



**Irvine Ranch
Water District**

February 20, 2024

Attention: IRWD Construction Manual Holders

Subject: IRWD Construction Manual 2024

This letter provides notice of revisions made to the Irvine Ranch Water District (IRWD) Construction Manual. IRWD made modifications to several of the Standard Drawings and General Technical Specifications.

Holders of IRWD's Construction Manual (Standard Drawings and General Technical Specifications) should completely replace the 2023 Construction Manual with the 2024 Construction Manual.

The latest Standard Drawings and General Technical Specifications can be accessed by going to <http://www.irwd.com>, clicking "Engineering" under the "Business" tab. At the "Engineering" page, the "Construction Manual" link can be selected. You can also select or type in the address below:

Construction Manual:

<https://www.irwd.com/images/pdf/doing-business/engineering/2024/IRWDConstructionManualFeb2024.pdf>

Numerous minor changes to the Standard Drawings are included in the Construction Manual Update. Substantive changes include the following:

All Drawings

- Updated signature block with revision date.

W-1 – 1" Copper Service

- Revised Item 11 to read: Identification tape per IRWD STD. Spec. Section 15151. Tape to copper pipe at 2' intervals using 2" wide 10-mil tape and place on top of sand layer.
- Added Note 10: Pipe bedding zone per IRWD STD. Spec. Section 02223. 4" minimum sand bedding, 12" minimum sand above pipe, and 24" minimum trench width.

W-2 – 2” Copper Service

- Sheet 1: Revised Item 12 to read: Identification tape per IRWD STD. Spec. Section 15151. Tape to copper pipe at 2’ intervals using 2” wide 10-mil tape and place on top of sand layer.
- Sheet 1: Added Note 10: Pipe bedding zone per IRWD STD. Spec. Section 02223. 4” minimum sand bedding, 12” minimum sand above pipe, and 24” minimum trench width.
- Sheet 2: Revised Item 17 to read: Identification tape per IRWD STD. Spec. Section 15151. Tape to copper pipe at 2’ intervals using 2” wide 10-mil tape and place on top of sand layer.
- Sheet 2: Added Note 10: Pipe bedding zone per IRWD STD. Spec. Section 02223. 4” minimum sand bedding, 12” minimum sand above pipe, and 24” minimum trench width.

W-5 – 3”, 4”, 6”, 8” and 10” Meter Assembly

- Sheet 1: Revised Item 8 to read 4” RW gate valve, F.E. x F.E.
- Sheet 2: Revised Item 8 to read 4” RW gate valve, F.E. x F.E.
- Sheet 4: Revised Item 2 to read Meter size gate valve, F.E. x P.O.

W-8 – Fire Hydrant

- Revised Item 10 to read: Zinc-plated break-away bolts at hydrant flange.
- Revised Note 6: Fill zinc-plated break-away bolts with silicone sealant.

W-9 – Recycled Water Wharf Head Hydrant

- Revised Item 10 to read: 4” bronze companion flanges, threaded, with zinc-plated break-away bolts.
- Revised Note 7: Fill zinc-plated break-away bolts with silicone sealant.

S-1 – Manhole

- Sheet 1: Added Item 14 to read Manhole cone shall be eccentric per IRWD STD. Spec. Section 03461.
- Sheet 1: To Item 4, added See Sheet 2 for concrete pad dimensions table.
- Sheet 2: Added table for concrete pad dimensions based on manhole cover size.
- Sheet 2: Added Note 17 to read Where the distance from the center of the manhole to the face of the curb exceeds 10’, the District may accept drivable access with depressed curb.

GP-5 – Vault Ladder

- Revise 1” in Item 6 to 3/4”.

GP-8 – 2-1/2” < Wall Penetration < 4”

- Revised description to read Wall Penetration for 2-1/2” < Pipe < 4”
- TOC revised to match.

GP-9 – Wall Penetration > = 4”

- Revised description to read Wall Penetration for Pipe > = 4”
- TOC revised to match.

Numerous minor changes to the General Technical Specifications are included in the Construction Manual Update. A list of the updated sections is shown in the table below. A track changes version of the updated specifications is available upon request.

Construction Manual		
Specification No.	Description	Revision Date
01045	Existing Facilities	02/20/2024
02701	Installation of Gravity Sewer Pipelines	02/20/2024
02710	Vitrified Clay Pipe for Gravity Sewers	02/20/2024
02715	PVC Pipe and Fittings for Gravity Sewers	02/20/2024
03201	Concrete Reinforcement	02/20/2024
03300	Concrete	02/20/2024
05120	Structural Steel and Miscellaneous Metalwork	02/20/2024
09900	Painting and Coating	02/20/2024
15064	PVC Pressure Pipe and Fittings	02/20/2024
15089	Combination Air Release and Vacuum Relief Valves	02/20/2024
15112	Backflow Preventers	02/20/2024
15139	Hydrants	02/20/2024
15151	Facilities Identification	02/20/2024
16010	General Electrical Requirements	02/20/2024
16051	Miscellaneous Electrical Devices	02/20/2024
16110	Raceways, Pull Boxes, and Fittings	02/20/2024
16120	Conductors and Cables	02/20/2024
16135	Cabinets and Enclosures	02/20/2024
16140	Switches and Receptacles	02/20/2024
16160	Panelboards	02/20/2024
16400	Service and Distribution	02/20/2024
16450	Grounding	02/20/2024
16460	Transformers	02/20/2024
16950	Electrical Testing	02/20/2024
17000	General Instrumentation Control Requirements	02/20/2024

IRWD Construction Manual 2024

February 20, 2024

Page 4 of 4

If you have questions or suggestions for revisions to the Construction Manual, please contact Belisario Rios, Chairman of the Standard Specifications and Drawings Committee, at (949) 453-5394 or rios@irwd.com.

Sincerely,

Kevin L Burton

Kevin L. Burton, P.E.

Executive Director of Technical Services