



PYP/W1/07/05/02/42790

Ms M. Straeuli
 Acer (Africa) Environmental Consultants
 PO Box 503
MTUNZINI
 3867

Dear Ms Straeuli

PROPOSED CAPACITY IMPROVEMENTS TO NATIONAL ROUTE 3 (N3) FROM HAMMERSDALE TO PIETERMARITZBURG

Your Background Information Document dated 25 September 2018 has reference.

Transnet Pipelines, a division of Transnet SOC Limited, has no objection in principle to the proposed capacity improvements to the N3 Freeway crossing the Ø609,6mm across Umlaas Road in the vicinity of Dardanelles Interchange and across and parallel to the N3 at Lynfield Interchange furthermore crossing the Ø323,8mm pipeline across the N3 south of the Sanctuary Interchange between Cato Ridge and Pietermaritzburg as indicated on the Hammersdale - Pietermaritzburg Locality and Project/Site Layout Plans, subject to compliance with our standard crossing conditions and requirements (attached).

If the proposed capacity improvements of the N3 will entail lane additions, pipeline protection would have to be extended over the additional lanes. At the Lynfield Park Interchange our NMPP pipeline runs parallel to the N3 for quite a distance as depicted on the Google Earth images and that will require considerable attention to detail. Culvert boxes constructed around the pipeline are preferable form of protection as indicated by the attached typical culvert drawing.

This authority is valid for thirty six (36) months from the date of this letter. If this proposal has not been actioned within the specified period, an extension of time must be requested 2 months before the validity period expires.

CONDITIONS

Prior to commencement of the work it is required that a representative of Transnet Pipelines be present to indicate the position of the pipeline(s) and to undertake any work on Transnet's pipeline(s) that may be necessary.

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Directors: Dr PS Molefe (Chairperson) SI Gama* (Group Chief Executive) UN Fikelepi RJ Ganda Prof EC Kieswetter ME Letlape DC Matshoga V McMEnamin Adv www.transnet.net
 OM Motaung Dr FS Mufamadi AP Ramabufana GT Ramphaka LL von Zeuner
 MS Mahomed* (Acting Chief Financial Officer)
 *Executive

Group Company Secretary: NE Khumalo

In this connection our **Servitude Supervisor, Ms Judith Maluleka must be contacted at (031) 361 4510 or 083 446 0535 (& Mr Pieter Venter at 083 284 0962) at least 14 days** before the date on which you wish to commence the work in the vicinity of the pipeline.

Arrangements will also be made to visit the site periodically whilst the work is in progress. Should the work be undertaken without Transnet Pipelines' representative being contacted as mentioned above, Transnet Pipelines reserves the right to request that you expose the pipeline at your cost in order that an examination can be made for possible damage.

The attached standard crossing conditions and requirements for typical culvert conditions, underground services, surface improvements and fencing/boundary walls must be complied with.

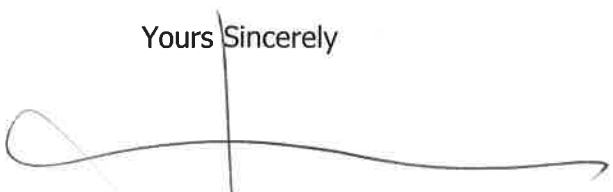
An Excavation Permit shall be issued by Transnet Pipelines' Servitude Supervisor to the competent person of the applicant's Contractor, should excavation work be required within or in close proximity of Transnet Pipelines' servitudes.

Heavy plant or mechanical driven equipment (for example, excavator) shall not be used in the pipeline servitudes. All excavations must be done by hand. Hand-held compactors shall be used in the servitude area.

It is imperative that our representative must be contacted before work commencement to determine our pipeline levels and also assist you with our pipeline related information. It is also important that our representative must witness and approve all the crossings/works. Please be informed that in the event of damage of our pipeline/s, repair costs will be to your account.

On completion of the work you are required to return a copy of this letter to our office, duly endorsed and signed by your site representative as well as Transnet Pipelines' representative that the work was satisfactorily completed and conditions adhered to.

Yours Sincerely



Thami Hadebe (Mr)
Servitude Management

Date: 30 September 2018

SIGNATURE

DATE

APPLICANT :.....

.....

SERVITUDE SUPERVISOR :.....

.....



