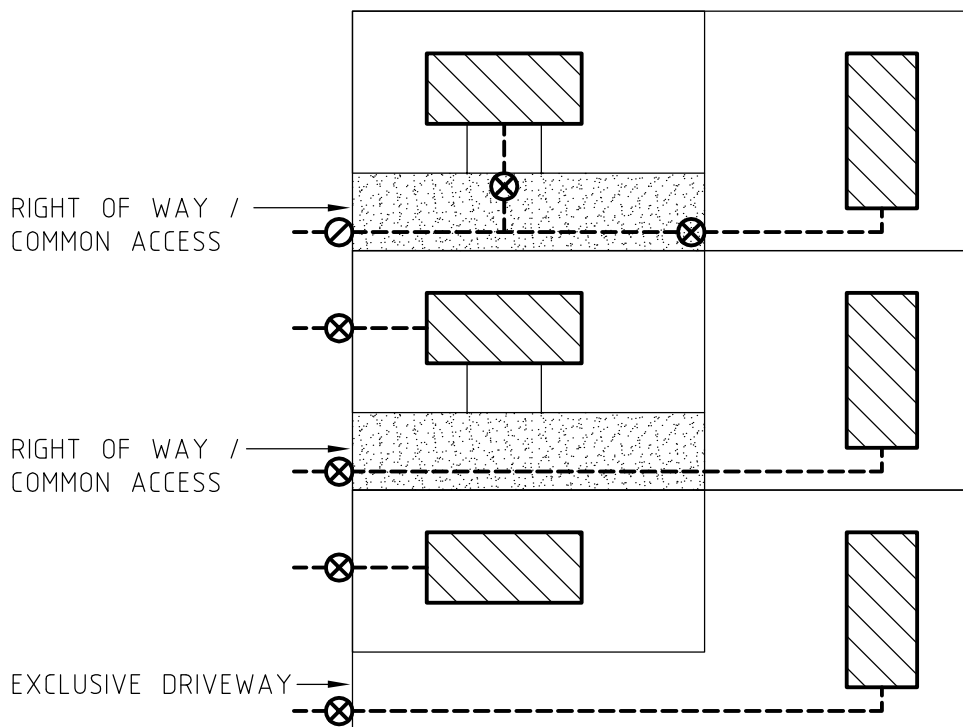


NOT APPROVED

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⊗ DENOTES POSITION OF WATER METER ASSEMBLY
 ⊙ DENOTES POSITION OF VALVE ASSEMBLY

**NELSON
 CITY
 COUNCIL**

**WATER CONNECTION POLICY
 SUBDIVISION & CROSS LEASE**

INFRASTRUCTURAL ASSETS

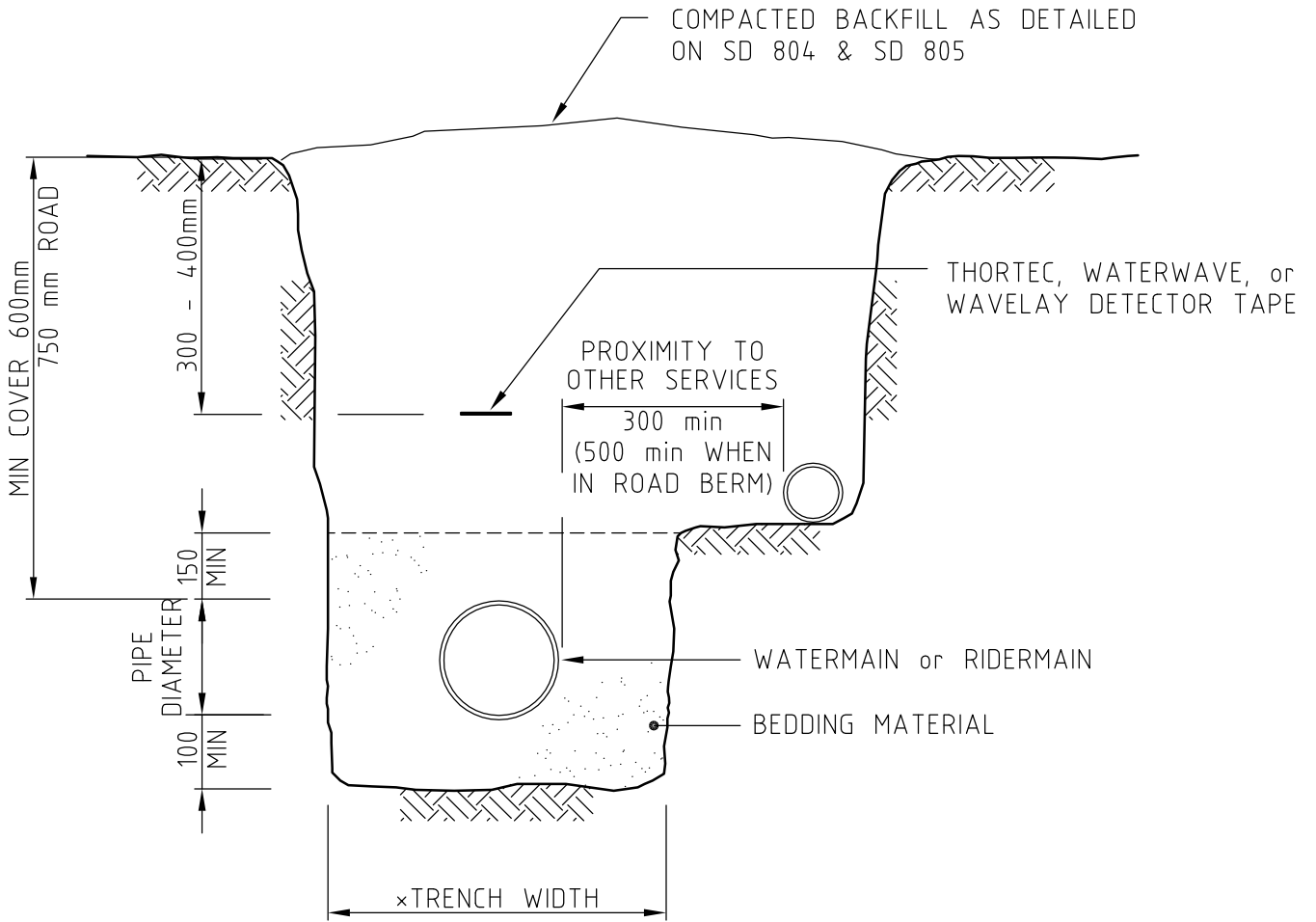
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29/07/2010

SENIOR EXECUTIVE INFRASTRUCTURE

DATE

SD 701



NOTES:

1. SEE SD 617 FOR TRENCH WIDTHS
2. THE TRENCH WIDTH SHALL BE THE MINIMUM NECESSARY TO ADEQUATELY AND SAFELY LAY THE PIPE AND TO COMPACT THE SIDE SUPPORT ZONE

