

**OCWRD WATER AND WASTEWATER STANDARDS UPDATES - FEBRUARY 2021
LIST OF DRAFT CHANGES TO STANDARDS ISSUED JANUARY 2011**

POLICIES AND PROCEDURES AND SPECIFICATIONS

The following is a list of the draft revisions to Oconee County's current water and wastewater system standards and specifications issued in January 2011.

GENERAL			
NO.	SECTION	ITEM	DESCRIPTION OF REVISIONS
1	201 - 402	All	Section format for specifications (Articles 2 - 4) revised to follow typical standards for separating requirements by General - Materials - Work.
2	TOC	All	Expanded list to allow for quick links in pdf for easy searches by users (to be set up once final copy is prepared).
3	All	All	Miscellaneous spelling, grammar and reference corrections.
4	TOC	All	Revised, as needed, to match section and item title, page numbers, etc. to reflect the final document including Appendices.
5	All	All	Footers, issue dates, etc. revised to reflect issue date of February 2021.
ARTICLE 1 - GENERAL REQUIREMENTS			
NO.	SECTION	ITEM	DESCRIPTION OF REVISIONS
6	101	.01 - .08	Minor changes only.
7	101	.09	Deleted Item C, Front Footage Assessment Fees.
8	101	.11	Deleted Item C, requirement for Utility Coordinating Committee.
9	101	.18	Added reference to Safe Drinking Water Act and other minor wording changes.
10	101	.24	Item F: Added requirement for video inspection documentation.
11	102	.01	Minor changes only.
12	102	.02	Item A.4: Added requirement for flow testing at nearest hydrant.
13	102	.03 - .06	Minor changes only.
14	103	.01 - .03	New section for Well System design. Includes design criteria formerly in Section 303 (303.01 - 303.04). This is similar to set-up for wastewater pumping stations in Section 105 (former 104).
15	104	.01 - .11	Information formerly in Section 103.
16	104	.01	Deletes reference to treatment facilities.
17	104	.02	Sub-Item A: Set/confirmed 100 gpcd and 260 GPD/conn. (some copies of specifications had this change, but others still at 80 and 208, respectively)
18	104	.02	Sub-Item C: Revised peaking factor from 4.0 to 2.5.
19	104	.04	Sub-Item D: Moved information relative to pumping stations to Section 105 (former 104).

20	104	.04	Sub -Item E: Pipeline Depth: <ul style="list-style-type: none"> • Re-organized and re-worded for clarity. • Added verbiage on force main grade to identify need to minimize high points.
21	104	.06	Velocities: <ul style="list-style-type: none"> • Deleted requirement for full-flow at 2.0 fps in gravity sewer. • Reduced maximum velocity in force main from 7.0 to 6.0 fps. • Added "under all conditions" regarding 10 fps in gravity sewers.
22	104	.07	Minimum Gravity Sewer Pipe Slope: Deleted note * regarding design for 2.0 fps since not all true for Manning's n = 0.013.
23	104	.08	Sewer Structural Integrity: Deleted requirement for MH - to - MH DIP and re-worded DIP lining verbiage.
24	104	.09	Manholes: <ul style="list-style-type: none"> • Added requirement for 0.2 ft inside drop between inlet and outlet. • Added requirement for 5' diam. MH on lines deeper than 14 ft. • Added requirement for locating a manhole downstream of grease traps.
25	104	.10	ARV's: Added this item to include information formerly included under Pumping Station Equipment and Appurtenances (former 104.02).
26	104	.11	Grease Traps: Added requirements prohibiting receiving sanitary and storm water flows.
27	105	.01	General (Pumping Stations): <ul style="list-style-type: none"> • Includes information formally included under Sections 103.11 and 104. • Includes many small to moderate changes to clarify and amend requirements as needed. • All references to "lift station" changed to "pumping station".
28	105	.01	Odor control requirement changed from all stations to "where directed by OCWRD" (Sub-Item I).
29	105	.01	Added provisions regarding potential O&M fees (Sub-Item J).
30	105	.02	Pumping System Equipment and Appurtenances: Major additions and re-wording to better specify and clarify requirements including bypass pump, piping and RPZD.
31	105	.03	Sub-Item C: Minimum required efficiency increased from 45% to 50%.
32	105	.04	Sub-Item D: <ul style="list-style-type: none"> • Requirements for coatings revised to reference the Standard Specification. • Deleted reference to force main discharge manhole since this is already covered under Item 104.09 and, therefore, not relevant here.
33	105	.05	Location: <ul style="list-style-type: none"> • New item inserted here to include information formerly included under 103.04.D. • Revised minimum distance between fence and parcel edge from 2.5' to 5' and minimum lot size from 35' x 35' to 40' x 40'. • Added requirement for pump station parcel to be deeded to County.
ARTICLE 2 - SITE WORK			
NO.	SECTION	PART	DESCRIPTION OF REVISIONS
34	201	All	Changes to formatting and numbering only.

