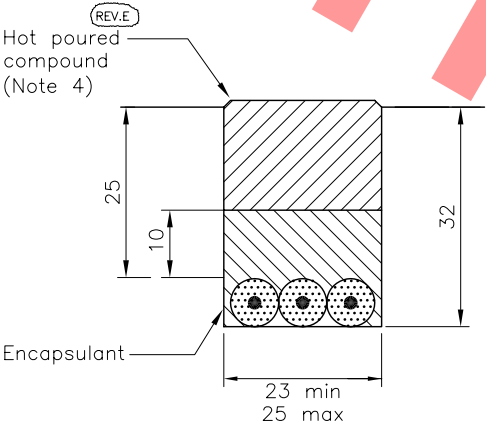


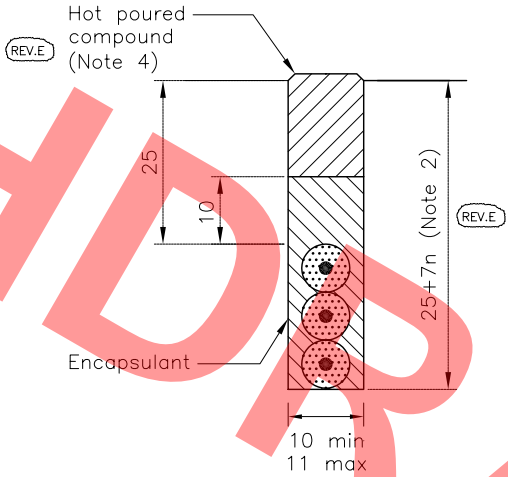
FOR LOOPS LAID IN REINFORCED  
CONCRETE CONSTRUCTION

TYPE S1



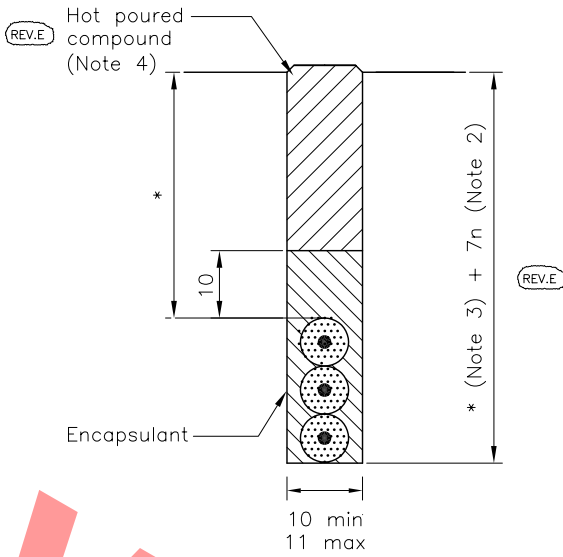
FOR LOOPS LAID IN  
NON-REINFORCED CONCRETE  
CONSTRUCTION

TYPE S2



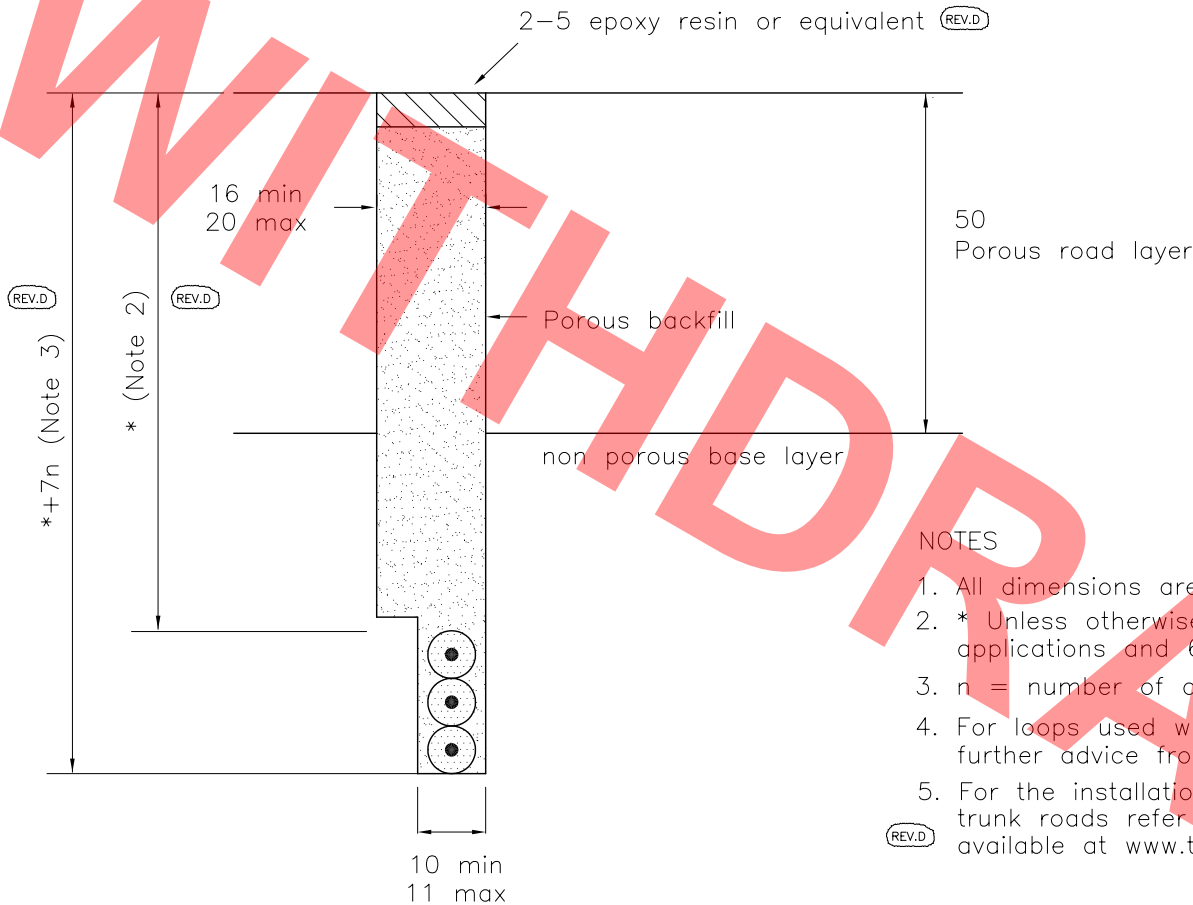
FOR LOOPS LAID IN  
FLEXIBLE CONSTRUCTION  
(EXCLUDING POROUS SURFACES)

TYPE S3



- NOTES
- 1. All dimensions are in millimetres.
  - 2. n = Number of cables in the slot.
  - 3. \* = Unless otherwise specified to be 80 for motorway applications and 65 for all-purpose roads.
  - 4. Hot poured compound shall be oxidised grade bitumen to BS EN 13304 Grade S85/40 or Grade S85/25.
  - 5. Loop tail slot width shall be 16 (+4/-0) where twisted loop tail pairs occupy the slot.
  - 6. NMCS = National Motorway Communications System.
  - 7. For the installation of detector loops on motorways and all purpose trunk roads refer to specification MCH 1540 available at [www.tssplansregistry.org](http://www.tssplansregistry.org).

HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	E	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS DETECTOR LOOP SLOT DETAILS-SHEET 1	Drawing No.
		D	Nov 03		
		C	Sept 03		G1
		A	Dec 91		
		Issue	Date		

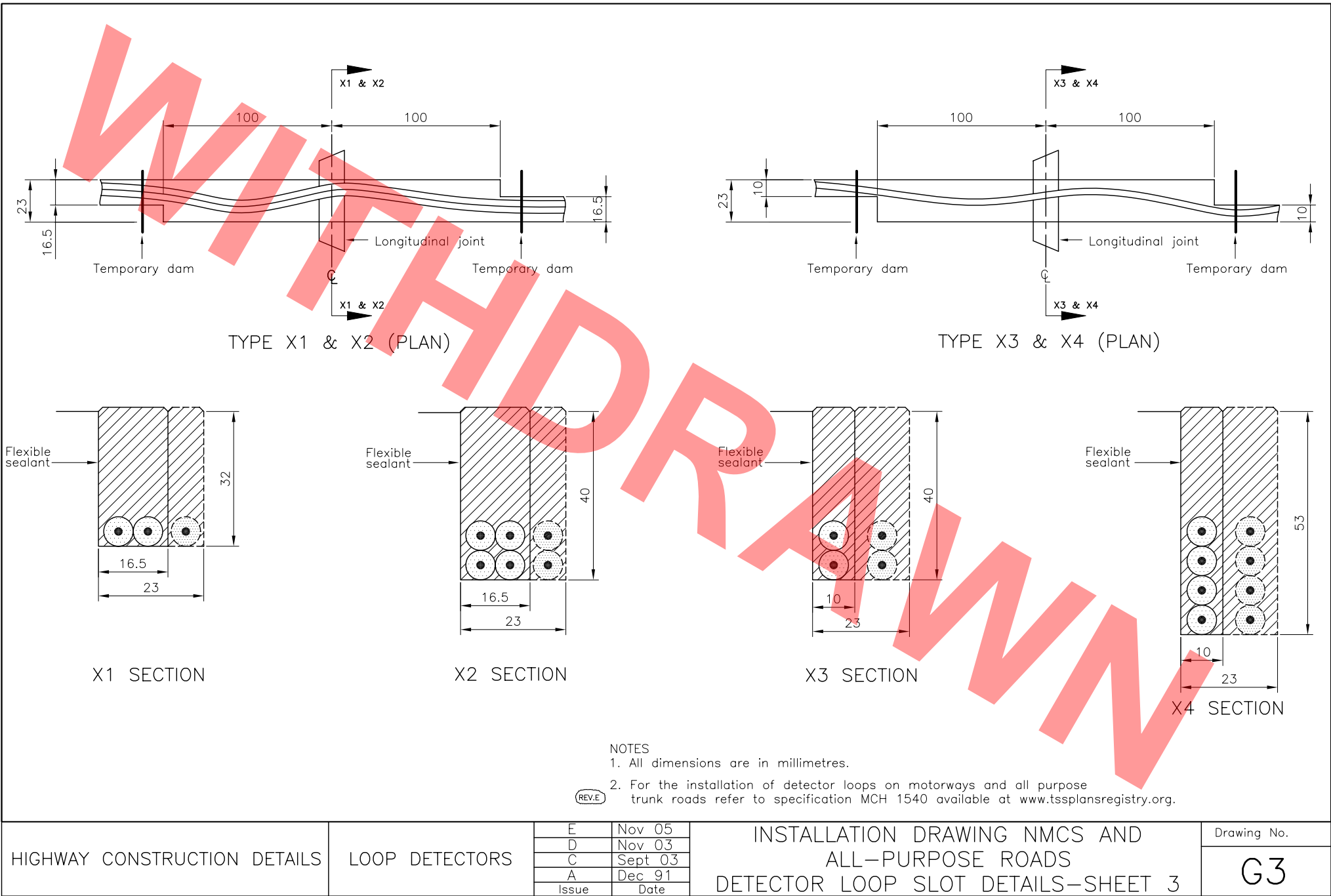


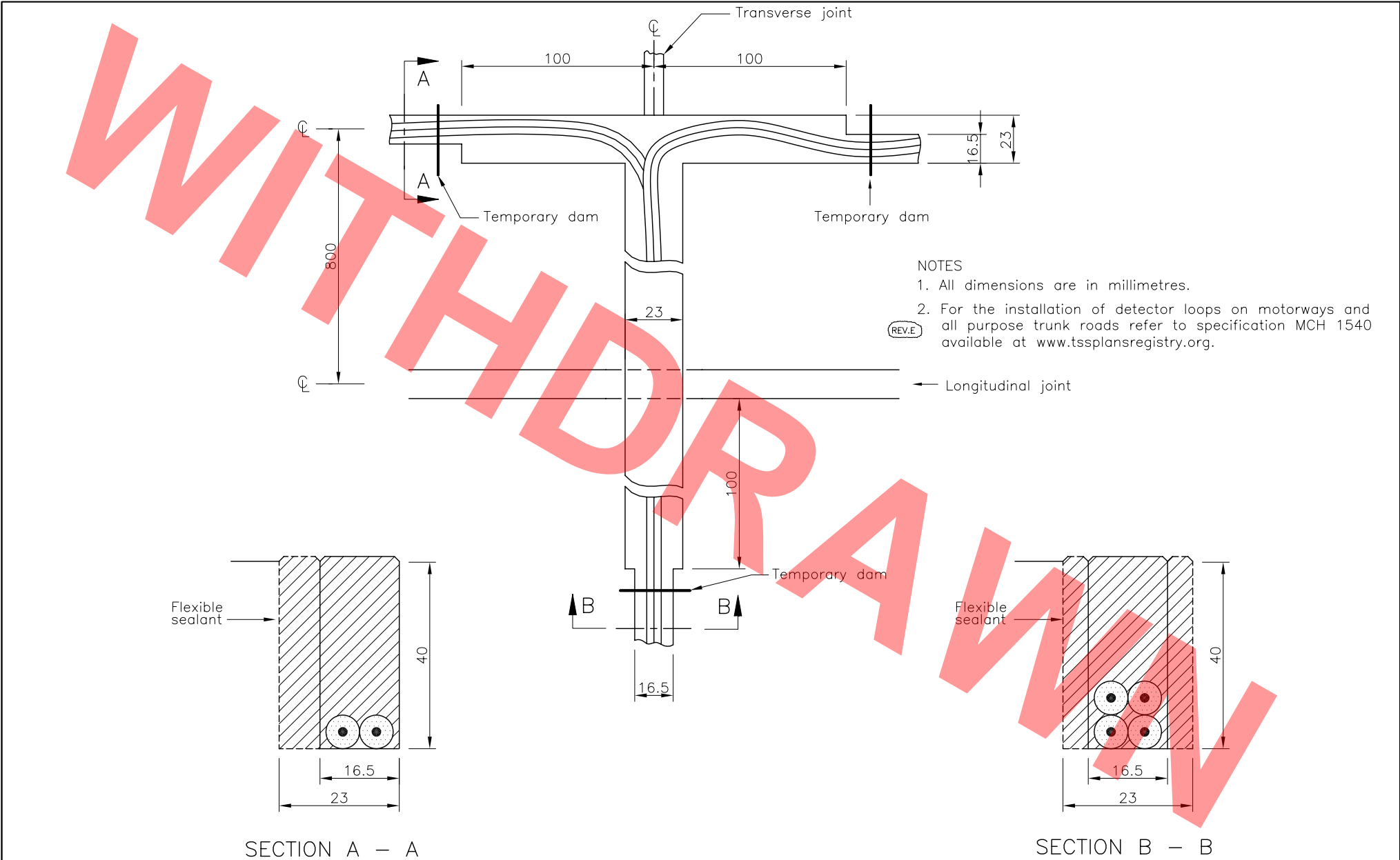
NOTES

1. All dimensions are in millimetres.
2. \* Unless otherwise specified to be 80 for motorway applications and 65 for all-purpose roads.
3. n = number of cables in the slot.
4. For loops used with Automatic Data Collection equipment seek further advice from the Overseeing Organisation.
5. For the installation of detector loops on motorways and all purpose trunk roads refer to specification MCH 1540 available at [www.tssplansregistry.org](http://www.tssplansregistry.org).

