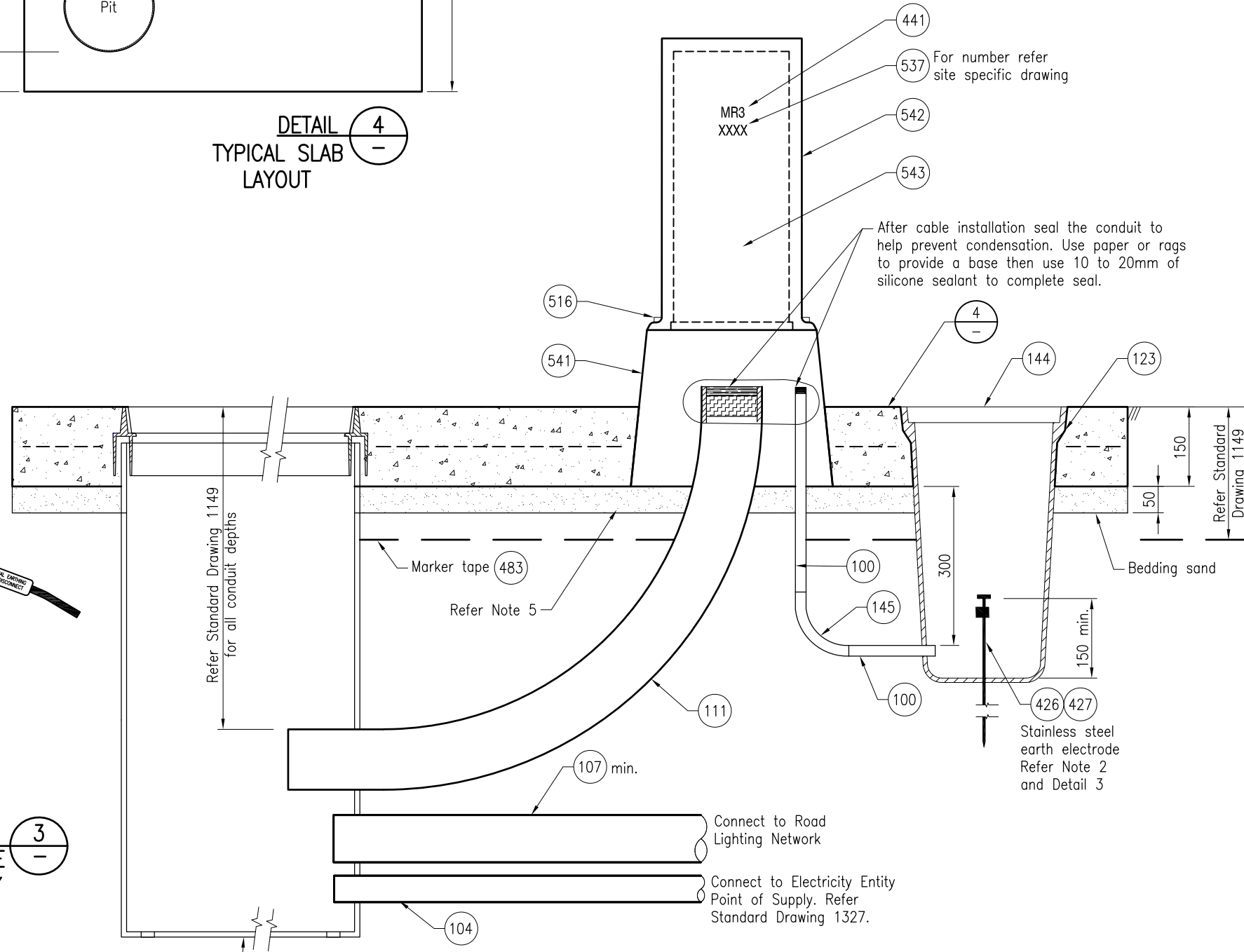


DETAIL 4
TYPICAL SLAB LAYOUT

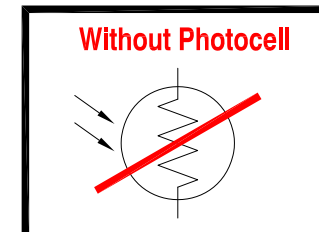


DETAIL 3
EARTH STAKE, CABLE & BLOCK ASSEMBLY
N.T.S

EQUIPMENT DETAIL (ONLY)
REFER DETAIL 4 FOR TYPICAL LAYOUT

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.

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



NOTES:

- (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.
- (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"
- The URD pillar and electrical components details shall comply with MRTS228 and MRTS256.
- Enclose connectors, item (419), and cable tie, item (410), in junction box for installation in the field.
- Pillar base foundation shall be stabilised sand at 20:1 Sand:Cement ratio by weight.
- Attach a permanent label in the switchboard stating: "EARTH ELECTRODE IN ADJACENT EARTH PIT"
- Dimensions are in millimetres unless shown otherwise.