35	202	2	<ul style="list-style-type: none"> Deleted items for concrete (former 202.06) and Gabions (former 202.07). Added items for Grass (2.04), Fertilizer (2.05), Mulch (2.06) and Excelsior Matting (2.07).
36	202	3	Created new Part 3 to include existing information formerly under Products and new information, as needed.
37	203	1	Item 1.02: Deleted former sub-item B regarding grouting of casing void.
38	203	2	Item 2.01: Deleted option to grout casing void (former 203.03.D).
39	203	3	Item 3.04: Reduced settlement monitoring requirements (former 203.08) to "as directed by Owner".
40	203	3	Item 3.09.B: Deleted option to use wood for holding carrier pipe (former 203.13.B).
41	203	3	Item 3.09.C: Revised casing seal from rubber to brick bulkhead (former 203.13.C).
42	204	2	Deleted item for concrete (former 204.09).
43	204	3	Item 3.06: Significant changes to bedding and haunching requirements to include: <ul style="list-style-type: none"> Sub-Item E: Gravity sewers and accessories. Sub-Item G: Water lines and force mains. Sub-Item H: HDPE force mains.
44	204	3	Item 3.07: Added sub-item G for HDPE initial backfill requirements.
45	204	3	Item 3.15: Moved sub-items 1 and 2 from Item E to correct location under Item D.
46	205	2	Deleted references to black base, etc. to match Standard Details.
47	205	2	Reorganized and edited products to remove obsolete GDOT references and to direct work to be conducted in accordance with GDOT requirements.
48	205	2	Move temporary measures from Part 2 (Item 2.02.G) to Part 3 (Item 3.03.B).
49	205	3	Item 3.01: Simplified locations (former 205.06) to refer to (revised) Standard Details.
50	205	3	Item 3.03: Reorganized and edited pavement replacement requirements.
51	206	General	Includes minor edits plus deletion of item related to pump station security (former 206.08).
52	207	All	New section to address all concrete and accessories requirements. Incorporates information formerly located in various individual sections.
ARTICLE 3 - WATER SYSTEM CONSTRUCTION			
NO.	SECTION	PART	DESCRIPTION OF REVISIONS
53	301	2	Item 2.01 (Piping Materials and Accessories): <ul style="list-style-type: none"> Sub-Item A: Revised acceptable manufacturers. Sub-Item A.1: Deleted type class for DIP and revised pressure class requirements.
54	301	2	Item 2.01.B: Added new Sub-Item 1 to specify that service line sizes shall be 3/4", 1" and 2" only. Re-worded "new" Sub-Item's 2 and 3 accordingly.
55	301	2	Item 2.05: Re-worded to require valve markers on all roads and V's stamped into curbs, where applicable.

56	301	2	Deleted tapping saddles (former 301.11).
57	301	2	Item 2.09: Revised item (former 301.14) to categorize by type of service (residential, commercial/institutional, etc.).
58	301	2	Item 2.09.B: Corrected to list required valve as Double <u>Detector</u> Check Valve Assembly.
59	301	2	Deleted check valves (former 301.17).
60	301	2	Item 2.12: Significant changes to manhole and precast vault requirements.
61	301	2	Item 2.12: Deleted Sub-Item C which required steps in manholes and vaults. Re-lettered remaining Sub-Items accordingly.
62	301	2	Deleted item for valve keys (former 301.22).
63	301	3	Item 3.04.B: Revised Sub-Item 8 to delete reference to PVC pipe standards.
64	301	3	Item 3.04.G: Added verbiage describing where encasement needs to be installed.
65	301	3	Item 3.06.E: Deleted verbiage related to welded-on collars.
66	301	3	Item 3.07: Leakage test requirements removed, but will be reinstated.
67	301	3	Item 3.07.D: <ul style="list-style-type: none"> • Revised test pressure from 150 to 200 psi. • Deleted verbiage related to static pressure.
68	301	3	Item 3.08: Deleted Sub-Item B requiring specialty contractor. Re-lettered remaining Sub-Items accordingly.
69	302	2	Item 2.01.A: <ul style="list-style-type: none"> • Revised to replace PE tubing with Municipex as an acceptable service line material. • Revised to specify that service line sizes shall be 3/4", 1" and 2" only.
70	302	2	Item 2.02.A: Revised meter box specifications.
71	302	2	Item 2.02.F: Added requirement for traffic rated meter boxes in pave/high traffic areas.
72	302	2	Item 2.03.A: Revised to require double strap method for connecting service lines.
73	302	2	Item 2.03.B: Requirements for connections to PVC mains (former 302.05.C) changed to case-by-case as approved by OCWRD.
74	303	General	Design portions moved to Article 1 (see number 6 above).
75	303	2	Item 2.02: DIP required for all buried and above ground potable water mains.
76	303	2	Item 2.03: Information on well casing materials separated from well construction (former 303.06) and inserted into Part 2, Products.
77	303	2	Item 2.04: PVC lines (former 303.05.C) revised to include valve materials.
78	303	2	Item 2.06: Requirements for operational and control piping materials added.
79	303	3	Part 3 created to include information related to well system execution.