**NELSON
CITY
COUNCIL**

**WATER SHARED
TRENCH CLEARANCES**

INFRASTRUCTURAL ASSETS

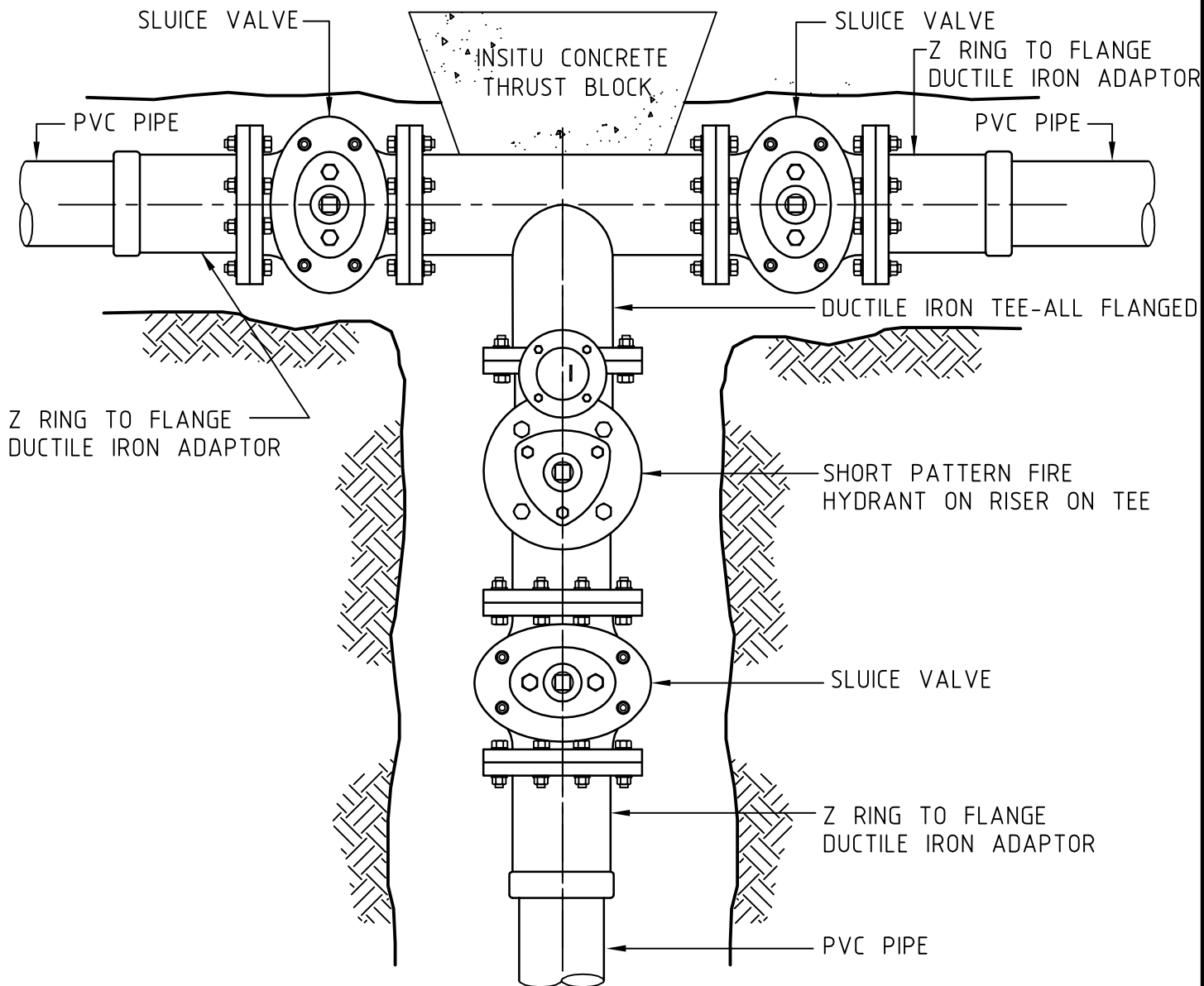
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29/07/2010

SENIOR EXECUTIVE INFRASTRUCTURE

DATE

SD 702



NOTE:

- 1) ALL FITTINGS TO BS 10 TABLE E (UNRESTRAINED MECHANICAL COUPLING ONLY ON ENGINEERS APPROVAL & ADEQUATELY PROTECTED - CATHODIC & MOISTURE BARRIERS).
- 2) UNRESTRAINED MECHANICAL COUPLING MAY ONLY BE USED WHEN CUTTING INTO AN EXISTING MAIN
- 3) SEE SD 710 FOR FLANGE PROTECTION DETAILS
- 4) ADJUST FITTINGS TO ALLOW HYDRANTS/LIDS TO BE INSTALLED
- 5) ALL FITTINGS IN CONTACT WITH CONCRETE SHALL HAVE A PROTECTIVE MEMBRANE INSTALLED BETWEEN THE CONCRETE AND THE FITTING, TO ENGINEERS APPROVAL

