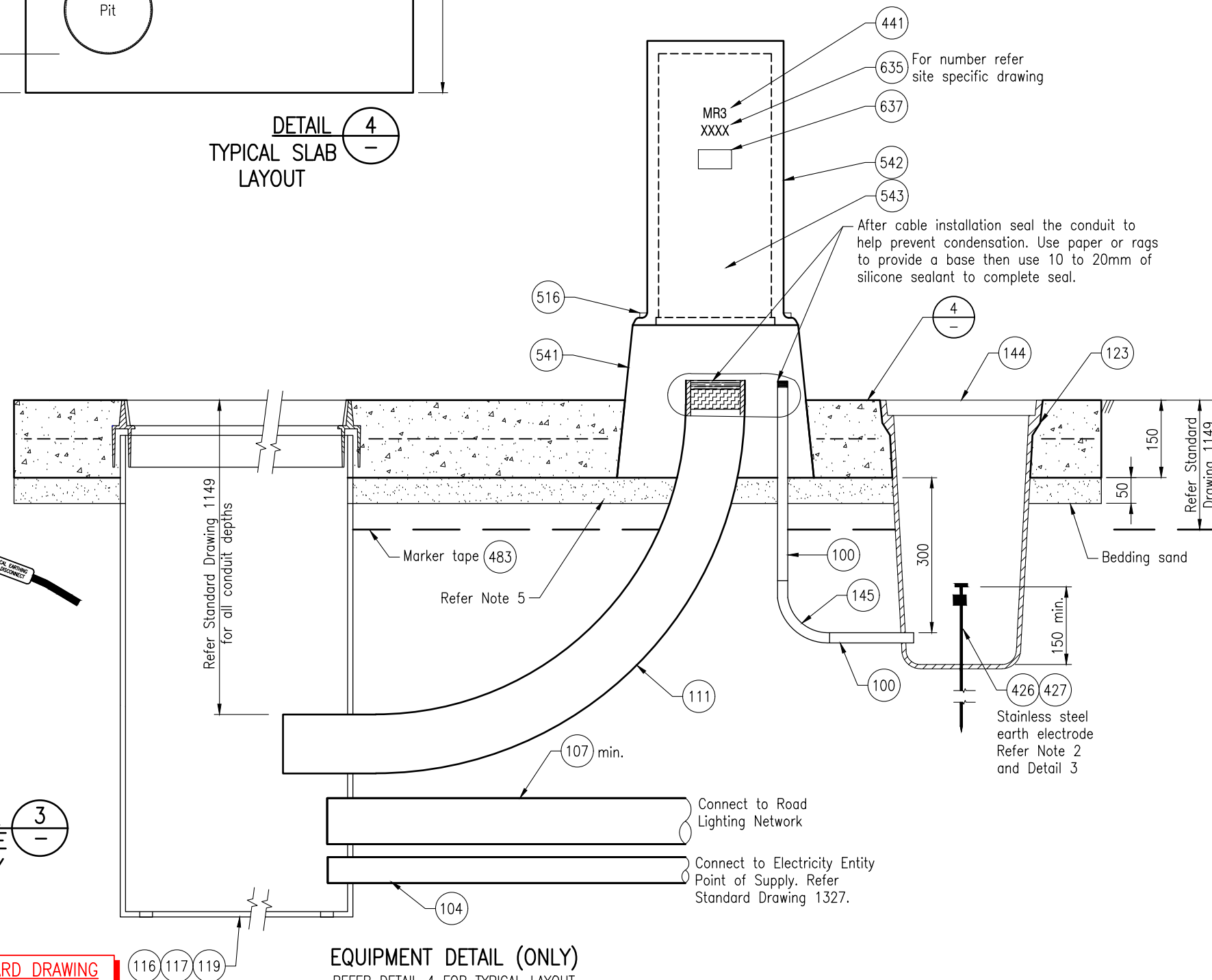


DETAIL (3)
EARTH STAKE, CABLE
& BLOCK ASSEMBLY
N.T.S

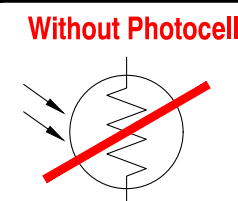


SCOPE OF THIS STANDARD DRAWING

Pillar switchboard should only be used where disconnect times cannot be met on metallic switchboard. (Refer TRUM Vol 4 Part 3 Electrical Design for Roadside Devices). TMR approval must be obtained before installation of Pillar switchboard.

EQUIPMENT DETAIL (ONLY)
REFER DETAIL 4 FOR TYPICAL LAYOUT

⚠ INSTALLATION OF CONDUITS AND PITS IS THE RESPONSIBILITY OF THE LICENSED ELECTRICAL CONTRACTOR



1. (a) Electrical switchboards shall wherever possible be located adjacent to the property boundary with the door facing the roadway.
- (b) Where electrical switchboards are situated within the road reserve. An assessment in accordance with the provisions of RPDM (2nd Edition) Volume 3 Part 6 must be carried out to determine whether protection (i.e. by safety barrier) is required.
2. (a) Ensure there are no underground services in the vicinity prior to installing earth electrode.
- (b) Earth pits shall be minimum of 3m apart.
- (c) The earth electrode must be driven no less than 1300mm vertically into the ground, leaving a minimum 150mm exposed length of the electrode in the base of the pit.
- (d) Earth rods are not to be cut under any circumstances. In difficult soils, dig out the appropriate P3 pit size, auger a 75mm hole vertically to 1300mm, install the earth electrode in the centre of the hole, fill the auger hole with LSI RESLO or equivalent, then install the pit over the earth electrode.
- (e) Only one earth electrode connected to one main earth conductor permitted in one earth pit.
- (f) For existing no.7 pit and pits of greater depth, a 1.8m earth stake is to be used, where it is not viable to install a separate adjacent dedicated earth P3 pit with a new 1.5m earth stake.
- (g) Attach a permanent label to the main earthing conductor at the connection to the earth electrode stating: "WARNING: MAIN ELECTRICAL EARTHING CONDUCTOR – DO NOT DISCONNECT"
3. The URD pillar and electrical components details shall comply with MRTS228 and MRTS256.
4. Enclose connectors, item (419), and cable tie, item (410), in junction box for installation in the field.
5. Pillar base foundation shall be stabilised sand at 20:1 Sand:Cement ratio by weight.
6. Attach a permanent label in the switchboard stating: "EARTH ELECTRODE IN ADJACENT EARTH PIT"
7. Dimensions are in millimetres unless shown otherwise.



Traffic and Road Use Management Manual (TRUM)
Road Planning and Design Manual (RPDM) 2nd Edition Volume 3

Departmental Standard Drawings:

1149	Traffic Signals/Road Lighting/ITS – Installation of Underground Electrical and Communications Conduit
1327	Traffic Signals/Road Lighting – Mains Connections
1623	Road Lighting – Switchboard Typical Layout and Circuit Diagram MEN System
1676	Road lighting – Switchboard Typical Pillar Layout
1699	Traffic Signals/Road Lighting/ITS – Parts List indicated as (XXX)

MRTS91	Conduits and Pits
MRTS92	Traffic Signal and Road Lighting Footings
MRTS210	Provision of Mains Power
MRTS228	Electrical Switchboards
MRTS256	Power Cables

AS/NZS 3000 Electrical Installations (Wiring Rules)

Department of Transport and Main Roads	 	
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SWITCHBOARD	A3 Not to Scale	Standard Drawing No
PILLAR MOUNTED		1430
SHEET 1 OF 2	Date	05/2026
	