# WESTMINSTER STANDARDS AND SPECIFICATIONS SUMMARY OF SIGNIFICANT 2019 CHANGES

Note: Section numbers cited are section numbers in revised 2019 specifications. This list is not all-inclusive of every change in the specifications, but rather a summary of significant changes.

## **CHAPTER 1 – GENERAL REQUIREMENTS**

- **1.12.00:** Added numerous term definitions.
- **1.13.00:** Added numerous abbreviation definitions.
- **1.21.00:** Added requirement for Developers to conform to the requirements of SB18-167 regarding subsurface utilities.
- **1.22.00:** Added requirement for Contractors to document existing conditions prior to starting construction.
- **1.23.02:** Added Housekeeping section with requirements for the Contractor to keep the work site in an orderly condition.
- **1.24.01:** Added language that the City Inspector can refuse inspection if site conditions are unsafe.
- **1.26.01:** Revised section to reflect permits are submitted utilizing the Online Permit System.
- **1.26.03:** Updated language for Contractors to contact 811 for utility locates and conform to SB18-167 requirements.
- **1.27.01:** Updated language to reflect use of Land Disturbance Agreements.
- **1.29.02(A):** Revised surety requirements. The financial institution shall be FDIC-insured and in the state of Colorado. Performance bonds on the City standard template are an acceptable type of surety. Plat restrictions shall with City Engineer approval only.
- **1.29.02(B):** Revised reduction of surety language to conform to City Code.
- **1.31.00:** Added sections for each chapter listing items that require the Contractor to submit material information.

#### CHAPTER 2 – EARTHWORK, EROSION CONTROL, AND REVEGETATION

- 2.00.00: Removed language for compaction requirements and refer to Chapter 9. Added requirement for mowed areas maintained by the city to be 5:1 maximum slope.
- 2.10.00: Added language about stormwater runoff pollution, BMPs and the UDFCD manual. Added reference to the BMP standard details and UDFCD details.
- 2.10.02: Revised exemptions.
- 2.10.03: Added language for responsible parties.
- 2.10.04: Added language for controlling regulations.
- 2.10.05: Added language for requirements related to Land Disturbance Permits.
- 2.11.01: Rewrote section for updated requirements of reviewing and approving erosion and sediment control plans.
- 2.12.00: Added language for stormwater management plan requirements.
- 2.20.00: Added language about purposes of topsoil, soil preparation, amendments, fertilizers, compost, seeding, mulching, irrigation, weed management and wildflower introduction.
- 2.21.00: Section rewritten to describe requirements for topsoil, grading preparation, amendments, fertilizers, compost, seeding, mulching, irrigation, weed management and wildflower introduction.
- 2.23.00: Section rewritten to incorporate current requirements for materials for topsoil, amendments, fertilizer and compost. Seeding mixes revised and separated out into Open Space, Trailside Low Grow and Wildflower mixes.

## **CHAPTER 5 – STORM SEWER SYSTEM**

**5.01.00:** Added definition for stormwater sewer system.

**5.24.01:** Manholes shall be CDOT Class D concrete. Removed allowance for pipes being built continuously through manholes and removing the top of the pipe. Bases shall be reinforced with #4 bars.

**5.24.03:** Manhole interiors shall be smooth grout finish. Precast barrel heights shall be 48" maximum.

**5.24.04:** Inlets shall be CDOT Class D concrete. Added requirement that inlets shall be constructed concurrently with 5 feet of curb and gutter on each side.

**5.24.06:** Removed maximum depth language for adjustment rings and instead refer to standard details.

**5.24.07:** Added language for underdrain connections to the storm sewer system.

**5.30.00:** Removed testing language.

**5.44.01:** Moved table for maximum fill heights of pipe by class.

**5.45.01:** Traffic loading shall be HS-20. Removed requirement for locking lids outside right-of-way. Manholes shall be Class D concrete.

**5.45.03:** Traffic loading shall be HS-20.

**5.45.05:** Removed mortar requirements.

**5.46.01:** Added section for concrete and manhole requirements for inlets.

#### **CHAPTER 6 – ROADWAY**

**6.01.00:** Added public alleys and removed parking lots from language.

**6.02.00:** Revised variance language to refer to Chapter 1.

**6.03.00:** Revised variance language to refer to Chapter 1.

6.04.00: Added definitions.

**6.10.00:** Added design criteria table.

**6.11.04:** Removed pavement evaluation report requirements.

**6.12.01:** Local streets posted 25 mph. Right-of-way width revised to 59'. Curb and gutter revised to 6" mountable combination curb, gutter and walk, or 6" vertical with detached walk.

