Disclaimer for Construction Plans and Design Report Examples

The information you have accessed or received is provided "as is" for informational purposes only. The Arizona Department of Environmental Quality (ADEQ) or the authors do not provide any warranties of any kind regarding this information. In no event shall Arizona or its contractors or subcontractors be liable for any damages, including but not limited to, direct, indirect, special or consequential damages, arising out of, resulting from, or in any way connected with this information, whether or not based upon warranty, contract, tort, or otherwise, whether or not arising out of negligence, and whether or not injury was sustained from, or arose out of the results of, or reliance upon the information.

The example design report and construction plans are provided for the express purpose of assisting engineers in creating these documents for submittal to ADEQ, and to display the minimum requirements necessary for ADEQ approval. Other agencies, cities, counties, contractors, developers and other entities may require different or additional criteria and should be referenced accordingly. The complexity of your design may require additional information. This example may be revised from time to time and the design engineer should ensure that they have the most recent copy prior to creating their design. If you have any questions regarding this information, please contact our office at WQD_DWR@azdeq.gov.

It is the responsibility of the Professional Engineer to ensure that the design is adequate and meets the requirements of the project.

Storage Tank Example

GENERAL NOTES

- 1. In accordance with A.A.C. R18-5-504, all construction materials will be lead free, excluding leaded joints for cast iron pipes.
- 2. All water treatment chemicals and water components in contact with potable water will conform to National Sanitation Foundation 60 and 61 respectively. All plastic pipes and fittings will have the National Sanitation Foundation seal in accordance with Engineering Bulletin No. 10.
- 3. The system is designed using good engineering practice in accordance to Engineering Bulletin No. 10, as stated in A.A.C R18-5-502.
- 4. The minimum pipe cover is 3 ft given by the Engineering Bulletin No. 10.
- 5. All pipes, valves and other appurtenances will conform to the current AWWA standards in accordance with Engineering Bulletin No. 10.
- 6. All connections have national standard threads in accordance with MAG 360-1.
- 7. All new waterlines shall be pressure tested in accordance with current AWWA C605 for PVC and AWWA C600 for DIP.
- 8. All new water system components or equipment will be disinfected and flushed in accordance to Engineering Bulletin No. 8 Disinfection of Water Systems or AWWA C651-14. Tank disinfection will follow AWWA Standard C652.
- 9. After disinfection, all water system components or equipment will be bacteriologically tested by the Bacti test through an Arizona Department of Health Services certified laboratory.
- 10. All paint systems and cathodic protection equipment used to protect against corrosion conform to current AWWA D102 standards.

