SUMMARY OF PUBLIC WORK STANDARD SPECIFICATION REVISIONS – 2020

STANDARD SPECIFICATIONS

101 –Definition and Terms. Add definition for Tree Protection Zone.

102.10 Affirmative Action Ordinance
Revised language for clarity on reporting requirements. Added language on prevailing wage reporting requirements.

102.13 Prevailing Wage
New section for prevailing wage.

107.13 Improve clarity and consistency, spelling/grammar throughout section. Specifying the use and kind of protective fencing by the contractor to mark the tree protection zones or zones of no disturbance for protected trees, street trees or designated trees as designated by City Forester.

107.13 (a) Directional boring or trenching distances and depths. Adding language requiring immediate back fill with soil and soak the same day when near trees.

107.13 (f) No more than 25% of the functioning leaf and stem area may be pruned from a tree within calendar year. Pruning of city owned trees shall not be attempted by contractor per Madison General Ordinance 10.101

107.13(g) The storage or parking of vehicles, construction equipment, building materials, refuse, excavated spoils or dumping of poisonous materials on or around trees and roots within five fee from the face of the tree is prohibited.

107.13(i) Increasing fine to $500 for loss of limb, broken branch larger than thee inches, bark abrasions and trunk damage.
Increasing fine for mechanical excavation within five feet of tree to $500 each occurrence.
Adding a $500 per day fine for storage of materials, parking of vehicles or construction equipment is discovered within five feet of tree.

109.9 Liquidated Damages
Liquidated damages shall also be due if the Contractor is unable to meet any interim completion dates as specified in the contract.

210.1(f) Inlet Protection
Where rigid frame inlet protection is specified on plans or by the Engineer the Contractor shall select rigid frame inlet protection which complies with ASTM D8057 and with WDNR Conservation Practice Standard 1060.

212.2(A) Materials – Rip Rap Stone
Expanded Riprap section to include specifications and bid numbers for Glacial Field Stone.

301.1 Concrete
Revised the concrete quality parameters such as chert, soundness, wear and freeze/thaw

402.2a Placing Asphalt Mixtures
Lower layer can be placed at 36 degrees.

402.2e Compaction (HMA)
Revised density requirements.

402.2f HMA Joints
Revised temperature requirement for seam heating.

403.16(a) – ADJUST VALVE CASTING, METHOD #1 – RESURFACING, ADJUST VALVE CASTING, METHOD #2 – RESURFACING, INSTALL ADJUSTABLE WATER BOX, METHOD #3 – RESURFACING
If Water Utility casting requires full replacement, installation shall be in accordance with new valve installation procedures. Water Utility will furnish the casting and the Rite Hite adaptor.

501.6(a) REPAIRS AND REPLACEMENT
Revise spec to remove ASTM C425, Type A, with Shear bands as an acceptable coupling and replace with ASTM C1173 Fernco RC Strong Back or equal repair coupling for all pipe repair couplings.

504.1 MATERIALS
Modified criteria for when Type II storm sewer pipe can be used; modified specifications for Type II storm sewer pipe; modified criterial for when Type III storm sewer pipe can be used.

504.2 MATERIALS (STORM SEWER PIPE TYPE I AND TYPE II) AND 507.3(D) SEWER CONNECTIONS
Connection of Type I and Type II pipe to structures contemplating use of concrete collar vs prefabricated connection such as Kor-N-Seal, or approved equal, for equity issues between plastic and concrete pipe.

504.2(e) Polypropylene Pipe
Modified specifications for Polypropylene Pipe.

504.2(g)
Deleted Triple Walled Polypropylene Pipe.

504.3(c) Joints
Provided additional language on gaskets for connection of pipes and modified specifications.

504.3(f) BOX CULVERTS – CONSTRUCTION METHODS
Revised requirements for sealing of joints and requirements for slurry backfill for annular spaces between box sections.

ARTICLE 505 – BOX CULVERTS AND WINGWALLS
Updated language throughout for new design criteria for updated loading requirements and construction methods.

505.2(a) BOX CULVERTS
Add language to provide a consistent specification for steel reinforcement area in precast box culverts that is in accordance with ASTM C1577 – 19.

507.3(1) SEWER CONNECTIONS
Revise outside drop specification to require upper core connection to be field cored. Core opening on manhole base section shall be factory cored.

507.3(D) SEWER CONNECTIONS
Added language for watertight seal requirements for lined sewer mains; added language for when polypropylenes pipe is allowed; specified when a cored connection may be allowed for private storm sewer to public curb and gutter.

Add 507.3(e) SEWER BACKWATER VALVE
Add description (No Specification Currently)

Add 507.4(i) SEWER BACKWATER VALVE
Add Method of Measurement (No Specification Currently)

601.3 Finishing Work and Maintenance
Adding language for transfer of responsibility of new installs and locating services from contractor to TE.

601.4 Repairs and Replacement
Clarify contractor responsibility for damaged new and existing infrastructure.

602.3(b) Construction Methods
Added language on maximum degrees in conduit bends.