**NELSON
CITY
COUNCIL**

WATERMAIN TEE JUNCTION

INFRASTRUCTURAL ASSETS

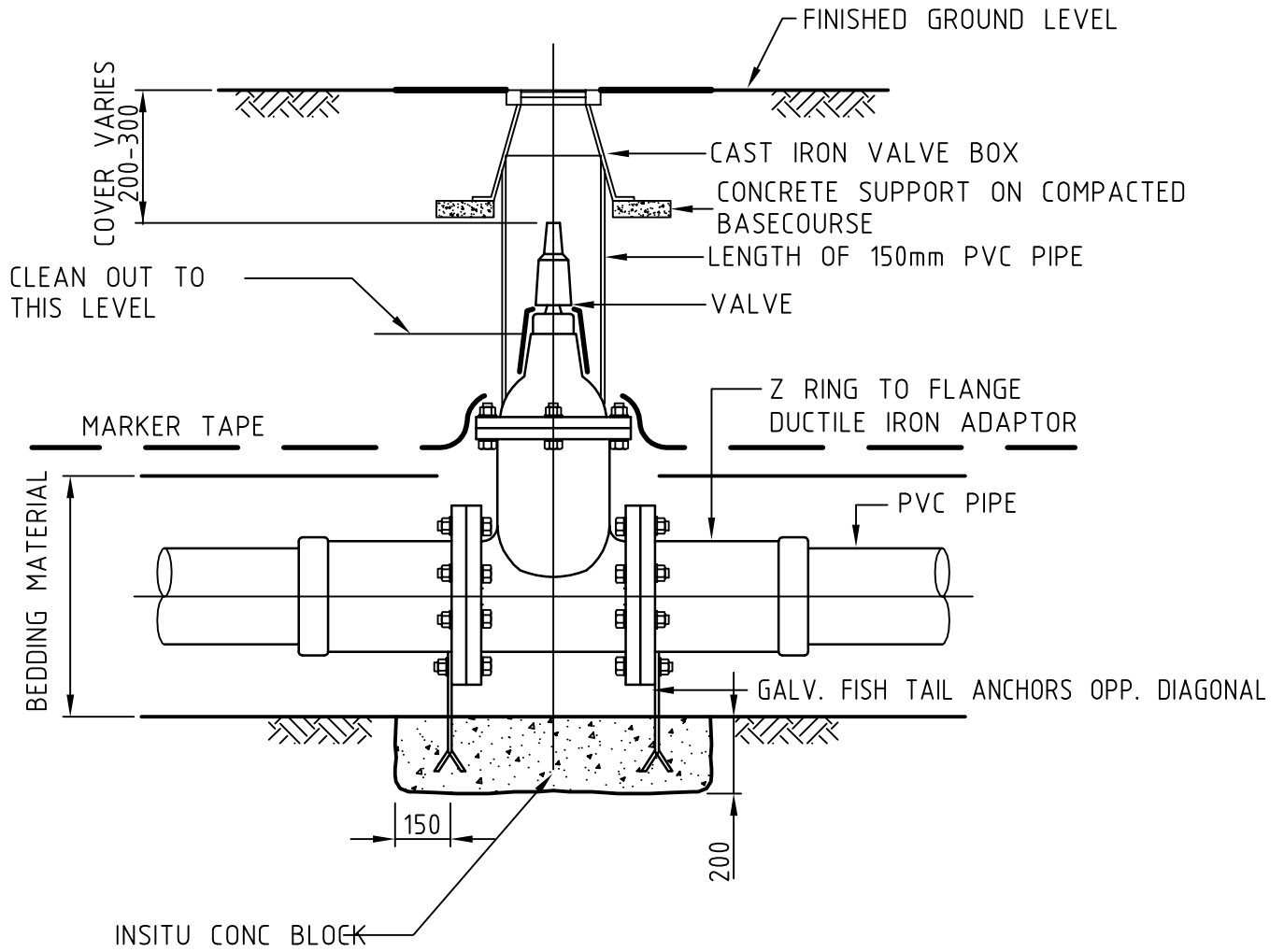
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SENIOR EXECUTIVE INFRASTRUCTURE

29/07/2010

.....
DATE

SD 703



**NELSON
CITY
COUNCIL**

SLUICE VALVE INSTALLATION

INFRASTRUCTURAL ASSETS

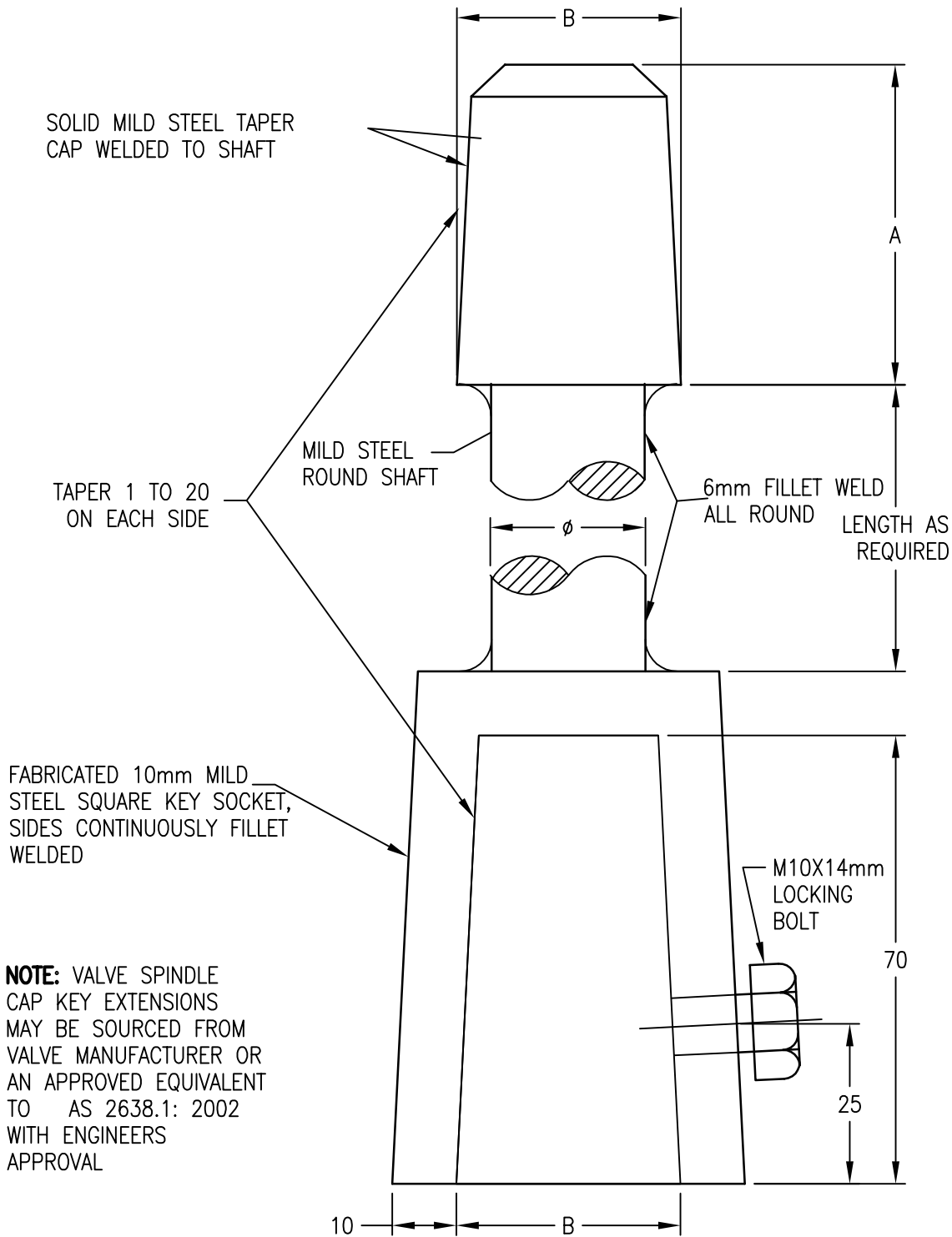
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SENIOR EXECUTIVE INFRASTRUCTURE

29/07/2010

DATE

SD 704



NOMINAL SIZE OF VALVE DN mm	φ mm	LENGTH OF SQUARE ON CAP (A) mm	SQUARE ON CAP AND KEY (B) mm
80-150	24	50	35
200-900	32	57	35

