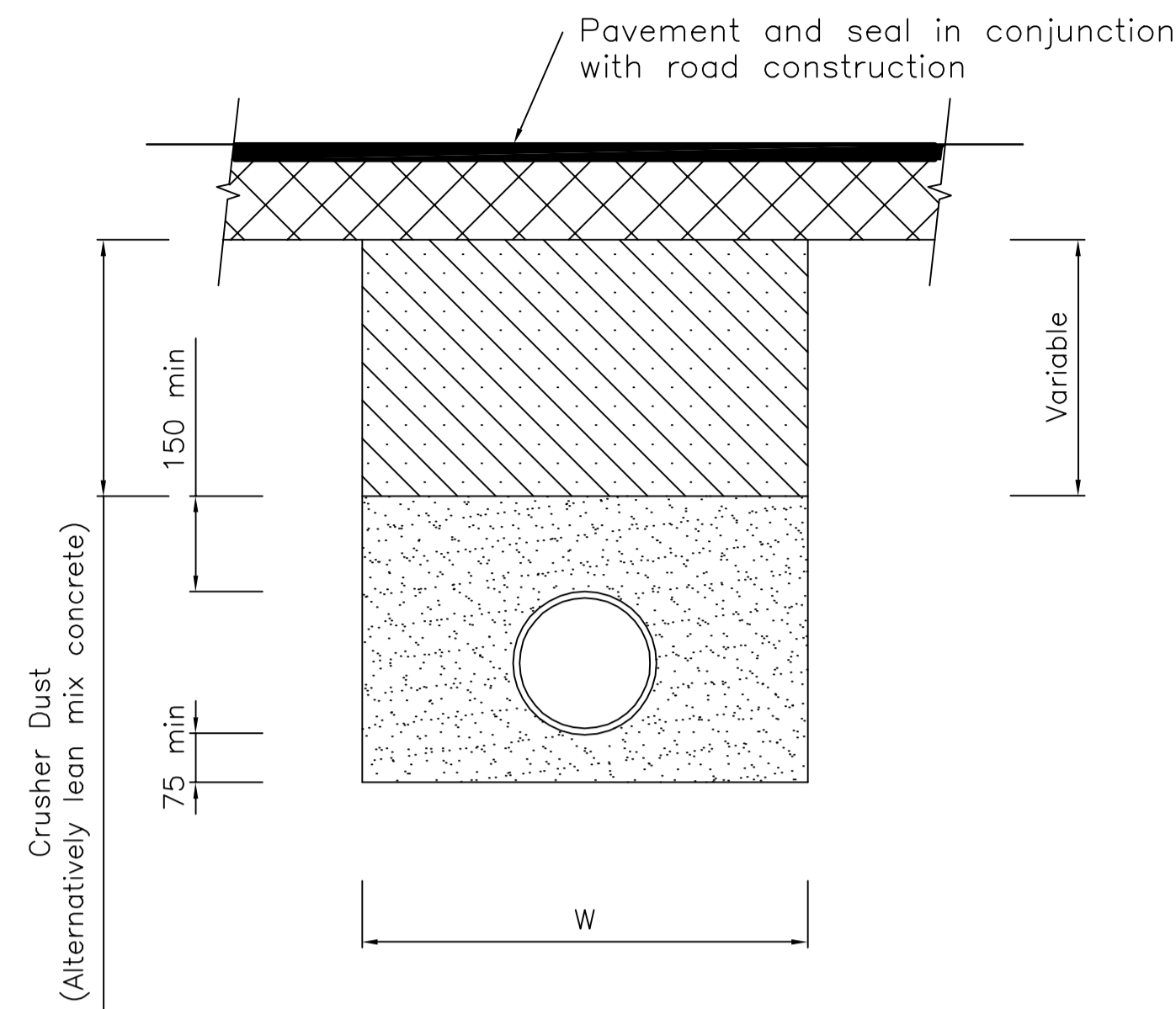
