

1. CONCRETE SHALL BE MINIMUM 20MPa COMPRESSIVE STRENGTH AT 28 DAYS.
2. FINISHED CONCRETE SURFACES SHALL NOT EXCEED THE TOLERANCES FOR CLASS 4 FORMWORK AS SPECIFIED IN AUSTRALIAN STANDARDS CONTROL OF CONCRETE SURFACES-FORMWORK.
3. PRECAST UNITS SHALL BE USED ONLY WITH COUNCIL'S APPROVAL.
4. ALL PIPES SHALL BE CLASS 2 SPUN REINFORCED CONCRETE.
5. ALL DRAINAGE PIT COMPONENTS TO BE DESIGNED TO ACCEPT AUSTROADS A14 LOADING STANDARD.
6. FOR PIPE SIZES GREATER THAN OR EQUAL TO 750Ø REFER TO TS 03-3 FOR BRICK DRAINAGE PIT.

7. DROP JUNCTION PIT TO BE USED AT ALL SUMP SITES UNLESS OTHERWISE DIRECTED BY THE CITY.
8. LIMESTONE ACCESS RAMP TO BE 4m WIDE WITH 150mm COMPACTED LIMESTONE FROM END OF CONCRETE CROSSOVER TO BASE OF SUMP.

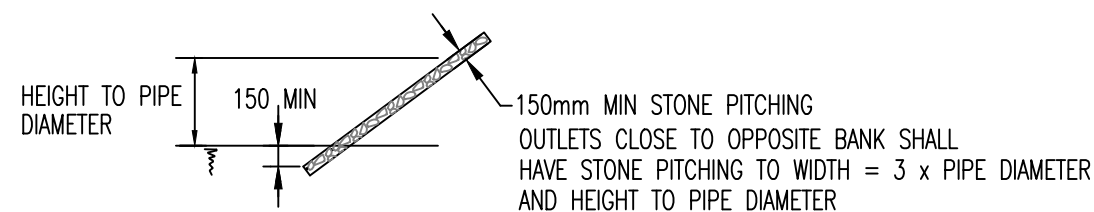
Diagram illustrating the connection of an outfall pipe from a manhole to a structure, showing the pipe passing through a stone key or other specified material.

Labels in the diagram:

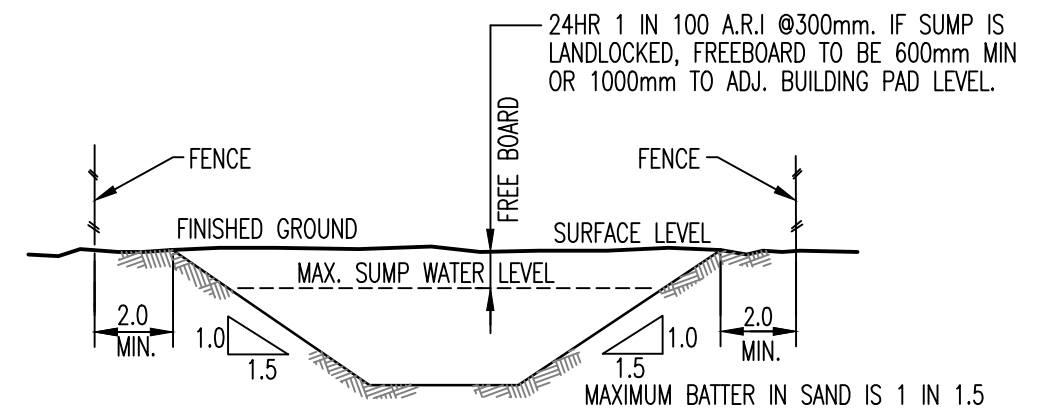
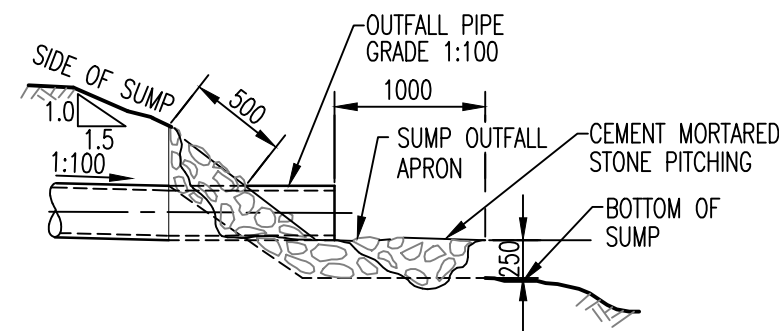
- OUTFALL PIPE FROM MANHOLE
- STONE KEY OR OTHER AS SPECIFIED
- PIPE O.D.
- 900 (vertical dimension)
- 900 (vertical dimension)

