



Department of Natural Resources
and Environmental Control
89 Kings Hwy
Dover, DE 19901
dnrec.delaware.gov

Division of Water
Commercial and Government Services Section

Phone: (302) 739-9948

INSTRUCTIONS FOR COMPLETING THE PERMIT APPLICATION FOR THE CONSTRUCTION OF WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS

The following items must accompany the application. **Please note that incomplete application packages will be returned in their entirety and not reviewed until such time as all required information is received.**

- 1. A narrative summary of the intended purpose and design of the proposed facilities.
 - 2. One (1) set of final construction plans and specifications (paper copy), if applicable, signed and sealed by a Delaware-registered Professional Engineer, or a Delaware-registered Professional Land Surveyor for gravity systems only.
 - 3. One (1) electronic copy of final Plans.
 - 4. The final plans must be drawn to scale showing slopes, inverts, pipe types and sizes, existing and proposed ground surfaces, tops of manholes, water lines, stormwater and stream crossings, encasements shown in plan and profile, and other information if pertinent or requested.
 - 5. For pump/lift stations and force mains, include all calculations and pump/performance curves.
 - 6. A check made payable to the **State of Delaware** for two thousand and five hundred dollars (\$2500.00), the non-refundable permit review fee. This fee covers the initial review and one follow-up review of any corrections or changes made to address the Division's comments. An additional two thousand and five hundred dollars (\$2500.00) non-refundable review fee must be submitted for resubmission of the plans if changes are made to the project which trigger a complete review of the permit application.
 - 7. Your permit will have a public notice requirement if your system includes force mains or pump/lift stations. Include a check made payable to the State of Delaware for three hundred dollars (\$300.00) for the reimbursement of legal notices if the system has a force main connection or a pump/lift station.
 - Please submit the completed application package, as outlined above, to DE DNREC, Division of Water, Commercial and Government Services Section, 89 Kings Highway, Dover, DE 19901. Please note, a new application, including the review fee, must be submitted if the Division's comments are not addressed or if requested supplemental information is not provided within one (1) year of the comment or request date.
 - The following items must be submitted prior to permit issuance:
- N/A 8. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval.
- N/A 9. A letter from the owner/operator of the wastewater facilities to which the proposed collection and conveyance facilities connect. The letter must include confirmation that the owner/operator has approved the project, that the owner/operator will take responsibility for treating and disposing of the wastewater to be conveyed and that the downstream facilities have the capacity to manage the additional flows without causing or contributing to violations of Delaware's Environmental Protection Act (7 Del. C., Chapter 60) and the regulations promulgated thereafter. This includes, but is not limited to, unauthorized discharges such as overflows at manholes and violations of the treatment system's operating permit (for example, the National Pollutant Discharge Elimination System (NPDES) permit).
- Visit us on the web at: <https://dnrec.delaware.gov/water/commercial-government/>

**APPLICATION FOR THE CONSTRUCTION OF
WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS**

Application must be complete, typewritten or clearly printed

Date Application Submitted 05/20/2026

| PROJECT INFORMATION | | | |
|--|----------------|---|--|
| Project Name and Location/ Address Richardson Park Pump Station. Located at 100 Brookside Drive, Wilmington, DE 19804 | | | |
| Tax Parcel Number(s) 0704320152 | | | |
| County <input type="checkbox"/> Kent <input checked="" type="checkbox"/> New Castle <input type="checkbox"/> Sussex | | Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) <input type="checkbox"/> Chesapeake Bay <input checked="" type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont | |
| Sewer District or Interceptor Little Mill | | Wastewater Treatment/Disposal Facility Name City of Wilmington WWTP | |
| Anticipated Construction Start Date July 2026 | | Treatment/Disposal Facility Owner and Operating Permit Number City of Wilmington DE 0020320 | |
| Please note, construction permits expire three (3) years from the date of permit issuance. | | | |
| Are you requesting plan review and comment or <u>WPCC Construction Permit issuance?</u> (circle one) | | | |
| Design Flow (gallons/day) Average 5 MGD | Peak 22 MGD | Peak Factor 4 | Basis of Design Metering Data Growth Projections |
| Description Construction of a new Richardson Park Pump Station and associated piping to connect the gravity and force main to existing infrastructure. Phase 1 of the project was previously completed which included only the substructure of the pump station and underground pipe and utility work. This permit request is for Phase 2 of the project which will include the completion of the pump station building, pumping equipment, and other appurtenances. | | | |
| OWNER/DEVELOPER | | | |
| Company Name New Castle County Department of Public Works | | | |
| Mailing Address 187A Old Churchmans Road | | | |
| City New Castle | | State DE | Zip 19720 |
| Contact Name Hassan A. Mageid, P.E. | | | |
| E-Mail Address Hassan.Mageid@Newcastlede.gov | | | |
| Telephone (302) 395-5739 | Cell | Fax (302) 395-5802 | |