602.3(e) Construction Methods
Revised pull wire installation in conduits.

702 – MATERIALS

702.1 – MATERIALS, GENERAL
Notice that projects subject to AIS requirements will be identified in project-specific Contract special provisions.

702.3.1 – DUCTILE IRON PIPE
Require electrical conductivity across all pipe-pipe and pipe-fitting joints, allow additional methods such as bronze conductivity wedges and conductive-tip gaskets.

702.4.1 – MECHANICAL JOINT FITTINGS
Allow AWWA C153 compact body fittings, in addition to AWWA C110 full body fittings.

702.4.2 – MECHANICAL JOINT RESTRAINT
Addition of Star Pipe Stargrip 3000 mechanical joint retainer gland.

702.4.3 – NUTS AND BOLTS
Nuts and bolts require ceramic or epoxy coating.

702.4.5 – SOLID REPAIR SLEEVES
Require coated nuts and bolts and conductivity across the repair sleeve. Clarify Ford product listing.

702.5.2 – SADDLES
Edit approved product list. Remove Smith Blair 317, add AY McDonald 435.

702.5.3 – COUPLINGS
Revise incorrect Mueller product listing, add AY McDonald equivalent.

702.5.4 – CORPORATION STOPS AND SERVICE FITTINGS
Revise product listings to unify as quarter-turn, ball valve, AWWA inlet, flare outlet corporation stops. Require service bend fitting on all installations and revise bend fitting product list.

702.5.5 – CURB STOPS
Revise product listing to unify as quarter-turn, ball valve curb stops.

702.5.7 – SERVICE END CAPS
New section identifying acceptable service end cap materials.

703 – CONSTRUCTION METHODS

703.3.1 – TRENCH EXCAVATION
Remove reference to OSHA shoring regulations.

703.5 – TEMPORARY SUPPORT
Remove reference to OSHA line support regulations.

703.7 – CONNECTING TO EXISTING WATER MAINS
Require installation of anode at locations where new ductile iron water main connects to existing mains of dissimilar material. Does not apply to service connections, any diameter. Paid under new Bid Item 70111.

703.9 – MECHANICAL JOINT PIPE AND FITTINGS
Remove Megalug-specific product listing, reference to 702.4.2 for materials.

703.12 – COPPER SERVICE LATERALS
Require eighth bend service fitting on all corporation stop installations.

703.12.1 – DISCOVERY OF LEAD SERVICE LATERALS
Ditch may be backfilled and re-excavated if property owner hires plumber to start within two weeks, instead of leaving ditch open and protected for two weeks.

703.14 – FLUSHING
Ensure flushing operations do not create flow paths that distribute silt and sediment beyond jobsite.

703.17 – FINAL INSPECTION
Any inspections beyond post-punchlist verification may be subject to additional Utility costs incurred.

704 BID ITEMS, MEASUREMENT AND PAYMENT

704.3 – FURNISH & INSTALL PIPE & FITTINGS
Reference to updated conductivity specifications.

704.5 – FURNISH & INSTALL CASING
Revise with specified manufactured casing spacers and clarify when wood timbers are acceptable.

704.6 – FURNISH & INSTALL WATER VALVE
Revise product list. Utilize temporary alignment device if box extensions are required. New requirement to set box cover below finished base course and upon paving install Rite Hite adaptor into recessed top section.

704.9 – FURNISH & INSTALL WATER SERVICE LATERALS
New service laterals require continuous segment of copper tubing between corp/service bend and curb stop.

704.10 – REPLACE SERVICE LATERAL
Abandoned service laterals require plugging of corp if the existing main is to remain in service after the project.

704.12 – CUT-IN OR CONNECT-TO EXISTING WATER SYSTEM
Reference to anode requirement if new ductile iron main connects to dissimilar existing water main material.

704.20 – ADJUST WATER VALVE BOX SECTIONS
Utilize new valve box installation method if full box replacement is required.

704.26 – ADJUST WATER SERVICE BOX
Revise standard payment to $150 (was $100), revise payment calculation units by sections/extensions.

704.28 – FURNISH & INSTALL CURB STOP
Clarification that curb stop replacements in paved surfaces will be compensated for paving work separately.

704.31 – FURNISH & INSTALL ANODE
New bid item 70111 to compensate for anode requirement at water main connections to existing system.