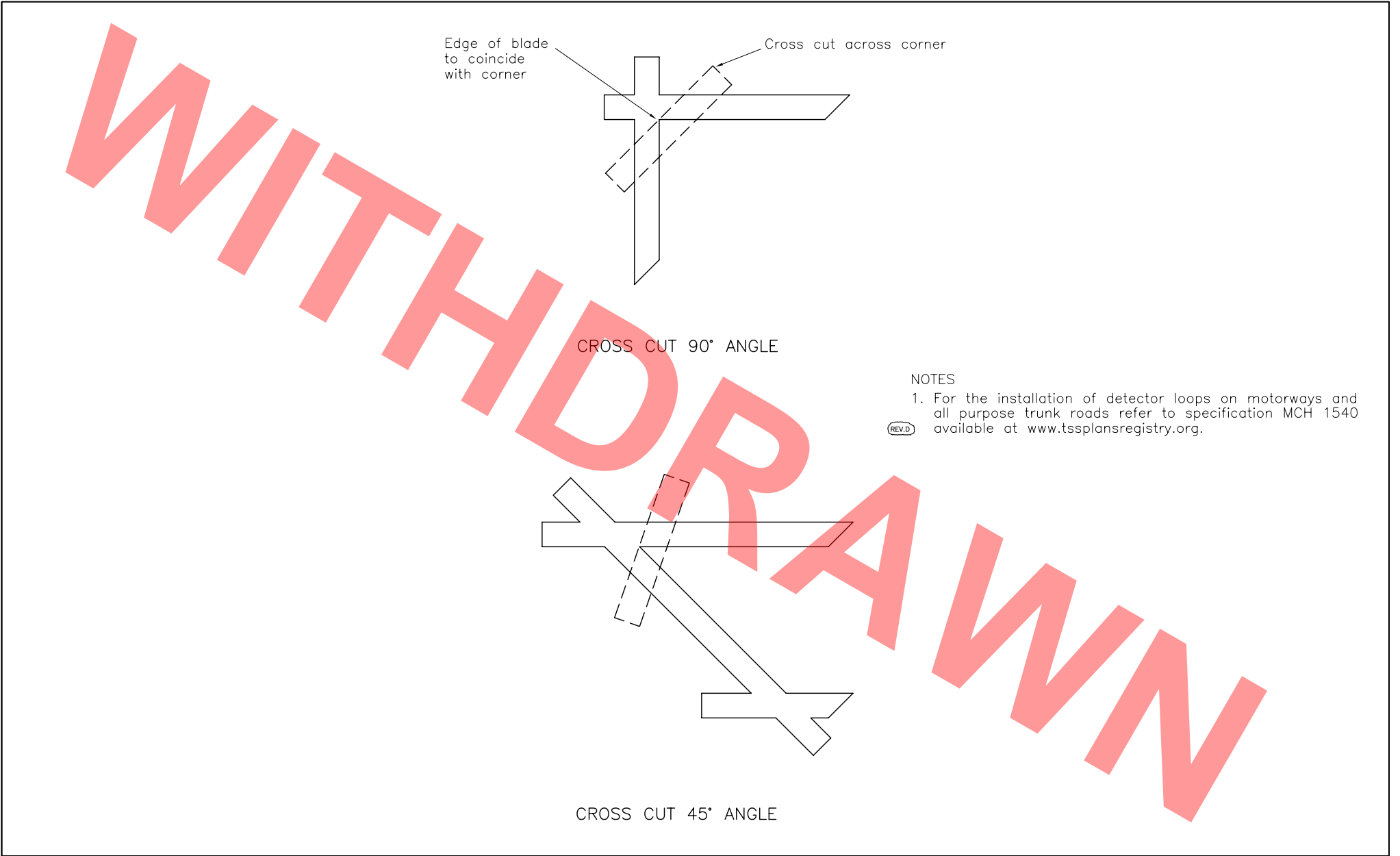
SLOT PROFILE – POROUS ROAD SURFACES

HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS DETECTOR LOOP SLOT DETAILS-SHEET 2	Drawing No.
		C	Nov 03		
		B	Aug 02		G2
		A	Dec 91		
		Issue	Date		





HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	E	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS DETECTOR LOOP SLOT DETAILS-SHEET 4	Drawing No.
		D	Nov 03		
		C	Sept 03		G4
		A	Dec 91		
		Issue	Date		



HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS CROSS CUTTING CORNERS OF SLOTS	Drawing No.
		C	Nov 03		G5
		B	Aug 02		
		A	Dec 91		
		Issue	Date		

INSTALLATION TEST CERTIFICATE FOR INDUCTIVE LOOP DETECTORS

Site address/reference: .....  
.....  
.....

Contractor: .....  
Drawing number: .....  
Date tested: .....

Weather Conditions: .....  
.....  
Temperature: .....

LOOP TESTS

Designation	Loop tail length metres	TEST 1 Series resistance. Measured into loop tails.  Max. 5 Ohms	TEST 2 Resistance to earth of loop tails. Measured at 500V DC with all conductors connected together.  Min. 100 Megohms	TEST 3 Inductance. Measured into loop tails.  $\mu$ H	Calculated Inductance <small>(REV.C)</small>  $\mu$ H
		Reading	Pass/Fail	Reading	Pass/Fail

COMPLETE CIRCUIT TESTS

Designation	Feeder length metres	TEST 1 Series resistance. Measured into feeder and loop tails.  Max. 5 Ohms	TEST 2 Resistance to earth of cable armouring (armouring not connected).  Min. 100 Megohms	TEST 3 Resistance to earth of cable armouring (armouring connected at detector housing).  Max. 0.5 Ohms	TEST 4 Resistance to earth of feeder and loop tails. Measured at 500V DC with all conductors connected together.  Min. 100 Megohms	TEST 5 Inductance. Measured into feeder and loop tails.  $\mu$ H	
		Reading	Pass/Fail	Reading	Pass/Fail	Reading	Pass/Fail

Loop Dimensions

Test equipment used

Resistance Inductance

Make.....  
Make.....

Type.....  
Type.....

(REV.C) I certify that this equipment has been installed and tested in accordance with specification MCH 1540 available at [www.tssplansregistry.org](http://www.tssplansregistry.org).

(REV.C) Signed on behalf of the Contractor..... Company.....Date.....

HIGHWAY CONSTRUCTION DETAILS

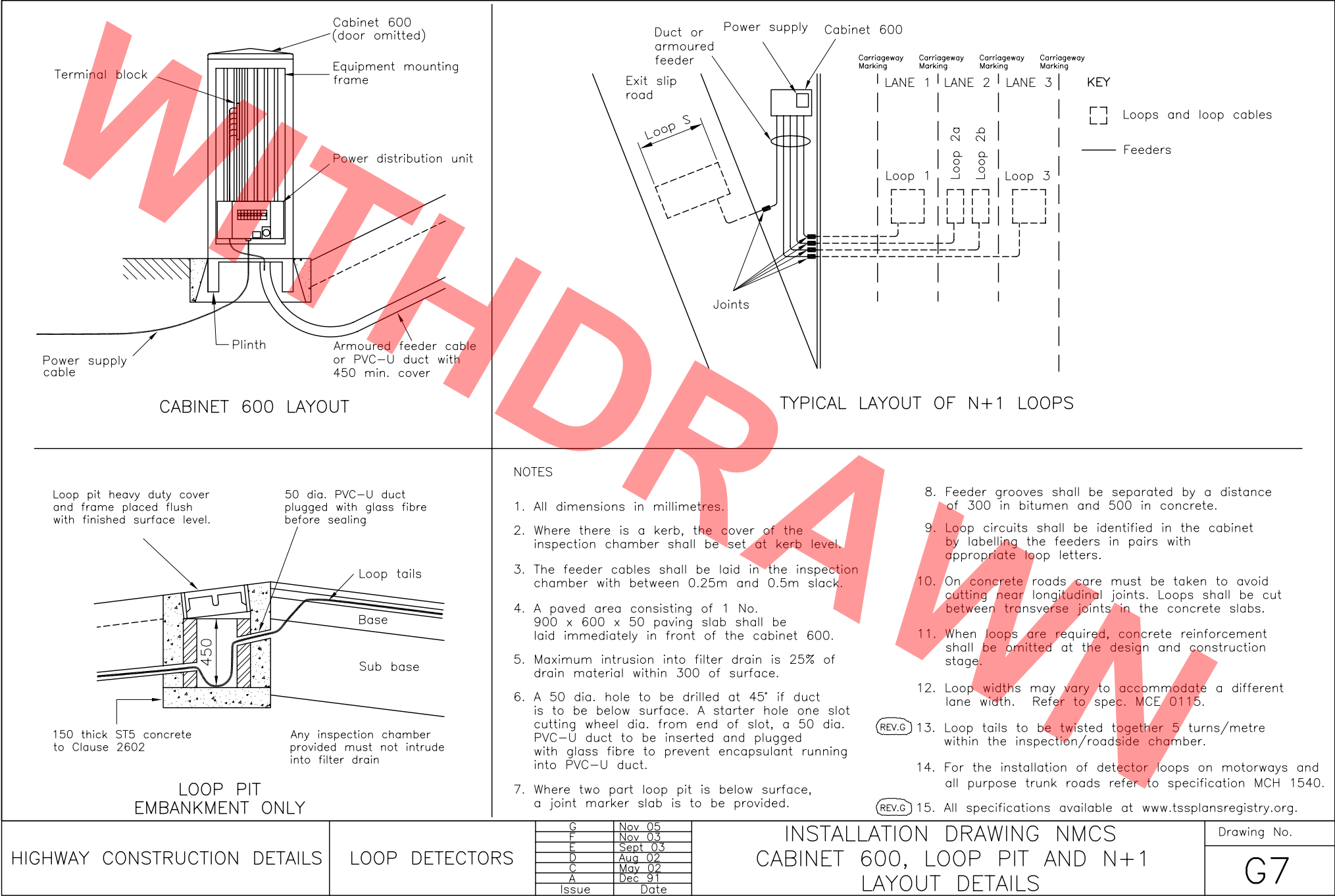
LOOP DETECTORS

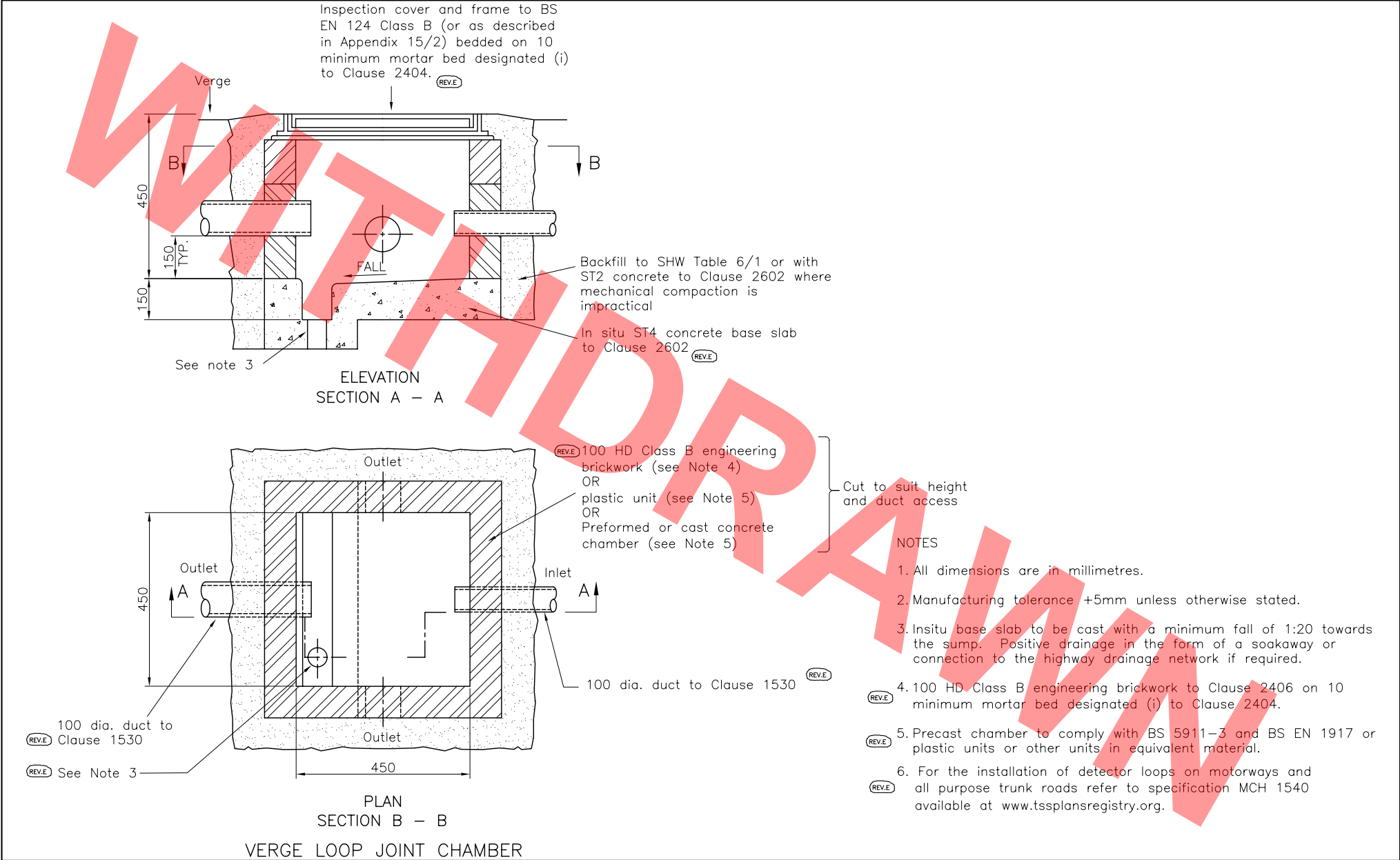
C	Nov 05
B	Sept 03
A	Aug 02
Issue	Date

INSTALLATION DRAWING NMCS AND  
ALL-PURPOSE ROADS  
TEST CERTIFICATE

Drawing No.

