

STANDARD OPERATING GUIDELINES FOR TRENCH REINSTATEMENTS

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	JOHAN SNYMAN		
		Date:	
Approved		Date:	
	TRANSPORT - DALENE CAMPBEL		
		Date:	
	WATER SERVICES - MICHAEL WEBSTER		

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1 INTRODUCTION

Currently Water Services is responsible for the repair of all damages to Transport infrastructure caused by the sporadic failure of their services. Where Transport depots have the capacity they have assisted Water Services with trench reinstatements through internal resources. There are however a number of areas where the existing depot capacity is insufficient which demanded that Water Services do the repairs with external contractors managed by their staff. In collaboration with Finance-, Water Services- and Transport directorates, it was agreed that the most appropriate option would be that Transport perform trench reinstatements on behalf of Water Services and that additional project management capacity will be provided to Transport districts to enable them to manage the function through external contractors.

2 STAKEHOLDER DEPARTMENTS

TRANSPORT: Road Infrastructure Management (RIM)

WATER SERVICES : Water & Sanitation (WS)

3 OBJECTIVE

The objective of the agreement is to:

- Define the roles and responsibilities between the Transport- and Water Services directorates for trench reinstatements resulting from damage by water or sewer infrastructure failures in the road reserve.
- Define the works that is included in the agreement.
- Define the process that needs to be followed to ensure that the damage is repaired.
- Provide a brief overview of the process and procedures
- Define the cost apportionment of the works when one directorate perform work for another directorate
- Define the interim process for backlog eradication.

4 ROLES & RESPONSIBILITIES

Where any Water Services infrastructure cause damage to the roadway or associated infrastructure Water Services will be responsible to:

- Safeguard the site.
- Remove all unsuitable and wet materials.
- Repair their infrastructure causing the damage.
- Backfill all selected bedding, blanket and fill layers to correct specification and standards and perform all control tests.
- Backfill the structural pavement layers with temporary materials to final road level.
- Clean site and remove all rubble and unwanted materials.
- Create a notification for Transport to perform relevant final trench reinstatement.
- Provide a cost centre for Transport against which the reinstatement work will be performed.

When a notification with the test results and cost centre is provided, Transport will be responsible to:

- Safeguard the site.
- Remove temporary pavement materials.
- Prepare and reinstate pavement layers to final level.
- Prepare and place final asphalt layer.
- Perform all control testing.
- Reinstate any line markings.
- Complete the administrative and costing procedure.
- Clean site and remove all rubble and unwanted materials.
- Close the notification.

5 CLASSIFICATION OF WORKS

There are a number services in the road reserve and many services are generally placed in unsurfaced areas. Services reinstatements under surfaced roads and sidewalks will generally cause disruption to the public and must be addressed as part of the agreement.

Services reinstatements in unmade/landscaped verges and private access will not form part of this agreement and must be attended to by the relevant services department.

The aim of the agreement is to address reactive maintenance activities causing a disruption to the public roadway and sidewalks. With planned maintenance and capital works programs allowance must be made by the services department to reinstate surfaced areas as part of the project.

Reinstatement activities included in agreement

- Water main bursts in surfaced roadways and sidewalks.
- Sewer collapses in surfaced roadways.
- Sewer manhole collapses in surfaced roadways.
- Valve/Hydrant repairs in surfaced roadways and sidewalks.

Activities not included in agreement

- Watermain bursts in private driveways
- Watermain bursts in verges and landscaped areas
- Waterleading bursts in verges and private driveways
- Scheduled pipe replacement programs
- Scheduled valve/hydrant maintenance programs
- Meter replacement programs
- Capital works programs

All work performed under any of these classifications must comply with the Design, Technical standard and specifications of Transport and relevant Engineering standards.

6 STANDARD SPECIFICATION AND DOCUMENTS

- a) Transport - Minimum Standards for Engineering Services.
- b) SANS 1200: Standardized Specification for Civil Engineering Construction.
- c) TMH 17: Technical Methods for Highways, Sampling Methods for Roads Construction Materials.
- d) South African Road Traffic Signs Manual (SARTSM)
- e) Water Services – Minimum Standards for Engineering Services.

7 PROCESS GUIDELINE

When a notification or request for a services failure repair is received from any source the following process must be followed:

- 7.1 WS department must inspect the defect and where no notification was created, create a notification for the relevant WS department to repair the failure. (i.e. repair watermain/sewer pipe/manhole/valve/hydrant/etc.)
- 7.2 WS must safeguard the works and ensure that sufficient warning signs and barricading is put in place to ensure public safety at all times for the duration of the works.
- 7.3 WS must remove all unwanted/saturated materials and repair their service to the relevant specification. On completion of the repairs they must verify that the repairs were done to standard and will not require subsequent works.
- 7.4 WS must backfill the excavations with a selected subgrade material and compact the backfilling in layers not exceeding 300mm up to sub base/basecourse level. (SSG layer must be free of any rubble and unwanted materials. (G7) and where existing materials have been saturated it must be replaced with a dry SSG material)
- 7.5 WS must then perform a control compaction test on the backfill material and record the compaction result. Control test to be performed and results of compaction provided in writing. (Bedding/Blanket/Fill layers must be compacted to 100% Mod AASHTO)
- 7.6 WS must then place and compact a temporary subbase/basecourse layer with a G5 material and compact materials in layers not exceeding 300mm up to the final surfacing level. (SB/BC layer must be compacted to 95% Mod AASHTO)
- 7.7 WS must then remove all rubble and unwanted material and clean the site. All sand and materials washed into the road and the stormwater system must be removed and where sewer spills occurred the affected areas must be cleaned and sanitised.
- 7.8 WS must then create a notification with the exact location requesting final reinstatement. The notification must include the exact location of the works and the extent of the reinstatement required by Transport.
- 7.9 WS must provide the control test results and appropriate cost centre against which the reinstatement cost will be allocated with the notification.
- 7.10 Once the notification, control test results and cost centre is provided the site is handed over to Transport for further completion of the works.
- 7.11 Transport must then safeguard the works and ensure that sufficient warning signs and barricading is put in place to ensure public safety at all times for the duration of the works.
- 7.12 Transport must then remove the temporary subbase/basecourse layer and neatly cut back the asphalt layer to form a square patch.
- 7.13 Transport must repair any damage to kerbs and associated structures.
- 7.14 Transport must then place and compact the final subbase/basecourse layers with a G4/G2 material and compact materials. (SB/BC layers must be compacted to 95/98% Mod AASHTO)
- 7.15 Transport must then apply a prime and tack coat to the basecourse.
- 7.16 Transport must then place and compact the final asphalt layer. (Asphalt to be compacted to 100% Mod AASHTO)
- 7.17 Transport must then seal all joints of the patch with an appropriate crack sealer.
- 7.18 Transport must repaint any lines affected by repairs.
- 7.19 Transport must ensure that accurate record of all material/plant and labour is kept throughout and ensure that all costs are allocated to the appropriate department's cost centre.
- 7.20 On completion of the works Transport must close the notification.

8. COST ALLOCATION

It is anticipated that Transport will perform the function on behalf of water services using external service providers. The project management of the external service providers will be performed by RIM districts and nine additional SPO's will be allocated to RIM to enable them to perform the function. There are a small number of depots who are still performing ad hoc reinstatements for Water Services and where capacity exist they can continue to do so provided own functions are not compromised. The choice of which resource will be utilised to perform this function remains the discretion of the Transport directorate.

All cost to perform the function must be allocated to the Water Services department. All Council policies, financial regulations and legislation must be adhered to at all times.

- 8.1 In line with section 7.8 & 7.9 WS must create a notification and provide the required cost centre/vote number to Transport prior to any commencement of the reinstatement by Transport.
- 8.2 All cost to perform the reinstatements for Water services will be allocated to the cost centre/vote number provided and no work can commence prior to completion of section 7.7-7.9 by Water Services.
- 8.2 where internal resources are utilised, Transport must ensure that all plant, materials and labour cost are recorded accurately and allocated to the WS cost centre provided.
- 8.3 Where external resources are utilised, the approved term tender rates will be used to determine the recoverable cost and the staff cost of performing the project management must be included in the cost allocation.

9. BACKLOGS

It must be noticed that Transport must concentrate their efforts and resources on eradicating their own pothole backlogs and current capacities will be allocated to the various Transport Service delivery programs endorsed by EMT and portfolio committees.

Water Services will be responsible for eradicating the backlog built up before 3 February 2021 and the new Transport term tenders will be made available to Water Services to perform the works. Transport districts/depots will assist Water Services with their backlog program. The procedure for eradicating the current backlogs are recorded as follow:

- WS will allocate an appropriate technical staff member to each transport district where backlog programs needs to be instituted.
- Transport will allocate an appropriate technical staff member (PM) assisted by the Infrastructure Manager to each district where backlog programs need to be instituted.
- WS will identify and compile a works package for each individual works project.
- WS will arrange the site meeting with the contractor and in conjunction with the Transport PM attend the site inspection with the contractor.
- WS will then create the required purchase orders for the contractor and once approved by SCM provide the Transport PM with the PO.
- Transport PM will then coordinate the implementation and ensure that the Contractor execute the works to standard.
- Transport PM will verify the completion of the works and provide the WS project technician with a notification to effect payment to the Contractor.

Where the backlog extent are of a smaller nature and by agreement between directorates Transport can opt to execute the works projects completely or use their depot capacity to execute the works at their discretion.

10. INTERIM ARRANGEMENT

The new agreement will become effective as soon as the relevant Executive Directors has signed the agreement. In line with the directive from the Transport ED dated 3 & 5 February 2021 the effective date is recorded as 3 February 2021.

The current procedure between departments are recorded as follow:

- Water Services are responsible for all trench reinstatements up to the effective date.
- Transport will be responsible for all trench reinstatements from the effective date.
- Transport will assist Water Services with eradicating the backlogs and preference will be given to incomplete reinstatements in high order roads which could affect the public mobility.
- Transport will make available their new term tenders to WS which will enable them to perform trench reinstatements with external resources.
- Transport will assist WS with technical support to ensure the required standards are met and any technical interpretation of the standards and tenders.

The new agreement can be reviewed annually with both parties' consent as operational circumstances dictate.

11. PUBLIC LIABILITY

Water services will be responsible for public safety on the site until the complete notification for final reinstatement with supporting documents have been logged for Transport. Any public liability claims resulting from works up to this point will have to be attended to by water services.

Transport will take over the public safety once a complete notification is logged for Transport. Any public liability claims resulting from works thereafter will have to be attended to by Transport.

12. NOTE

- a) The above standard operating guideline aims to provide a clear process flow and defines the roles and responsibilities of each department.
- b) Irrespective of process Council's policies and legislation must be adhered to at all times.
- c) Where any ambiguity exist, policy and legislation will take precedence.
- d) Compliance with Council's SCM policy and MFMA legislation must be adhered to at all times and will take precedence over the SOG.