**NELSON
CITY
COUNCIL**

SLUICE VALVE KEY CAP EXTENSION

INFRASTRUCTURAL ASSETS

APPROVED

SENIOR EXECUTIVE INFRASTRUCTURE

29/07/2010

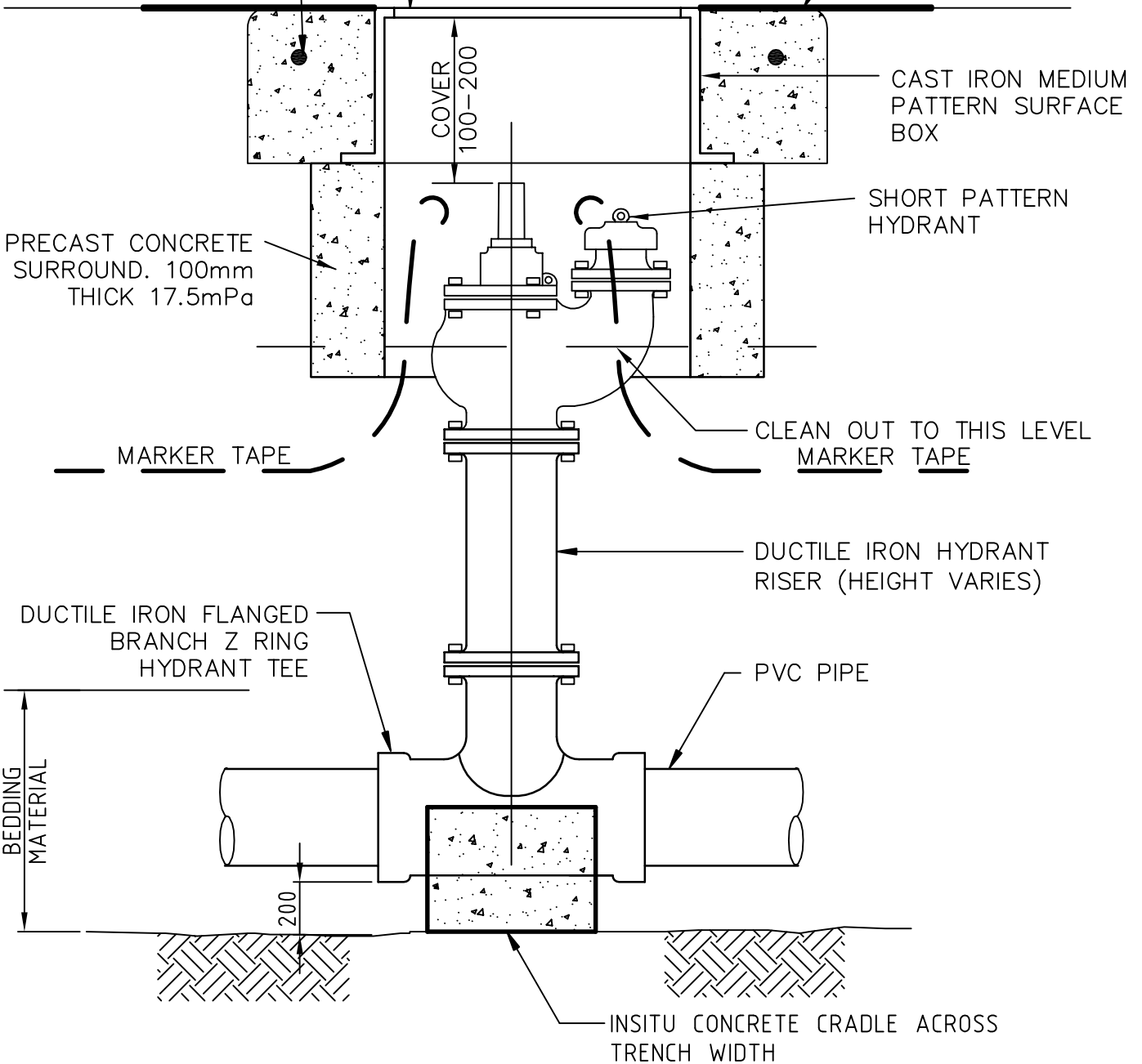
DATE

SD 705

IN TRAFFIC LOADED AREAS/CARRIGEWAYS INSTALL 200x200 CONCRETE SURROUND 27.5mPa WITH D10 HOOP

HYDRANT BOXES SHALL BE EMBOSED WITH "FH" ON TOP OF COVER. COVER AND FRAME SHALL BE TO CLASS C STRENGTH IN BERM ACCESS, OR CLASS D IF IN TRAFFIC LOADED AREAS, TO AS3996. COVERS MUST BE ANTI-ROCKING

FINISHED GROUND LEVEL or ROAD SURFACE



**NELSON
CITY
COUNCIL**

FIRE HYDRANT INSTALLATION

INFRASTRUCTURAL ASSETS

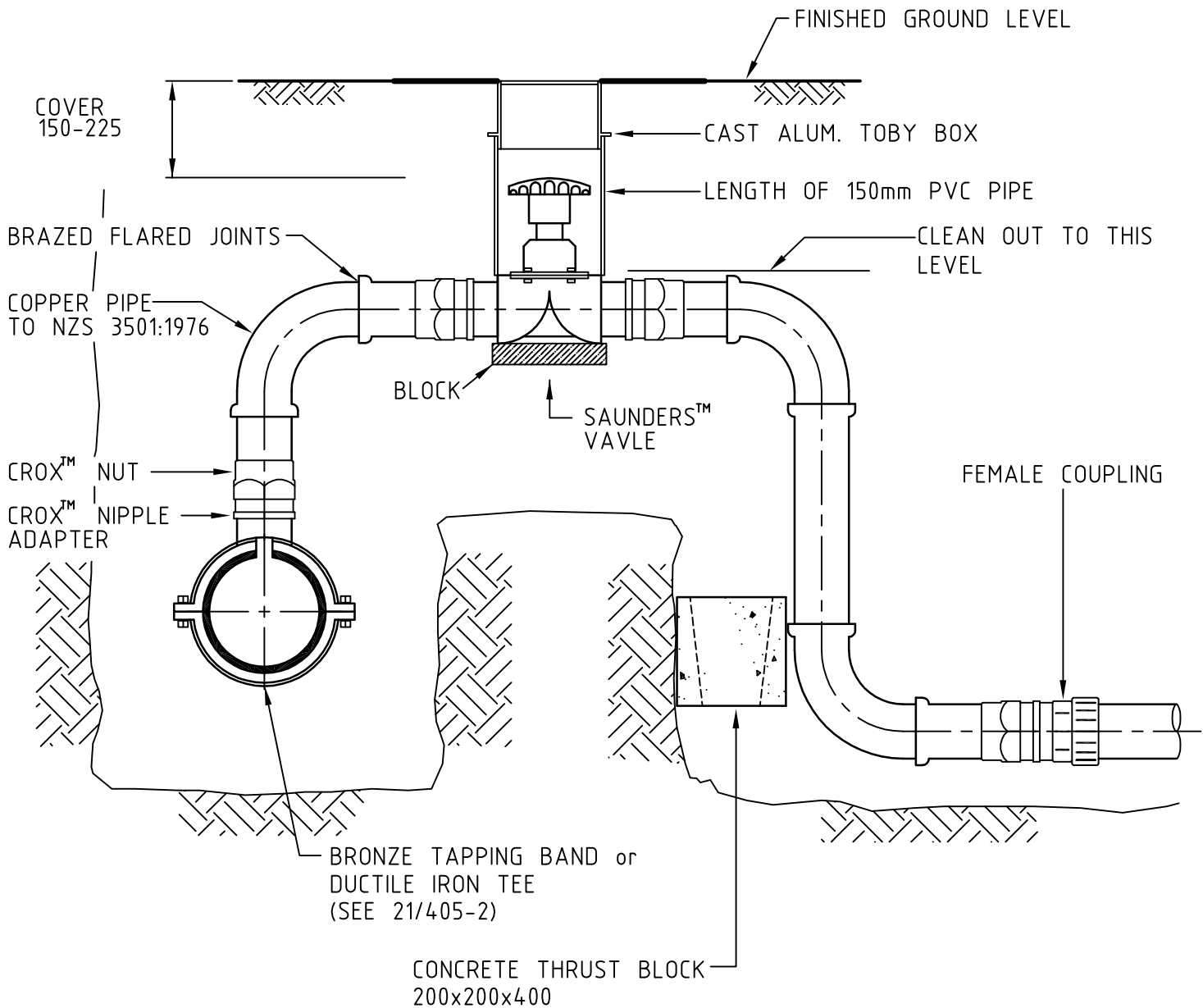
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SENIOR EXECUTIVE INFRASTRUCTURE