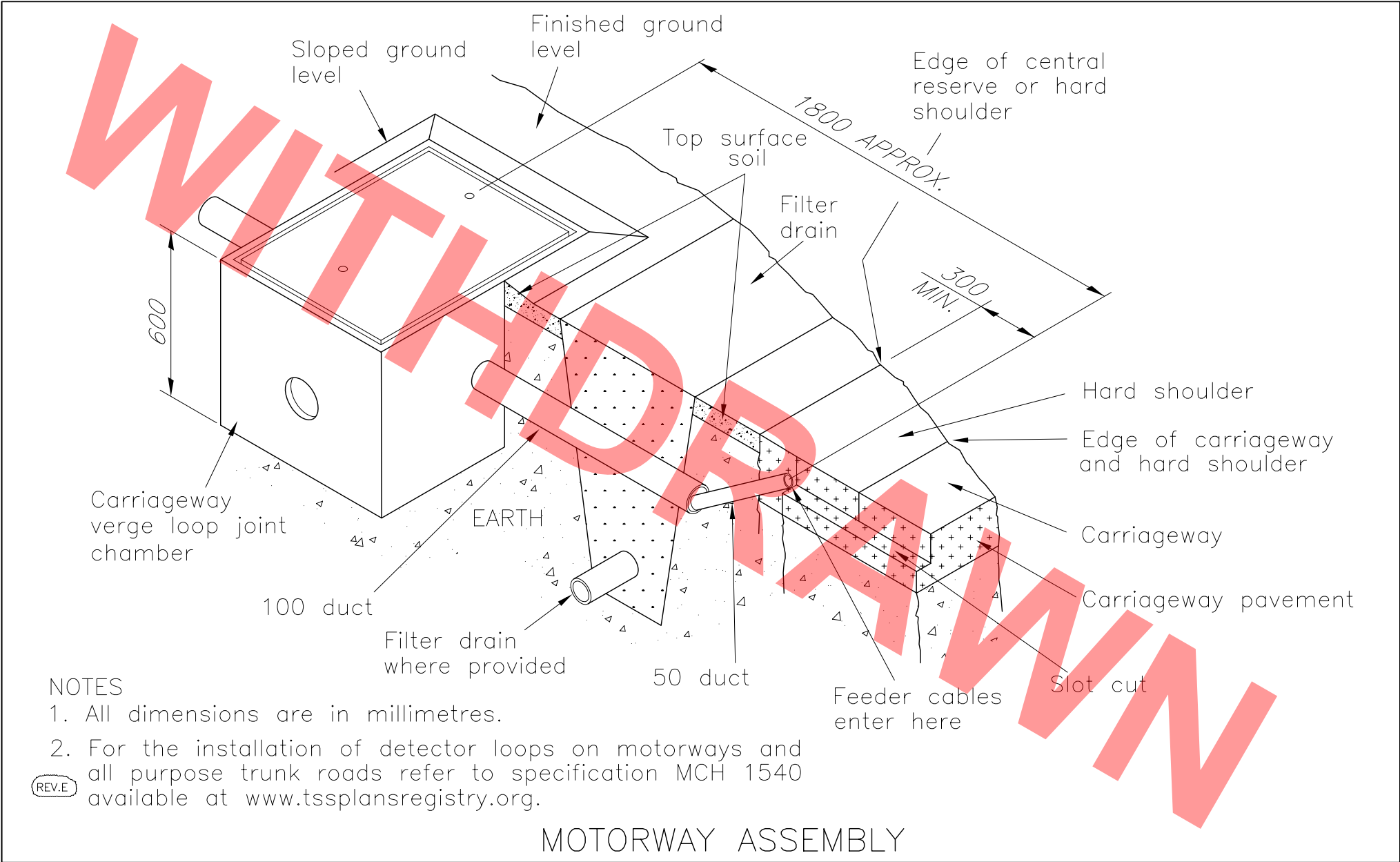
G6





HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	E	Nov 05	INSTALLATION DRAWING NMCS LOOP JOINT CHAMBER – SHEET 1	Drawing No.
		D	Nov 03		
		C	Aug 02		G8
		A	Dec 91		
		Issue	Date		



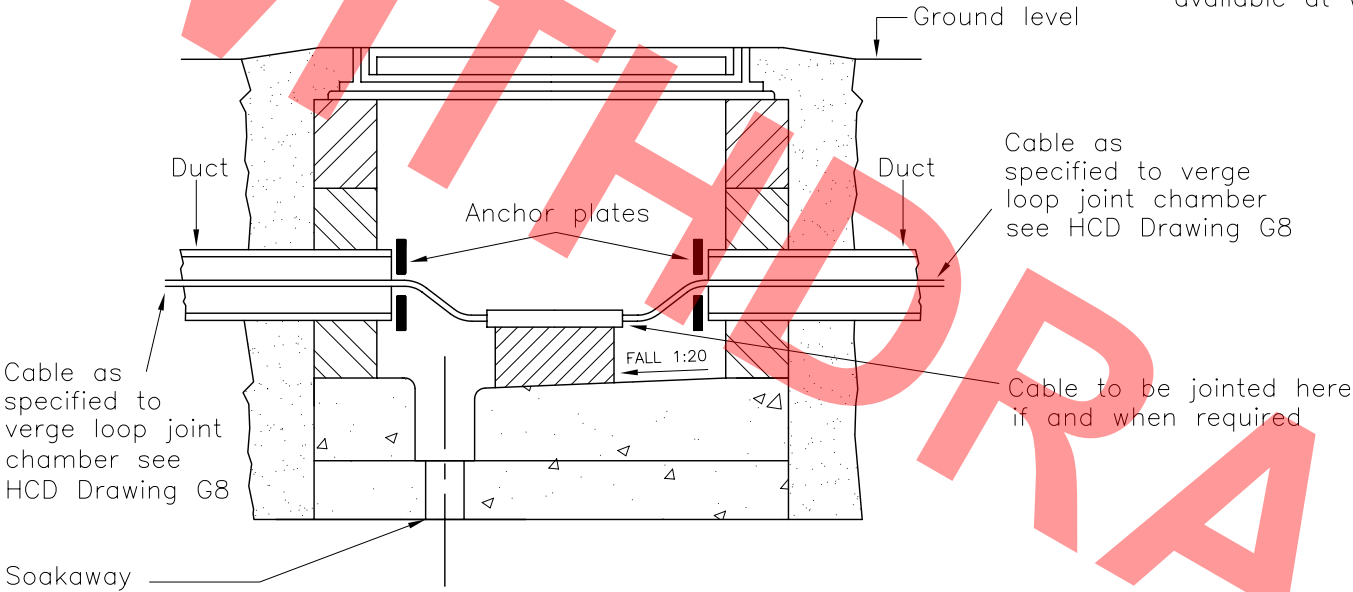


HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	E	Nov 05	INSTALLATION DRAWING NMCS LOOP JOINT CHAMBER – SHEET 2	Drawing No.
		D	Nov 03		
		C	Aug 02		G9
		A	Dec 91		
		Issue	Date		

NOTES

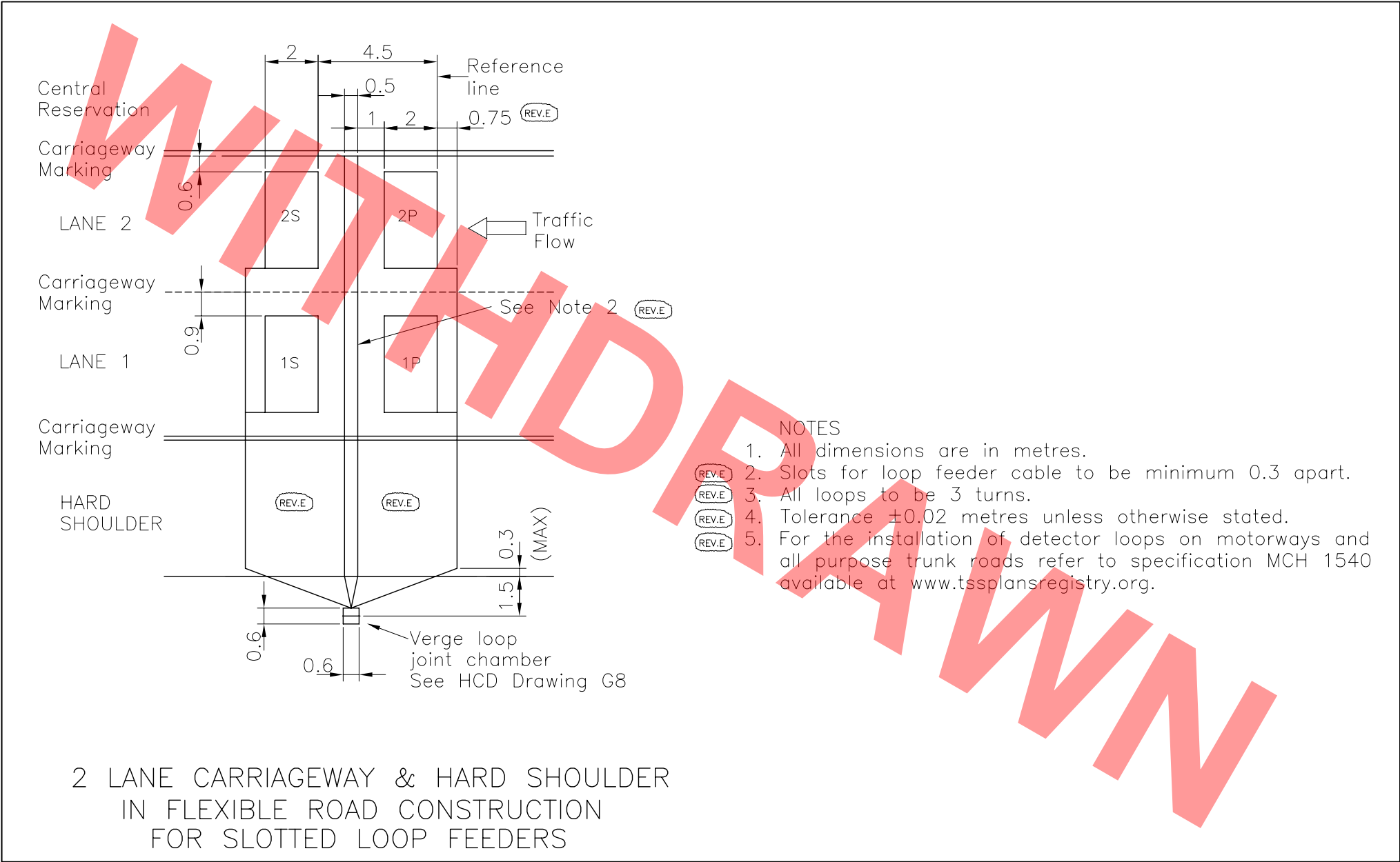
- 1. This arrangement may not be suitable for all site conditions. The scheme designer shall tailor other arrangements to suit individual locations.
- 2. Cable identification shall be fitted during installation.
- 3. For the installation of detector loops on motorways and all purpose trunk roads refer to specification MCH 1540 available at [www.tssplansregistry.org](http://www.tssplansregistry.org).

