# Engineering & Construction Services Division Standard Specifications for Road Works

# Construction Specification for Hot Mix Asphalt Sidewalks, Boulevards and Driveways

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## TS 3.30.01 SCOPE

This specification covers the requirements for the construction of asphalt sidewalks, driveways and boulevard on prepared base and for the resurfacing of existing sidewalks and boulevards.

## TS 3.30.02 REFERENCES

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

## **City of Toronto Standard Specifications**

TS 2.10	Construction Specification for General Excavation
TS 3.20	Construction Specification for Tack Coat
TS 310	Construction Specification for Hot Mixed, Hot Laid Asphaltic Concrete Paving
TS 501	Amendment to OPSS.MUNI 501 – Construction Specification for Compacting
TS 1010	Amendment to OPSS.MUNI 1010 – Material Specification for Aggregates – Base, Subbase, Select Subgrade and Backfill Material
TS 1101	Amendment to OPSS.MUNI 1101 – Material Specification for Performance Graded Asphalt
TS 1151	Material Specification for Superpave, Stone Mastic and Warm Mix Asphalt

### **City of Toronto Standard Drawings**

T-310.050-8 Driveway Thickness

#### **Ontario Provincial Standard Specifications**

OPSS 311	Construction Specification for Asphalt Sidewalk, Driveway and Boulevard
	for Sidewalk Resurfacing
OPSS.MUNI 510	Construction Specification for Removal
OPSS.MUNI 1103	Material Specification for Emulsified Asphalt

TS 3.30.03 DEFINITIONS – Not Used

TS 3.30.04 DESIGN AND SUBMISSION REQUIREMENTS

#### TS 3.30.04.01 General

At least 5 Working Days prior to the commencement of the asphalt paving work, the Contractor shall submit to the Contract Administrator the hot-mix asphalt mix designs for each type of hot-mix to be used. The submitted mix designs shall be according to TS 1151.

The hot-mix type(s) shall not be supplied to the Work until the mix designs have been approved by the Contract Administrator.

# TS 3.30.04.02 Material Safety Data Sheets

At least 5 Working Days prior to starting the Work, the Contractor shall supply the Contract Administrator with Material Safety Data Sheets (MSDS) for all materials to be incorporated in the Work.

#### TS 3.30.05 MATERIALS

## **TS 3.30.05.01** Superpave 9.5 Asphalt

All Superpave 9.5 asphalt shall meet the materials specifications of TS 1151 and construction specifications of TS 310. The grade of asphalt shall be PG 58-28 according to TS 1101.

# TS 3.30.05.02 Superpave 19.0 Asphalt

All Superpave 19.0 asphalt shall meet the materials specifications of TS 1151 and construction specifications of TS 310. The grade of asphalt shall be PG 58-28 according to TS 1101.

# TS 3.30.05.03 Asphalt Emulsion

Asphalt emulsion shall be undiluted SS-1 emulsified asphalt. The SS-1 emulsified asphalt shall be according to OPSS 1103 and tack coat application shall be according to TS 3.20. Reduction of volatile organic compound (VOC) emissions shall be according to TS 3.20.

#### **TS 3.30.05.04** Granular A Base

Granular base material shall be Granular A Native or Granular A RCM and shall meet the requirements of TS 1010.

#### TS 3.30.06 EQUIPMENT

Equipment shall meet the requirements of section 311.06 of OPSS 311.

#### TS 3.30.07 CONSTRUCTION

Removal of existing driveways, sidewalks and sundry asphalt pavements shall be according to OPSS.MUNI 510.

Excavation and subgrade preparation for the construction of asphalt driveways, sidewalks and boulevards shall be according to TS 2.10. The ground shall be excavated to the lines and grades shown on the Contract Drawings and shall have sufficient depth to allow for the placement of granular base and asphalt layers.

The granular base shall be constructed to the lines and grades shown on the contract drawings and shall be compacted according to TS 501.

The hot mix shall be placed on the prepared granular base according to section 311.07 of OPSS 311, except that the asphalt emulsion, used in resurfacing sidewalks, shall be according to TS 3.30.05.02, herein.

#### TS 3.30.07.01 Asphalt Sidewalk

Asphalt sidewalks shall be constructed with 150 mm of Granular A and 80 mm – 2 lifts of 40 mm – of Superpave 9.5, Traffic Category B asphalt.

## TS 3.30.07.02 Asphalt Driveway – Residential

Residential asphalt driveways shall be constructed according to T-310.050-8 with 150 mm of Granular A and 80 mm – 2 lifts of 40 mm – Superpave 9.5, Traffic Category B asphalt.

# TS 3.30.07.03 Asphalt Driveway – Commercial

Commercial asphalt driveways shall be constructed according to T-310.050-8 with 150 mm of Granular A and 60 mm Superpave 19.0 and 40 mm Superpave 9.5 Traffic Category B, asphalt.

# TS 3.30.07.04 Asphalt Boulevard and Median

Asphalt boulevards and medians shall be constructed based on non-drivable and drivable. For non-drivable boulevard and median, constructed with 150 mm of Granular A and 40 mm Superpave 9.5 Traffic Category B asphalt. For drivable boulevard, the same pavement structure shall be placed based on adjacent residential or commercial driveways

# TS 3.30.07.05 Sidewalk Resurfacing

Sidewalk resurfacing shall be constructed with 40 mm Superpave 9.5, Traffic Category B asphalt.

TS 3.30.08 QUALITY ASSURANCE – Not Used

TS 3.30.09 MEASUREMENT FOR PAYMENT

TS 3.30.09.01 Asphalt Sidewalk

Asphalt Driveway – Residential Asphalt Driveway – Commercial

Asphalt Boulevard Sidewalk Resurfacing

Measurement shall be by area of the finished asphalt surface, in square metres (m<sup>2</sup>).

TS 3.30.10 BASIS OF PAYMENT

TS 3.30.10.01 Asphalt Sidewalk – Item

Asphalt Driveway – Residential – Item Asphalt Driveway – Commercial – Item

Asphalt Boulevard – Item Sidewalk Resurfacing – Item

Payment at the Contract Price for the above tender item(s) shall be full compensation for all labour, Equipment and Material to do the work. Payment shall include the ground excavation and the supply, placing and compacting of the granular base and hot mix to the lines and grades shown on the contract drawings.

No deduction will be made for the excavation of material quantities where there is an overlap.