ASSOCIATED DEPARTMENTAL DOCUMENTS:

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

REFERENCED DOCUMENTS:

- 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)

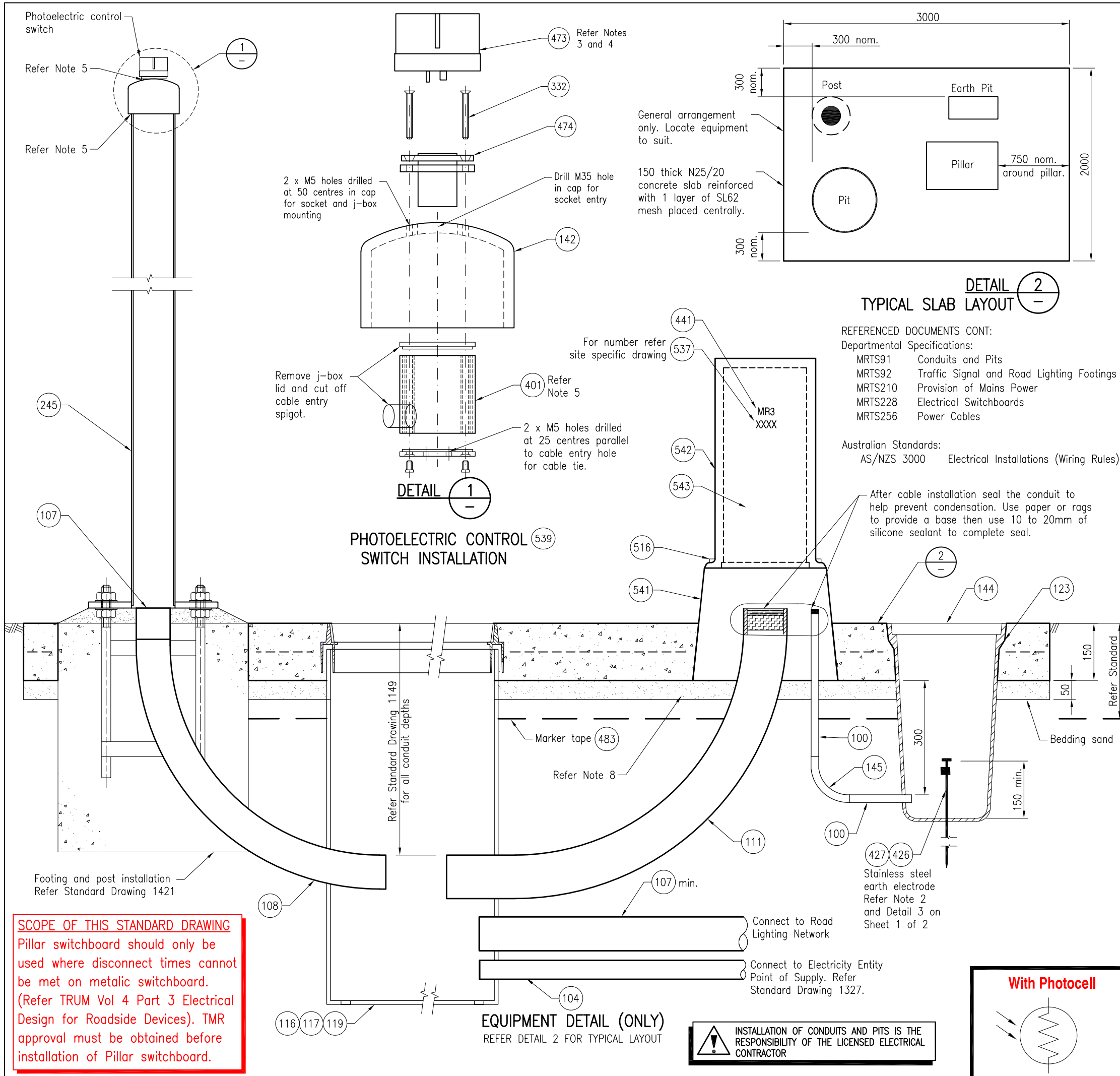
Departmental Specifications:

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

Australian Standards:

- AS/NZS 3000 Electrical Installations (Wiring Rules)

Department of Transport and Main Roads			
ROAD LIGHTING			
SWITCHBOARD		A3	Standard Drawing No
PILLAR MOUNTED		Not to Scale	1430
SHEET 1 OF 2			Date 7/2024



- NOTES:**
- (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.
 - (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"
 - The URD pillar, photoelectric control switch and socket and electrical component shall comply with MRTS228 and MRTS256.
 - Photoelectric control switch and socket to face south.
 - Seal between the photoelectric control switch socket and the pressure cap and between the pressure cap and the traffic signal post with silicone sealant.
 - Enclose connectors, item (419), and cable tie, item (410), in junction box for installation in the field.
 - Install cable (034) between photocell and switchboard.
 - Pillar base foundation shall be stabilised sand at 20:1 Sand:Cement ratio by weight.
 - Attach a permanent label in the switchboard stating: "EARTH ELECTRODE IN ADJACENT EARTH PIT"
 - Dimensions are in millimetres unless shown otherwise.

REFERENCED DOCUMENTS CONT:

Departmental Specifications:

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

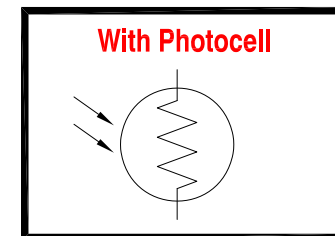
Australian Standards:

- AS/NZS 3000 Electrical Installations (Wiring Rules)

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.

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



Department of Transport and Main Roads		 <small>© The State of Queensland (Department of Transport and Main Roads) 2024 https://creativecommons.org/licenses/by/4.0/</small>	
ROAD LIGHTING			
SWITCHBOARD PILLAR MOUNTED		A3	Standard Drawing No
SHEET 2 OF 2		Not to Scale	1430
			Date 7/2024