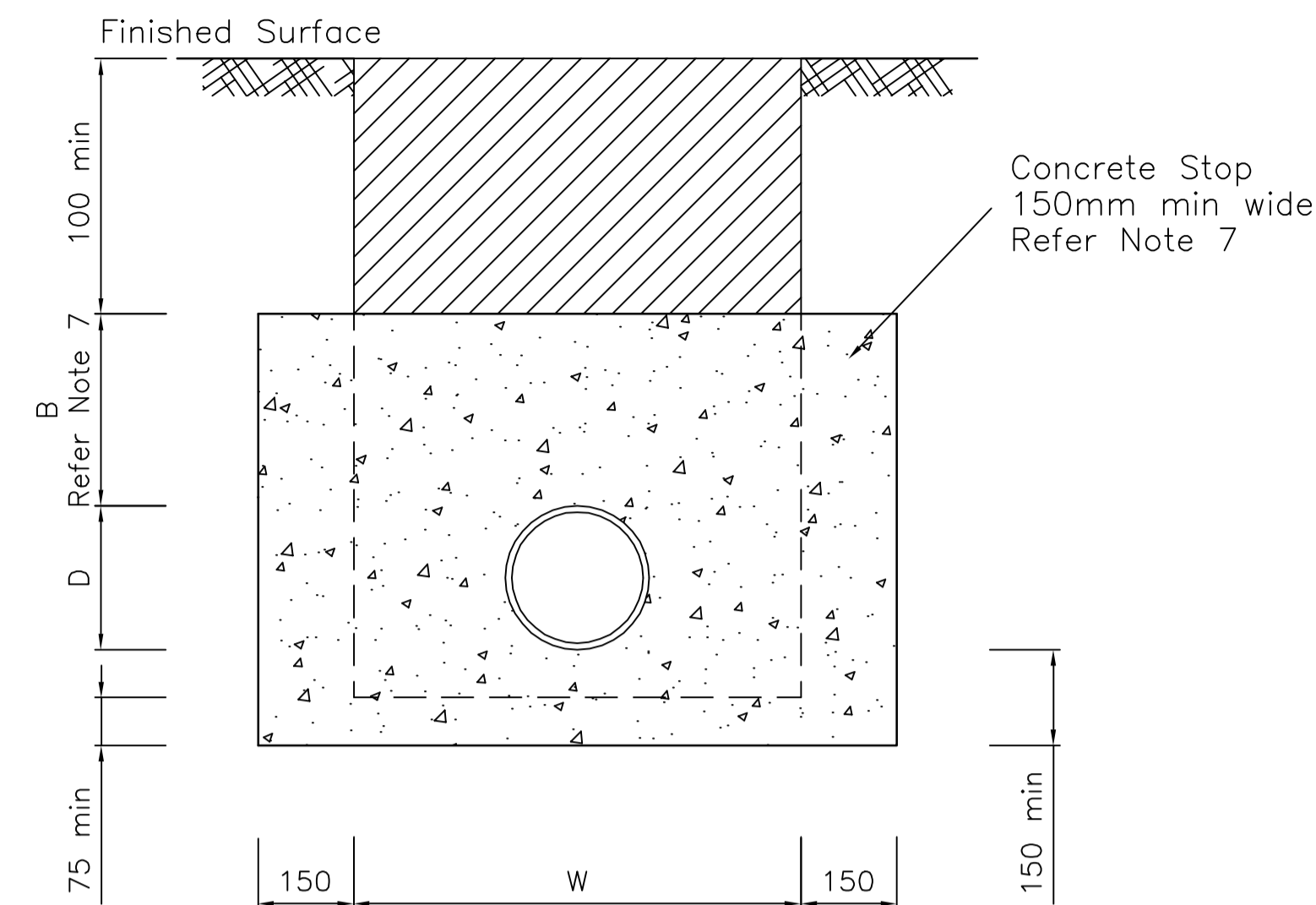


