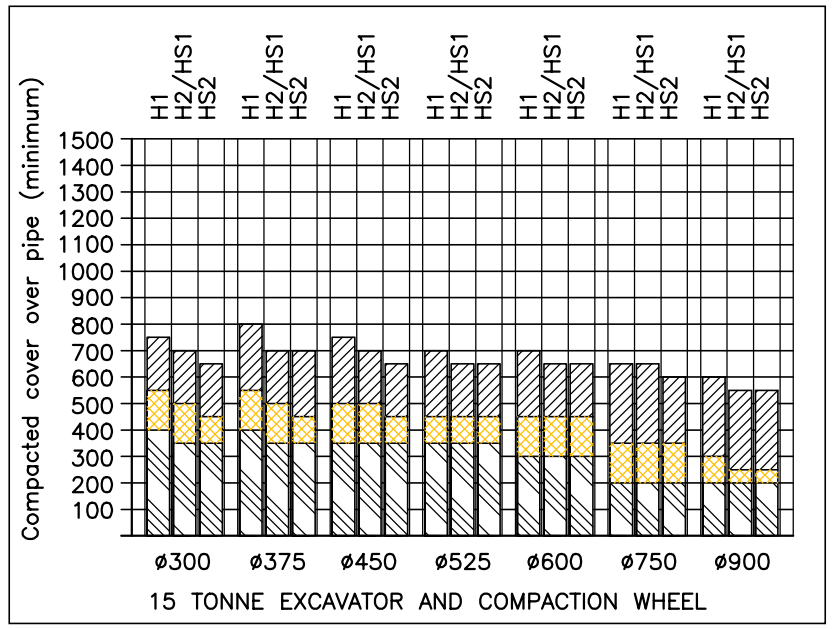
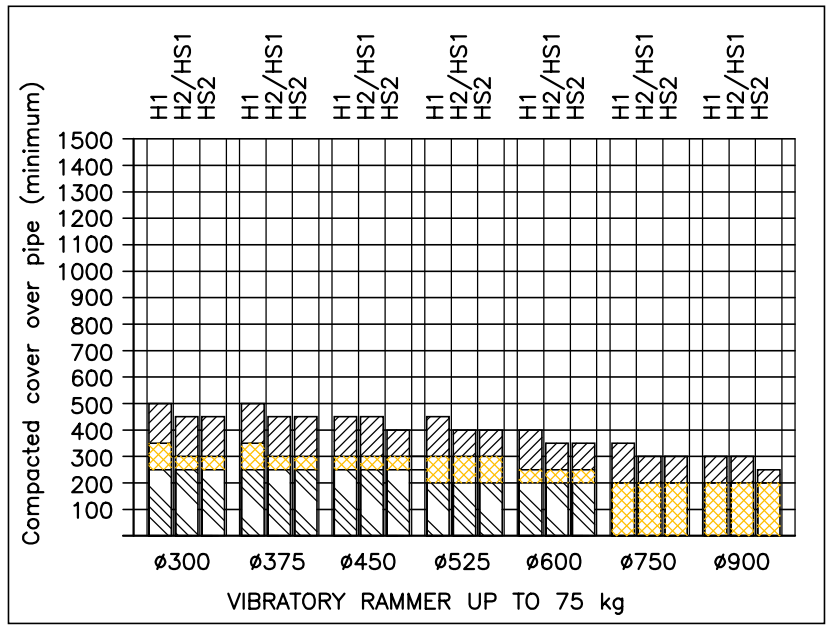
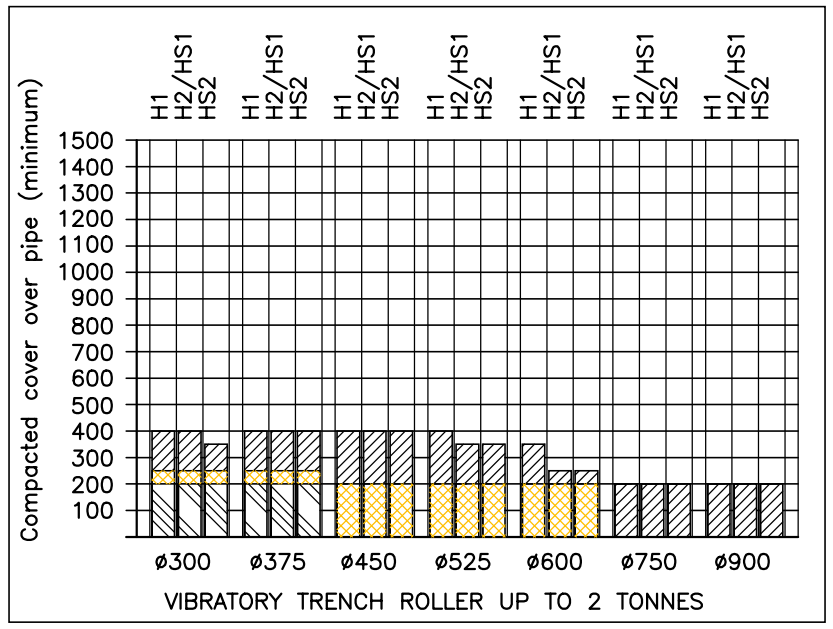