29/07/2010


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DATE

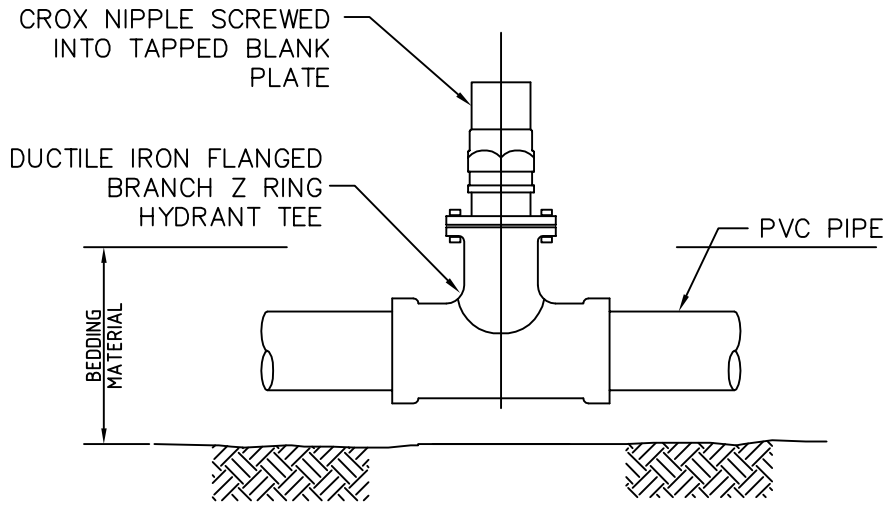
SD 706



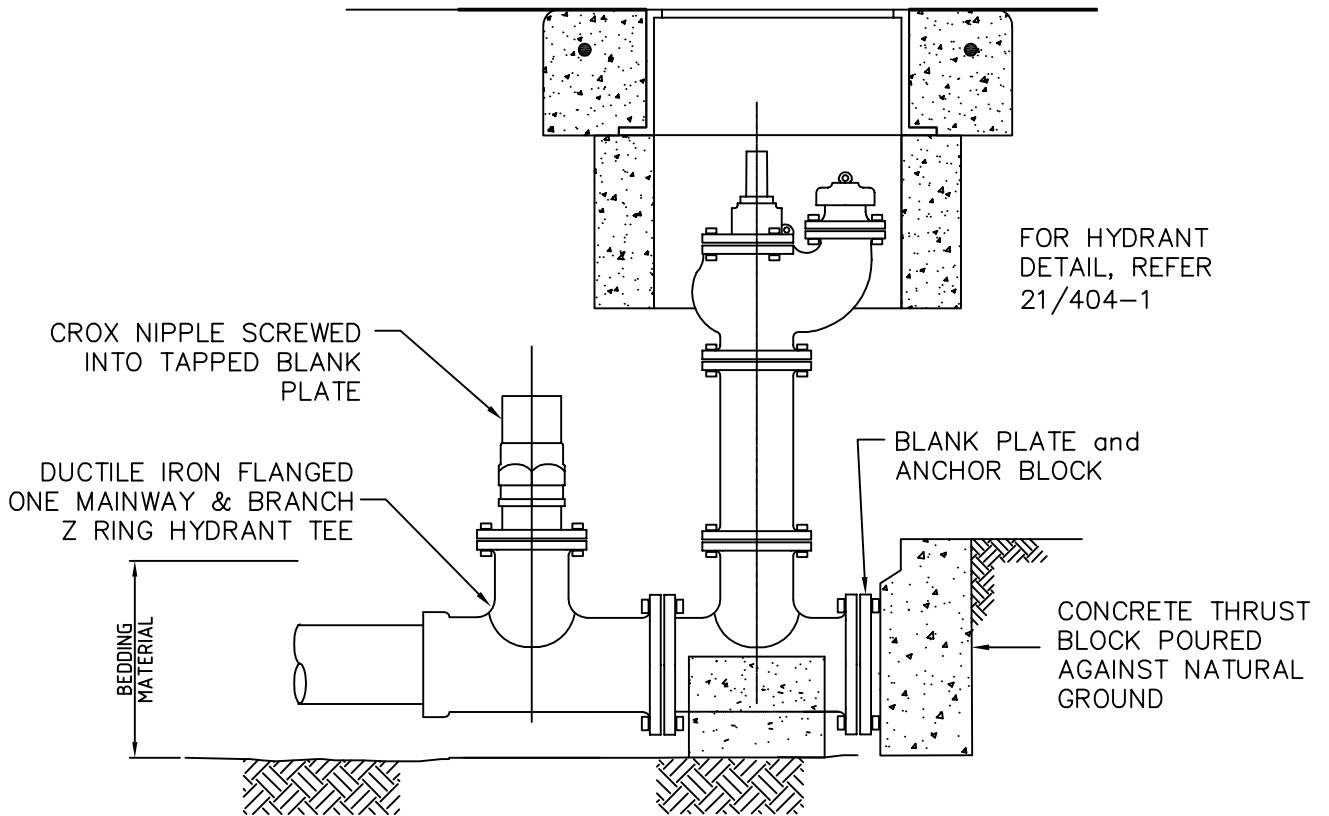
NOTE:

THIS DIAGRAM APPLIES TO THE SITUATION WHERE THE MAIN IS LOCATED IN THE FOOTPATH OR BERM
 WHERE THE MAIN IS LOCATED IN THE ROAD THE LAYOUT SHALL BE MODIFIED SO THAT THE SAUNDERS VALVE IS LOCATED IN THE FOOTPATH OR BERM

NELSON CITY COUNCIL	RIDERMAIN CONNECTION	
	INFRASTRUCTURAL ASSETS	SD 707
APPROVED 	29/07/2010	
..... SENIOR EXECUTIVE INFRASTRUCTURE DATE	



