

AMERICAN WATER CO - INDIANA
PROGRESSIVE DESIGN- BUILD ALLISONVILLE
ROAD WATER TREATMENT FACILITY
NOBLESVILLE, INDIANA



Project Description

To increase capacity of the system and to provide iron and manganese removal, INAW implemented the design-build of a new 4.5 MGD groundwater treatment facility. The plant capacity is now 6.0 MGD expandable to 10 MGD. For the treatment of iron and manganese, the design utilizes, a forced draft, tray-style aerator located on the top of an aerated water detention tank for oxidation and horizontal filters with dual sand anthracite media for removal. The new chemical storage and feed facilities are for sodium hypochlorite, hydrofluosilicic acid, and polymer. Disinfection is within a 1 MG concrete post-tensioned clearwell. Vertical turbine pumps, installed in cans, are used for high service pumping. Backwash residuals management is accomplished using an enclosed cast-in-place concrete holding tank with a floating decanter connected to recycle pumps which send flow to the head of the plant. Solids are pumped to the sanitary sewer. Additional details included:

- Aeration Detention Tank (steel construction)
 - Typical chemical feed rooms : Sodium Hypo – bulk deliveries, Fluoride -- bulk deliveries, Corrosion Inhibitors – skids or totes, Filter Aids – skids or totes, and set up for "future" Sodium Permanganate and Future Ammonia
- 3 horizontal Pressure Filters (expandable to 6 for the 10 MG)
- Backwash Tanks buried with precast lids on them.
- 1.0 MG Clear Well (post tensioned concrete)
- Three each – high service pumps. Expandable to four total pumps for the 10.0 MG
- New building architecture designed to match existing bldg

At a Glance

Contract Amount:
\$17.1 M

Notice to Proceed:
July 1, 2018

Completion Date:
May 31, 2020

MGD:
Project: 4.5, plant now 6.0,
expandable to 10

Owner Contact Info:
American Water Co – Indiana

Engineer Contact Info:
Gannett Fleming