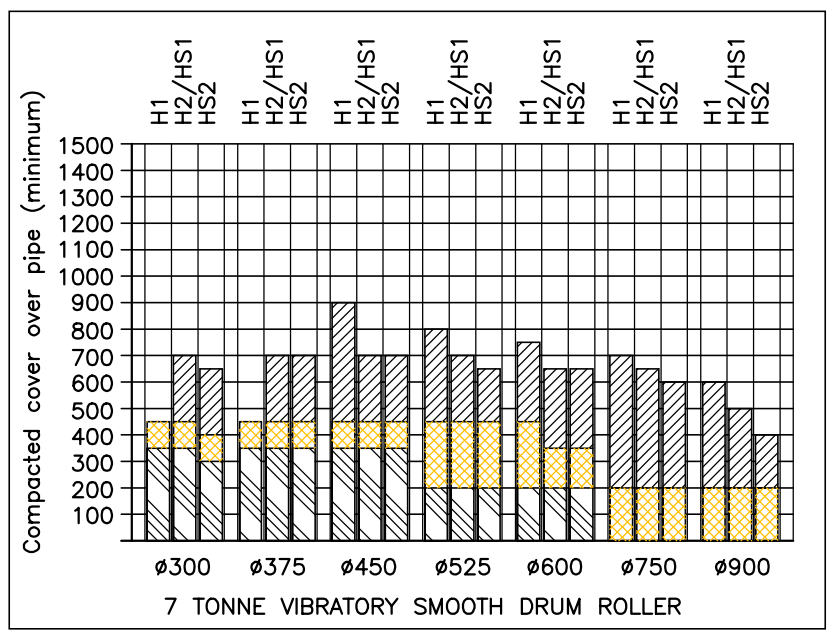
15 TONNE EXCAVATOR AND COMPACTION WHEEL



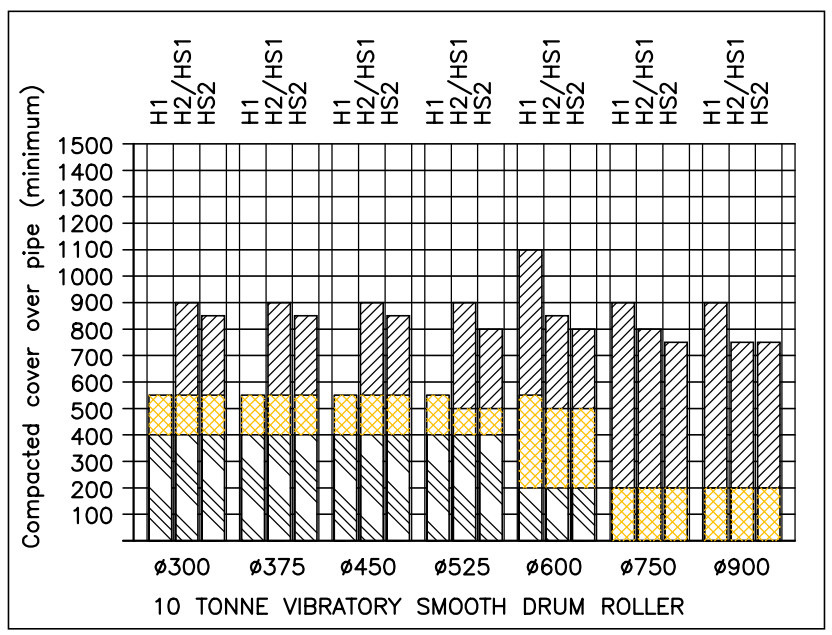
VIBRATORY RAMMER UP TO 75 kg



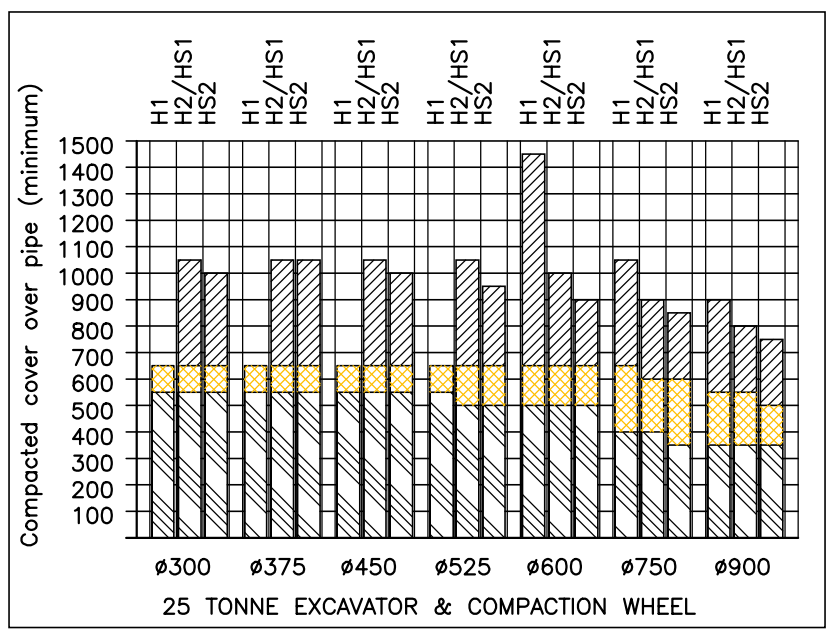
VIBRATORY TRENCH ROLLER UP TO 2 TONNES



7 TONNE VIBRATORY SMOOTH DRUM ROLLER

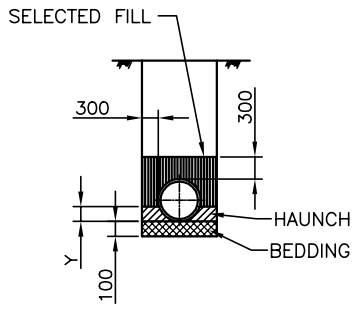


10 TONNE VIBRATORY SMOOTH DRUM ROLLER



25 TONNE EXCAVATOR & COMPACTION WHEEL

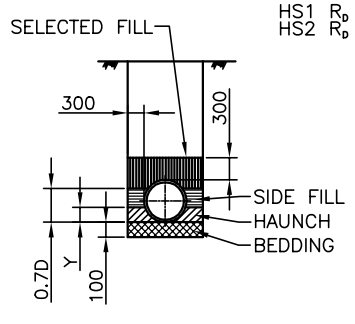
Y = 0.1 D FOR H1 TYPE
Y = 0.3 D FOR H2 TYPE
D = NOM. PIPE DIA.



TYPE H

Y = 0.1 D FOR HS1
Y = 0.3 D FOR HS2
D = NOM. PIPE DIA.

