

Construction Specification for Excavation of Track Allowance

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TS 2.20.01 SCOPE

This specification covers the requirements for the removal and disposal of the Toronto Transit Commission (TTC) street car track allowance including the foundation slab, if necessary.

TS 2.20.02 REFERENCES

This specification refers to the following standards, specifications or publications:

City of Toronto Standard Drawing

T-216.02-10 Streetcar Track Allowance Cross-Section

Ontario Provincial Standard Specifications

OPSS 180 General Specification for the Management of Excess Materials

TS 2.20.03 DEFINITIONS

For the purpose of this specification, the following definitions apply:

Excavation means the excavation of streetcar rails, ties and other associated materials such as rock, rubble, earth, granite setts, asphalt, pipes, concrete drains, and so on, encased in concrete.

Track Allowance means the area bounded by the outermost rails, plus the outer margins (560 ± mm) as shown in T-216.02-10.

Foundation means the concrete slab (typically 280 mm thick) that supports the track pavement and associated rail system.

TS 2.20.04 DESIGN AND SUBMISSION REQUIREMENTS – Not Used

TS 2.20.05 MATERIALS – Not Used

TS 2.20.06 EQUIPMENT – Not Used

TS 2.20.07 CONSTRUCTION

The work under this specification shall include the excavation and disposal of all materials within the existing track allowance from the existing ground elevation to the bottom of the existing streetcar ties or the top of the concrete slab foundation, if one exists. All material, including the wood ties; which may be creosoted, steel rails and steel ties, shall become the property of the Contractor and be disposed of off the site according to OPSS 180.

The Contractor shall provide the Contract Administrator with a release form for each disposal site signed by the owner of the site.

Care shall be taken to prevent damage to appurtenances and utilities, which may be within the track allowance. The Contractor shall make good, at the direction of the Contract Administrator, all damage caused during the course of the work, and return the work to its initial condition.

The Contractor shall excavate the existing foundation slab if it is in poor condition or cannot be separated from the upper concrete track pavement. Where the existing foundation slab is left behind, the Contractor shall sweep it clean and remove any granular material prior to placing the new ties.

The Contractor shall saw cut the existing pavement along the edge of the track allowance margin, but no further away than 150 mm. This is to provide space for the placement of full depth forms. Extreme care shall be taken on curved sections to ensure no over break exceeds 150 mm. In addition, the Contractor may be required to saw cut at other locations for the purpose of excavation. The Contractor shall saw cut track allowance at the excavation limits.

Care shall be taken to protect all adjacent pavement and rails to remain in place during the construction works. The Contractor shall be held responsible for all consequences of damage caused by his/her operation.

Where the foundation slab is removed, the area shall be excavated up to 680 mm below the design top of rail elevation, to provide for a 280 mm thick foundation slab and required thickness of 150 mm of Granular A. If the Contractor is required to excavate the track allowance deeper than 680 mm, payment for the additional excavation depth shall be prorated based on the item for excavation as outlined in the Contract Documents.

The foundation slabs may be monolithic at various locations.

The excavated rail shall be removed from the site without chipping off the concrete from the rails. Chipping off concrete from the rails shall not be permitted on site.

Additional chipping and grinding for clipping of existing rails may be required as part of TTC surface concrete removal. The Contractor shall carefully chip and clean an area 450 mm (length) x 450 mm (width) x 200 mm (depth) under each rail at location to be determined by TTC to allow for thermite welding of the new rail with existing one.

TS 2.20.08 QUALITY ASSURANCE – Not Used

TS 2.20.09 MEASUREMENT FOR PAYMENT

**TS 2.20.09.01 Excavation of Track Allowance
Excavation of Foundation Slab**

Measurement for the excavation of existing track allowance shall be by area in square metres (m²).

Payment shall be based on the surface area of the excavated concrete, in the existing track allowance, with no additional payment for the strip of pavement removed to provide space for the formwork.

Any additional removal for a new track allowance that is outside the limits of the existing track allowance shall be paid for under the appropriate tender items such as "Remove and Dispose of Composite Pavement" or "General Excavation".

TS 2.20.10 BASIS OF PAYMENT

TS 2.20.10.01 Excavation of Track Allowance – Item

Payment at the Contract Price for the above tender item shall be full compensation for all labour, Equipment and Material to do the work. Payment shall include the sweeping of the foundation slab, the supply and removal of oxygen and acetylene bottles, the saw cutting, removal and disposal of the concrete, rail, ties and all other associated materials.

All costs of saw cutting shall be included in the excavation prices. No extra payment shall be made for any saw cutting required.

TS 2.20.10.02 Excavation of Foundation Slab – Item

Payment at the Contract Price for the above tender item shall be full compensation for all labour, Equipment and Material to do the work. Payment shall include the fine grading of the sub grade, the spreading and final grading of all approved excavated earth material required, the saw cutting of the concrete slab, the removal and disposal of the concrete slab and all excavated material below the slab.