ARTICLE 4 - WASTEWATER SYSTEM CONSTRUCTION			
NO.	SECTION	PART	DESCRIPTION OF REVISIONS
80	401	2	Item 2.01: Major changes to DIP material specifications - mainly to add to or clarify information/requirements already in place. Includes allowing DIP for both gravity sewers and force mains with Protection 401 lining.
81	401	2	Item 2.01.A: Deleted "shall be" and "and" from first sentence to clarify the requirement.
82	401	2	Item 2.01.D: Added sentence to note that lining is required for all (ductile iron) gravity and force main piping.
83	401	2	Item 2.02: Major changes to PVC material specifications - similar to those for DIP. Includes revision of force main pressure class (PC 235, DR 18) and use of DI fittings.
84	401	2	Item 2.02.B: Revised Sub-Item 2 to change "cast" iron to "ductile" iron.
85	401	2	Item 2.04: Adds HDPE as acceptable for force main.
86	401	2	Item 2.06: Revisions to manholes and precast vault specifications (former 401.05) similar to those for water system precast structures. Coating specification is revised to match recent investigation, but needs additional consideration.
87	401	2	Item 2.06.B: Deleted requirement for two coats of bitumastic paint.
88	401	2	Item 2.06.I: Revised minimum diameter for air valves from 6' to 5' and minimum vertical clearance for valves from 6" to 24" - both to match Detail S22.
89	401	2	Deleted item for concrete (former 401.06).
90	401	2	Item 2.07: Minor changes to plug valve requirements (former 401.07).
91	401	2	Item 2.09: Major changes to ARV requirements (former 401.10) to match ARI valve and other updated information to match changes to the Standard Detail.
92	401	2	Deleted item for valve keys (former 401.14).
93	401	3	Item 3.04: Added laying and jointing requirements (former 401.19) for HDPE force mains.
94	401	3	Item 3.04.F: Revised Sub-Item 2 to add HDPE.
95	401	3	Item 3.06.E: Deleted references to welded-on collars.
96	401	3	Item 3.07 (former 401.23): <ul style="list-style-type: none"> • Sub-Item C.2 added for mandrel testing of gravity sewers. • Infiltration testing deleted. • Sub-Item C.3: Low pressure testing requirements expanded. • Sub-Item D: Leakage test requirements removed, but will be reinstated to match those used for potable water lines. • Sub-Item E: Exfiltration testing of manholes deleted. • Sub-Item E: Table showing minimum times for vacuum testing added.
97	401	3	Item 3.07.C.4: <ul style="list-style-type: none"> • Revised Sub-Item a to add requirement to include dye with water. • Revised Sub-Item b to allow 5% maximum deflection in all lines 12" and smaller.
98	401	3	Item 3.07.E.2: Deleted requirement for vacuum testing before backfilling.

STANDARD DETAILS - WATER AND WASTEWATER

The following is a list of the draft revisions to Oconee County's current water and wastewater system Standard Details issued in January 2011.

GENERAL			
All Details:			
<ul style="list-style-type: none"> • New title block. • Text and dimension type, size, etc. made uniform. • Minor corrections for spelling, references, etc. • Created general classification (G) to reflect details that are relevant to either water or sewer system construction. 			
GENERAL DETAILS			
NO.	Old NO.	TITLE	DESCRIPTION OF REVISIONS
G01	W10	Thrust Blocking	<ul style="list-style-type: none"> • Rearranged dimension table. • Expanded on basis of dimensions sizes.
G02	W11	Pressure Pipe Bedding	<ul style="list-style-type: none"> • Title changed from Water Pipe to Pressure Pipe to reflect use for both water mains and force mains (DIP or PVC). • Added reference to "Max" (maximum) for all trench width dimensions.
G03	W12	Thrust Collar	<ul style="list-style-type: none"> • Expanded on basis of dimension sizes. • Revised to delete references to weld-on flange. • Revised to identify pipe material as DIP.
G04	W13	Valve Marker	Title changed to delete "Water" so as to reflect use for both water and sewer valves.
G05	W17	Valve Box Collar	Number change only.
G06	W18	Extension Stem	Number change only.
G07	W19	Jack and Bore - Casing Pipe	Plan view deleted (not needed).
G08	S09	Pavement Replacement (Roadways)	Update and replacement of former S09.
G09	S09	Pavement Replacement (Driveways)	Update and replacement of former S09.
WATER DETAILS			
NO.	Old NO.	TITLE	DESCRIPTION OF REVISIONS
W01	W01	Fire Hydrant	<ul style="list-style-type: none"> • Revised to address variable locations for hydrant valve. • References to blow-off and air release connections deleted. • Other minor wording, spelling changes.
W02	W02	Gate Valve	Added Note 2 regarding valve extension.
W03	W03	Valve Abandoned	Re-titled.
W04	W04	Water Service Connection	Revised to delete BFP on customer side.
W05	W05	Water Meter Location (Subdivision)	Revised to show casing in Cross Section view.