COMPACTION
HS1 R_b = 85% (Std)
HS2 R_b = 90% (Std)



TYPE HS

LEGEND:

PIPES MANUFACTURED TO AS 4058

CLASS 2 PIPE

CLASS 3 PIPE

CLASS 4 PIPE

NOTES:

1. THE VERTICAL PIPE LOAD CALCULATION IS APPLICABLE FOR CONSTRUCTION LOADING ONLY, AND DOES NOT INCORPORATE THE ULTIMATE SERVICE LOADING.
2. THE CONTENT OF THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE CONCRETE PIPE ASSOCIATION OF AUSTRALASIA (CPAA). THE LOAD CHARTS SHOULD BE USED FOR GUIDANCE ONLY. THE LOADING CALCULATIONS HAVE BEEN DERIVED BASED ON PIPE SUPPORT CONFIGURATION AS DEFINED IN AS 3725 – 1989. THE TRENCH SUPPORT GIVEN IN DRAWING UMS 311 IS APPROX. EQUIVALENT TO THE TYPE H2 SUPPORT.
3. FOR SPECIAL APPLICATIONS OR FOR LOAD APPLICATIONS NOT SHOWN ON THE DRAWING, REFER TO AS 3725 OR USE THE CPAA PIPE SELECTION SOFTWARE VERSION 4. A WIDER TRENCH WILL INCREASE LOAD TRANSFER TO THE PIPE AND WILL REQUIRE REVIEW OF PIPE CLASS AND BACKFILLING METHOD.
4. INCORPORATE PIPE CLASS (EG. CLASS 3), PIPE SUPPORT (EG. TYPE H2), AND TRENCH BACKFILL METHOD (EG. VIBRATORY RAMMER UP TO 75 kg) IN STORMWATER DRAINAGE LONGITUDINAL SECTION DRAWING.
5. A COMBINATION OF SUITABLE COMPACTION EQUIPMENT CAN BE USED TO ACHIEVE THE REQUIRED COMPACTION STANDARD IN THE PIPE TRENCH. FOR EXAMPLE, A 450mm DIAMETER CLASS 3 PIPE LAID IN TYPE H2 SUPPORT WITH 1m FILL HEIGHT ABOVE THE PIPE IS REQUIRED FOR THE ULTIMATE SERVICE LOADING. THE LOAD CHART ILLUSTRATES THAT A VIBRATORY TRENCH ROLLER (UP TO 2 TONNES) MUST BE USED INITIALLY TO COMPACT THE 200–300mm FILL OVER THE PIPE. A RAMMER (UP TO 75kg) MAY BE USED FOR FILL HEIGHT BETWEEN 300 AND 500mm. A 15 TONNE EXCAVATOR AND COMPACTION WHEEL MAY BE USED FOR FILL HEIGHT ABOVE 500mm.
6. DIMENSIONS IN MILLIMETRES (UNO).

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
A	ORIGINAL ISSUE	April '01	May '01	June '01

DESIGN AUTHORISED FOR ISSUE
B. BALL SIGNATURE ON ORIGINAL
DATED 29/6/01

MANAGER ASSET SUPPORT - R.P.E.Q: 3852

DESIGN APPROVED
B. HANSEN SIGNATURE ON ORIGINAL
DATED 27/6/01

PRINCIPAL ASSET OFFICER ROADS & DRAINAGE

DESIGN	STD DWG GROUP	DATE	April '01
DRAWN	CITY DESIGN	DATE	April '01
CHECKED	M. STEER	DATE	May '01
DRAWING FILENAME	\UMS 301		
ASSOCIATED PLANS	SUPERSEDES		

BRISBANE CITY COUNCIL - URBAN MANAGEMENT DIVISION

MINIMUM PIPE COVER FOR CONSTRUCTION LOADS–STEEL REINFORCED CONCRETE PIPES

SCALE: NOT TO SCALE
DWG No.: UMS 301
ORIGINAL SIZE: A3
REVISION: A