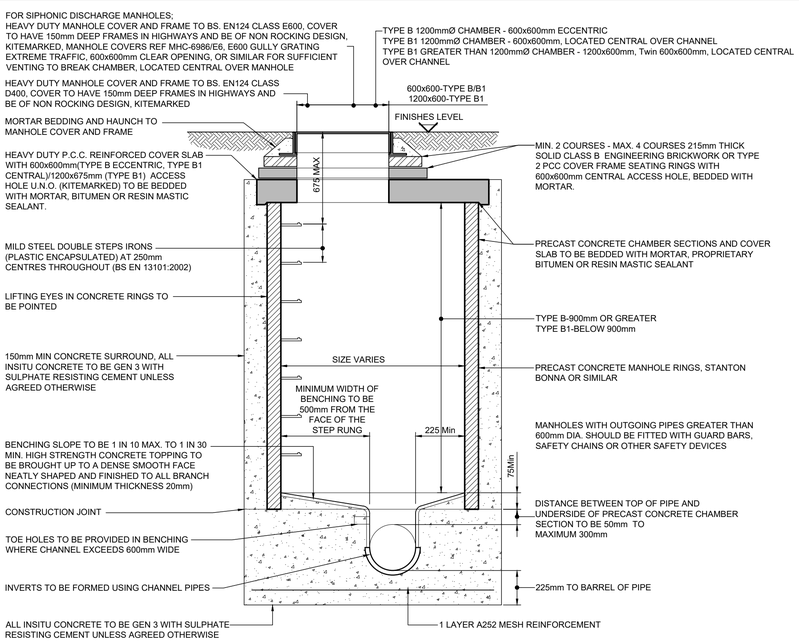
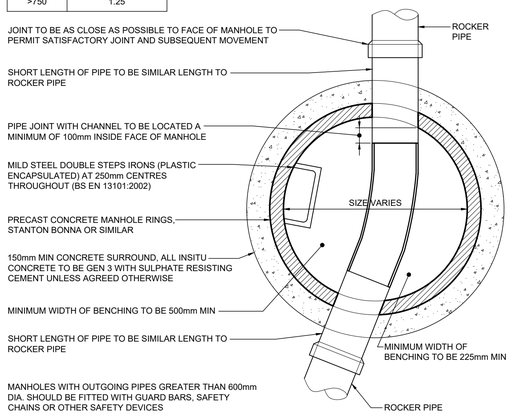


SECTION
MANHOLE TYPE B - DEPTH 1.5-3.0m SOFFIT
MANHOLE TYPE B1 - DEPTH 1-1.5m SOFFIT

SCALE 1:20

ROCKER PIPE LENGTH	
NOM DIA (mm)	EFFECTIVE LENGTH (m)
150-600	0.60
601-750	1.00
>750	1.25

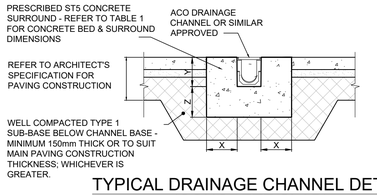


PLAN - TYPICAL

SCALE 1:20

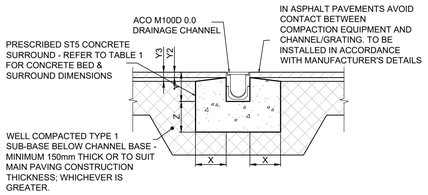
TABLE 1:
ACO MULTI DRAIN MD CONCRETE BED & SURROUND DIMENSIONS

LOAD CLASS		A15	B125	C250	D400
MINIMUM DIMENSIONS [mm]	X	100	150	150	200
	Y	FULL CHANNEL HEIGHT			
	Z	100	150	150	200
MAXIMUM DIMENSIONS [mm]	Y2	35	35	35	35
	Y3	100	60	60	60



TYPICAL DRAINAGE CHANNEL DETAIL (CONCRETE SLAB)

SCALE 1:20

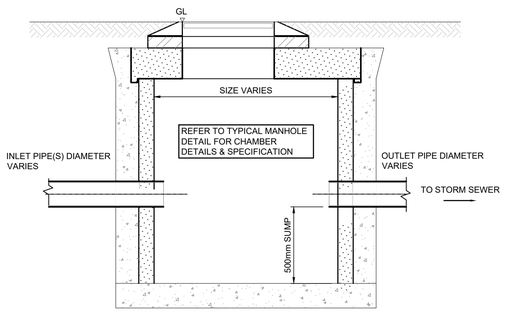


TYPICAL DRAINAGE CHANNEL DETAIL (ASPHALT PAVEMENT)

SCALE 1:20

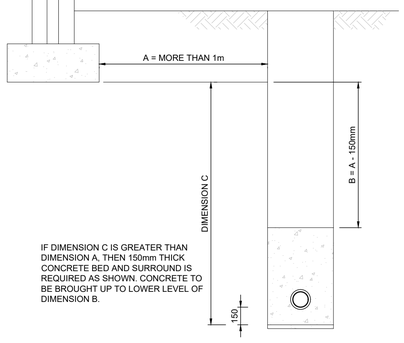
NOTES:

1. THESE NOTES ARE INTENDED TO AUGMENT DRAWINGS AND SPECIFICATIONS. WHERE CONFLICT OF REQUIREMENTS EXIST THE ORDER OF PRECEDENCE SHALL BE AS SHOWN IN THE SPECIFICATION. OTHERWISE THE STRICTEST PROVISION SHALL GOVERN.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS AND ARCHITECTS DRAWINGS.
3. DRAWINGS NOT TO BE SCALED. ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER AND FURTHER INSTRUCTIONS OBTAINED BEFORE WORK IS COMMENCED.

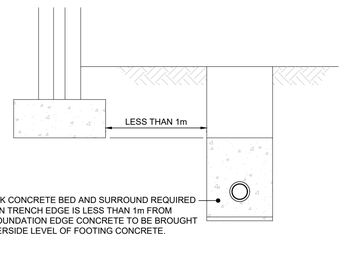


CATCHPIT MANHOLE

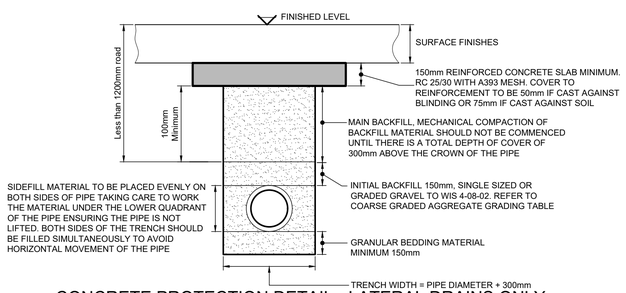
SCALE 1:20



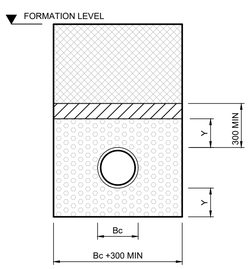
DRAIN TRENCH EDGE MORE THAN 1m. FROM FOOTING/FOUNDATION EDGE



DRAIN TRENCH EDGE LESS THAN 1m. FROM FOOTING/FOUNDATION EDGE

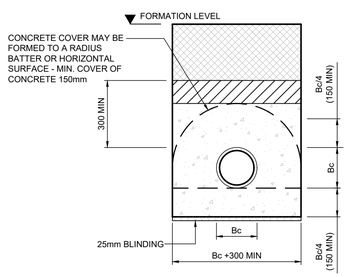


CONCRETE PROTECTION DETAIL - LATERAL DRAINS ONLY



CLASS S BEDDING DETAIL

SCALE 1:20



CLASS Z CONCRETE BEDDING DETAIL

(EXTERNALLY AS PER NOTE 15 OF DRAINAGE NOTES)

SCALE 1:20

4/20 COARSE GRADED AGGREGATE GRADING TABLE	
SIEVE SIZE (mm)	PERCENTAGE PASSING (%)
40	100
31.5	98 - 100
20	90 - 99
10	25 - 70
4	0 - 15
2	0 - 5

TABLE 2: 4/20 COARSE GRADED AGGREGATE GRADING TABLE

NOMINAL PIPE DIA (mm)	SINGLE SIZED (mm)	GRADED (mm)
100	10	N/A
OVER 100 TO 150	10 OR 14	14 TO 5
OVER 150 TO 300	10,14 OR 20	14 TO 5 OR 20 TO 5
OVER 300 TO 525	14 OR 20	14 TO 5 OR 20 TO 5
GREATER THAN 525	14,20 OR 40	14 TO 5,20 TO 5 OR 40 TO 5

GRANULAR BEDDING MATERIAL TABLE.

(ALL AGGREGATES TO BS EN 13242, PD 6682-6:2003 & BS EN 13055-2)

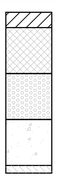
NOTES

A) Bc = OUTSIDE DIAMETER OF PIPE BARREL.

B) Y = FOR UNIFORM SOILS:
SLEEVE JOINTED PIPES, MIN. 50mm OR 1/6Bc, WHICHEVER IS THE GREATER. SOCKETED PIPE, MIN. 100mm OR 1/6Bc, WHICHEVER IS THE GREATER UNDER BARRELS, NOT LESS THAN 50mm UNDER SOCKETS. FOR ROCK OR MIXED SOILS CONTAINING ROCK BANDS, BOULDERS, STONES OR OTHER IRREGULAR HARD SPOTS: SLEEVE JOINTED PIPES, MIN. 150mm OR 1/4Bc, WHICHEVER IS THE GREATER. SOCKETED PIPE, MIN. 200mm OR 1/4Bc, WHICHEVER IS THE GREATER UNDER BARRELS, NOT LESS THAN 150mm UNDER SOCKETS.