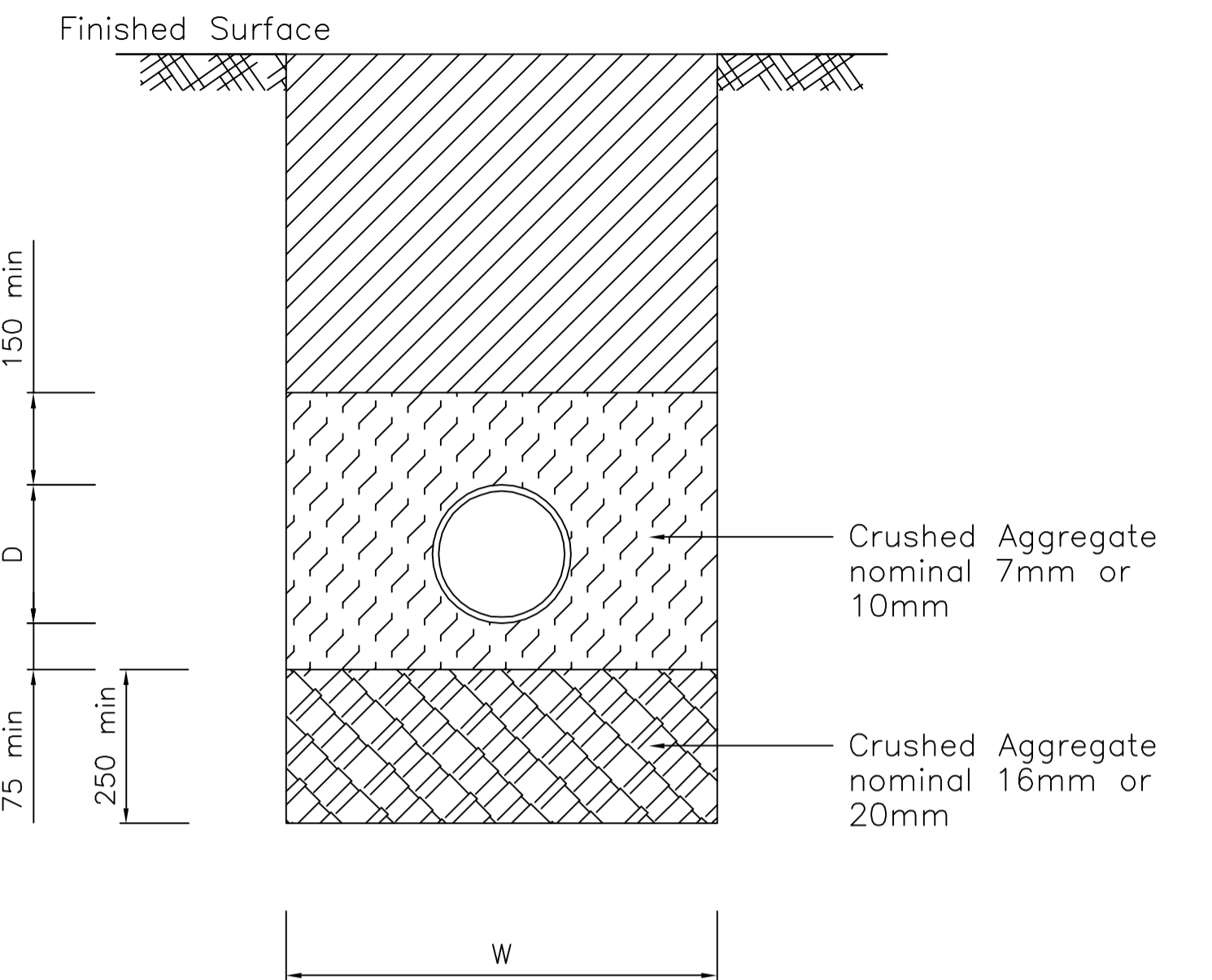
STANDARD INSTALLATION



INSTALLATION UNDER PROPOSED ROAD PAVEMENTS



CONCRETE STOPS



INSTALLATION IN WATER CHARGED SAND

TABLE OF DIMENSIONS AND QUANTITIES

	Nominal pipe diameter 'd' (mm)									
	100	150	225	300	375	450	525	600	675	750
Minimum trench width (W)	← Pipe OD 'D' plus 100mm each side →									
Maximum trench width (W)	600	600	700	750	850	900	1000	1050	1150	1300
Underlay/side support/overlay (cu m/100m)	19.5	21.9	29.8	34.7	42.4	48.2	54.3	56.5	60.9	65.9
Concrete surround (cu m/100m)	8.7	10.9	15.3	18.7	23.4	31.7	37.7	43.6	47.5	53.7