BID ITEMS

New Items
20225, LIGHT RIPRAP – LIMESTONE, C.Y.
20226, LIGHT RIPRAP – LIMESTONE, TON
20227, LIGHT RIPRAP – GLACIAL FIELD STONE, C.Y.
20228, LIGHT RIPRAP – GLACIAL FIELD STONE, TON
20229, MEDIUM RIPRAP – LIMESTONE, C.Y.
20230, MEDIUM RIPRAP – LIMESTONE, TON
20231, MEDIUM RIPRAP – GLACIAL FIELD STONE, C.Y.
20232, MEDIUM RIPRAP – GLACIAL FIELD STONE, TON
20233, HEAVY RIPRAP – LIMESTONE, C.Y.
20234, HEAVY RIPRAP – LIMESTONE, TON
20235, HEAVY RIPRAP – GLACIAL FIELD STONE, C.Y.
20236, HEAVY RIPRAP – GLACIAL FIELD STONE, TON
20237, EXTRA HEAVY RIPRAP – LIMESTONE, C.Y.
20238, EXTRA HEAVY RIPRAP – LIMESTONE, TON
20239, EXTRA HEAVY RIPRAP – GLACIAL FIELD STONE, C.Y.
20240, EXTRA HEAVY RIPRAP – GLACIAL FIELD STONE, TON
20241, RIPRAP FILTER FABRIC, TYPE HR, S.Y.
21049, INLET PROTECTION, RIDGID FRAME – PROVIDE AND INSTALL, EACH
21050, INLET PROTECTION, RIDGID FRAME – MAINTAIN, EACH
21051, INLET PROTECTION, RIDGID FRAME – REMOVE, EACH
50501, PRECAST REINFORCED CONCRETE BOX CULVERT
70111 – FURNISH AND INSTALL ANODE, UNIT: EACH

Revised Items
21003, CLEAN SUMP, EACH

Deleted Items

DETAIL DRAWINGS

REVISED DETAIL

SDD 3.02 MADISON STANDARD CURB CUT DETAILS
Use ½" expansion vs 1" at back of curb

SDD 3.03 STANDARD CURB RAMPS TYPES 1 AND 2
Use ½" expansion vs 1" at back of curb

SDD 3.04 CURB RAMP GENERAL AND CURB RAMP TYPE 2-A
Use ½" expansion vs 1" at back of curb

SDD 5.3.03 COUPLING DETAILS
Revise Detail to Remove ASTM C425 as an allowable Compression Coupling.

SDD SERIES 5 – SEWER AND SEWER STRUCTURES
Structural review is being completed on the reinforced concrete structure details shown below. Modifications to the detailed drawings will be included based on the structural analysis.

SDD 5.5.1 a and b – Box Culvert Wingwall -1

Added material properties and structure design criteria. Revised the General Notes. Revised the details and reinforcements for slab and side walls.

SDD 5.7.3 FIELD POURED STORM SEWER SAS

Added material properties and structure design criteria. Revised the base slab details. Revised the reinforcement for the base slab, walls, top slab, and additional reinforcement around openings. Revised top slab thickness. Moved catch basin detail to new page.

SDD 5.7.3A FIELD POURED CATCH BASINS

Added material properties and structure design criteria. Revised the base slab details. Revised the reinforcement for the base slab, walls, top slab, and additional reinforcement around openings. Revised top slab thickness. Created separate sheet for catch basins.

SDD 5.7.4 – 6'x6' Catch Basin and 3'x6' Catch Basin

Added material properties and structure design criteria. Revised the base slab details. Revised the reinforcement for the base slab, walls, top slab, and additional reinforcement around openings. Revised top slab thickness.

SDD 5.7.5 – Precast SAS

Added material properties. Made minor revisions to the notes and callouts.

SDD 5.7.39 a, b, c and d– Screen Treatment Device

Added material properties and structure design criteria. Significant revisions to the structure details.

SDD 5.3.3 COUPLING DETAILS

Revise Detail to Remove ASTM C425 as an allowable Compression Coupling.
ASTM C-1173 (Strong back Fernco RC or Equivalent) required for all Compression Couplings.

SDD 5.7.40 LATERAL BACKFLOW PREVENTER

Change Title to SEWER BACKWATER VALVE

SDD 6.10 TYPE "M" AND "P" CONTROLLER BASE DETAIL

SDD 6.14 LB-3 DETAIL

SDD 6.19 LB-8 DETAIL

SDD 7.04 TYPICAL HYDRANT INSTALLATION

Added note indicating drain ports on hydrant and revise valve to depict new installation method.

SDD 7.06 WATER VALVE BOX ALIGNMENT

Revised valve box drawing to depict new installation method.

SDD 7.08 TYPICAL VALVE BOX & BOX INSTALLATION

Revised valve box drawing to depict new installation method.

SDD 7.10 SERVICE LATERAL INSTALLATION

Depict service bend fitting requirement at corporation stop connection.

SDD 7.16 JOINT RESTRAINT LENGTHS FOR VERTICAL BENDS

Added information related to 90-degree bend restraint lengths.

SDD 7.21 CASING SPACERS

Revise notes to clarify when timber spacers are permitted and allowable manufactured spacers.

SDD 7.28 – 7.41 WATER UTILITY STANDARD METER INSTALLATION DETAIL DRAWINGS
Revised multiple drawings to require bypass valve to accept locking mechanism. Clarification on couplings and flange materials for small meter installations.

NEW DETAIL
SDD 1.11 RIDGID FRAME INLET PROTECTION

DELETED DETAILS
NONE