CONCRETE BED AND SURROUND TO BE DISCONTINUED AT EVERY PIPE JOINT (NOT TO EXCEED 5m) USING COMPRESSIBLE FILLER. COMPRESSIBLE FILLER TO BE 18mm THICK FOR PIPEWORK UPTO 450mm DIAMETER, FOR PIPES OVER 450mm FLEXCELL JOINTS TO BE 36mm THICK

PIPE BEDDING DETAIL KEY



SELECTED BACKFILL - SEE NOTE B2.

BACK FILL - TO STRUCTURAL ENGINEERS SPECIFICATION UNDER BUILDING & NOTES B3, B4 ELSEWHERE

GRANULAR MATERIAL - REFER TO GRANULAR BEDDING MATERIAL TABLE & NOTE B1

CONCRETE BEDDING - DESIGNATION GEN 3 - SEE NOTE B5.

CONCRETE BLINDING - DESIGNATION GEN 1 - SEE NOTE B5.

BEDDING NOTES:

B1. PIPE BEDDING MATERIALS TO COMPLY GENERALLY WITH SHW - SERIES 500 - CLAUSE 503. GRANULAR BEDDING MATERIALS TO ALSO COMPLY WITH BS EN 13242 & THE GRANULAR BEDDING MATERIAL TABLE ON THIS DRAWING.

B2. SELECTED BACKFILL MATERIAL TO BE PROVIDED ABOVE THE PIPE SURROUND TO A HEIGHT OF 300mm MINIMUM ABOVE THE TOP OF THE PIPE. SELECTED BACKFILL MATERIAL TO BE CLASS 8 - LOWER TRENCH FILL MATERIAL IN ACCORDANCE WITH SHW - SERIES 600 TABLE 6/1 & TO COMPRISE OF UNIFORM SOIL, FREE FROM STONES LARGER THAN 40mm, LUMPS OF CLAY OVER 100mm, TIMBER, FROZEN MATERIAL & VEGETABLE MATTER. SELECTED BACKFILL MATERIAL TO BE PLACED & COMPACTED IN LAYERS NOT EXCEEDING 150mm IN THICKNESS. SHOULD THE MATERIAL BE UNSUITABLE OR WEATHER CONDITIONS AFFECT THE MATERIALS STABILITY, THEN A SUITABLE HARD GRANULAR MATERIAL SHALL BE USED.

B3. GENERAL BACKFILL TO DRAINAGE TRENCHES [OTHER THAN FILTER DRAINS] IN VEHICULAR TRAFFICKED AREAS ABOVE THE PIPE BEDDING & SELECTED BACKFILL SHALL BE CLASS 1, 2 OR 3 GENERAL FILL MATERIAL IN ACCORDANCE WITH SHW - SERIES 600.

B4. GENERAL BACKFILL UNDER NON-VEHICULAR TRAFFICED AREAS TO BE SUITABLE AS-DUG MATERIAL COMPACTED IN ACCORDANCE WITH SHW - SERIES 600 IN LAYERS NOT EXCEEDING 225mm, EACH LAYER COMPACTED TO FORM A STABLE TRENCH BACKFILL, SHOULD THE MATERIAL BE UNSUITABLE OR WEATHER CONDITIONS AFFECT THE MATERIALS STABILITY, THEN A HARD GRANULAR MATERIAL SHALL BE USED UP TO FORMATION LEVEL.

B5. ALL CONCRETE TO BE DESIGNATED CONCRETE TO CONFORM TO BS 8500-2.

JOB NO: 44610 - DRAWING REFERENCE TABLE

This Drawing to be Read in Conjunction with the Drawings Listed Below

Alan Wood & Partners	Drawing Reference
Proposed Drainage Layout	CAP - AWP - ZZ - XX - DR - C - 3001
Drainage Details	CAP - AWP - ZZ - XX - DR - C - 3701
External Works Layout	CAP - AWP - ZZ - XX - DR - C - 4001
External Works Details	CAP - AWP - ZZ - XX - DR - C - 4701
Drawings by others	Date Received
Site Layout Dr by Harris	04-11-2020

Rev	Description	Date	By	Chk	App
C1	FIRST ISSUE	11.11.20	EL	CD	JAG

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Scarborough T. 01723 865494
Sheffield T. 01142 440077
York T. 01904 611594

Project: C & S SERVICES CAPITOL PARK - PHASE 2

Client: PDR CONSTRUCTION Ltd.

Drawing: DRAINAGE DETAILS (SHEET 1)

Role: CIVIL ENGINEER

Drawing Status: FOR CONSTRUCTION

Job. no. 44610 | Scale@ A1: AS NOTED | Rev. C1

Project	Originator	Volume	Level	Type	Role	Number
CAP	AWP	ZZ	XX	DR	C	3701

100mm at A1