W06	W06	Water Line Valving at Intersections	Added callout for cross.
W07	W07	Cul-de-Sac Fire Hydrant Location	<ul style="list-style-type: none"> Revised to locate hydrant at end of main. Revised layout of customer service connections at cul-de-sac.
---	W08	Utility Location at Catch Basin	Deleted.
W08	W20	Water Main Stub-Out	<ul style="list-style-type: none"> Note: Thrust collar kept on stubbed section of pipe downstream of valve for thrust protection during line testing/acceptance (i.e., with valve open). Deleted thrust collar dimension table and added reference to Detail G03.
W09	W16	Water Main Location	Number change only.
W10	W23	Large Water Meter Vault	Major revisions to former Detail W23.
W11	W09	Double Detector Check Valve (DCV) Backflow Preventer Vault	New detail to replace former W09, but without meter.
W12	---	Reduced Pressure Zone Backflow Preventer - 1 1/2" and 2"	New detail added for use at sewage pumping stations.
---	W14	Blow-Off Connection	Deleted.
---	W15	Air Release Connection	Deleted.
---	W21	Well House Detail	Deleted.
---	W22	3" and Larger Water Service/ Backflow Preventer	Deleted.
SEWER DETAILS			
NO.	Old NO.	TITLE	DESCRIPTION OF REVISIONS
S01	S02	Precast Concrete Manhole	Revised to show steps (already called out).
S02	S04	Manhole Outside Drop	Concrete encasement of outside drop piping lowered to below upper joint of bend.
S03	S05	Manhole Inverts	Number change only.
---	S03	Omitted	Blank - deleted.
S04	S06	Manhole Frame and Cover	Updated cover models.
S05	S07	Watertight Manhole Frame and Cover	Updated cover models.
S06	S08	Gravity Sewer Bedding	Number and title changes only.
S07	---	Bedding for HDPE Force Main	New detail specific to HDPE installations.
S08	S10	Raising Manhole Frame (Paved Areas)	Number change only.
S09	S11	Raising Manhole Frame (Non-Paved Areas)	Re-formatted and revised to include ring sections.
---	S10	Manhole Frame - Grade Adjustment	Deleted - This work is covered in Detail S01.
S10	---	Service Lateral Connection	New detail to show connection of service at main.

S11	S13	Service Lateral Cleanout	<ul style="list-style-type: none"> Updated piping connections. Revised note to specify service line as same material as main, but cleanout as PVC or as otherwise required.
S12	S14	Flexible Pipe Connection	Re-titled (formerly Rubber Boot).
S13	S15a	Pump Station Site Layout	With S14 and S15, updated to clarify and replace former S15 and S15a.
S14	S15	Pump Station Facilities - Plan	With S14 and S15, updated to clarify and replace former S15 and S15a.
S15	S15	Pump Station Facilities - Section	With S15 and S16, updated to clarify and replace former S15 and S15a.
S16	---	Pump Station - Details	Added to include current and new details associated with Details S13-S15.
---	S17	Flexible Coupling	Deleted.
S17	S16	Manhole Over Existing Sewer (Doghouse)	<ul style="list-style-type: none"> Plan view included. Notes expanded.
---	S18	Pumping Station Emergency Bypass	Deleted.
S18	S19	Non-Freeze Post Hydrant	Number change only.
S19	S21	Force Main Discharge Manhole	Major changes to inlet and table construction.
---	S20	Ultrasonic Level Sensor Support	Deleted.
S20	S22	Air Release/Air Vacuum Valve	Updated for new ARI valve, etc.
S21	S01	Grease Trap	Updated, including matching minimum size to specifications.
---	S23	Concrete Pier	Deleted.
---	S24	Concrete Pier	Deleted.
---	S25	Pipe Anchorage	Deleted.

STANDARD DETAILS - REUSE WATER

All reuse water details (R01 - R06) were deleted.

APPENDICES

NO.	TITLE	DESCRIPTION OF REVISIONS
A	Application for Extension of Water Facilities	Added to set.
B	Application for Extension of Wastewater Facilities	Added to set.
C	Water System Inspection Checklist	Added to set.
D	Sewer System Inspection Checklist	Added to set.
E	Sewer Capacity Fee Policy	Added to set.

- END -