

# Article 161 Adoption Developer Checklist

Site Ref:

Manhole Ref:

Site Address / Name:

Checked by:

Date checked:



<b>Please refer to Sewers for Adoption (NI) Current Edition</b>			Tick if complete
<b>GENERAL ITEMS</b>			
Dwelling occupancy rate	Over 50% of total houses to be constructed	<b>If occupancy rate is not met do not apply</b>	
Road and footpath surfaces	Minimum base coat required on all surfaces		
<b>COVER &amp; OPENING</b>			
Cover	675mm x 675mm	In line with opening in the cover slab	
	BS EN 124 Class D400	For roads & pedestrian zones bearing traffic	
	BS EN 124 Class B125	For footways, verge & gardens etc	
Brick	Class "B" engineering brick or precast or concrete risers		
	1 to 4 rows	Ensure when using 1 or 4 rows of brick to meet criteria under ladders and steps	
Cover slab opening	675x675mm	Cover slab to be set 230mm from edge of manhole rings	
<b>RINGS</b>			
Diameter	1200 min.	For large diameter rings their size should be 900mm larger than the diameter of the pipe.	
Joints	Joints between all units (slabs/rings) should be sealed	Manholes chambers should not have leaks or noticeable weeps.	
Rings	Should not be cracked / broken		
	Lifting eyes	Seal with mortar	
<b>LADDER &amp; STEPS</b>			
Dimensions	Distance to top step from ground level 675mm max		
	Minimum distance from ring to tread 230mm		
	Maximum distance between treads to be 300mm		
Ladder	Required when ground level to benching is 3 meters or greater.		
	No steps required where invert is 1200mm or less		
<b>BENCHING &amp; CHANNEL</b>			
Min width of benching	500mm	Side for steps / ladder	
	225mm	Other side	
Benching gradient	Between 1:10 & 1:30	Benching to be rubbed up smooth finish	
Channel opening	Channel opening to be 100mm minimum from wall	Main channel to be cut half channel	
Channel material	Preformed uPVC winged channels		
	For concrete pipelines cut pipes may be used	For large diameter channels may be formed in-situ	
Lateral connections	Lateral connections to be cut to half channel up to a minimum of 200mm from manhole wall		
	Connections to main channel should be brought in at half channel level	Connection to be in direction of flow and should not extend into the channel	
Backdrop	Rodding eyes should be cut flush to the wall		
<b>OTHER ITEMS</b>			
Toe hold	Required when channel is greater than or equal to 600mm		
Safety chain	Required when channel is greater than or equal to 600mm	Hang chain at 10 and 2 o'clock position Chain to hang to half depth of pipe	
Outfalls	Flap Valve installed, wing wall constructed	Discharge to be in direction of flow	