6.12.02: Added TMUND local street language.

**6.13.03:** Added TMUND collector street language.

**6.15.03:** Removed hydraulic design requirements. Added requirement for chases to be built when requested by the city Engineer.

**6.16.01:** Revised horizontal curve radius table.

**6.16.02:** Curb return radii for arterial/arterial intersections will require a special design with turning template simulations.

**6.17.00:** Revised vertical alignment controls table.

**6.17.01:** Minimum roadway grade revised to 0.75%.

**6.17.02:** Maximum permissible intersection grade exhibit moved from the detail drawings to this section.

**6.17.06:** Curb return grades table revised.

**6.18.02:** Allowable obstruction height revised to 30". Location for vehicle stopping point revised to 14.5' back from flowline of intersecting street. Object height revised to 4.35'. All tables revised to 2011 AASHTO sight distance requirements.

**6.20.00(B):** Added description of sidewalk. Added language to conform to ADA requirements.

**6.20.00(D):** Revised language that accessible ramps shall conform to PROWAG, and utilize cast-in-place truncated dome panels.

**6.22.00:** Deceleration lanes are required when the turning volume is greater than 100 vehicles per hour in the peak hour.

**6.23.00:** Removed acceleration lanes.

**6.23.00:** Removed dimensions for bus pull-out lanes and instead refer to RTD standard details.

**6.44.03:** Revised section title to Chemically Treated Subgrade. Added additional ASTM requirements for lime material.

**6.44.04:** New section on mechanically treated subgrade.

**6.46.01:** Revised language to limit base construction to private roads and private parking lots.

**6.47.01:** Changed terminology to hot mix asphalt pavement. Changed language to reference material requirements in Chapter 6.

**6.48.00:** Revised language to state concrete pavement is not allowed on public right-of-way. Deleted remainder of section.

**6.49.03:** Added requirement for crosspans and curb return fillets to be fiber reinforced concrete.

**6.49.04:** Added language to meet ADA requirements.

**6.49.06:** Added section for requirements for detectable warning tiles.

**6.60.03:** Added requirement for minimum lane width of 10'. Lane closure times will be governed by the approved right-of-way permit.

**6.60.04:** New section added on construction traffic control for bicycles.

**6.71.00:** Base to be used only on private streets and private parking lots.

**6.72.00:** Completely rewrote section for hot mix asphalt material requirements to conform with MGPEC specifications.

**6.75.00:** Added new section on detectable warning tile materials.

**6.76.00:** Added new section on crusher fines aggregate material.

## **CHAPTER 7 – CONCRETE**

**7.02.00:** Added new language for removals.

**7.20.07(D):** Added description of bond-breaker sheeting material.

**7.20.08:** Added language that finishing agents, like water, are prohibited from being added to facilitate finishing.

**7.20.09:** Added table for concrete pavement testing requirements.

**7.35.04:** Added language about slip-formed concrete pavement.

**7.36.01:** Added requirements for bond-breaker joint sheeting.

#### **CHAPTER 8 – TRAFFIC**

**8.02.00:** Removed acceleration lanes.

**8.10.02(J):** Revised language that noise mitigation measures may be required.

**8.12.00:** Removed street lighting section.

**8.12.05:** Added language that accessible parking shall meet ADA requirements.

**8.13.00:** Added new section for bicycle lane requirements.

**8.14.00:** Added new section for crosswalk requirements.

**8.24.00:** Added requirement that all conduit under existing roadways shall be bored. Added language that trenching shall be in accordance with Chapter 9.

**8.26.02(C):** Added an additional 2" conduit for low voltage street crossings.

**8.26.02(I):** Revised conduit terminations to be 3" above the foundation.

**8.26.02(L):** Added requirement that empty conduit shall have tracer wire.

**8.26.03(C):** Removed reference to Quazite and added minimum 20,000 lb load rating. Added requirement that bottom of pull boxes shall be bedded in <sup>3</sup>/<sub>4</sub>" pea gravel minimum 2" thick, and conduit ends shall extend 3" above gravel bed.

**8.26.05(E):** Added requirement that connectors shall be Buchanan type or approved equal.

**8.26.06(C):** Revised top of ground rods to be 4" above bottom of pull boxes.

**8.27.03(C):** Added requirements for corrective action for damaged private signs.

**8.27.04:** Added requirement that all new construction pavement markings shall be epoxy, and alternative materials may be required in certain situations by the Traffic Engineer. Added requirement that pavement marking symbols shall be preformed thermoplastic, and the use of the "ONLY" word marking is discouraged.