REV E

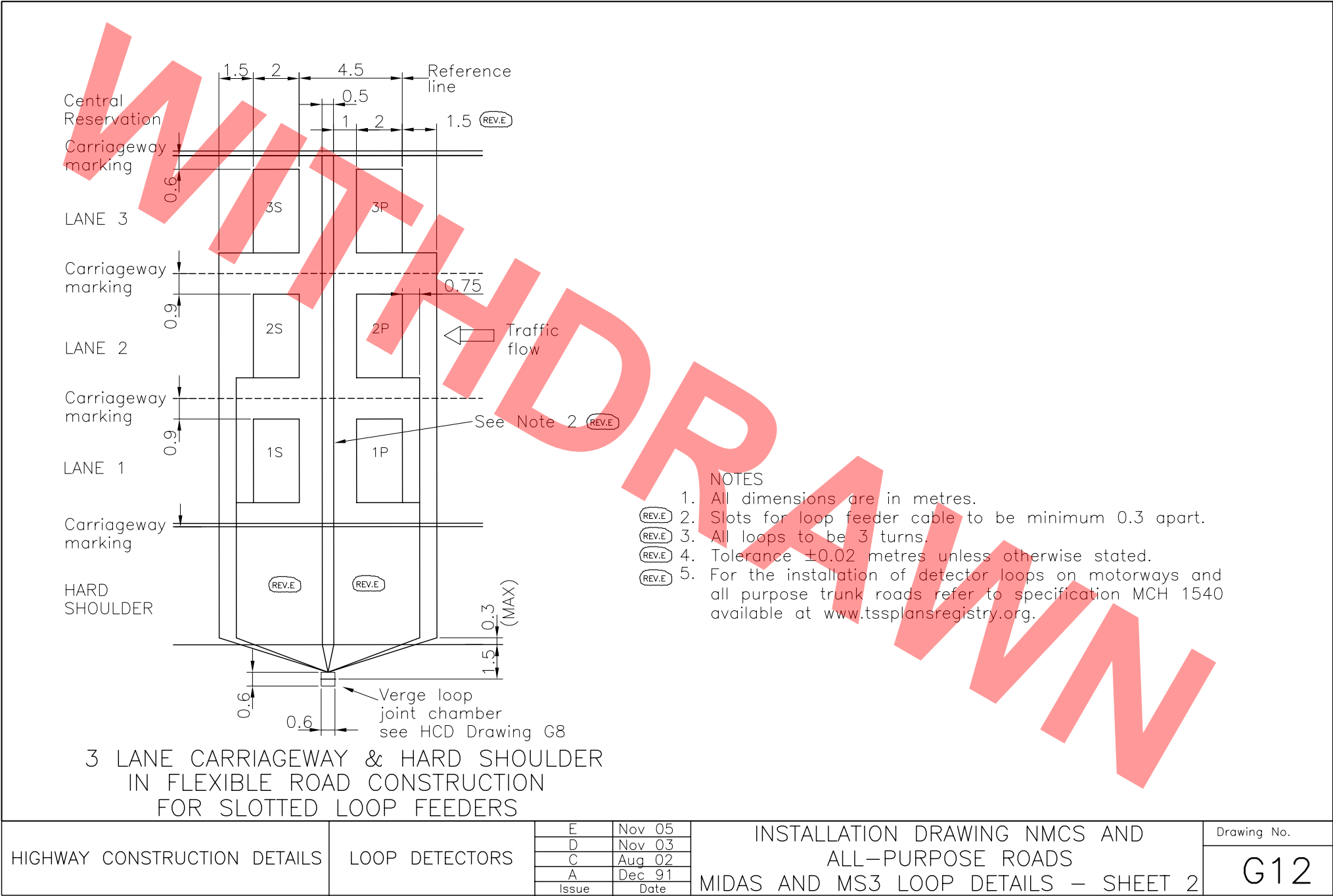


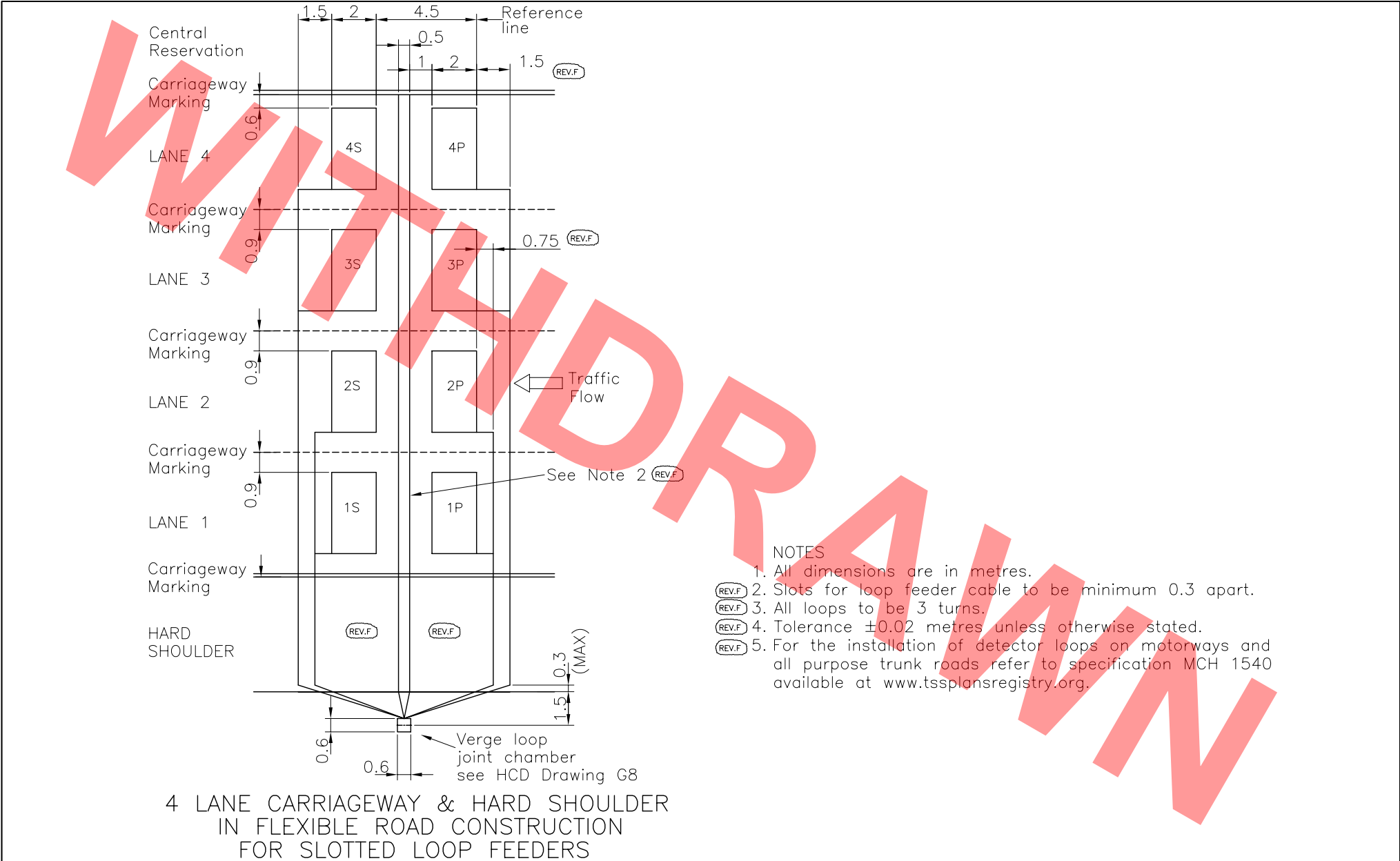
SECTIONAL ELEVATION OF CENTRAL RESERVE CHAMBER

HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	E	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS LOOP JOINT CHAMBER – SHEET 3	Drawing No.
		D	Nov 03		
		C	Aug 02		G10
		A	Dec 91		
		Issue	Date		

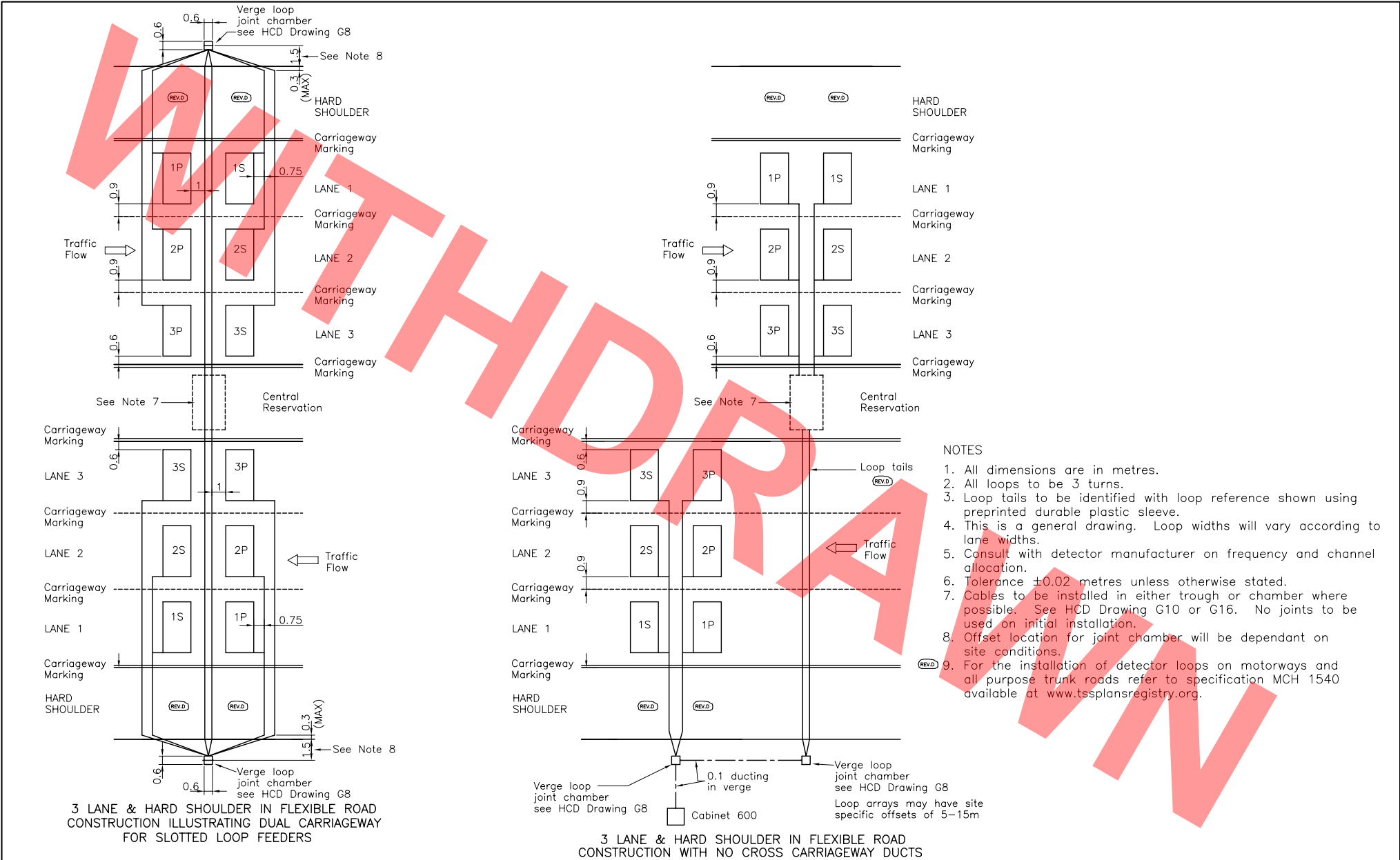


HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	E	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS MIDAS AND MS3 LOOP DETAILS – SHEET 1	Drawing No.
		D	Nov 03		
		C	Aug 02		G11
		A	Dec 91		
		Issue	Date		