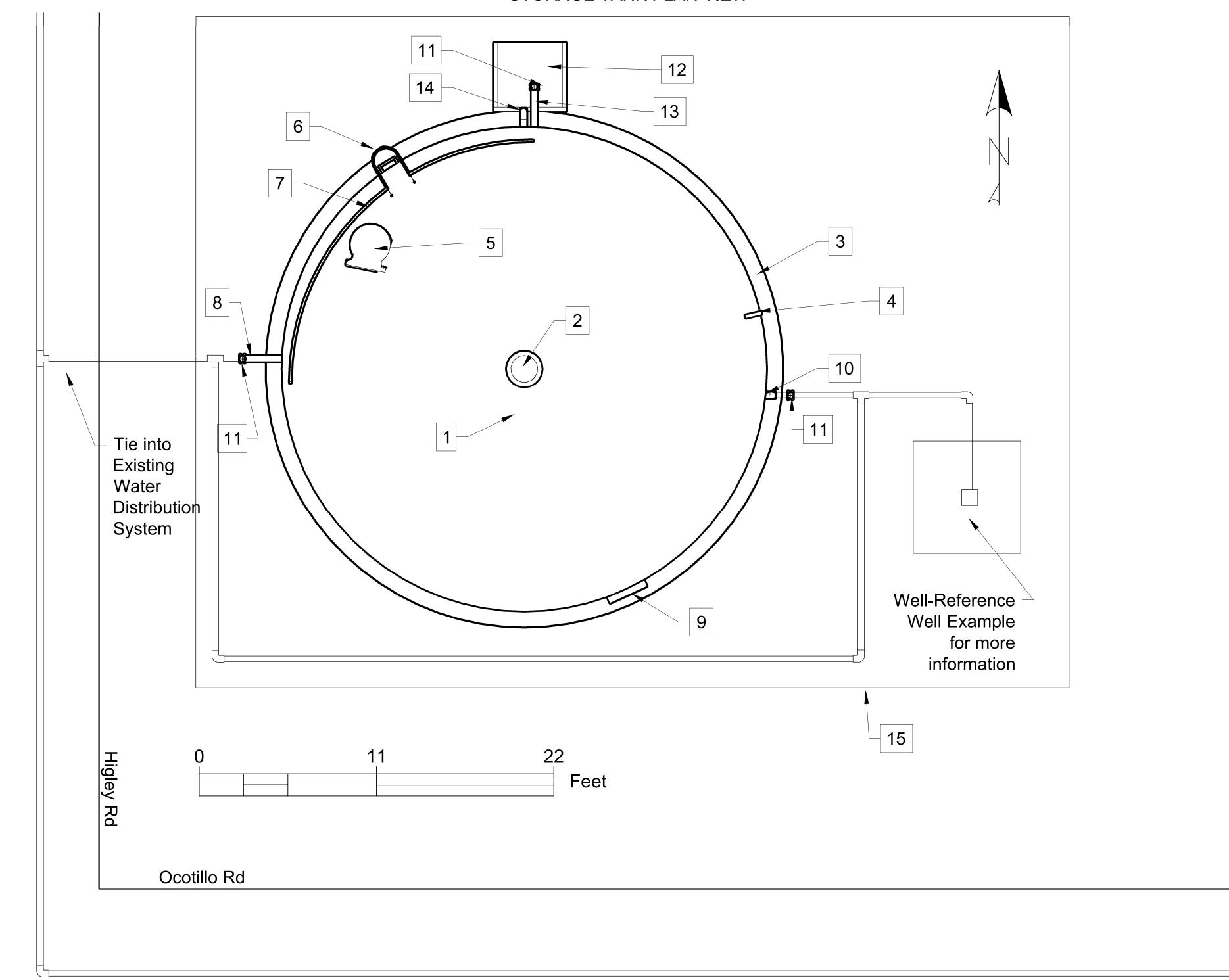
BASIS OF BEARING

The site is located within Gilbert, AZ at the respective coordinates: Lat 33.24772615 N, Long 111.84106692 W. The township is 1S 6E, Section 14 SWSW. The site is located in the X-shaded flood zone and not within the 100 year flood zone.

MATERIALS AND QUANTITY

Materials	Quantity
Steel Tank w/ 30' diameter and 30' high, watertight and sloped for drainage	1
24" Circular Rood Hatch (Hinged) w/ Lock, 24" above roof and 6" framed	1
30" Circular Manhole (Hinged) w/ Lock, 24" from sidewall and 6" framed	1
Steel Ring w/ Adequate bedding	1
4" T Joint	2
4'' 90° Bend Joint	7
30' Ladder w/ Safety Cage, Balcony Railings, and Ladder Guard	1
20" Vent w/ 16-mesh non-corrodible screen	1
Level Gauge	1
4" Shut-off Valves	3
4" PVC C900 Piping	142'
6' Fence w/ locked gate	192'
4" 16-mesh non-corrodible screen	1
Pipe Supports, welded	4

STORAGE TANK PLAN VIEW



Project Contact: Date:_

LEGEND

1 100,000 Gal Steel Tank

6 Ladder w/ Safety Cage

11 4" Shut-off Valve

2 20" Vent w/ 16-mesh screen 7 Balcony Railings

12 Concrete Splash Pad

3 Steel Ring w/ Adequate Bedding

8 4" Outflow Pipe 9 30" Circular Manhole, Locked 14 4" Overflow Pipe w/ 16-mesh screen