Box Culvert Conditions

1. Pipelines shall be protected by a culvert for the full width of the service that crosses the pipeline servitudes, for example, road, railway, heavy load placed permanently over the pipeline servitudes, etc. The culvert shall be constructed around the pipelines. The design and construction of the culvert shall be undertaken by yourselves and a print of the final layout submitted to this office for approval. The structural design approval of the culvert will be your responsibility. One print of drawing number PL 1112876 showing a typical culvert is enclosed for your information.
2. The pipelines shall be double wrapped for the full length of the culvert plus 3m on either side. Transnet Pipelines will supply the primer and wrapping tape and will arrange to examine, prime and double wrap the pipelines where necessary.
3. The cover over the top of the pipelines shall not be less than 1m.
4. A concrete slab of minimum 150mm thickness with a concrete strength of 30MPa strength can also be substituted for a box culvert under exceptional circumstances. The clearance between the underside of the concrete slab and the top of the pipeline/s shall not be less than 500mm. It shall be reinforced with a 1,5 – 2mm wire-mesh. The slab shall span a minimum of 2m (1m either side of the pipeline centerline) by the width of the road. The only disadvantage for the concrete slab protection is accessibility to the pipelines. Access to the pipelines disrupts the traffic flow for example, in the case of a road or railway.
5. Excavation and backfilling within the pipeline servitudes will be undertaken by you. Such excavation and backfilling shall be undertaken by hand without the use of mechanical or power equipment, for example, excavator. Where exposed the pipelines shall not be left unsupported for lengths greater than 10m.
6. All excavation work to be carried out within Transnet Pipelines' pipeline servitudes will comply with the OHS Act (Act 85 of 1993) and SABS 1200D: Earthworks specification.
7. In backfilling the excavation the applicant shall provide a minimum of 150mm of selected fine padding sand or fine non-cohesive soil around the pipelines where they are exposed. The padding sand must be properly compacted, in layers, by hand. The padding sand must meet with the approval of Transnet Pipelines' representative on site. The PH value of the padding sand must not be less than 5,5. The P.I. (Plasticity Index) of the padding sand must not exceed 6. The diameter of the largest particle of sand must not be greater than 2mm. Prior to any delivery to site an independent lab test of the sand will be required and any number of tests may be conducted.
8. This padding sand must meet with the approval of Transnet Pipelines' representative on site. The pH value must not be less than 5,5. The bedding and padding material must be fine sand or fine non-cohesive soil, free from

stone, gravel, lumps and which does not cake or form lumps when drying out. The P.I. (Plasticity Index) must not exceed 6. The diameter of the largest particle of sand must not be greater than 2mm. Prior to any delivery to site an independent lab test will be required of the sand to be delivered on site and any number of tests may be conducted.

Examples of padding sand which have been used in the past, amongst others, include the following:

- i) plaster sand
- ii) washed Umgeni River sand (Kwa Zulu-Natal)
- iii) suitably leached mine sand (Gauteng)

It should, however, be noted that crusher dust is not acceptable. No backfilling may be carried out unless authorised by Transnet Pipelines' representative.

9. The pipeline shall not be left exposed unnecessarily
10. The new wrapping shall not be left exposed to the sunrays for more than three days.
11. All costs for the crossing, including labour and material shall be to your account.
12. **NO BLASTING IS ALLOWED WITHIN THE PIPELINE SERVITUDE.** Application to carry out blasting within 500m of a pipeline must be made to this office in writing in terms of paragraph 17.1, chapter 10 of the regulations embodied in the Explosives Act and Regulations (Act 26 of 1956) as amended.
13. Transnet shall not be liable for any damage, including consequential loss or damage whether direct or indirect, which might be caused to the applicant's service during normal operations, routine maintenance and repairs to the pipeline/s.
14. a) The APPLICANT shall and hereby does indemnify TRANSNET against -
 - i) any damage to TRANSNET's own property, whether movable or immovable, including any consequential damage directly flowing from physical damage to any such property;
 - ii) liability in respect of any damage to the property, whether movable or immovable of the APPLICANT or third parties;
 - iii) liability in respect of the death of or injury to any employees of TRANSNET or the APPLICANT or any third party;
 - iv) any legal costs or expenses reasonably incurred in connection with claims or actions arising out of any of the foregoing;whenever such damage, injury or death is due to or arises out of the construction, installation or existence of the WORKS or any portion thereof, or the use thereof by the APPLICANT, provided that the APPLICANT shall incur no liability for any damage, injury or death which is due to wilful misconduct or gross negligence on the part of TRANSNET or any of its employees.