**8.28.03:** Revised language that traffic control should accommodate all modes of mobility.

**8.28.05:** Removed references to any documents except the MUTCD.

**8.31.01:** Revised to require one southbound overhead red and green to be SnowMelt LED. Removed references to 8" and incandescent lenses.

**8.34.00:** Changed detectors to GTT Models 711, 712 or 722. Changed optical phase selector modules to GTT Models M762 or M764.

**8.35.01(D):** Added requirement that pedestrian push button be MUTCD/PROWAG accessible Polara APS or approved equal.

**8.36.00:** Section on signal poles completely rewritten to conform to current specifications for Valmont Westminster series signal poles.

**8.39.01:** Requirement for aluminum pedestal mounts to be Pelco or approved equal added. Mast arm brackets changed to Sky Brackets.

**8.41.01:** Reflective sheeting changed to prismatic grade or approved equal for all sign faces.

#### CHAPTER 9 - TRENCHING, BACKFILLING AND COMPACTING

**9.01.00:** Added requirement for Engineer of Record and Contractor to comply with SB18-167. Contractor must also comply with OSHA requirements.

9.02.02(B): Added language that cut sheets shall be provided upon request.

**9.03.01(G):** Revised language that pipes under construction shall not be used for dewatering.

**9.12.00:** Added new section of requirements for utility potholing.

**9.13.00(N):** Added language that if the patch is associated with a PIA the time period will be 2 years.

**9.14.00(E):** Changed trench width to be as required by the pipe material.

**9.15.00(A):** Removed compaction for granular bedding.

**9.15.00(B):** Language for groundwater barriers revised to require they be built according to the details in the construction plans.

9.17.00(A): Revised requirement for compaction tests to start at a depth of 2' above top of the pipe.

**9.22.00:** Revised granular material to be squeegee. Revised gradation requirements. Removed barrier material.

## **CHAPTER 10 – STREET LIGHTING**

Added new Chapter 10 for street lighting requirements, incorporating the previously separate City of Westminster Street Lighting Design, Standards and Specifications document.

# CHAPTER 11 – RECLAIMED WATER SYSTEM

Added new Chapter 11 for reclaimed water system requirements.

#### **CHAPTER 12 – ACCEPTANCE REQUIREMENTS**

Acceptance Requirements was previously Chapter 10 and has been renumbered to Chapter 12.

**12.00.00:** Added language that this chapter applies to all required public improvements and any stormwater treatment facilities.

**12.01.01:** Revised reference for Release for Service to Chapters 3 and 4.

**12.01.02:** Revised requirements for as-constructed drawings for a redlined set, and added an option that digital and stamped as-constructed corrected drawings may be required.

12.01.03(A): Added language for certification requirements for stormwater treatment facilities.

**12.01.03(B):** Revised and expanded requirements for the certification statement.

**12.01.03(C):** Added requirement for the design engineer to submit an Operations and Maintenance Manual for stormwater treatment facilities.

**12.01.03(D):** Added requirement for the design engineer to submit a Stormwater Detention and Infiltration Design Data Sheet.

**12.01.04:** Revised language that the list of deficiencies will be compiled by the Owner and approved by the City Inspector.

**12.02.01:** Revised warranty period to 2 years.

12.02.02: Added language that temporary erosion control BMPs shall be maintained according to Chapter 2.

**12.02.03:** Revised language on contacting the Owner, the action the City may take and restoration of the site following work.

**12.03.01:** Changed time period to 21 months. Added requirement that the Owner will compile the list of deficiencies to correct.

**12.03.02:** Changed timer period to 60 calendar days.

**12.04.01:** Changed final authority individual to the Community Development Director.

**12.04.03(D):** Added language prohibiting hydrant extensions.

12.04.03(F): Added language requiring concrete collars in landscaped areas, and that bollards may be required.

**12.04.04(B):** Added requirement for jet-cleaning prior to TV inspection.

12.04.04(D): Added requirements for depths of grade adjustment rings and cover location.

**12.04.05(B):** Revised manhole rim to 1/8" below grade in paved areas.

12.04.05(D): Revised language that inlets shall be constructed flush with adjacent payement, sidewalk and curb.

**12.04.07(A):** Added requirement for all cracks to be sealed prior to acceptance.

**12.04.08:** Added aspects of acceptance inspection for signing items.

**12.04.09:** Added aspects of acceptance inspection for striping items.

**12.04.10:** Added aspects of acceptance inspection for street lighting items.

**12.04.11:** Added aspects of acceptance inspection for signal items.

**12.04.12:** Added aspects of acceptance inspection for reclaimed water system items.

**12.04.13:** Added aspects of acceptance inspection for stormwater treatment facility items.