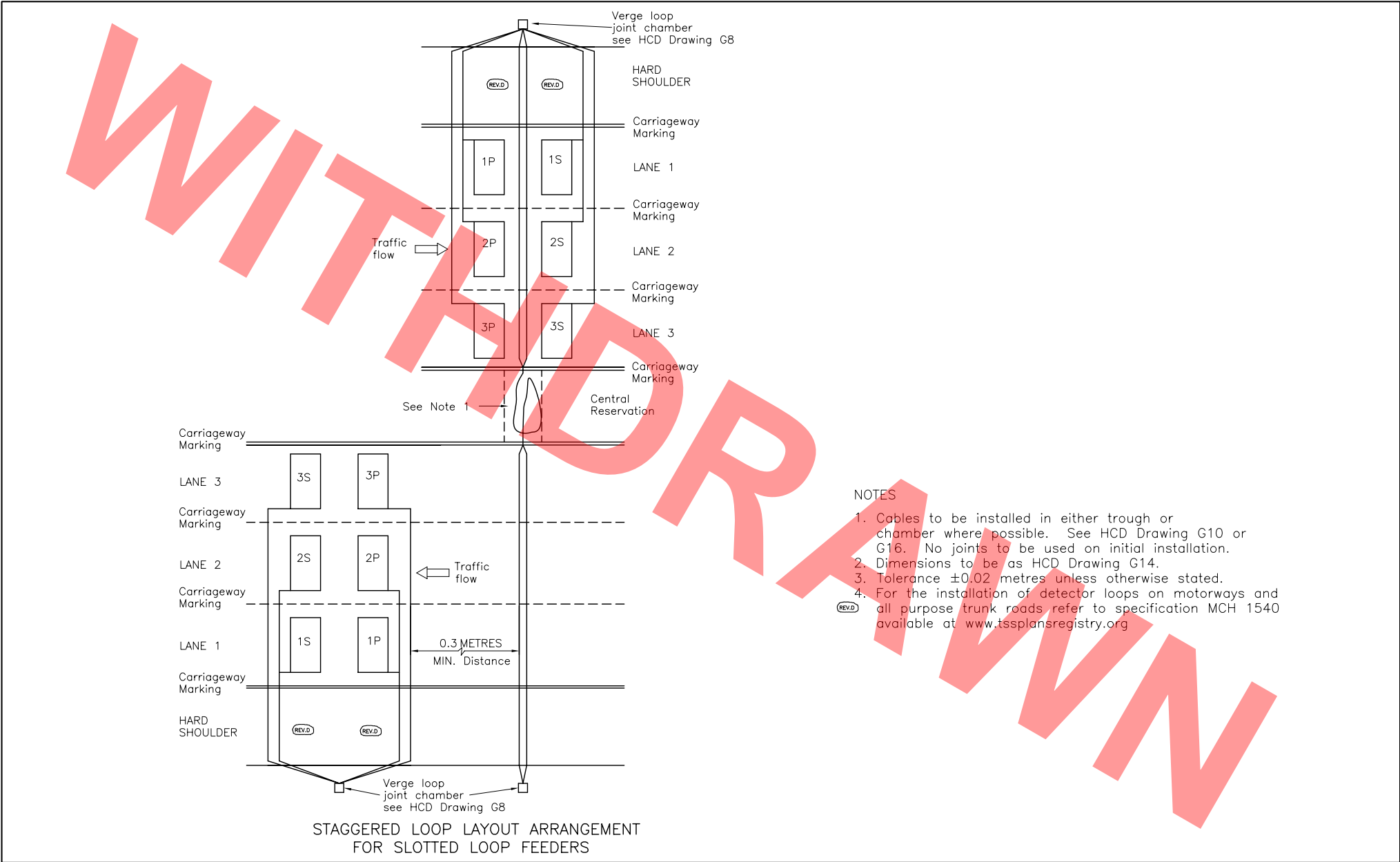




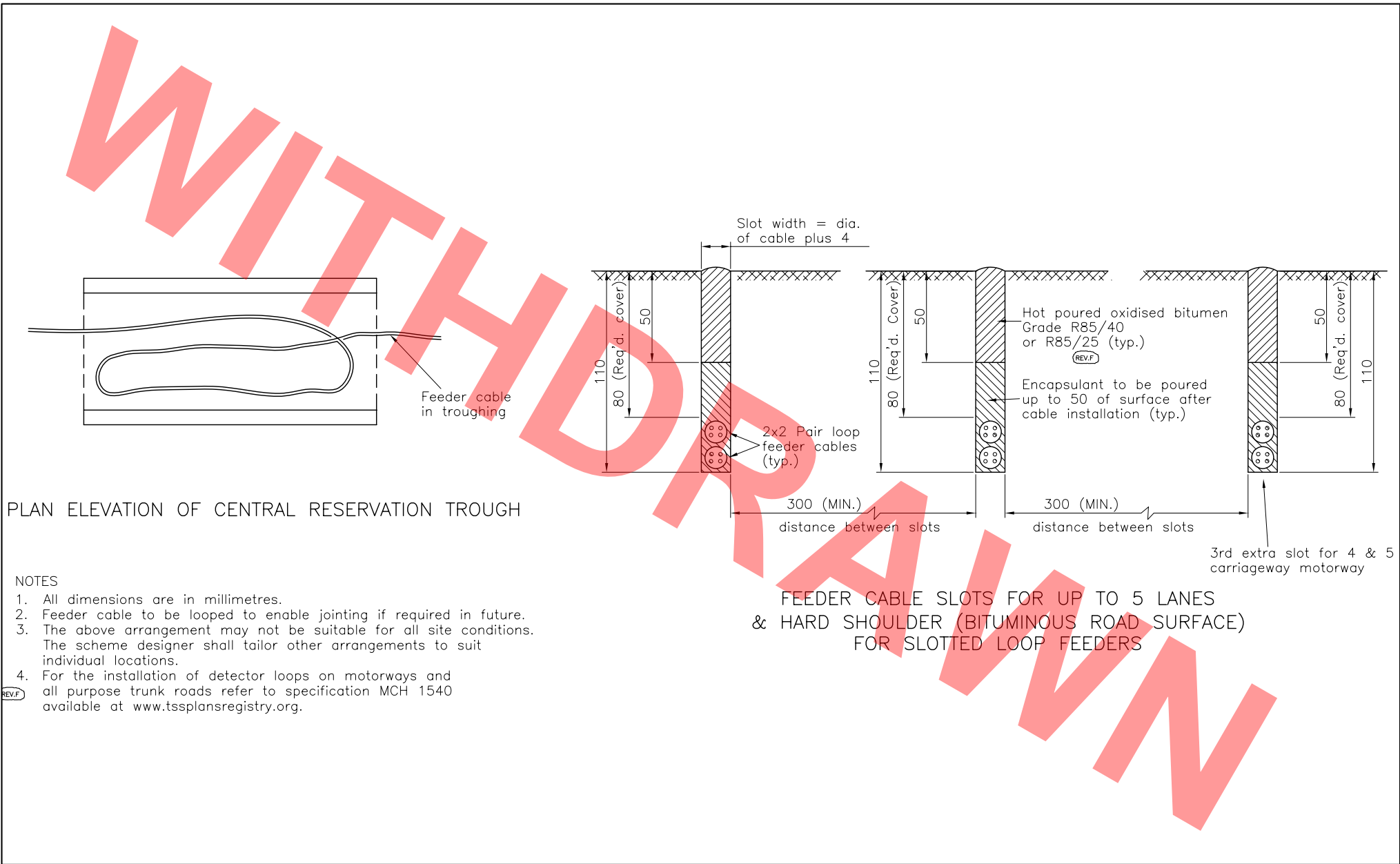
HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	F	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS MIDAS AND MS3 LOOP DETAILS – SHEET 3	Drawing No.
		Nov 03	G13		
		D			
		Aug 02			
		May 02			
		C			
		B			Aug 94
A	Dec 91				
		Issue	Date		



HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS MIDAS AND MS3 LOOP DETAILS – SHEET 4	Drawing No.  G14
		C	Nov 03		
		B	Aug 02		
		A	Dec 91		
		Issue	Date		

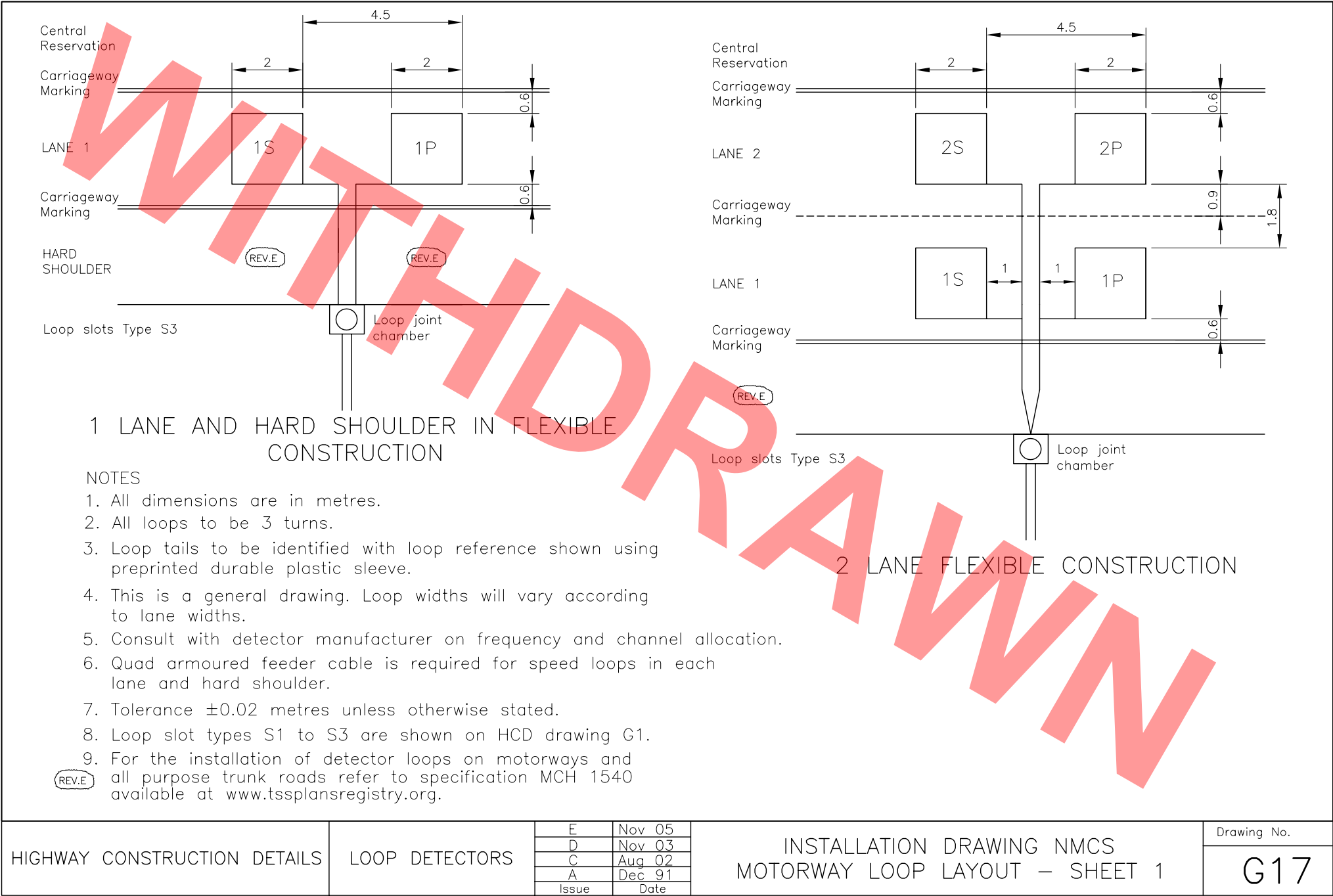


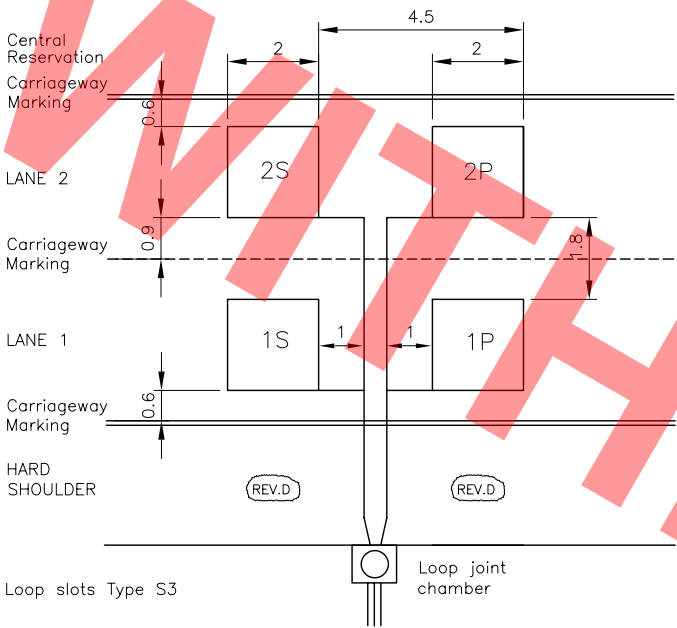
HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS MIDAS AND MS3 LOOP DETAILS – SHEET 5	Drawing No.
		C	Nov 03		
		B	Aug 02		G15
		A	Dec 91		
		Issue	Date		



HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	F	Nov 05	INSTALLATION DRAWING NMCS AND ALL-PURPOSE ROADS MIDAS AND MS3 LOOP DETAILS – SHEET 6	Drawing No.
		E	Nov 03		
		D	Sept 03		G16
		C	Aug 02		
		A	Dec 91		
		Issue	Date		



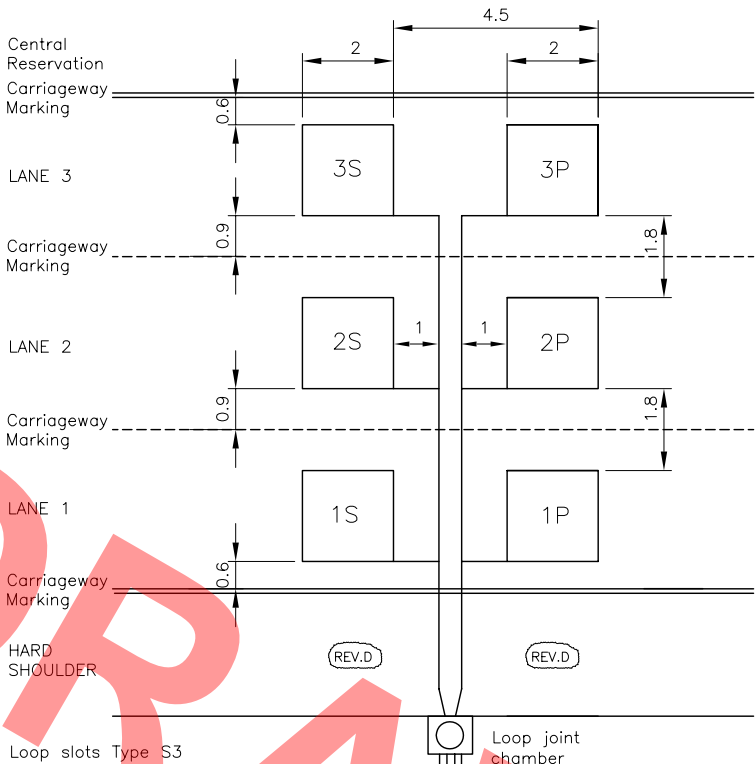




2 LANE AND HARD SHOULDER IN FLEXIBLE CONSTRUCTION

NOTES

1. All dimensions are in metres.
2. All loops to be 3 turns.
3. Loop tails to be identified with loop reference shown using preprinted durable plastic sleeve.
4. This is a general drawing. Loop widths will vary according to lane widths.
5. Consult with detector manufacturer on frequency and channel allocation.
6. Quad armoured feeder cable is required for speed loops in each lane.
7. Tolerance  $\pm 0.02$  metres unless otherwise stated.
8. Loop slot types S1 to S3 are shown on HCD drawing G1.
9. For the installation of detector loops on motorways and all purpose trunk roads refer to specification MCH 1540 available at [www.tssplansregistry.org](http://www.tssplansregistry.org).