LEGEND

- Concrete - Grade N20
- Pavement Material - Compaction as specified for roadworks
- Crusher Dust - 100% \* (Alternatively Lean Mix Concrete)
- Backfill - 95% \* or to a higher level to avoid settlement
- Underlay, side support and overlay material - 95% \*
- D = External diameter of pipe  
d = Nominal Pipe dia.

\* Percentages shown are the minimum allowable proportion of the maximum dry density of the materials as determined by AS 1289 5.1.1 (standard compaction)

NOTES

1. All dimensions are in millimetres unless noted otherwise.
2. Underlay, side support and overlay material shall be in accordance with AS 2032 and shall consist of either sand or sandy loam or other approved material having binding properties, with a linear shrinkage not exceeding 2.5%. It shall be free from stones which would be retained on a 13.2mm sieve and rubbish and shall be non aggressive to the pipe materials. Excavated material may be used subject to the Director of Engineering Services written approval.
3. Trench width 'W' applies below a level 300mm above top of pipe. Trench above this level may be widened to suit safety requirements.
4. Minimum cover to sewer pipes at manholes to be 1200mm unless approved otherwise by the Director of Engineering Services. At intermediate locations minimum cover to be 750mm without concrete surround. Maximum cover to be 5000mm unless approved otherwise by the Director of Engineering Services.
5. For timbered trenches, timber to be withdrawn to the top of the overlay before compaction of underlay, side support and overlay or the timber in section shall be left permanently in place.
6. Concrete surround to be discontinuous at each pipe joint for flexibly jointed pipes more than 3.0m long or at joints nearest to 3.0m spacing for shorter pipes.
7. Concrete stops to be spaced as directed by the Director of Engineering Services but not greater than 6.0m and located within 300mm of pipe joints. Stops to be provided where pipe grades exceed:
  - 1 in 6 for 100mm and 150mm diameter sewers
  - 1 in 10 for sewers larger than 150mm diameter.
 Spacing of stops to be such that top of stop is not less than 100mm above the top of pipe at the next uphill stop, subject to a minimum cover of 100mm.
8. Quantities shown in the table are net solid volumes for uPVC pipes Class SH up to 375mm diameter and FRC pipes Class 3 for larger pipes. They are for guidance only and are not guaranteed.
9. Sewer pipes are to be of strength class appropriate to trench width, depth of cover and other relevant criteria and are to be laid and jointed in accordance with the manufacturer's directions. Installation shall also comply with any relevant Australian Standard for the type of pipe used provided the requirements of this drawing are not diminished.
10. If sewer pipes are required to be laid on concrete or mortar bedding or in tunnel or provided with concrete surround, relevant details to be provided to the Director of Engineering Services for approval.
11. Pipes installed in trench under existing road pavements to be in accordance with the directions of the Director of Engineering Services. The minimum length of pavement and seal reinstatement measured along road centreline to be 10.0m.

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NOTES : Not to Scale  
Supersedes TS7B and 10015A

DISCLAIMER. The City of the Council of Thuringowa shall have no liability or responsibility to the user or any other person or entity with respect to any liability, loss or damage caused or alleged to be caused, directly or indirectly, by the adoption and use of these Standard Drawings. Persons must not rely on these Standard Drawings as the equivalent of, or a substitute for, project-specific design and assessment by an appropriately qualified professional.



**CITY OF THURINGOWA**

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DRAWN: NRN

Engineer Approved: Original Signed by C.Phillips Date: 13/12/1999

CHECKED: WJP

D.E.S. Approved: Original Signed by K.Shephard Date: 13/12/1999

**SEWER PIPE INSTALLATION DETAILS**

**STANDARD DRAWING SEWERAGE**

10405

No.	DATE	DESCRIPTION	AP'D
A	1/7/99	ORIGINAL ISSUE	
REVISIONS			

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