



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.

(Emailed, per coordination) ☒ 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:

(DD1391) ☒ 8. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval.

(Approval Pending) ☐ 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 07/16/2026

PROJECT INFORMATION			
Project Name and Location/ Address Dover Air Force Base - 512th Ops Group Facility, Building 270 Dover Air Force Base Dover, DE 19902			
Tax Parcel Number(s) 2-05-08700-01-0600-00001			
County ☒ Kent ☐ New Castle ☐ Sussex		Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) ☐ Chesapeake Bay ☒ DE Bay/Estuary ☐ Inland Bays/Atl Ocean ☐ Piedmont	
Sewer District or Interceptor Kent County Sewer District		Wastewater Treatment/Disposal Facility Name Kent County Regional Resource Recovery Facility	
Anticipated Construction Start Date 01/2027		Treatment/Disposal Facility Owner and Operating Permit Number Kent Conuty Levy Court	
Please note, construction permits expire three (3) years from the date of permit issuance. — Noted			
Are you requesting plan review and comment on WPCC Construction Permit issuance? (circle one)			
Design Flow (gallons/day) Average 5908.6 GPD		Peak 13.9 GPM	Peak Factor -
Basis of Design TOTAL BUILDING SEWER FLOW = 5908.6 GPD PLUMBING FIXTURES: 350 PEOPLE X 10 GPD = 3500 GPD SHOWERS: ASSUMED USAGE OF 20 MIN PER HOUR FOR 10 HOURS PER DAY = 2400 GPD SLAB AND MECHANICAL EQUIPMENT WASHING: 5 GPM PER HOUSE PER USAGE PERIOD, 60 MIN PER WEEK USAGE PER HOSE: TOTAL WASH USAGE = 8.5714 GPD.			
Description Existing Building 270 will be demolished and a new Building will be constructed. To serve the proposed Building, the proposed system consists of a 4" sanitary lateral exiting the building, connecting to a sanitary pump station and a 1.5" PVC force main, ultimately discharging to a manhole that drains by gravity to the existing sanitary sewer system.			
OWNER/DEVELOPER			
Company Name Dover Air Force Base			
Mailing Address 600 Chevron Avenue			
City Dover		State DE	Zip 19902
Contact Name Mr. Jason Halpin, P.E.			
E-Mail Address jason.halpin.1@us.af.mil			
Telephone (302) 677-6466		Cell	Fax

ENGINEER					
Company Name HDR, Inc.					
Mailing Address 500 7th Avenue, 15th Floor					
City New York			State NY		Zip 10018
Contact Name Kevin Baccaro, PE					
E-Mail Address kbaccaro@hdrinc.com					
Telephone 732-895-1844		Cell		Fax	
GRAVITY SEWER INFORMATION					
Ownership ☐ Public ☒ Private		Type of Sewer System ☐ Residential ☒ Commercial ☐ Industrial ☐ Other?		If Other, list below Government	
Type of Pipe P.V.C.	Length (ft) 20	Diameter (in) 4	Joint Specification	Min. Slope (ft/ft) 0.0448	Min. Velocity (ft/sec) 2 ft/sec
Force Main	N/A	N/A	N/A	N/A	N/A
D.I.P.	34	6		0.0050	2 ft/sec
Minimum Pipe Cover (ft) 3'-0"	Number of Manholes 1	Drop manholes provided? ☐ Yes ☒ No		Maximum Distance Between Manholes (ft) 34	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? ☒ Yes ☐ 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.) N/A					
Comments					

PUMP/LIFT STATION INFORMATION				
Ownership ☐ Public ☒ Private		Type of Wastewater ☐ Residential ☒ Commercial ☐ Industrial ☐ Other?		If Other, list below Government
Pump Station Flows (gallons/day) Design 5908.6 GPD		Average 4.25 GPM (Inflow)	Peak 10.6 GPM (Inflow)	Peak Factor 2.5
Basis of Design See attached calculations			Pump Type Solids Handling Wastewater Pump	
Will peak flows be accommodated if largest unit fails? ☒ Yes ☐ No		Pump calc's and pump curves attached? ☒ Yes ☐ No		Cycle Time (minutes) 10
Check valves provided on discharge line? ☒ Yes ☐ No			Gate valves provided on discharge line? ☒ Yes ☐ No	
If not, explain alternate procedure:				
Ventilation provided in wet well? ☒ Yes ☐ No		Dry Well? ☐ Yes ☒ No		Is an alarm system included? ☒ Yes ☐ No
Alternate source of power? ☒ Yes ☐ No				
What other provisions for emergency operations?				
Height of Influent Above Pump (suction head) (ft) See attached calculations		Height of Effluent Above Pump (discharge head) (ft) See attached calculations		Friction Loss (ft) See attached calculations
Pump Design Point 13.9 GPM	Pump Operating Point 13.9 GPM	Static Head (ft) See attached calculations	Total Head (ft) See attached calculations	Required Motor Horsepower (hp) 1
FORCE MAIN INFORMATION				
Type of Pipe SDR11 H.D.P.E.		Length (ft) 160		Diameter (in) 1.25
Hazen-Williams "C" Design Factor 150	Type of Joints Integral Bell		Velocity Under Design Conditions (ft/sec) 2.78	Minimum Pipe Cover (ft) 3.0
Air relief valves specified? ☐ Yes ☒ No	Clean-outs provided? ☐ Yes ☒ No		Maximum distance between clean-outs (ft) N/A. Manhole located after pump station	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? ☒ Yes ☐ No		If not, explain provisions to prevent cross-contamination:		
Comments				