AT TEE JUNCTION



AT PIPE END

**NELSON
CITY
COUNCIL**

RIDERMAIN CONNECTION
USING "TEE"

INFRASTRUCTURAL ASSETS

APPROVED

SENIOR EXECUTIVE INFRASTRUCTURE

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SD 708

150
PROPERTY
BOUNDARY

WATER METER
SEE SECTION 7.7.10

ACUFLO™ WATER METER ASSEMBLY (DIAPHRAM VALVE, METER BASE AND DOUBLE CHECK VALVE) IN EVERHARD™ WATERMETER BOX, or DRAPER™ DRA 20/1 (TALL) METERBOX. USE DRAPER™ DRA 20/5 (TALL WITH CAST IRON LID) METERBOX FOR RESIDENTIAL TRAFFIC LOADED AREAS (PURPOSE MADE METAL METER BOXES MUST BE USED FOR INDUSTRIAL AND COMMERCIAL ACCESSWAYS)

TRACER TAPE WHERE SERVICE CROSSES ALL OR PART OF CARRIAGEWAY

20mm BSP BRASS PLUG
FIRM BASE
PE MALE COUPLING

NOTE:

FOR CONNECTION TO PE RIDERMAINS, SEE SECTION 7.7.6e

FINISHED GROUND LEVEL

TALBOT™ BRONZE PUSHFIT SWIVEL FERRULE

HIGH PRESSURE ZONES PN 15 TO BE USED IN PE PIPE PN 12 MIN.

BRONZE TAPPING BAND

TALBOT™ BRONZE SWIVEL FERRULE

ALTERNATIVE

CROX™ NUT
CROX™ NIPPLE ADAPTER

COPPER PIPE TO NZS 3501

**NELSON
CITY
COUNCIL**

WATERMAIN LATERAL FOR PROPERTY CONNECTION

INFRASTRUCTURAL ASSETS

APPROVED

SENIOR EXECUTIVE INFRASTRUCTURE

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DATE

SD 709

FLANGES FOR PIPES, VALVES & FITTINGS TO AS-2129

SURFACE PREPARATION

WIRE BRUSH LOOSE DIRT AND RUST FROM THE FLANGE AND ADJACENT PIPE, IF APPROPRIATE AND 100mm ONTO ANY SHOP COATING. ENSURE ALL SURFACES ARE CLEAN.

DENSO PRIMER CAN BE APPLIED TO MOIST OR DAMP SURFACES, BUT VERY WET SURFACES SHOULD BE DRIED

PRIMING

APPLY DENSO PRIMER TO ALL METAL SURFACES WHERE POSSIBLE, PROTECT NUTS AND BOLTS BY DIPPING IN DENSO PRIMER BEFORE ASSEMBLY

FILLING

FLANGES TO TABLES A & D MOULD DENSO MASTIC OVER THE HEADS OF BOLTS, NUTS AND SCREW THREADS WITH A MINIMUM COVERAGE OF 5mm TAPER ONTO FLANGE FACE TO PROVIDE A SUITABLE CONTOUR FOR TAPE WRAPPING FLANGES TO TABLES E DUE TO THE INCREASED NUMBER OF BOLTS IN THIS CASE, IT IS NECESSARY TO USE DENSO MASTIC BETWEEN INDIVIDUAL BOLTS AND NUTS TO PROVIDE A SUITABLE CONTOUR FOR TAPING

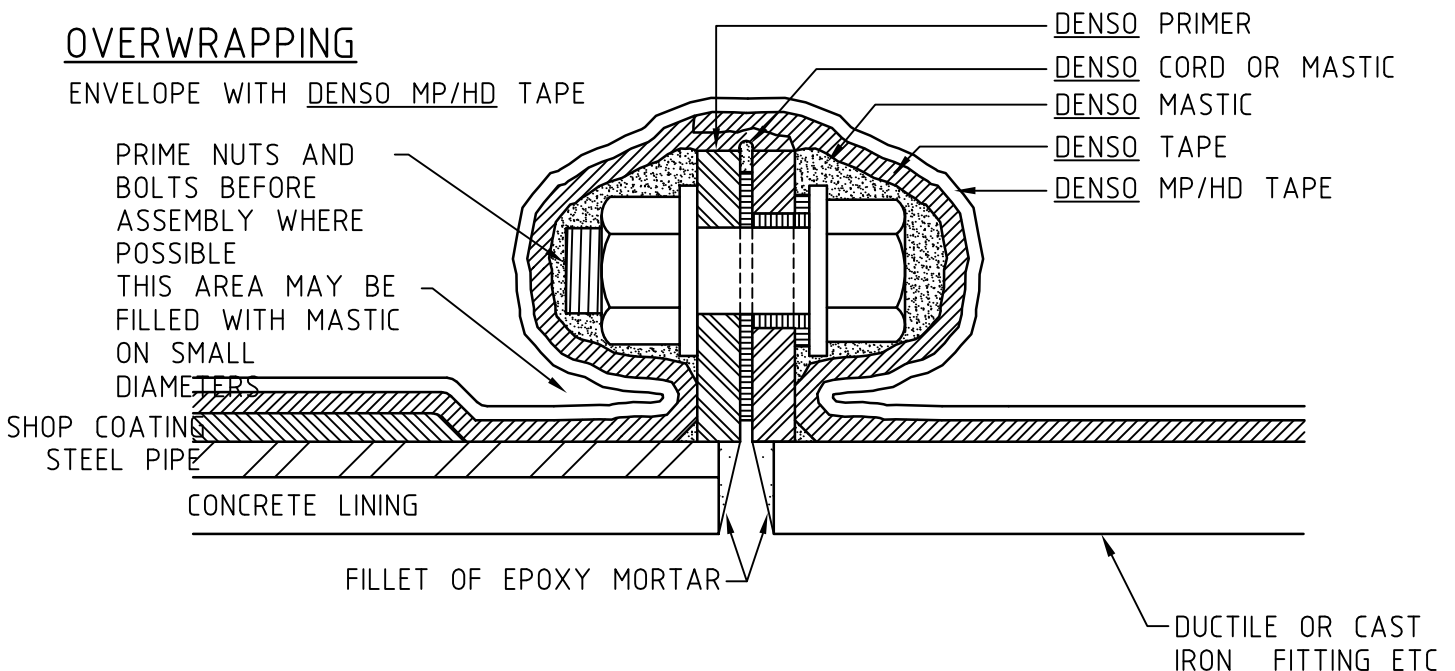
WRAPPING

APPLY ONE COMPLETE TURN OF DENSO TAPE CIRCUMFERENTIALLY AROUND FLANGE WITH ONE SIDE AGAINST THE EDGE OF THE THE FLANGE. OVERLAP ABOUT 80mm. MOULD THE OVERHANGING TAPE OVER THE MASTIC. APPLY A SECOND TURN OF TAPE TO PROVIDE A DOUBLE THICKNESS AROUND THE FLANGE AND COVER THE OPPOSITE SIDE FOR FLANGES ON SHOP COATED LINES, SPIRALLY WRAP DENSO TAPE FROM THE PROTECTED FLANGE AND 100mm ONTO THE SHOP COATING ON EITHER SIDE.

