

CW 3235 – RENEWAL OF EXISTING MISCELLANEOUS CONCRETE SLABS

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CW 3235 – RENEWAL OF EXISTING MISCELLANEOUS CONCRETE SLABS**1. DESCRIPTION****1.1 General**

- .1 This specification covers the removal, installation and renewal of existing miscellaneous concrete slabs including median slabs, bullnoses and sidewalks.

1.2 Definitions

- .1 Renewal of Existing Concrete Slabs – existing miscellaneous concrete slabs removed and reinstalled for grade revisions or improving their condition in the same location.

1.3 Referenced Standard Construction Specifications

- .1 CW 1130 – Site Requirements.
- .2 CW 3110 – Sub-Grade, Sub-Base and Base Course Construction.
- .3 CW 3210 – Adjustment or Abandonment of Existing Pavement and Boulevard Structures and Appurtenances.
- .4 CW 3230 – Full-Depth Patching of Existing Slabs and Joints.
- .5 CW 3310 – Portland Cement Concrete Pavement Works.
- .6 CW 3325 – Portland Cement Concrete Sidewalk.
- .7 CW 3330 – Installation of Interlocking Paving Stones.
- .8 CW 3410 – Asphaltic Concrete Pavement Works.
- .9 CW 3510 – Sodding.

1.4 Referenced Standard Details

- .1 SD-226A – Monolithic Concrete Median Slab.
- .2 SD-226B – Safety Median.
- .3 SD-227A – Concrete Median Slab.
- .4 SD-227C – Monolithic Concrete Bullnose
- .5 SD-228A – Concrete Sidewalk.
- .6 SD-228B – Monolithic Curb and Sidewalk.
- .7 SD-228C – Miscellaneous Isolations.

2. MATERIALS**2.1 Concrete Materials**

- .1 Supply concrete materials in accordance with Section 5 and 6 of CW 3310.

2.2 Reinforcing Steel

- .1 Supply reinforcing steel in accordance with Clauses 5.4.4 and 5.4.5 of CW 3310.

2.3 Precast Sidewalk Blocks

- .1 Supply precast sidewalk blocks to match existing or as approved by the Contract Administrator.
- .2 Precast sidewalk blocks will be of similar color, dimensions and pattern as the existing blocks.

2.4 Asphalt Material

- .1 Asphalt material for isolations will be supplied in accordance with Sections 5 and 6 of CW 3410.
- .2 Asphalt material will be Type II or other asphalt material approved by the Contract Administrator.

3. CONSTRUCTION METHODS**3.1 Miscellaneous Concrete Slab Removal**

- .1 Remove miscellaneous existing concrete slabs at locations as shown on the Drawings or as directed by the Contract Administrator.
- .2 Saw-cut the concrete slab full depth at the designated removal limits in accordance with CW 3230, Section 9.1.
- .3 Ensure the removal methods do not chip, damage or undercut the adjacent slabs to remain.
- .4 Resaw-cut chipped, damaged or undercut slabs beyond the removal limits as directed by the Contract Administrator.
- .5 Break the concrete slab around existing curb stops and water valves by hand methods prior to the slab removal.
- .6 Dispose of removed miscellaneous concrete slab materials in accordance with Section 3.4 of CW 1130.

3.2 Miscellaneous Concrete Slab Installation

- .1 Install miscellaneous concrete slabs at the locations as shown on the Drawings or as directed by the Contract Administrator.
- .2 Excavate only material immediately behind slabs that is required for installations to a maximum distance of 150 millimetres.
- .3 Install new reinforcing steel as shown on the Standard Details. Provide a minimum of 40 millimetres cover between reinforcing steel and the finished concrete surface.
- .4 Adjust existing catchbasins, manholes, water valves, hydrants, curb stops and other appurtenances in accordance with CW 3210.
- .5 Compact existing sub-grade and place leveling course material as required to a maximum thickness of 50 millimetres in accordance with CW 3110.
- .6 Place additional sub-base and base course material in accordance with CW 3110 as directed by the Contract Administrator.
- .7 Install median slabs in accordance with SD-226A, SD-226B and SD-227A.
- .8 Install bullnose in accordance with SD 227C.
- .9 Install 100mm concrete sidewalks in accordance with SD-228A and SD-228B.
- .10 Install 150mm reinforced concrete sidewalks in accordance with CW 3310.