- b) TRANSNET shall notify the APPLICANT forthwith of the occurrence of any damage or the receipt of any claim or damage for or against which the APPLICANT is prima facie liable to indemnify TRANSNET in terms of paragraph (a) of the clause and shall, in respect of such claim or demand abide by the directions of the APPLICANT as to whether and on what terms it shall be settled, compromised or contested, it being understood and agreed that whatever action may be taken by TRANSNET pursuant to such directions of the APPLICANT shall be at the APPLICANT's risk and expense.
15. These conditions only apply to construction of the applicant's service across Transnet's pipeline servitude/s and do not grant you the right to do any excavations in future for repair or maintenance purposes. Should such future excavations within the servitude area/s be necessary permission will have to be requested timeously from this office. In cases of emergency, this office or Transnet Pipelines' representative as mentioned above, may be contacted telephonically for such permission.
16. Prior to commencement of the work it is required that a representative of Transnet Pipelines be present to indicate the position of the pipeline and to undertake any work on Transnet pipeline that may be necessary. In this connection our **Servitude Supervisor, Ms Judith Maluleka can be contacted at (031) 361 4510 or 083 446 0535** at least 14 days before the date on which you wish to commence your work or investigation in the vicinity of the pipeline. Arrangements will also be made to visit the site whilst the work is in progress.
17. The cost for Transnet Pipelines' portion of the work (double wrapping of the pipeline) would be approximately ±R1, 800.00 per meter of pipeline which includes VAT (VAT REG: 4720 103177). The payment is required prior to work proceeding.
18. No work may be undertaken within or in the immediate vicinity of Transnet's pipeline servitudes until permission to proceed has been granted.
19. On completion of the work you will be required to return a copy of this letter to our office, duly endorsed and signed by your site representative as well as Transnet Pipelines' site representative that the work was satisfactorily adhered to.



**TRANSNET PIPELINES STANDARD CROSSING CONDITIONS AND
REQUIREMENTS FOR SURFACE IMPROVEMENTS
(DRIVEWAYS, PAVING, PARKING AREAS)**

1. No cover is to be removed nor more than 2m added over the pipeline servitude/servitudes. Cover over the top of the pipeline/s shall not be less than 1 metre.
2. No permanent structures other than the proposed driveway/paving/ parking area shall be constructed across or within the servitude/s area.
3. **NO BLASTING IS ALLOWED WITHIN THE PIPELINE SERVITUDE.** Application to carry out blasting within 500m of the pipeline must be made to this office in writing in terms of paragraph 17.1 chapter 10 of the regulations embodied in the Explosives Act and Regulations (Act 26 of 1956) as amended.
4. No mechanical driven equipment may be used within the area of the pipeline servitude/s unless otherwise authorised by this office.
5. Should authorisation be granted that work may proceed, Transnet Pipelines' representative must be contacted prior to any work being undertaken within Transnet's pipeline servitude/servitudes. Details of contact person will be furnished when application is made to carry out work.
6. Transnet shall not be liable for any damage, including consequential loss or damage whether direct or indirect which might be caused to the applicant's service during normal operations, routine maintenance and repairs to the pipeline.
7. (a) The APPLICANT shall and hereby does indemnify Transnet against;
 - (i) any damage to TRANSNET'S own property, whether movable or immovable, including any consequential damage directly flowing from physical damage to any such property;
 - (ii) liability in respect of any damage to the property, whether movable or immovable of the APPLICANT or third parties;
 - (iii) liability in respect of the death of or injury to any employees of Transnet or the APPLICANT or any third party;
 - (iv) any legal costs or expenses reasonably incurred in connection with claims or actions arising out of any of the foregoing;

whenever such damage, injury or death is due to or arises out of the construction, installation or existence of the WORK or any portion thereof, or the use thereof by the APPLICANT, provided that the APPLICANT shall incur no liability for any damage, injury or death which is due to wilful misconduct or gross negligence on the part of Transnet of any of its employees.

- (b) TRANSNET shall notify the APPLICANT forthwith of the occurrence of any damage or the receipt of any claim or damage for or against which the APPLICANT is prima facie

liable to indemnify Transnet in terms of paragraph (a) of this clause and shall, in respect of such claim or demand abide by the directions of the APPLICANT as to whether and on what terms it shall be settled, compromised or contested, it being understood and agreed that whatever action may be taken by TRANSNET pursuant to such directions of the APPLICANT shall be at the APPLICANTS risk and expense.