PLAN  
SUMP    OUTFALL    APRON

SCALE 1:100

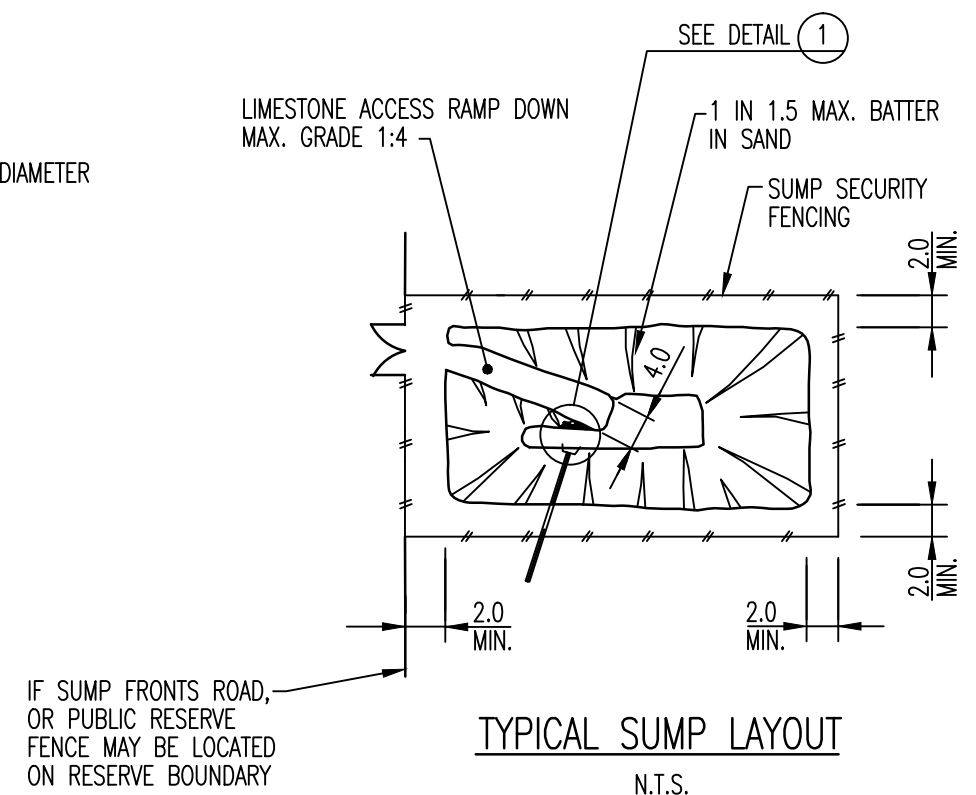
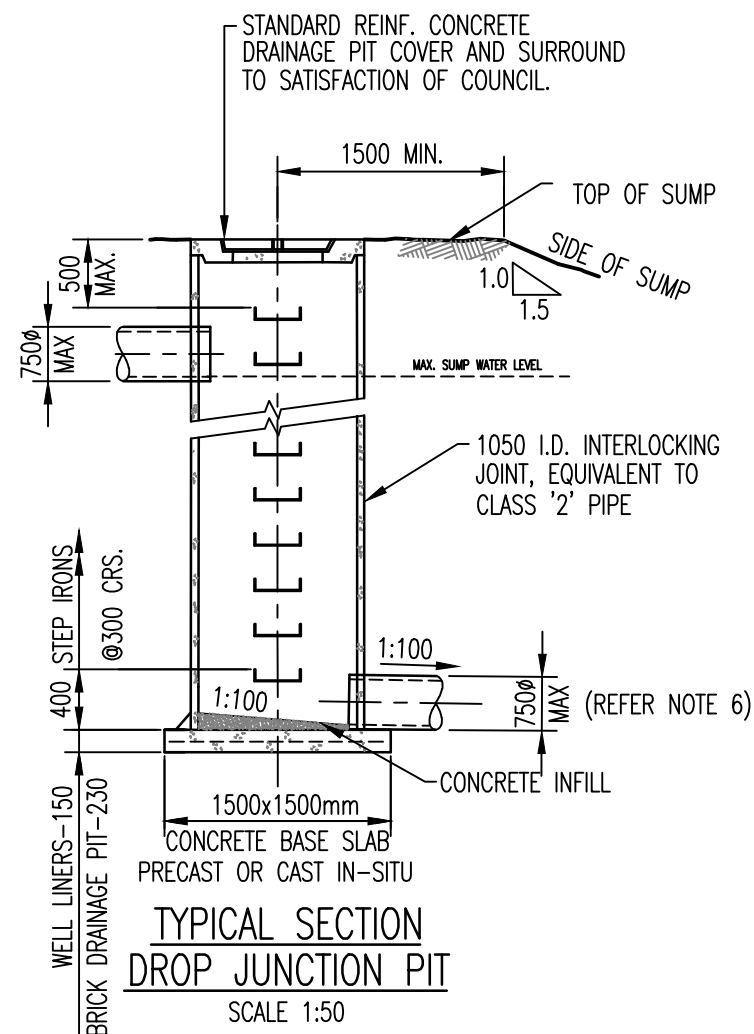



DETAIL 1  
N.T.S. -



TYPICAL SECTION THROUGH SUMP

SCALE 1:200



DATUM: N/A		GRID: N/A		SURVEYOR: N/A		DESIGNED: C.O.W.		APPROVED: * T. QUINN 8/8/2001	
SCALE: 1000 0 1000 1500 2000 2500 1:100				DRAWN: C.O.W.		COORDINATOR		APPROVED:	
DESIGN ARCHIVE:				DESIGN CHECKED:		* R. KORENHOF 23/8/2001		MANAGER INFRASTRUCTURE	
DRAWING ARCHIVE:				DESIGNER		APPROVED:		* D. BLAIR 23/8/2001	
* \FINAL STANDARD DRAWINGS				STANDARDS/DOCUMENT CONTROL: * J. TRIMMER 8/8/2001		* D. BLAIR 23/8/2001		DIRECTOR TECHNICAL SERVICES	

## DRAINAGE

### SUMP AND SUMP OUTFALL DETAILS

LOCALITY

STANDARD

# CITY OF WANNEROO TECHNICAL SERVICES



## INFRASTRUCTURE SERVICES

FILE No.

DRAWING No

SHEET

REVISION

ORIGINAL  
ORG.SIZE

TS 03 - 4 - 2

# A3