OVERWRAPPING

ENVELOPE WITH DENSO MP/HD TAPE

PRIME NUTS AND BOLTS BEFORE ASSEMBLY WHERE POSSIBLE
THIS AREA MAY BE FILLED WITH MASTIC ON SMALL DIAMETERS



**NELSON
CITY
COUNCIL**

CORROSION PROTECTION FOR FLANGES

INFRASTRUCTURAL ASSETS

APPROVED

.....
SENIOR EXECUTIVE INFRASTRUCTURE

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.....
DATE

SD 710

All Unrestrained Mechanical Couplings shall be wrapped as detailed below where materials other than 316 stainless steel and coatings to AS/NZS 4158 are used.

SURFACE PREPARATION

WIRE BRUSH LOOSE DIRT AND LOOSE RUST FROM THE JOINT AND ADJACENT PIPE.
DENSO PRIMER CAN BE APPLIED TO MOIST OR DAMP SURFACES, BUT VERY WET SURFACES SHOULD BE DRIED

PRIMING

APPLY DENSO PRIMER TO ALL METAL SURFACES
 WHERE POSSIBLE, PROTECT NUTS AND BOLTS BY DIPPING IN DENSO PRIMER BEFORE ASSEMBLY

FILLING

FILL BETWEEN BOLTS AND SLEEVE, AND BOLTS TO TOP FLANGES WITH DENSO MASTIC
 COVER BOLT HEADS, NUTS AND ANY PROTRUDING THREAD WITH DENSO MASTIC

WRAPPING

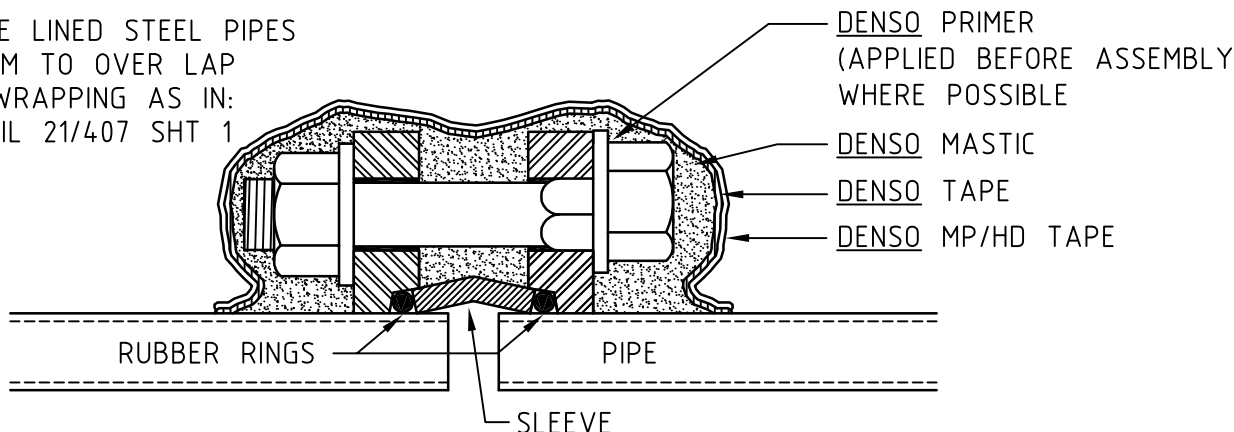
WHERE A SERVICE TAPPING MAY BE INCLUDED WITH THE UNRESTRAINED MECHANICAL COULING, APPLY ONE COMPLETE TURN OF DENSO TAPE AROUND THE JOINT LAPPING BOTH ENDS ONTO THE SERVICE PIPE.
 APPLY DENSO TAPE AROUND ONE END OF JOINT WITH AN END LAP OF 80mm. MOULD THE TAPE FROM THE HIGHEST POINT ON THE FLANGE WORKING DOWN TO EXCLUDE AIR BUBBLES.
 APPLY ANOTHER COMPLETE TURN OF TAPE SIMILARLY WITH MINIMUM SIDE LAP OF 20mm. MOULD THE TAPE AROUND THE MASTIC COVERED BOLT HEADS, E.T.C.

