

DESCRIPTION	EXISTING	PROPOSED
EXTENT OF WORKS		
NOT PART OF CIVIL CONSTRUCTION WORKS		
EXISTING TREE TO BE RETAINED		
FINISHED SURFACE CONTOURS (1m INTERVAL)		
SCOUR STOPS		
STORMWATER MAIN (RADIUS/LENGTH, RC, RRJ PIPE)		
STORMWATER SUMP, MANHOLE		
END CAP		
100ϕ SUBSOIL DRAIN WITH CONNECTION TO SUMP AND HIGH END RISER		
SUBSOIL DRAIN INTERMEDIATE RISER		
SUBSOIL DRAIN HIGH END RISER		
SEWER MAIN (RADIUS)		
SEWER MANHOLE, VERTICAL DROP		
HEAVY DUTY COVER		
WATER MAIN (DIAMETER, RADIUS)		
FIRE HYDRANT, SLUICE VALVE, THRUST BLOCK		
SLUICE VALVE AND INLINE THRUST BLOCK		
WATER SERVICE		
IRRIGATION MAIN (REFER WATERLAND DRAWINGS FOR DETAILS)		

SEWER	STORMWATER
PVC	- PVC-U 100Ø TO 225Ø CLASS SN8 MINIMUM, AS1260 & AS2566.1
2,3,4	- REINFORCED CONCRETE OR FIBRE CEMENT, AS4058 & AS3725
DICL	- DUCTILE IRON CEMENT LINED, CLASS PN35, AS2280
BM	- BLACKMAX < 900Ø, AS5065
SfP	- STORMPRO < 900Ø, AS5065

1. WORKS TO BE IN ACCORDANCE WITH QUEANBEYAN-PALERANG REGIONAL COUNCIL'S (QPRC) DEVELOPMENT DESIGN SPECIFICATIONS AND DEVELOPMENT CONSTRUCTION SPECIFICATIONS.
2. FOR BACKFILLING OF ALL HYDRAULIC SERVICES REFER TO QPRC'S DEVELOPMENT CONSTRUCTION SPECIFICATIONS. BACKFILL UNDER ROADS, PATH AND DRIVEWAYS IN LAYERS NOT EXCEEDING 150mm AND BEHIND KERBS IN LAYERS NOT EXCEEDING 400mm.
3. FOR CONDUIT TRENCHING, BEDDING AND BACKFILLING REQUIREMENTS REFER TO RELEVANT DETAILS PROVIDED BY SERVICE AUTHORITIES.

1. ALL DESIGN LEVELS SHOWN ON STORMWATER LINES ARE AT THE CENTRE OF THE MANHOLE OR SUMP UNLESS SHOWN OTHERWISE. NOTE THE SPECIFICATION REQUIREMENTS FOR THE CONSTRUCTION TOLERANCES FOR INVERT LEVELS.
2. ALL STORMWATER PIPES < 900mm DIA ARE TO BE STORMPRO OR BLACKMAX UNLESS OTHERWISE NOTED.
3. FOR STORMWATER PIPE GRADES EXCEEDING 5%, PLACE BULKHEADS AT 5m SPACINGS.
4. STORMWATER TIE BRANCHES TO BE 100mm DIA, LAID AT MIN. 1% FROM INVERT OF SLOPE JUNCTION OR BRANCH CONNECTION UNLESS INVERT OTHERWISE NOTED.
5. FOR TIES WHICH CONNECT DIRECTLY TO A STRUCTURE, THE TIE OBVERT IS TO MATCH THE OBVERT OF THE OUTGOING MAIN.
6. STORMWATER TIES SHALL BE 100mm DIA, CLASS SN6 SOLID WALLED PVC WITH SOLVENT WELDED JOINTS. TIES SHALL BE MIN. GRADE OF 1%
7. SUBSOIL DRAINS TO BE 100mm DIA CORRUGATED PLASTIC PIPE, CLASS 1000. SUBSOIL DRAIN ROAD CROSSINGS SHALL BE CONSTRUCTED WITH 100Ø PVC PIPE, CLASS SN6. SUBSOIL DRAINS SHALL BE MIN. GRADE OF 1%.
8. SUBSOIL PIPES ARE DRAWN DIAGRAMMATICALLY FOR CLARITY. CAD DATA SHALL NOT BE USED FOR SETOUT. REFER DRG. 308402CC081 FOR TYPICAL DETAIL
9. HEAVY DUTY STORMWATER MANHOLE COVERS SHALL BE "GATIC" CLASS D WITH CONCRETE INFILL.

