

# Wastewater Reticulation System Colours and Markings - SOP

## 1. PURPOSE

- 1.1. To clearly signpost, by Marker Plate and/or Marker Post, Shoalhaven Water's Wastewater reticulation system infrastructure (REMS pipelines, Rising Mains, manholes, scour valves, stop valves, air valves, patch lined and fully re-lined sewers etc) for easier identification in the field.

## 2. RELATED DOCUMENTS

- 2.1. P12 Managing Plant
- 2.2. P09 Safety Training
- 2.3. P10 Risk Management
- 2.4. P28 Energy Isolation
- 2.5. Relevant SWI's

## 3. RESOURCES REQUIRED

- 3.1. Nil

## 4. DESCRIPTION

### 4.1. MARKERS

#### 4.1.1. Size

- (a) Valve Pits and Manholes - To be made of 1.5mm thick Aluminium plate 275mm x 75mm, to be fixed to Marker Post or any close permanent structure (fence, building etc)
- (b) Manhole Lids (Heavy Duty) – 1.5mm thick Aluminium plate with the dimensions; 100mm x 100mm to be fixed on manhole lid with construction adhesive
- (c) Pipelines (Rising Mains, Transfer mains, REMS etc) - 1.5mm thick Aluminium plate 275mm x 75mm, to be fixed to Marker Post or any close permanent structure (fence, building etc)
- (d) Pipeline Bends (Rising Mains, Transfer mains, REMS etc) – 1.5mm thick Aluminium plate 275mm x 75mm (see Diagram 1) to be fixed to Marker Post or any close permanent structure (fence, building etc) as well as a precast concrete Besa-block located directly above the bend with the direction of the main etched into it.
- (e) Relined Sewers - Relined sewers to be marked using 5mm Fluted Polyethylene Sign (see diagram 6) placed under the manhole lid. Sign is 660mm in diameter with a 300mm hole in the centre.

#### **4.1.2. Colour**

- (a) Valve Pits and Manholes – White background with Olive Green (G25 to AS 2700) lettering to indicate a manhole (MH) or the type of valve eg. Scour Valve (SCV) or Stop Valve (SV) or Air Valve (AV) – see diagram 1
- (b) Manhole Lids (Heavy Duty) - Orange (X 15 to AS 2700) with Olive Green (G25 to AS 2700) lettering indicating Heavy Duty - HD – see Diagram 7
- (c) Pipelines (except REMS) – White background with Olive Green (G25 to AS 2700) lettering - see Diagram 2
- (d) Pipeline Bends (except REMS) – White background with Olive Green (G25 to AS 2700) lettering to indicate type of main eg. Sewer Rising Main (SRM - see Diagram 3)
- (e) REMS Pipelines – Cyclamen (P 22 to AS 2700) background with black lettering (RWM – see diagram 4)
- (f) REMS Bends - Cyclamen (P 22 to AS 2700) background with black lettering (RWM - see diagram 5)
- (g) Relined Sewers – Fluted sign to be Yellow with Red writing (see diagram 6)

#### **4.1.3. Additional Information**

- (a) Stamp additional information as required (off set, depth and angle of bend) on the marker plate using a set of metal punches

#### **4.1.4. Alignment**

- (a) Where possible markers should be positioned so as to indicate the true alignment of the main. If this is not possible the marker should be clearly stamped with an accurate offset distance.

#### **4.1.5. Fixing**

- (a) To be screwed to posts using 4 x 8g non-corrosive screws (or blind rivets) positioned towards the top of the post
- (b) Non-corrosive screws or rivets to be used to affix to fences or structures at a minimum height of 1 metre

### **4.2. MARKER POSTS**

#### **4.2.1. Size/Type**

- (a) Posts to be Galvanised RHS Tube 75mm x 75mm
- (b) 1.5 metres in length
- (c) Capped on top

#### **4.2.2. Colour**

- (a) Posts (Except Rems) to be painted Olive Green (G25 to AS 2700)
- (b) Rems to be painted Cyclamen (P22 to AS 2700)

**4.2.3. Installation**

- (a) Posts are to be concreted in place in a hole 150mm in diameter (min) and 600mm in depth
- (b) Posts to have a 100mm layer of concrete underneath them
- (c) Posts should stand 1m above existing surface level (known final RL)

**4.2.4. Spacing**

- (a) Spacing of marker Posts should be determined by line of sight (meaning that every marker Post should be able to be seen from the one before and also the one after it, especially in the case of Rising Mains)

**4.3. NOTES**

- 4.3.1. Owners are to be notified before any work is undertaken on private property and all services to be identified before any excavation work takes place.
- 4.3.2. All Manholes, Pipelines, Pits and Rising Main bends to be identified using the GPS system.
- 4.3.3. Any proposed changes to the above will have to be approved by Shoalhaven Water

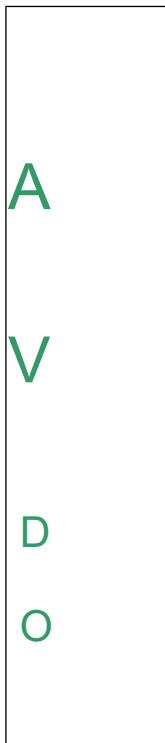


Diagram 1



Diagram 2

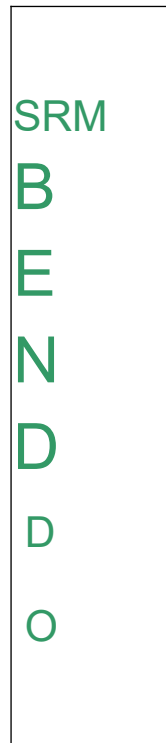


Diagram 3

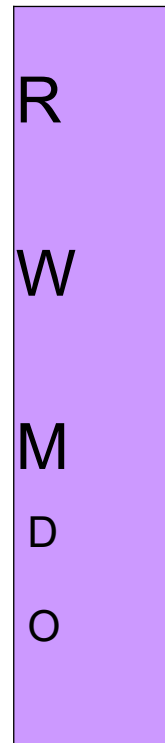


Diagram 4

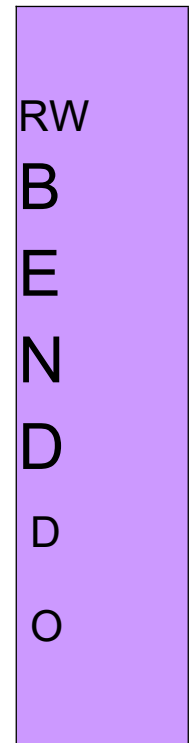


Diagram 5

Diagram 6



Diagram 7