OVERWRAPPING

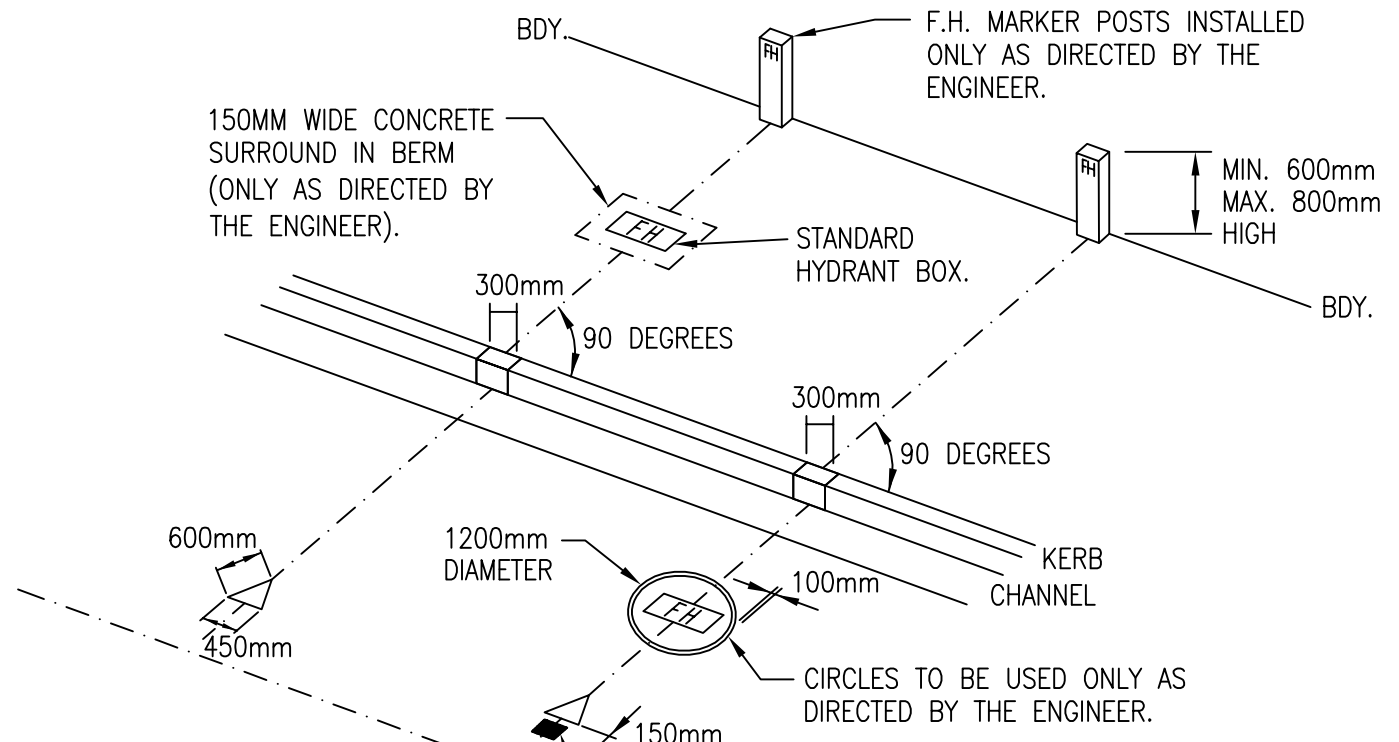
ENVELOPE WITH DENSO MP/HD TAPE

NOTE

FOR CONCRETE LINED STEEL PIPES
DENSO SYSTEM TO OVER LAP
 ONTO SHOP WRAPPING AS IN:
 FLANGE DETAIL 21/407 SHT 1

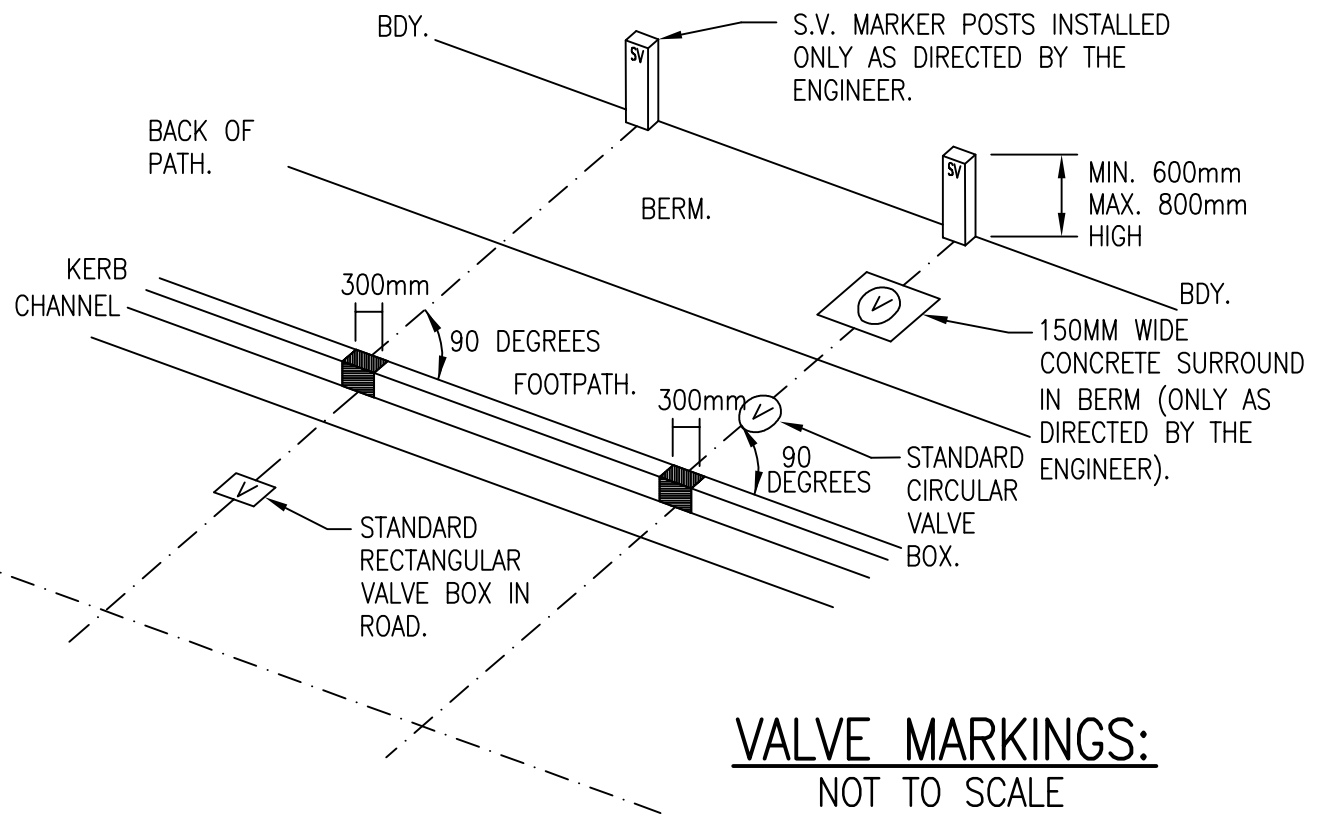


<p>NELSON CITY COUNCIL</p>	<p>CORROSION PROTECTION FOR UNRESTRAINED MECHANICAL COUPLINGS</p>	
	<p>INFRASTRUCTURAL ASSETS</p> <p>APPROVED </p> <p>..... SENIOR EXECUTIVE INFRASTRUCTURE</p>	<p>29/07/2010</p> <p>..... DATE</p>
		<p>SD 711</p>



BLUE RAISED REFLECTIVE PAVEMENT MARKER AT OR CLOSE TO, AND ON THE APPROPRIATE SIDE OF, THE CENTRE OF THE ROADWAY AT OR NEAR THE BASE OF THE YELLOW TRIANGLE MARKER.

HYDRANT MARKINGS:
NOT TO SCALE



VALVE MARKINGS:
NOT TO SCALE

**NELSON
CITY
COUNCIL**

**VALVE & HYDRANT
ROAD MARKINGS**




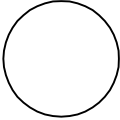

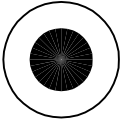

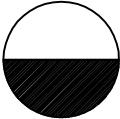





INFRASTRUCTURAL ASSETS

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SENIOR EXECUTIVE INFRASTRUCTURE DATE

SD 712

VALVE CODING:

	YELLOW		RED		RED
	LOW LEVEL		AIR VALVE		
	HIGH LEVEL		PRESSURE REDUCING VALVE		
	SHUT		NON RETURN VALVE		
	BYPASS		SCOUR VALVE		
	LEFT HAND VALVE (ie. ANTICLOCKWISE TO OPEN)		PUMPED SUPPLY (EXTRA HIGH LEVEL)		

NOTES:

1. PAINT USED FOR ALL ROAD MARKINGS SHALL BE NRB "ROAD MARKING PAINT" (YELLOW – NRB M/7-Y) AND PLASTI-KOTE INDUSTRIAL TRAFFIC PAINT "6639N RED" OR EQUIVALENT.
2. ALL HYDRANT KERB MARKINGS SHALL BE YELLOW AND ALL VALVE KERB MARKINGS SHALL BE RED.

**NELSON
CITY
COUNCIL**

**VALVE & HYDRANT
ROAD MARKINGS**

INFRASTRUCTURAL ASSETS

APPROVED



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SENIOR EXECUTIVE INFRASTRUCTURE

29/07/2010

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DATE

SD 713