater Dublin Regional Code of Practice for Drainage Works.

Completion Colour Code:	Developer		**KCC Development Control**

Planning Authority: Kildare County Council

Planning Ref. No(s)

Development Name:

Number of Units:

Length of Roadway (if available):

Geo References (Site Centroid):

Development Address:

Name of Developer:

Application Received from:

Is there a current Bond in Place: Yes ☐ No ☐

If Yes, Value of Bond

Phase of Bond, if relevant:

Bond type, Cash/Insurance/Other:

Expiry Date of Bond Claims:

Name of Financial Institution:

Date of Inspection: _____ Initial: ☐ Follow up: ☐

The table hereunder is a checklist to be utilised to assist in the site inspection and is a measure of the information on storm water infrastructure.

Engineers and Architects Certificates	**Available**			**Inspection**		**Comment**
	Yes	**No**	**N/A**	**Pass**	**Fail**	
Copies of submitted certificates						*Developer to provide*
Copies of submitted reports						*Developer to provide*
General - As Constructed Drawings	**Available**			**Inspection**		**Number**
	Yes	**No**	**N/A**	**Pass**	**Fail**	
Electronic copy submitted						*Developer to provide original drawing format (DXF/DWG) and PDF version*
Hard Copies						*Developer to provide*
General - Site Layout Drawings	**Available**			**Inspection**		**Comment**
	Yes	**No**	**N/A**	**Pass**	**Fail**	

Schedule 2 - Inspection Form

	Indicate extent of roads and lands and infrastructure to be taken in charge						*Developer to provide original drawing format (DXF/DWG) and PDF version*
	Indicates House Numbers, where applicable						*Developer to provide*
	Details pre-existing topography, services, water courses etc.						*Developer to provide*
	Existing wayleaves or other burdens on lands						*Developer to provide*
	Storm Water Network - As Constructed	**Available**			**Inspection**		**Comment**
		Yes	**No**	**N/A**	**Pass**	**Fail**	
	Plan of storm water network						*Developer to provide original drawing format (DXF/DWG) and PDF version*
	Longitudinal sections showing gradient of pipeline, pipe diameter and pipe type						*Developer to provide original drawing format (DXF/DWG) and PDF version*
	Route, diameter and class of pipelines indicated						*Developer to provide*
	Location of manholes including finished ground/cover level and invert level are identified on plan						*Developer to provide*
	Summary of manhole type, grade, standard and condition of all covers and frames						*Developer to provide*
	Gully Details (Frame, grating, connections, positioning, spacings) to be provided to the Roads Department						*Developer to provide*
	Connection and discharge points noted. Indicate location and route of any connections from individual properties to storm water network						*Developer to provide*
	Details of storm water network abandoment, if applicable						*Developer to provide*
	Assessment on the need for petrol interceptors						*Developer to provide*
	Test Certificates	**Available**			**Inspection**		**Comment**
		Yes	**No**	**N/A**	**Pass**	**Fail**	
	Pipelines - Air tests to BE EN 1610						*Developer to provide*
	Surveys	**Available**					**Comment**
	Storm Water Network	**Yes**	**No**	**N/A**			
	CCTV Survey-with reports including classification of all defects and defect grading (in line with current Water Research Centre (WRc) specifications)						*Developer to provide*
	Manhole Survey–visual check on benching, infiltration, cover and biscuit integrity and flushness with surface, accessibility, subsidence, cracking, ponding.						*Developer to provide*
	Dye tests - 1 in 10 premises to be subject to dye test						*Developer to provide*
	Pressure testing of storm water rising mains - Testing of rising mains shall be undertaken in accordance with ING 4-01-03 Guide to Testing of Pressure Pipes and Fittings for Use by Public Water Suppliers.						*Developer to provide*
	Random check of manholes for presence of foul sewage. (1/10).						

Schedule 2 - Inspection Form

	Water sample to be taken from the outfall / end connection point of the storm water main and tested for the presence of any contamination which may indicate misconnections with the foul sewer.						
	Wayleaves and Easements	**Available**			**Inspection**		**Comment**
		Yes	**No**	**N/A**	**Pass**	**Fail**	
	Copies of all wayleaves, burdens, land transfers and other document pertinent to development to be submitted.						*Developer to provide*
	Service History	**Available**			**Inspection**		**Comment**
		Yes	**No**	**N/A**	**Pass**	**Fail**	
	Detail significant sewer blockages / bursts / issues.						
	Flooding risk or potential						
	Overflow / Discharge locations						
	Pumping Stations, if applicable	**Available**			**Inspection**		**Comment**
		Yes	**No**	**N/A**	**Pass**	**Fail**	
	Storm Water Pumping Station site plan showing levels, site boundary, manholes and pipelines.						*Developer to provide*
	As constructed drawings and specifications to include type and size of pumps; pump capacity and pump curve, emergency overflow, wiring diagrams for control panel and switch gear; telemetry system; lifting equipment including certification of same.						*Developer to provide*
	Reports associated with supervision of installation						*Developer to provide*
	Provide results of testing of all pumping stations sumps, wet wells, and other water retaining structures						*Developer to provide*
	Operational Arrangements (Council/Developer/Service Contract)						*Developer to provide*
	Performance issues-Where Council have intervened						*Developer to provide*
	MPRN and Account Holder Details from electricity account						*Developer to provide*
	Actual or estimated annual consumption from Electricity bill.						*Developer to provide*

Sketches Attached (optional): Yes ☐ No ☐

Conclusion:

Recommended time frame for execution of water service remedial works: _____

Anticipated costs for remedial works to water service infrastructure: _____

Schedule 2 - Inspection Form

- Proceed to take in charge: ☐

or

- Works required prior to taking in charge: ☐

- Signed: _____ *By Senior Executive Engineer Development Control*

- Grade: _____

- Date: _____

Note: Please attach copies of all reports, drawings, surveys etc with completed forms.