3 LANE AND HARD SHOULDER IN FLEXIBLE CONSTRUCTION

HIGHWAY CONSTRUCTION DETAILS

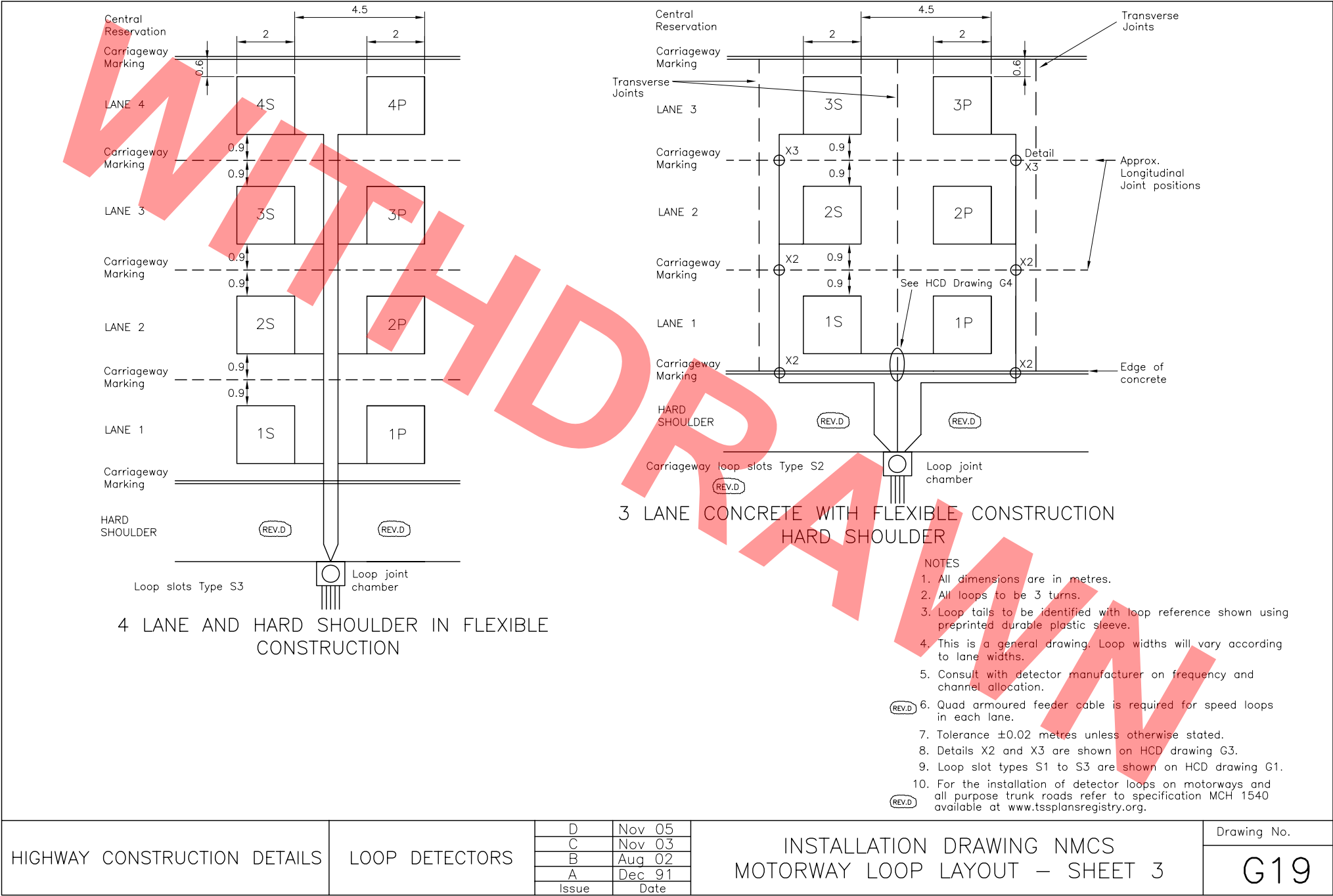
LOOP DETECTORS

D	Nov 05
C	Nov 03
B	Aug 02
A	Dec 91
Issue	Date

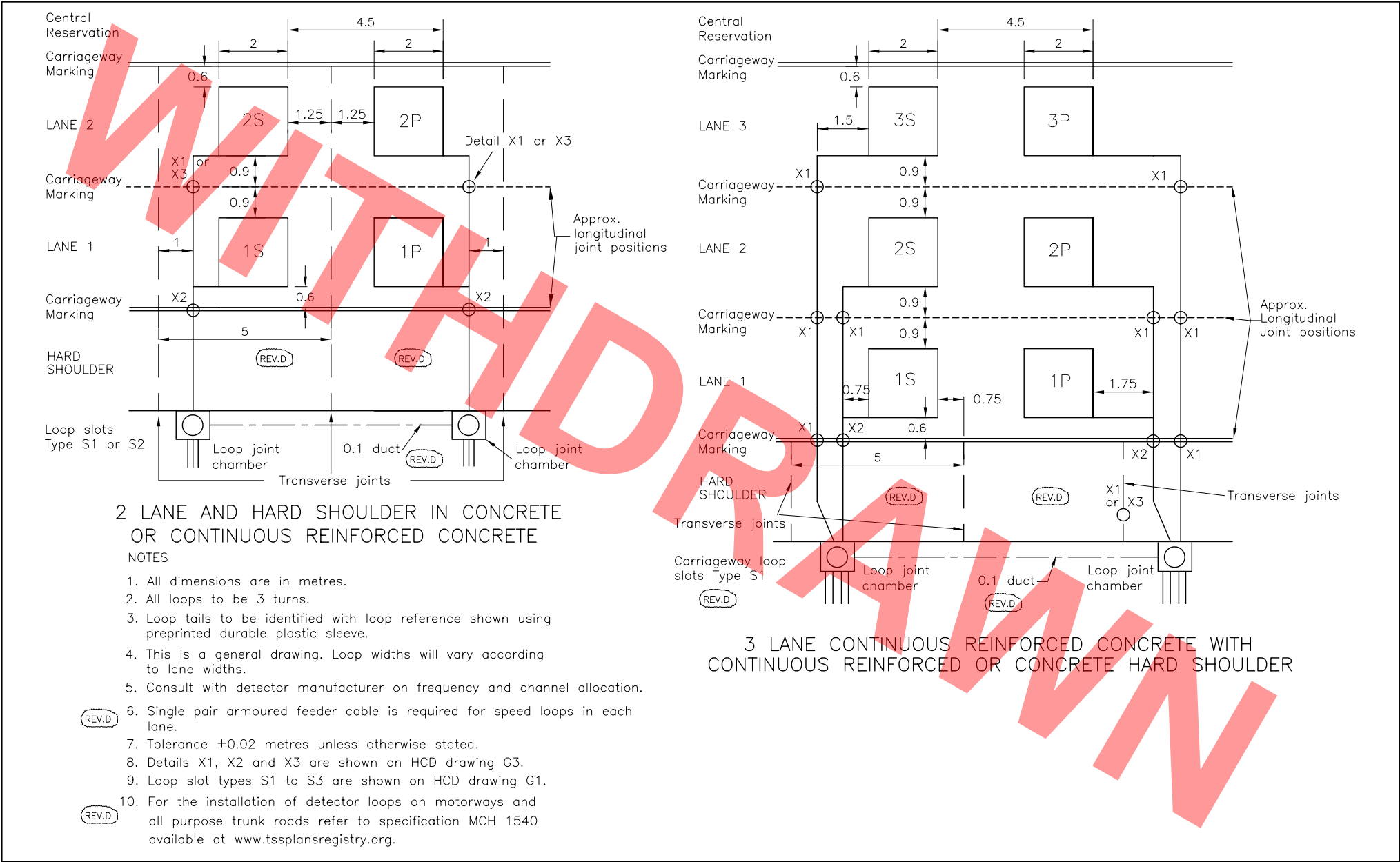
INSTALLATION DRAWING NMCS  
MOTORWAY LOOP LAYOUT – SHEET 2

Drawing No.

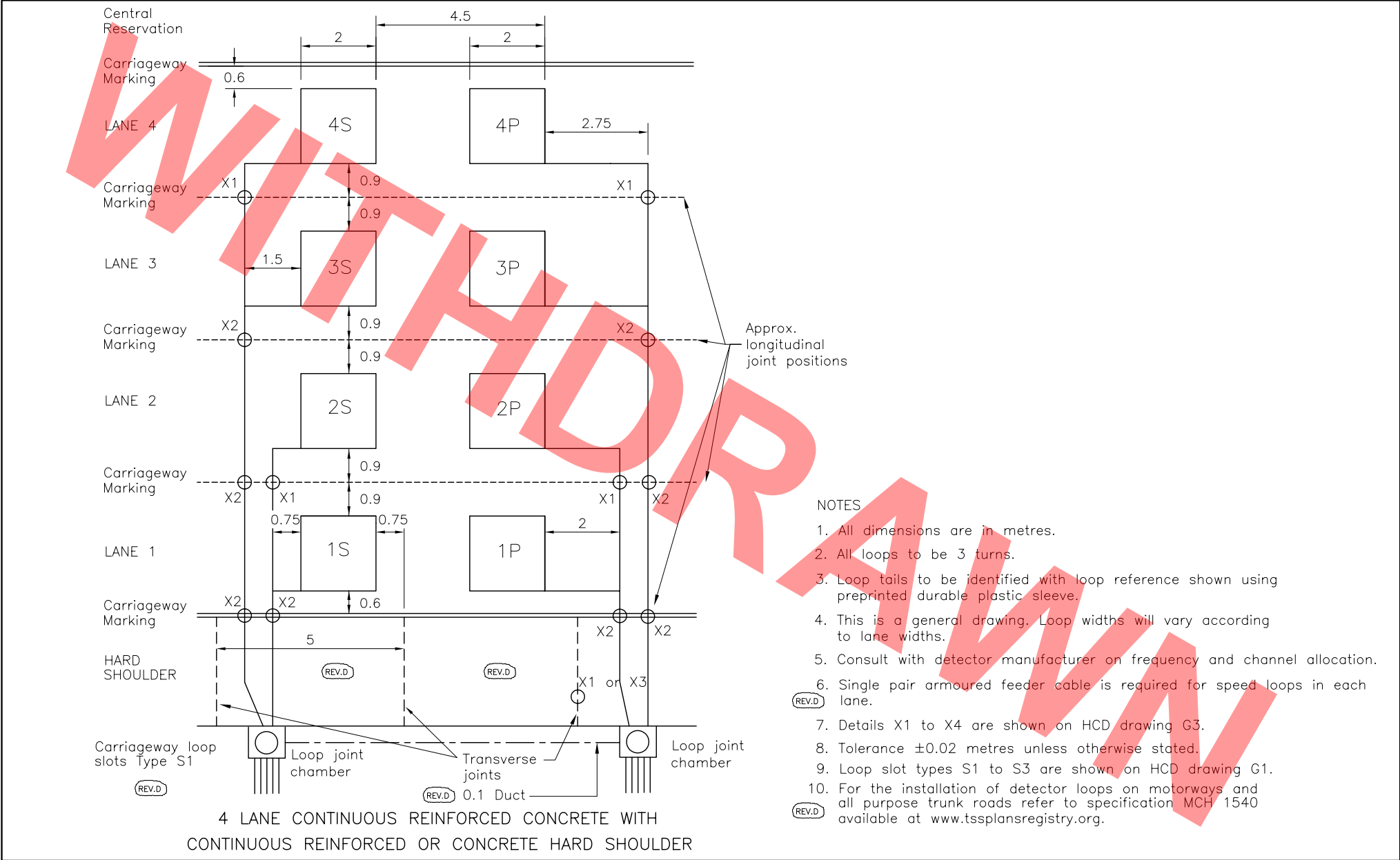
G18



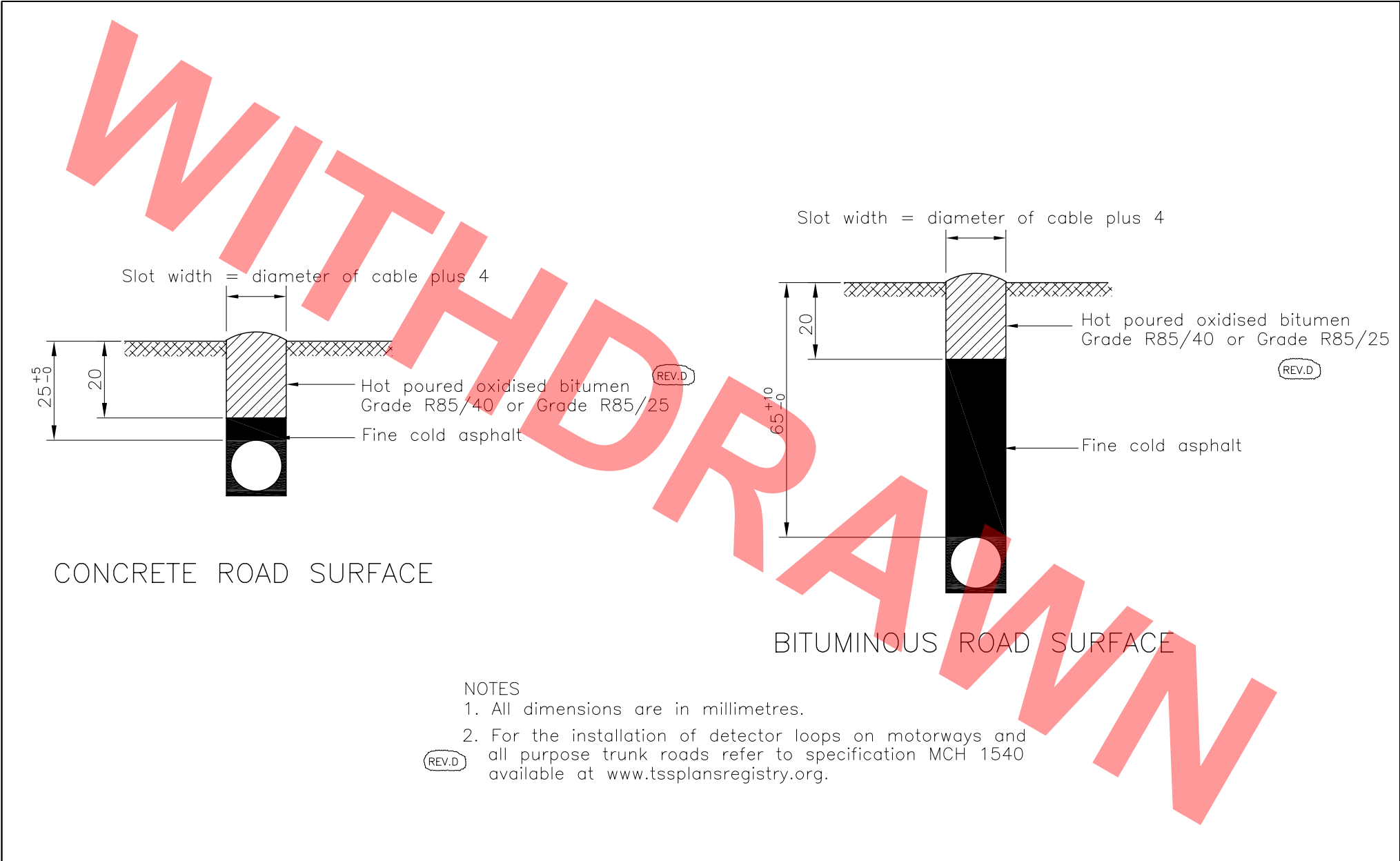
HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	INSTALLATION DRAWING NMCS MOTORWAY LOOP LAYOUT – SHEET 3	Drawing No.
		C	Nov 03		
		B	Aug 02		G19
		A	Dec 91		
		Issue	Date		



