

Sanitary Sewer Design Narrative for:

Monarch

ST. GEORGE'S HUNDRED
NEW CASTLE COUNTY, DELAWARE
NCC APPLICATION #2020-0644



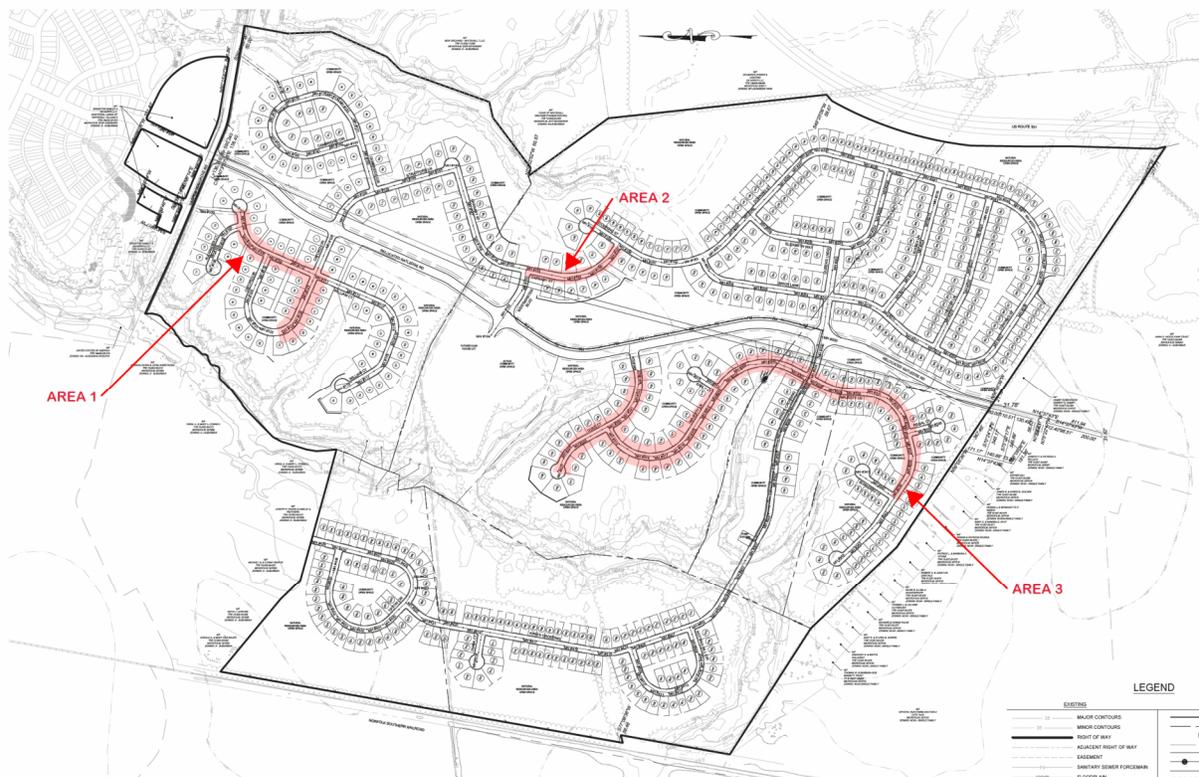
January 15, 2024

The Monarch Subdivision is located on both sides of Ratledge Road, on the south side of Lorewood Grove Road. The site is approximately 540 acres, and the subdivision will contain 674 single-family detached houses. In addition, Ratledge Road is being realigned and upgraded to meet future traffic needs.

This site was once part of the Town of Whitehall planned unit community. Specifically, these lands were the future locations for Whitehall Village 5 and Whitehall Village 6. Village 5 contained approximately 875 dwelling units + commercial area & Village 6 contained approximately 980 dwelling units + commercial. On the opposite side of Lorewood Grove Road, Brighton Hamlet 4 (formerly Whitehall Hamlet 4) was approved with a pump station located on the Monarch property. The pump station was designed for 150,210 GDP, serving 39,900 GDP for Hamlet 4 & 110,310 GDP for Village 5.

Due to significant elevation changes in the upland areas, significant WRPA recharge areas, and environmental constraints, the on-site sanitary sewer flows to three different areas. The three on-site sewer areas are:

- Area 1, northwest section of site, flows to Hamlet 4 pump station.
- Area 2, northeast section of site, flows to Village 1 pump station via existing sewer along Lorewood Grove Road
- Area 3, southern half of the site, flows to proposed pump station and discharges into Area 2 gravity sewer.



Area 1

Area 1 contains 70 single-family detached houses and is located at the northwest corner of the property. It is bordered by Joy Run to the west, Lorewood Grove Road to the north, and Ratledge Road to the east. The sewer will connect to an existing manhole, recently constructed with Hamlet 4.

Area 2

Area 2 contains 104 single-family detached houses and is located at the northeast corner of the property. It is bordered by an unnamed tributary to the C&D Canal to the west, Lorewood Grove Road to the north, and Ratledge Road to the west. The sewer will connect to an existing manhole, recently constructed with the Lea Earra wastewater treatment plan was removed and pumped to the Whitehall Village 1 pump station.

Area 3

Area 3 contains the southern half of the subdivision. Flow from 500 single family houses discharge into a proposed pump station located on King's Crossing. This location was chosen so it could also service the houses on the west side of Joy Run (132 units).