- .11 Complete boulevard grading in accordance with CW 3110 as directed by the Contract Administrator to a maximum distance of 600 millimetres beyond the back of the concrete slab being installed.
- .12 Construct isolations for boulevard and median appurtenances in accordance with Section 3.5 of this specification.
- .13 Install sign support clamps in accordance with Section 3.6 of this specification.
- .14 Install 12 millimetre fibre joint bond breaker between concrete slab and building foundations in accordance with Clause 5.4.3 a) of CW 3310. Install bond breaker to a depth equal to the concrete slab, flush with the finished grade.
- .15 Place concrete in accordance with CW 3310.
- .16 Place and compact suitable backfill materials behind the slabs to the satisfaction of the Contract Administrator.

3.3 Miscellaneous Concrete Slab Renewal

- .1 Remove and install miscellaneous concrete slabs at locations as shown on the Drawings or as directed by the Contract Administrator.
- .2 Remove slabs in accordance with Section 3.1 of this specification.
- .3 Install slabs in accordance with Section 3.2 of this specification.
- .4 Excavate, compact sub-grade, place leveling course material to a maximum thickness of 50 millimetres and suitable backfill materials in accordance with CW 3110 to a maximum distance of 150 millimetres beyond the back of the concrete slab being renewed.
- .5 Complete boulevard grading in accordance with CW 3110 as directed by the Contract Administrator to a maximum distance of 600 millimetres beyond the back of the concrete slab being renewed.
- .6 Complete placement of sod in accordance with CW 3510.

3.4 Adjustment of Existing Precast Concrete Sidewalk Blocks

- .1 Adjust existing precast concrete sidewalk blocks as shown on the Drawings or as directed by the Contract Administrator.
- .2 Remove and clean existing precast concrete sidewalk blocks and store until reinstallation.
- .3 Supply new precast concrete sidewalk blocks to replace damaged or missing blocks in accordance with Section 2.3 of this specification.
- .4 Supply bedding and filler sand in accordance with Sections 5.2.3 and 5.2.4 of CW 3330.
- .5 Saw-cut the precast concrete sidewalk blocks full-depth as required.
- .6 Install precast concrete sidewalk blocks to match the finished or existing grade of adjacent blocks or concrete slabs. Joints between blocks will not be greater than 5 millimetres.
- .7 Place bedding and filler sand in accordance with Section 9.2 of CW 3330 in all joints to match top of blocks.

3.5 Isolations

- .1 Construct isolations for boulevard and median appurtenances at locations as shown on the Drawings or as directed by the Contract Administrator.
- .2 Boulevard and median appurtenances include wood poles, concrete piles, hydrants and screw-in bases.
- .3 Construct in accordance with Standard Detail SD-228C.
- .4 Place and compact asphalt material in isolations to match the finished elevation of the adjacent renewed slabs to the satisfaction of the Contract Administrator.

3.6 Sign Support Clamps

- .1 Install sign support clamps at locations as identified by the Contract Administrator.
- .2 The Traffic Services Branch will supply the sign support clamps.
- .3 Install true and plumb to the satisfaction of the Contract Administrator.

3.7 Removal of Precast Concrete Sidewalk Blocks

- .1 Remove precast concrete sidewalk blocks at locations as shown on the Drawings or as directed by Contract Administrator.
- .2 Dispose of precast concrete sidewalk blocks in accordance with Section 3.4 of CW 1130.

4. MEASUREMENT AND PAYMENT**4.1 Removal of Miscellaneous Concrete Slabs**

- .1 Removal of miscellaneous concrete slabs will be measured on an area basis and paid for at the Contract Unit Price per square metre for the "Items of Work" listed here below. The area to be paid for will be the total number of square metres of existing miscellaneous concrete slabs removed in accordance with this specification, accepted and measured by the Contract Administrator.

