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TCD Specs Updates – 2012

Changes since 2008 Edition

General

- Dates on Drawings and Specs revised to January 2012.
- Spelling and grammatical errors corrected.

TS 801 – Electrical Work - General

- Electrical legend IV – symbols for Vehicle Detection Zone, Vehicle Detection Puck and Overhead Wireless Detection Unit added
- Typical Layout drawings revised to reflect pole placements to suit APS operation.
- Figure 6 – updated to include dimensions for loop placement from lane lines and curb
- Figure 7 – updated to include turn prohibition signage
- Figure 12 – updated to show Rb-81 signs are oversized (60 cm x 75cm)
- Figures 20 to 26 – new – Typical Parking Restriction signing at signalized intersections

TTS 801.100

- Section 6.3.2 (a) – new signal systems switchover – Signal head covers shall remain in place for up to a maximum of 30 days before the signals are put into operation, unless otherwise approved by Toronto Transportation.
- Section 6.3.3 (c) – new TCS activation – Signal head covers shall remain in place for up to a maximum of 30 days before the signals are put into operation, unless otherwise approved by Toronto Transportation.

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TTS 801.305

- Section 3.6.1 – Overhead Wiring - updated to indicate tie-wraps no longer allowed
- Section 3.14.1 – Handwells – updated to include placing cone over damaged handwell until repaired

TTR 801.320

- Section 3.1 – Distance Visibility – table updated to reflect current Book 12
- Section 3.6.1 – Primary Head – distance from stop bar revised to 12 m to 55m from 15m to 50 m
- Section 3.6.4 – Pedestrian Head – reference to 2 –section and single section heads removed as well as use of aluminum or polycarbonate heads
- Table 2 – Traffic Signal Mast Arm – updated to include 1.2 m (4ft) arm

TS 802 - Handwells

- TTD 802.010 - revised to compression or mechanical split bolt connection to system ground
- TTD 802.010 – Note 4 revised to indicate ground wire attached to handwell cover, not frame

TS 803 - Ducts

- No changes

TS 804 - Cables

- TTD 804.002 – title revised to “Locations without centre medians”
- TTD 804.003 – title revised to “Locations with centre medians”
- TTD 804.005 – revised to reflect location without centre medians
- TTD 804.010 – title revised to “Schematic Wiring diagram Typical Intersection with Centre Medians”
- TTD 804.025 – revised to show APS push button, bi-modal pedestrian head with Count Down display and expansion coupling on riser duct
- TTD 804.035 – revised to show upper and lower span wires flaring out at pole attachment point

TS 805 – Poles

TTS 805.100

- Section 3.5 – Guy Anchors – revised to indicate guy anchor length of 1800 mm.

TS 806 – Power Supply Equipment

- TTD 806.001 – new Note 4 to indicate maximum distance from disconnect pole to hydro supply point is 7.0 m
- TTD 806.002 – revised to indicate Expansion joint on riser duct and line side duct embedded in side of pole base footing
- TTD 806.004 – revised to remove surge protection device
- TTD 806.005 – revised to remove surge protection device and specify #6 AWG insulated wire to controller cabinet ground
- TTD 806.010 – revised to show two ground plates at service with option for three ground rods
- TTD 806.015 – revised to show two ground plates at service

TS 807 – Footings and Bays

- TTD 807.010 – errant dimension of “750” removed from Section A-A
- TTD 807-012 – New – Anchor Assembly in Below Grade Reinforced Sidewalk Bay
- TS 807.100 Section 3.1.3 – revised to include that Wedge Type Expansion Anchors are to be installed to secure the controller cabinet to the concrete footing for the controller cabinet. The Wedge Type Expansion Anchors are to be 13 mm (1/2 inch) diameter x 108 mm (4 ¼ inches) long hot dipped galvanized units Red Head Trubolt Carbon Steel Wedge anchors or approved equivalent.

TS 808 – Traffic Signal Equipment

- TTD 808.001 – revised to show bi-modal ped head c/w countdown display and APS pushbutton
- TTD 808.012 – new – Installation of Bicycle Signal Equipment
- TTD 808.015 – revised to show Keep Right and Hazard marker signs on pole and mounting height to roadway, also to show two equal length mast arm mounting on one pole
- TTD 808.020 – revised to show LED modules in signal head
- TTD 808.025 - revised to show bi-modal ped head c/w countdown display
- TTD 808.035 – new – Transit Head Mounting Bracket Details
- TTD 808.040 – revised to show Universal mounting bracket installation for OSSN sign
- TTD 808.042 – new - LRT Traffic Signal Equipment Layout with U-Turns
- TTD 808.045 – new - LRT Traffic Signal Equipment Layout

TS 808.100

- Section 4.4 – revised to include that all signal and pedestrian head covers shall remain in place for up to a maximum of 30 days before the signals are put into operation, unless otherwise approved by Toronto Transportation.

TTS 808.210

- Revised to reflect the use of LED modules by removing references to Lampholders, Reflectors and Lenses.

TTS 808.220

- Section 5.2.1 - revised to reference latest LED pre-approvals. References to specific signal head makes also removed.

TS 809 – Traffic signal Controllers

- TTD 809.001 – removed
- TTD 809.005 – removed
- TTD 809.030 – removed
- TTD 809.031R1 – removed
- TTD809.032 – removed
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TTS 809.205

- Removed

TTS 809.210

- Updated to Version 1.6

TTR 809.320 – New – Maintenance Recommendation for Transit Priority and Pre-emption Check

TTR 809.320 – New – Maintenance Recommendation for UPS Systems

TS 810 – Traffic Actuation Equipment

- TTD 810.004 – revised to show 3 turns for dipole loop
- TTD 810.005 – revised to show 3 turns for dipole loop

- TTD 810.010 - revised to show 3 turns for dipole loops, dimensions from side of loop to curb or lane line and note regarding minimum loop dimension behind stop bar
- TTD 810.013 – new – Loop Detector Installation Details for Red Light Camera
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TTS 810.300

- Table 2.1 revised to reflect 3 loop turns

TS 811 – Flashing Beacons

- No changes

TS 812 – PXO Equipment

- TTD 812.011 – revised to remove Split PXO design and show PXO design with mast arms
- TTD 812.020 – new – Flashing Beacon Back-to-Back Span Wire Mounting Hardware

TS 813 – Grounding and Bonding

- No Changes

TS 815 - Removals

TTS 815.100

- Section 3.4 - revised to indicate structures to be removed 600 mm below grade from 500 mm.

TS 817 – RESCU Equipment

- No Changes