ANY UNAUTHORISED ACTIVITIES WITHIN THE PIPELINE SERVITUDE IS STRICTLY PROHIBITED. APPLICATION TO CARRY OUT ANY WORK WHATSOEVER, WITHIN A TRANSNET PIPELINE SERVITUDE, MUST BE MADE, TOGETHER WITH DETAILED PLANS IN TRIPLICATE, TO

Servitude Manager
Transnet Pipelines
P O Box 3113
Durban
4000



TRANSNET PIPELINES STANDARD CROSSING CONDITIONS AND REQUIREMENTS FOR FENCING/BOUNDARY WALLS

1. No posts/foundations shall be placed directly on top of the pipeline/s. Ideally, such posts/foundations shall be placed on either side of the underground pipeline/s in order that the centre of the line/s of the pipeline/s shall, after construction be located centrally between the posts/foundations.
2. The depth of the posts/foundations shall not exceed 450mm.
3. No mechanical driven equipment may be used within the area of the pipeline servitude/s unless otherwise authorised by this office.
4. **NO BLASTING IS ALLOWED WITHIN THE PIPELINE SERVITUDE.** Application to carry out blasting within 500m of the pipeline must be made to this office in writing in terms of paragraph 17.1 chapter 10 of the regulations embodied in the Explosives Act and Regulations (Act 26 of 1956) as amended.
5. Should authorisation be granted that work may proceed, Transnet Pipelines' representative must be contacted prior to any work being undertaken within Transnet's pipeline servitude/s. Details of contact person will be furnished when application is made to carry out work.
6. Transnet shall not be liable for any damage, including consequential loss or damage whether direct or indirect which might be caused to the applicant's service during normal operations, routine maintenance and repairs to the pipeline/s.
7. (a) The APPLICANT shall and hereby does indemnify TRANSNET against -
 - (i) any damage to TRANSNET'S own property, whether movable or immovable, including any consequential damage directly flowing from physical damage to any such property;
 - (ii) liability in respect of any damage to the property, whether movable or immovable of the APPLICANT or third parties;
 - (iii) liability in respect of the death of or injury to any employees of TRANSNET or the APPLICANT or any third party;
 - (iv) any legal costs or expenses reasonably incurred in connection with claims or actions arising out of any of the foregoing;

whenever such damage, injury or death is due to or arises out of the construction, installation or existence of the WORKS or any portion thereof, or the use thereof by the APPLICANT, provided that the APPLICANT shall incur no liability for any damage, injury or death which is due to wilful misconduct or gross negligence on the part of Transnet or any of its employees.

- (b) TRANSNET shall notify the APPLICANT forthwith of the occurrence of any damage or the receipt of any claim or damage for or against which the APPLICANT is prima facie liable to indemnify Transnet in terms of paragraph (a) of this clause and shall, in respect of such claim or demand abide by the directions of the APPLICANT as to whether and on what terms it shall be settled, compromised or contested, it being understood and agreed that whatever action may be taken by Transnet pursuant to such directions of the APPLICANT shall be at the APPLICANTS risk and expense.

ANY UNAUTHORISED ACTIVITIES WITHIN THE PIPELINE SERVITUDE IS STRICTLY PROHIBITED. APPLICATION TO CARRY OUT ANY WORK WHATSOEVER, WITHIN A TRANSNET PIPELINE SERVITUDE, MUST BE MADE, TOGETHER WITH DETAILED PLANS IN TRIPLICATE, TO:-
Servitude Manager

***Transnet Pipelines Standard Crossing Conditions and Requirements
For Underground Services (Cables, Pipes, etc.)***

1. The service/s shall cross below the pipeline/s with a minimum clearance of 500mm. This level must be maintained for a minimum distance of 3m on either side of the centre line of the pipeline/outermost pipelines.
2. Where the service/s run/s parallel to the pipeline/s it/they shall not encroach upon Transnet's pipeline servitude/s.
3. No manholes or any other permanent structure shall be erected within the pipeline servitude/s.
4. It is preferred that no joints in a service shall be situated within the pipeline servitude/s. Should this, however, not be possible the joints shall be placed such that they are equidistant from the centre line of the pipeline/outermost pipelines.
5. **NO BLASTING IS ALLOWED WITHIN A PIPELINE SERVITUDE.** Application to carry out blasting within 500m of a pipeline must be made to this office in writing in terms of paragraph 17.1, chapter 10 of the regulations embodied in the Explosives Act and Regulations (Act 26 of 1956) as amended.
6. Excavation and backfilling within the area of the pipeline servitude/s shall be undertaken by and at the applicant's cost. Such work must be undertaken by hand without the use of mechanical or power equipment.