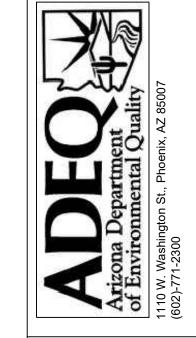
13 4" Drainage Pipe

4 Level Gauge 5 24" Roof Hatch, Locked 10 4" Inflow Pipe

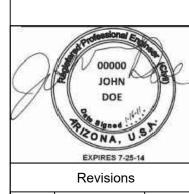
15 6' Fence, Locked

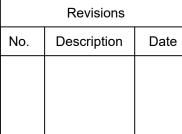






age





Designed by: Drafted by: Checked by: Date: June 2020

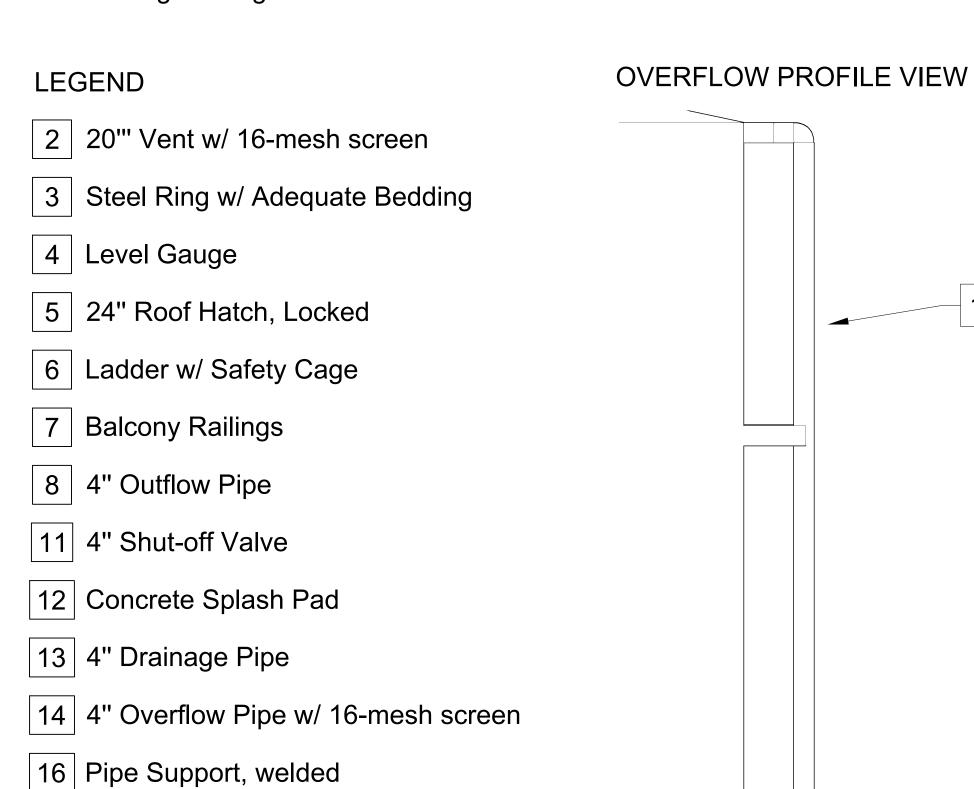
Project No 0407222

Storage Tank Example

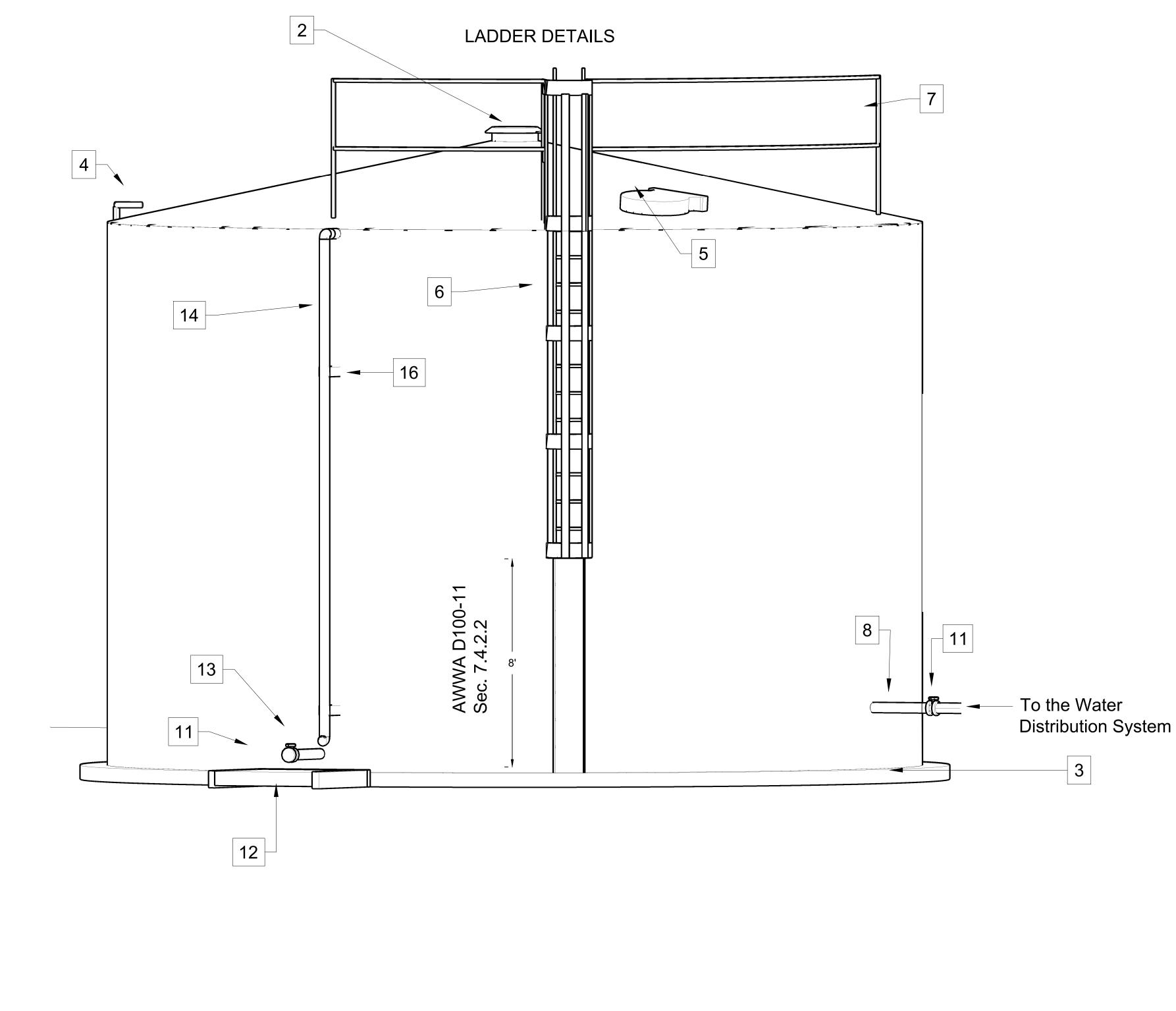
GENERAL NOTES

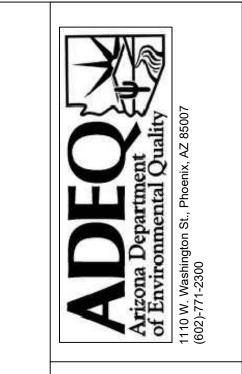
OVERFLOW PLAN VIEW

- 1. The variation between high and low levels in the storage unit will not exceed 30 ft in accordance to the Engineering Bulletin No. 10.
- 2. Storage tank meets minimum capacity to support average daily demand during the peak month of the year and, if applicable, fire flow demand in accordance with A.A.C. R18-5-503 and Engineering Bulleting No. 10. (relevant for CWS or Non-community in support of residential area)
- 3. Tanks are designed in accordance with AWWA standards. (Steel-D100, Concrete-D110/D115, Plastic-D120, Fiberglass-D121)
- 4. Roof, sidewall, vents, and openings are all watertight in accordance with the Engineering Bulletin No. 10.

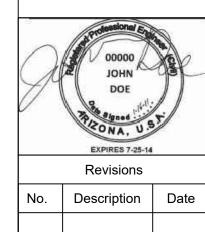


16





Steel Tank Specifics



Designed by:
Drafted by:
Checked by:

Project No 0407222

Date: June 2020

Sheet 2