MAJOR STORM : 1% AEP
MINOR STORM : 10% AEP

HGL SHOWN ON LONGITUDINAL SECTIONS : 10% AEP

1. ALL DESIGN LEVELS SHOWN ON SEWER MAINS ARE AT THE CENTRE OF THE MANHOLE. NOTE THE SPECIFICATION REQUIREMENTS FOR THE CONSTRUCTION TOLERANCES FOR INVERT LEVELS.
2. ALL CONNECTIONS TO LIVE SEWER MAINS SHALL BE MADE BY THE CONTRACTOR UNDER THE SUPERVISION OF QPRC.
3. SEWER PIPES SHALL BE CLASS SN8, SOLID WALLED PVC WITH RUBBER RING JOINTS. REFER TO AS1260.
4. ALL SEWER MANHOLES SHALL BE TYPE C2 CONSTRUCTED USING THE CAST-IN-SITU METHOD, REFER WSA DRAWING SEW-1301.
5. ALL PIPE CONNECTIONS TO SEWER MAINTENANCE HOLES SHALL HAVE AN APPROVED HYDROPHILIC SEAL.
6. FOR SEWER PIPE GRADES EXCEEDING 5% CONSTRUCT TRENCH STOPS, FOR GRADES $>15\%$ AND $\leq 30\%$ CONSTRUCT BULKHEADS, IN ACCORDANCE WITH WSA 02-2002-2.3, AND DRGS. SEW-1206 AND 1207.
7. SEWER MAINS AND SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH QPRC STANDARDS AND DRAWINGS UNLESS NOTED OTHERWISE.
8. ALL MANHOLE COVERS SHALL BE CLASS B UNLESS NOTED AS "HD". CLASS B LIDS TO BE GAS TIGHT. HD DESIGNATED COVERS SHALL BE CLASS D. USE HD MANHOLES WHEREVER TRAFFICABLE OR UNDER 1% AEP. REFER TO WSA 02-2002-2.3 DRAWING SEW-1308.
9. PROTECT AND DELINEATE ALL EXISTING SEWER MANHOLES WITH PARAWEBBING. ANY DAMAGE SHALL BE REPORTED IMMEDIATELY TO ICON WATER AND REPAIRED AT CONTRACTOR'S EXPENSE.
10. SEWER PROPERTY CONNECTIONS (PC) SHALL BE IN ACCORDANCE WITH QPRC'S DEVELOPMENT DESIGN SPECIFICATION D12.10.8.
11. SEWER PCS TYPICALLY 100mm DIA, CLASS SN8, SOLID WALL PVC WITH SOLVENT WELDED JOINTS CONSTRUCTED IN ACCORDANCE WITH WSA 02-2002-2.3 DRAWING SEW-1107
12. SEWER PC BRANCHES TO BE LAID AT 2% GRADE FROM THE INVERT OF THE SLOPE JUNCTION OR BRANCH UNLESS INVERT LEVEL PROVIDED.
13. WHERE A SEWER PC CONNECTIONS DIRECTLY TO A STRUCTURE THE SEWER PC OBVERT SHALL MATCH THE OBVERT OF THE OUTGOING MAIN.

2. ANGLES OF DCL BENDS SHALL BE THE NEAREST AVAILABLE. THE CONTRACTOR SHALL, WITHOUT EXTRA COST, EITHER ADAPT THE BEND TO PROVIDE THE REQUIRED ANGLE OR LAY THE ADJACENT SECTIONS OF THE MAIN SO THAT THEY INTERSECT AT THE BEND ANGLE.
3. ALL CONNECTIONS TO LIVE WATER SUPPLY MAINS SHALL BE MADE BY QPRC AT CONTRACTORS EXPENSE OR CONTRACTOR TO DO EXCAVATION SUPPLY PARTS AND QPRC CUT INTO LIVE MAIN.
4. UNLESS NOTED OTHERWISE WATER MAINS SHALL BE CLASS PN16 PVC WITH JOINTS COMPATIBLE WITH DUCTILE IRON PIPES AND FITTINGS.
5. WHERE WATER FITTINGS ARE IMMEDIATELY ADJACENT TO EACH OTHER THE FITTINGS SHALL BE BOLTED TOGETHER WITH FLANGED JOINTS.
6. SLUICE VALVES WHERE ADJACENT TO TEES, SHALL BE FLANGED TO THE TEE. SLUICE VALVES SHALL BE LOCATED BEHIND KERBS (AND NOT IN PAVEMENTS AS SOMETIMES NOTIONALLY INDICATED ON PLANS).
7. FOR WATER PIPE GRADES EXCEEDING 5% CONSTRUCT TRENCH STOPS, FOR GRADES EXCEEDING 15% CONSTRUCT BULKHEADS, IN ACCORDANCE WITH WSA 03-2002-2.3, AND DRGS. WAT-1209 AND 1210.
8. ALL WATER PROPERTY CONNECTIONS (PC) SHALL BE HOPE CLASS PE100, 20mm DIA UNLESS NOTED OTHERWISE.
9. WATER PCS SHALL BE CONNECTED TO THE MAIN IN ACCORDANCE WITH WSA 03-2002-2.3 DRAWING WAT-1108.
10. WATER PC ROAD CROSSINGS SHALL BE PLACED IN A 32mm UPVC CONDUIT WHICH EXTENDS 300mm PAST THE KERB LINE.



A	ISSUED FOR APPROVAL	BC	10/12/21
Rev	Amendments	Approved	Date



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Designed
LO
Authorised
MB

Checked
BC
Date
10-12-21

Drg No **308402CC400** Rev **A**