All excavation work to be carried out within Transnet's pipeline servitude/s will comply with the OHS Act (Act 85 of 1993) and SABS 1200 D : Earthworks specification.

7. In backfilling the excavation the applicant shall provide a minimum of 150mm of selected soft padding around the pipeline/s where it/they was/were exposed. The padding must be properly compacted, in layers, by hand.

This padding sand must meet with the approval of Transnet's representative on site. It must have a pH value of 5,5 or higher and texture which will not cake when drying out. The diameter of the largest particle of sand must not be greater than 1,5mm.

Examples of padding sand which have been used in the past, amongst others, include the following:

- i) plaster sand
- ii) washed Umgeni River sand
- iii) suitably leached mine sand

It should, however, be noted that crusher dust is not acceptable
No backfilling may be carried out unless authorised by Transnet's representative.

8. The pipeline/s shall not be left exposed unnecessarily.
9. All fragile services such as PVC pipes, earthenware, pitch fibre pipes and cables laid within the pipeline servitude/s shall be protected with concrete or similar protective slabs laid over them for a distance of 3m on either side of the centre line of the pipeline/outermost pipelines.
10. In the interest of safety to the applicants service it is recommended that the route of his service at the point/s of crossing be indicated by 6 metres of hazard tape being placed 600 mm below the ground and/or that the actual point/s of crossing be indicated by 3 (three) permanent and clearly visible markers. These markers should be provided and maintained by and at the applicants' cost.
11. All steel pipes and cables crossing the pipeline/s shall be suitably wrapped or sheathed with an acceptable anti-electrolysis insulating covering for the full width of the pipeline servitude/s.

It is, however, recommended that in your own interest this protection be extended for a minimum distance of 30m on either side of Transnet's pipeline/s measured perpendicular to its axis/their axes.

All steel pipes 100mm diameter or larger must have cross bonding facilities installed. This means that the applicant will supply a test point connected to their pipe and a minimum of two red PVC insulated flexible test leads of 35mm² between the applicants test point and Transnet Pipelines test point.

Where pipelines run parallel to one another with a separation distance of 50m and less (refer to clause 2), test points will be installed where the pipelines converge and diverge. If the pipelines run parallel for longer distances, a cross bond test point will be installed every 500m.

This is to enable independent the monitoring of possible electrolytic interaction between pipeline/s.

All costs incurred will be to the applicant's account. Where applicable, quotations will be furnished on request.

13. Should authorisation be granted that work may proceed, Transnet's representative must be contacted prior to any work being undertaken within Transnet's pipeline servitude/s. Details of contact person will be furnished when application is made to carry out work.
14. Transnet shall not be liable for any damage, including consequential loss or damage whether direct or indirect which might be caused to the applicant's service during normal operations, routine maintenance and repairs to the pipeline/s.
15. a) The APPLICANT shall and hereby does indemnify TRANSNET against -
 - i) any damage to TRANSNET's own property, whether movable or immovable, including any consequential damage directly flowing from physical damage to any such property;
 - ii) liability in respect of any damage to the property, whether movable or immovable of the APPLICANT or third parties;
 - iii) liability in respect of the death of or injury to any employees of TRANSNET or the APPLICANT or any third party;
 - iv) any legal costs or expenses reasonably incurred in connection with claims or actions arising out of any of the foregoing;

whenever such damage, injury or death is due to or arises out of the construction, installation or existence of the WORKS or any portion thereof, or the use thereof by the APPLICANT, provided that the APPLICANT shall incur no liability for any damage, injury or death which is due to wilful misconduct or gross negligence on the part of TRANSNET or any of its employees.
- b) TRANSNET shall notify the APPLICANT forthwith of the occurrence of any damage or the receipt of any claim or damage for or against which the APPLICANT is prima facie liable to indemnify TRANSNET in terms of paragraph (a) of the clause and shall, in respect of such claim or demand abide by the directions of the APPLICANT as to whether and on what terms it shall be settled, compromised or contested, it being understood and agreed that whatever action may be taken by TRANSNET pursuant to such directions of the APPLICANT shall be at the APPLICANT's risk and expense.
16. These conditions only apply to construction of the applicant's service across Transnet's pipeline servitude/s and do not grant you the right to do any excavations in future for repair or maintenance purposes. Should such future excavations within the servitude area/s be necessary permission will have to be requested timeously from this office. In cases of emergency, this office or Transnet's representative as mentioned above, may be contacted telephonically for such permission.