| ENGINEER | | | | | |
|---|---|--|--|---|---|
| Company Name Whitman Requardt & Associates | | | | | |
| Mailing Address 801 South Caroline Street | | | | | |
| City Baltimore | | State MD | | Zip 21231 | |
| Contact Name William Wagner, PE | | | | | |
| E-Mail Address WWagner@wrallp.com | | | | | |
| Telephone 443-224-1543 | | Cell | | Fax | |
| GRAVITY SEWER INFORMATION | | | | | |
| Ownership <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private | Type of Sewer System <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Other? | | | If Other, list below | |
| Type of Pipe C905 PVC - DR 25 | Length (ft) 22 114 | Diameter (in) 36 42 | Joint Specification Gasketed ASTM D-3212 | Min. Slope (ft/ft) 4.3% 0.2% | Min. Velocity (ft/sec) 2 ft/sec |
| Minimum Pipe Cover (ft) 12 | Number of Manholes 4 | Drop manholes provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | Maximum Distance Between Manholes (ft) 94 | |
| Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | If not, explain provisions to prevent cross-contamination: | | |
| Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.) None | | | | | |
| Comments | | | | | |

| PUMP/LIFT STATION INFORMATION | | | | |
|---|---|---|--|--|
| Ownership <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private | | Type of Wastewater <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Other? | | If Other, list below |
| Pump Station Flows (gallons/day) Design 31680 gpm | | Average 5 MGD | Peak 22 MGD | Peak Factor 4 |
| Basis of Design | | | Pump Type | |
| Will peak flows be accommodated if largest unit fails? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | Pump calc's and pump curves attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Cycle Time (minutes) 18.5 dry avg daily | Wet Well Detention Time (minutes) 14 dry avg daily |
| Check valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | Gate valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| If not, explain alternate procedure: | | | | |
| Ventilation provided in wet well? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | Dry Well? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Is an alarm system included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Phase 2 | Alternate source of power? <input type="checkbox"/> Yes <input type="checkbox"/> No Phase 2 |
| What other provisions for emergency operations? | | | | |
| Height of Influent Above Pump (suction head) (ft) 5 | | Height of Effluent Above Pump (discharge head) (ft) 65.5 | | Friction Loss (ft) 22.5 |
| Pump Design Point 5090 gpm per pump / 3 pumps | Pump Operating Point 83ft 3 pumps | Static Head (ft) 60.5 3 pump | Total Head (ft) 83ft 3 pumps | Required Motor Horsepower (hp) 150 |
| FORCE MAIN INFORMATION | | | | |
| Type of Pipe DIP | | Length (ft) 442 44 Phase 2 | | Diameter (in) 30 24 |
| Hazen-Williams "C" Design Factor 140 | Type of Joints PE + MJ | Velocity Under Design Conditions (ft/sec) > 2.0 ft/sec | Minimum Pipe Cover (ft) 5 | |
| Air relief valves specified? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No none required | Clean-outs provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No none required | Maximum distance between clean-outs (ft) 500 | | |
| Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | If not, explain provisions to prevent cross-contamination: | | |
| Comments | | | | |