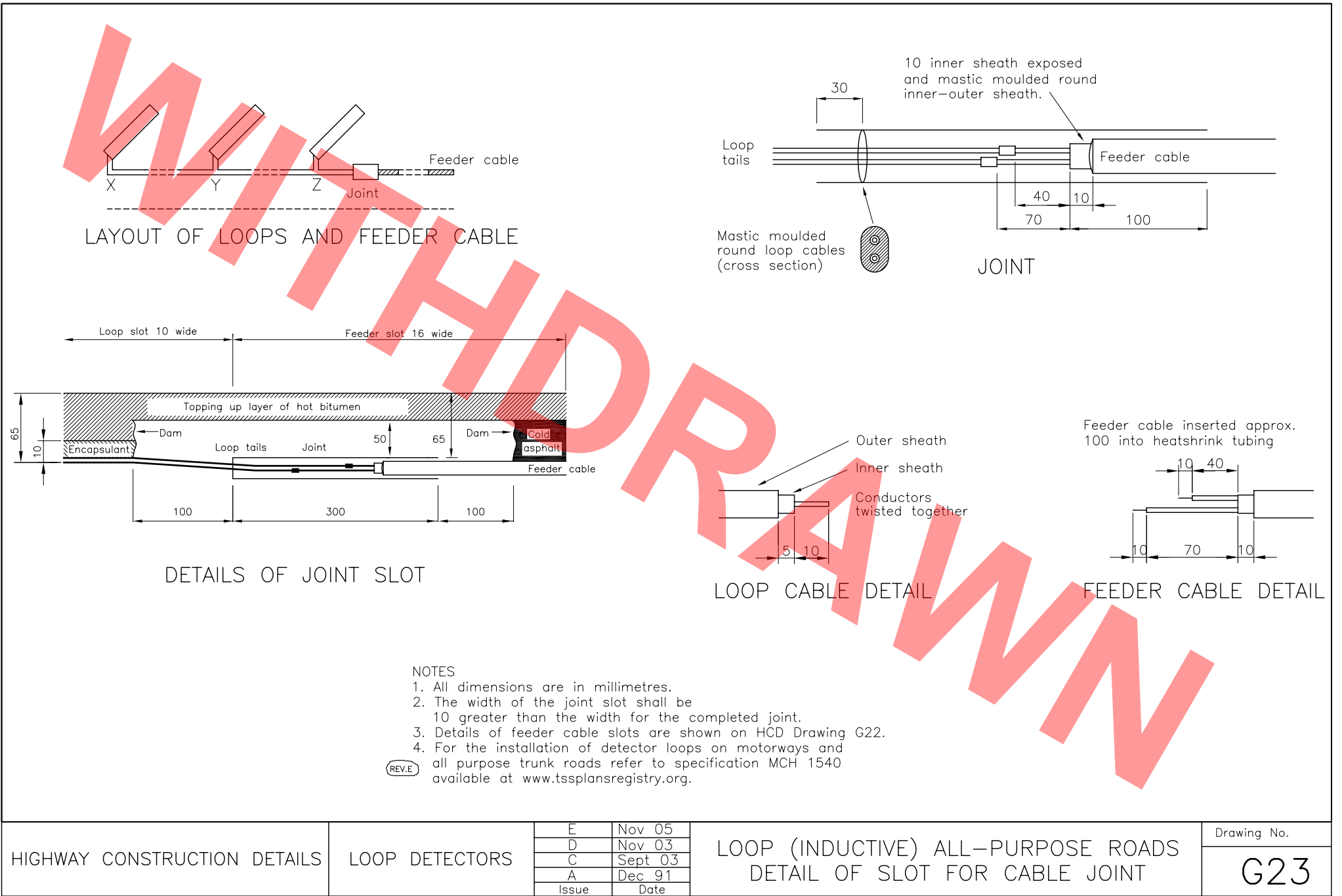
HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	INSTALLATION DRAWING NMCS MOTORWAY LOOP LAYOUT – SHEET 4	Drawing No.
		C	Nov 03		
		B	Aug 02		G20
		A	Dec 91		
		Issue	Date		



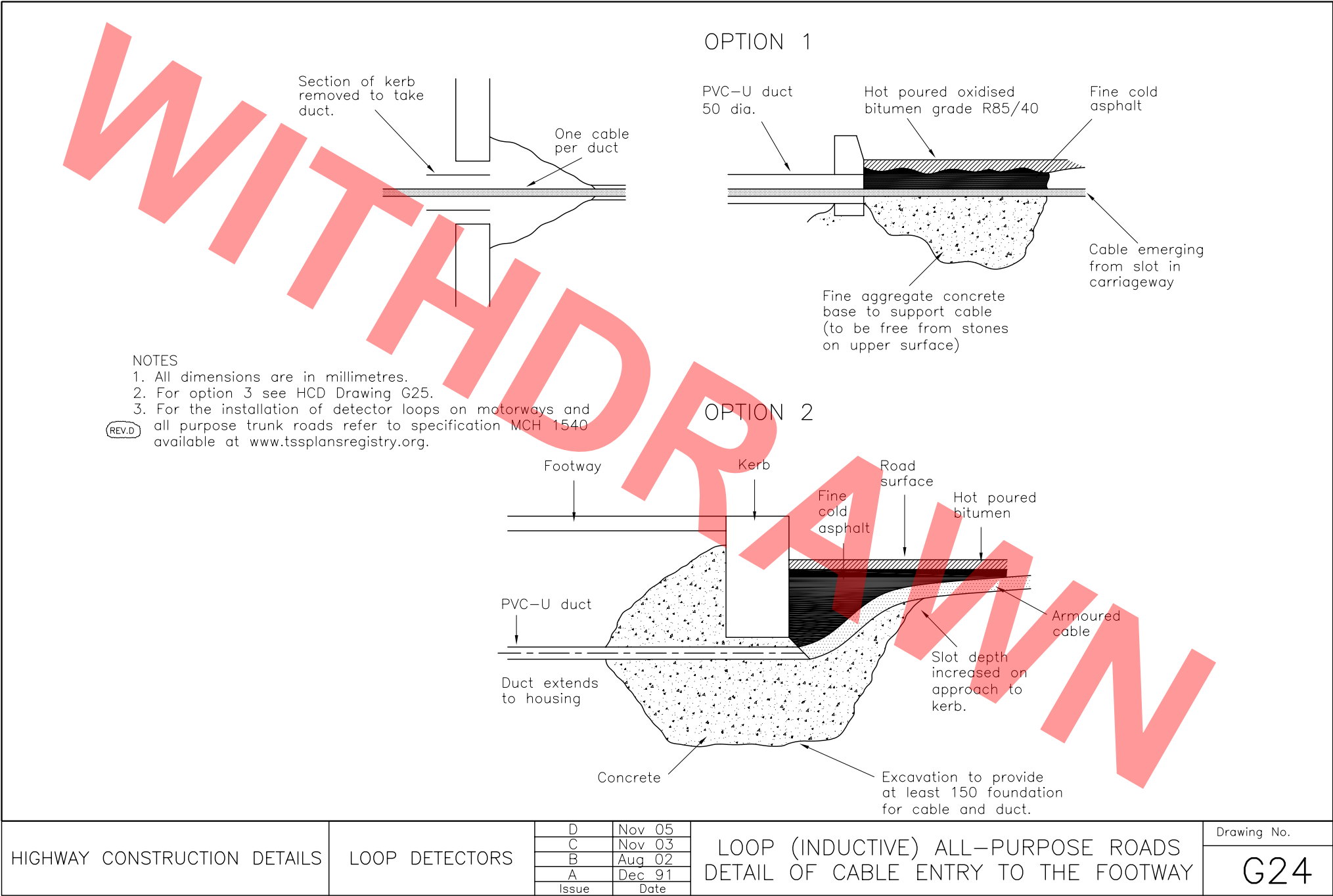
HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	INSTALLATION DRAWING NMCS MOTORWAY LOOP LAYOUT – SHEET 5	Drawing No.
		C	Nov 03		
		B	Aug 02		G21
		A	Dec 91		
		Issue	Date		



HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	LOOP (INDUCTIVE) ALL-PURPOSE ROADS DETAILS OF FEEDER CABLE SLOTS	Drawing No.
		C	Nov 03		
		B	Aug 02		G22
		A	Dec 91		
		Issue	Date		

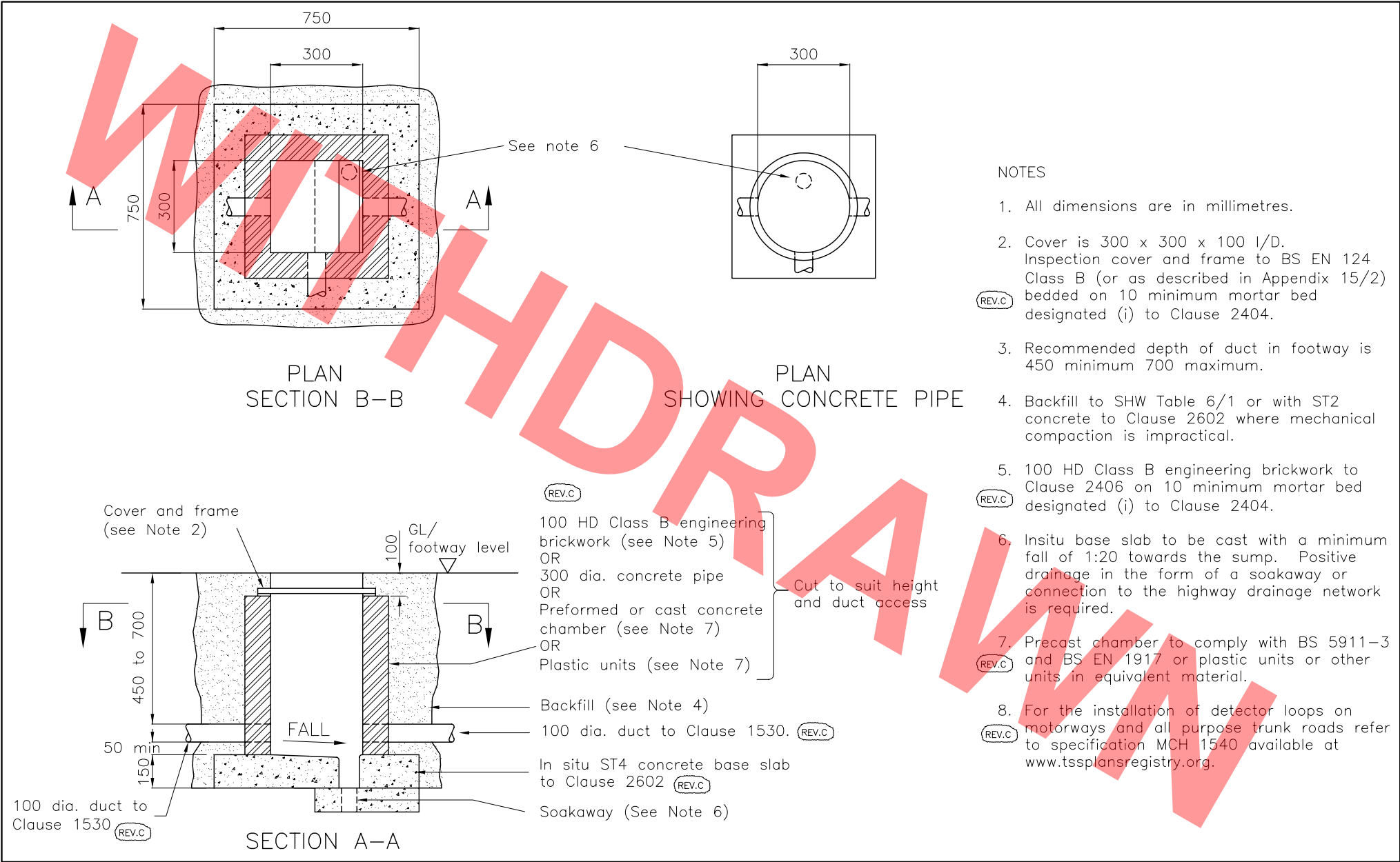


HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	E	Nov 05	LOOP (INDUCTIVE) ALL-PURPOSE ROADS DETAIL OF SLOT FOR CABLE JOINT	Drawing No.
		D	Nov 03		
		C	Sept 03		G23
		A	Dec 91		
		Issue	Date		