Items of Work:

Miscellaneous Concrete Slab Removal

- i.) Median Slab
- ii.) Monolithic Median Slab
- iii.) Safety Median
- iv.) 100mm Sidewalk
- v.) 150mm Reinforced Sidewalk
- vi.) Bullnose
- vii.) Monolithic Curb and Sidewalk

4.2 Installation of Miscellaneous Concrete Slabs

- .1 Installation of miscellaneous concrete slabs will be measured on an area basis and paid for at the Contract Unit Price per square metre for the "Items of Work" listed here below. The area to be paid for will be the total number of square metres of miscellaneous concrete slabs installed in accordance with this specification, accepted and measured by the Contract Administrator.

Items of Work:

Miscellaneous Concrete Slab Installation

- i.) Median Slab*
- ii.) Monolithic Median Slab*
- iii.) Safety Median*
- iv.) 100mm Sidewalk*
- v.) 150mm Reinforced Sidewalk
- vi.) Bullnose
- vii.) Monolithic Curb and Sidewalk*

* referenced Standard Detail to be specified.

- .2 All costs for installing sign support clamps and constructing isolations for boulevard and median appurtenances will be included in the payment for the "Items of Work" listed for miscellaneous concrete slab installation.
- .3 All costs for excavation, sub-grade compaction, placement of sub-base, placement of leveling course and backfill materials, slabs installation and boulevard grading to the limits as identified in Section 3.2 of this specification will be included in the payment for the "Items of Work" listed for Installation of Miscellaneous Concrete Slabs.
- .4 Additional base course over and above leveling course material will be paid in accordance with CW 3110.

4.3 Miscellaneous Concrete Slab Renewal

- .1 Miscellaneous concrete slab renewal will be measured on an area basis and paid for at the Contract Unit Price per square metre for the "Items of Work" listed here below. The area to be paid for will be the total number of square metres of existing miscellaneous concrete slabs removed and installed in accordance with this specification, accepted and measured by the Contract Administrator.

Items of Work:

Miscellaneous Concrete Slab Renewal

- i.) Median Slab*
- ii.) Monolithic Median Slab*
- iii.) Safety Median*
- iv.) 100mm Sidewalk* (**)
- v.) 150mm Reinforced Sidewalk(**)
- vi.) Bullnose*
- vii.) Monolithic Curb and Sidewalk*

* referenced Standard Details to be specified.

(**) renewal area to be specified.

- a.) Less than 5 sq. m
- b.) 5 sq. m to 20 sq. m
- c.) Greater than 20 sq. m
- .2 All costs for the slab removal, excavation, sub-grade compaction, placement of leveling course and backfill materials, slabs installation and boulevard grading to the limits as identified in Section 3.3 of this specification will be included in the payment for the "Items of Work" listed for

Miscellaneous Concrete Slab Renewal.

.4 Additional base course over and above leveling course material will be paid in accordance with CW 3110.

.5 All costs for installing sign support clamps and constructing isolations for boulevard and median appurtenances will be included in the payment for the "Items of Work" listed for Miscellaneous Concrete Slab Renewal.

4.4 Adjustment of Precast Concrete Sidewalk Blocks

.1 Adjustment of precast concrete sidewalk blocks will be measured on an area basis and paid at the Contract Unit Price per square metre for "Adjustment of Precast Sidewalk Blocks". The area to be paid for will be the total number of square metres of precast concrete sidewalk blocks adjusted to grade in accordance with this specification, accepted and measured by the Contract Administrator.

.2 No measurement or payment will be made for any precast sidewalk blocks damaged or lost during replacement.

4.5 Supply of Precast Concrete Sidewalk Blocks

.1 Supply of precast concrete sidewalk blocks will be measured on an area basis and paid at the Contract Unit Price per square metre for "Supply of Precast Sidewalk Blocks". The area to be paid for will be the total number of square metres of precast concrete sidewalk blocks supplied in accordance with this specification, accepted and measured by the Contract Administrator.

4.6 Removal of Precast Concrete Sidewalk Blocks

.1 Removal of precast concrete sidewalk blocks will be measured on an area basis and paid at the Contract Unit Price per square metre for "Removal of Precast Sidewalk Blocks". The area to be paid for will be the total number of square metres of precast concrete sidewalk blocks removed in accordance with this specification, accepted and measured by the Contract Administrator.