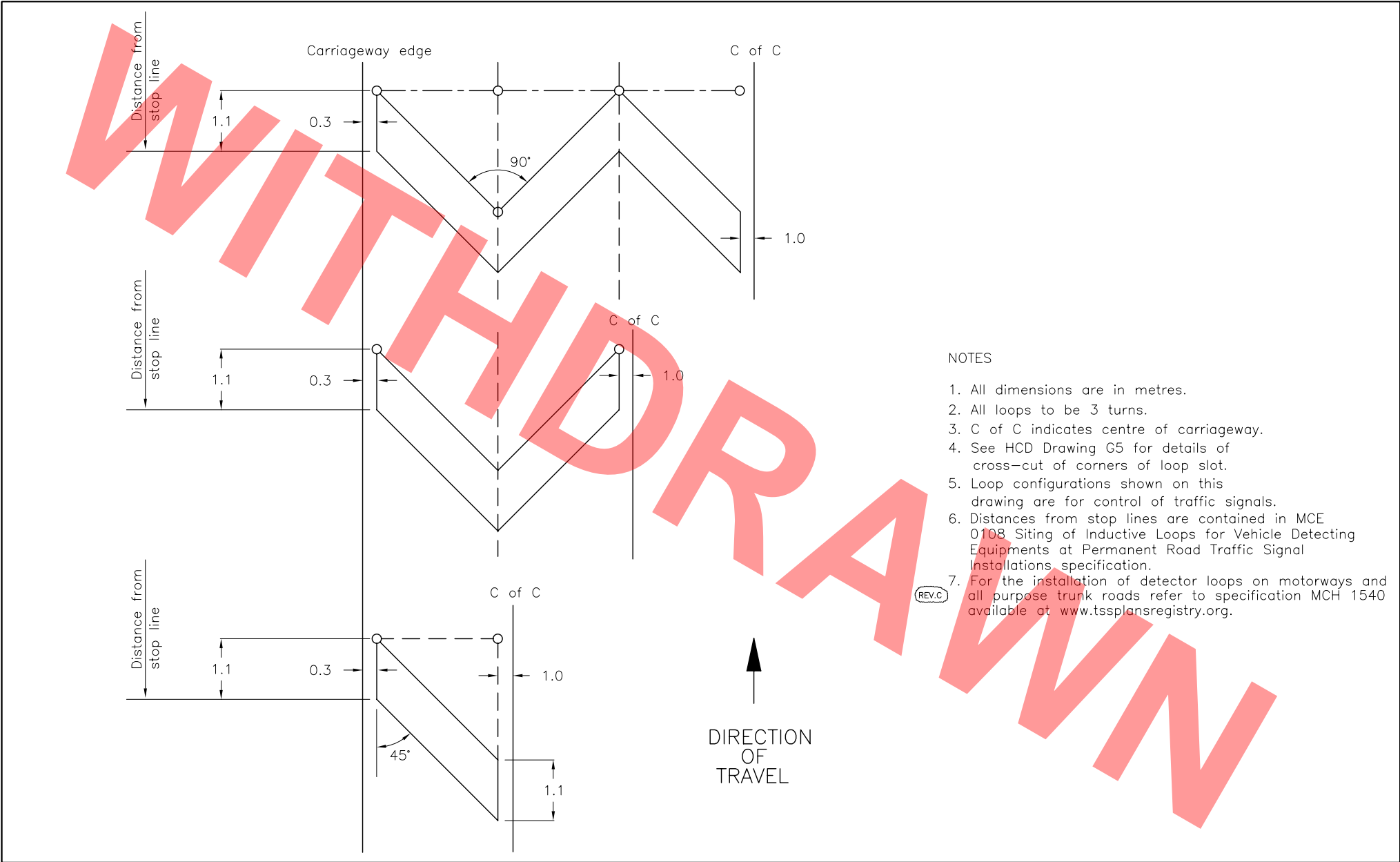




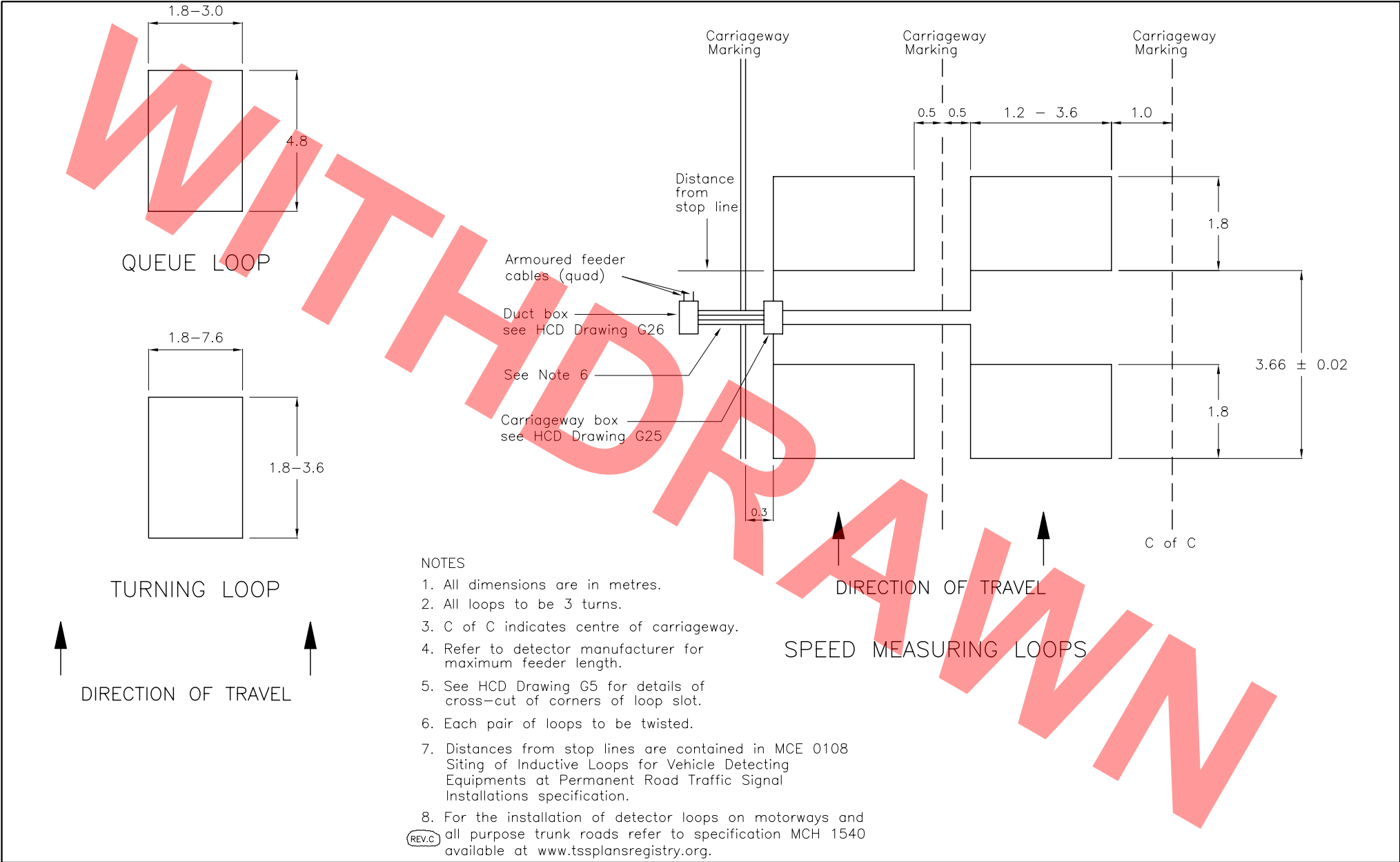




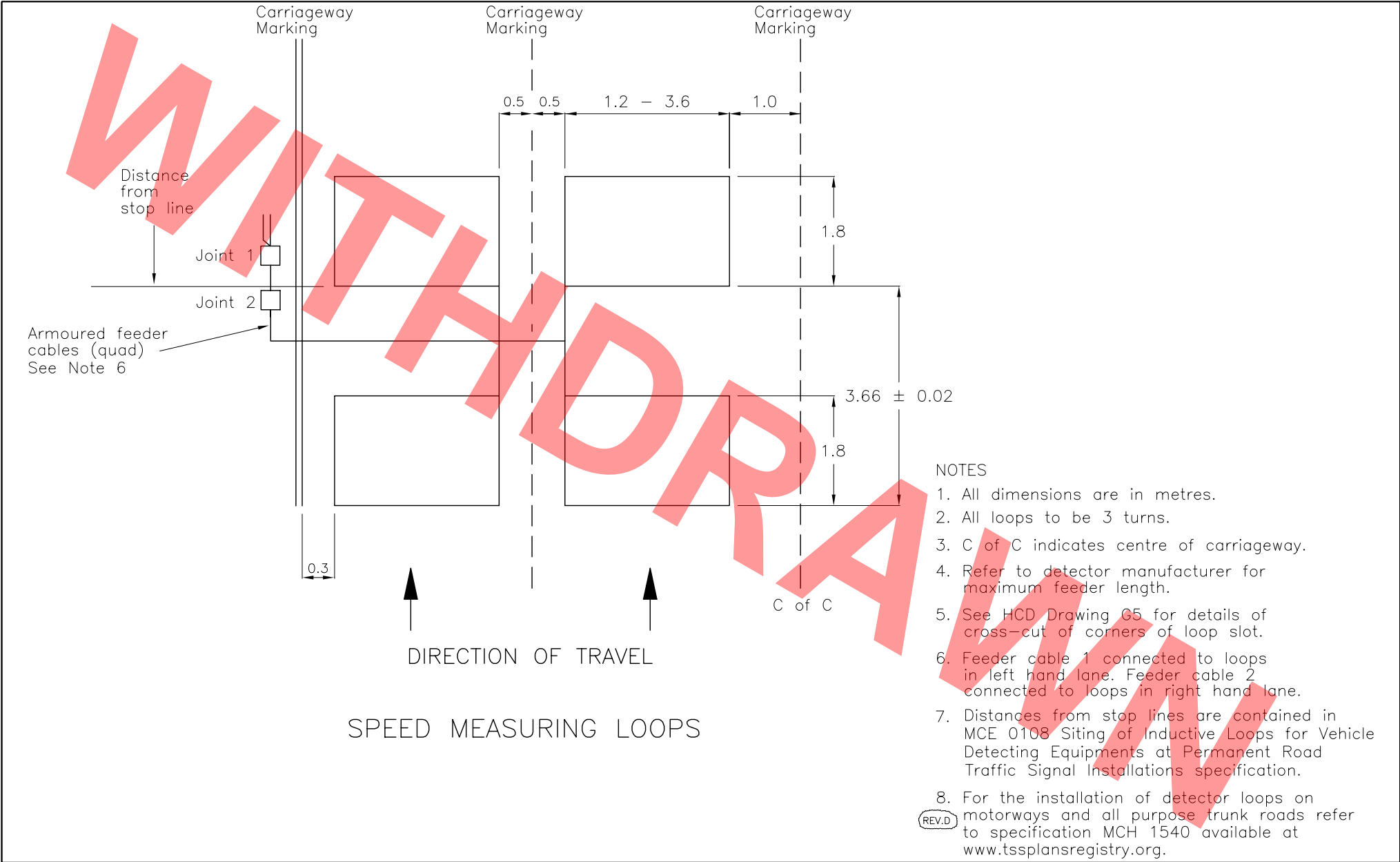
HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	C	Nov 05	LOOP (INDUCTIVE) ALL-PURPOSE ROADS DETAIL OF SIGNAL DUCT CHAMBER (REV.C)	Drawing No. <b>G26</b>
		B	Nov 03		
		A	Aug 02		
		Issue	Date		



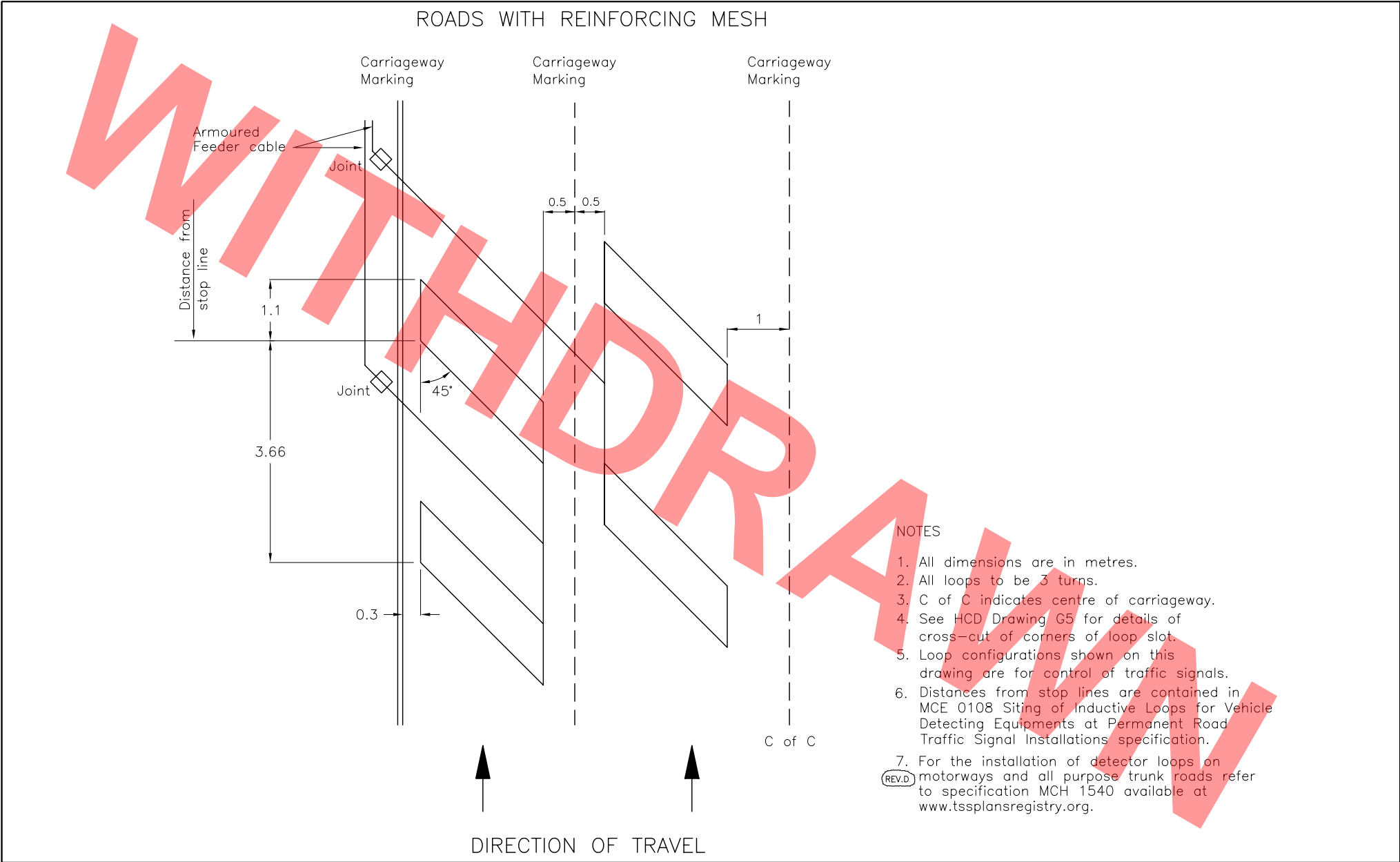
HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	C	Nov 05	LOOP (INDUCTIVE) ALL-PURPOSE ROADS CHEVRON LOOPS	Drawing No.
		B	Nov 03		
		A	Aug 02		G27
		Issue	Date		



HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS			LOOP (INDUCTIVE) ALL-PURPOSE ROADS TURNING, QUEUE AND SPEED MEASURING LOOPS – SHEET 1	Drawing No.  G28
		C	Nov 05		
		B	Nov 03		
		A	Aug 02		
		Issue	Date		



HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	LOOP (INDUCTIVE) ALL-PURPOSE ROADS SPEED MEASURING LOOPS – SHEET 2	Drawing No.
		C	Nov 03		
		B	Sept 03		G29
		A	Aug 02		
		Issue	Date		



HIGHWAY CONSTRUCTION DETAILS	LOOP DETECTORS	D	Nov 05	LOOP (INDUCTIVE) ALL-PURPOSE ROADS SPEED MEASURING LOOPS – SHEET 3	Drawing No.
		C	Nov 03		
		B	Sept 03		G30
		A	Aug 02		
		Issue	Date		

