

3041/26



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07-24-2026
Division of Water

Division of Water
Commercial and Government Services Section

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

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:
 - ☒ 8. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval.
 - ☒ 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 _____

PROJECT INFORMATION			
Project Name and Location/ Address 11th Street Dry-Weather Pump Station 900 East 11th Street Wilmington, DE 19802			
Tax Parcel Number(s) 2603640003			
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 City of Wilmington and NCC Brandywine Interceptor		Wastewater Treatment/Disposal Facility Name Wilmington Wastewater Treatment Facility - 12th Street 1701 E 12th Street Wilmington, DE 19809	
Anticipated Construction Start Date August 2026		Treatment/Disposal Facility Owner and Operating Permit Number Owner - City of Wilmington Operator - Jacobs Engineering Group Permit Number - DE0020320	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting plan review and comment or WPCC Construction Permit issuance? (circle one)			
Design Flow (gallons/day) Average 19 MGD	Peak System: 150 MGD New DWPS: 60 MGD	Peak Factor System: 5.0 New DWPS: 3.2	Basis of Design 60 MGD
Description This project will construct a new dry-weather pump station (DWPS) adjacent to the existing pump station which is to remain. The existing pump station handles flows up to 150MGD in peak hydraulic conditions and will continue to be utilized in wet-weather conditions when flows are above the capacity for the new DWPS. See narrative for additional details.			
OWNER/DEVELOPER			
Company Name City of Wilmington Department of Public Works			
Mailing Address 800 N. French Street, 6th Floor			
City Wilmington	State DE	Zip 19801	
Contact Name Bryan Lennon			
E-Mail Address bplennon@wilmingtonde.gov			
Telephone 302-576-3081	Cell	Fax	

ENGINEER					
Company Name CHA Consulting, Inc.					
Mailing Address 2 Mill Road, Suite 200					
City Wilmington			State DE		Zip 19806
Contact Name Craig W. Murray, P.E.					
E-Mail Address cmurray@chasolutions.com					
Telephone 302-918-5917		Cell 302-463-4581		Fax	
GRAVITY SEWER INFORMATION					
Ownership ☒ Public ☐ Private		Type of Sewer System ☒ Residential ☐ Commercial ☐ Industrial ☐ Other?		If Other, list below	
Type of Pipe	Length (ft)	Diameter (in)	Joint Specification	Min. Slope (ft/ft)	Min. Velocity (ft/sec)
Steel	142'	66"	Welded	0.75ft/142ft = 0.005	0.49
Minimum Pipe Cover (ft) 17'	Number of Manholes 0	Drop manholes provided? ☐ Yes ☒ No		Maximum Distance Between Manholes (ft) n/a	
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.) Pipe installation is expected to encounter bedrock. The 66" pipe is an interconnecting pipe between the existing pump station and the new dry-weather pump station. This pipe will provide hydraulic connection between the two pump stations. Construction of gravity pipe will be phased to not interrupt the operations of the existing pump station. Additional details can be found on the Contract drawings.					
Comments					

PUMP/LIFT STATION INFORMATION					
Ownership ☒ Public ☐ Private		Type of Wastewater ☒ Residential ☐ Commercial ☐ Industrial ☐ Other?		If Other, list below	
Pump Station Flows (gallons/day) Design 60 MGD		Average 19 MGD		Peak System: 150 MGD New DWPS: 60 MGD	
				Peak Factor System: 5.0 New DWPS: 3.2	
Basis of Design 60 MGD			Pump Type Submersible, centrifugal		
Will peak flows be accommodated if largest unit fails? ☒ Yes ☐ No		Pump calc's and pump curves attached? ☒ Yes ☐ No		Cycle Time (minutes) VFD-driven pumps will manage wet well level as part of this design	
				Wet Well Detention Time (minutes) VFD-driven pumps will manage wet well level as part of this design	
Check valves provided on discharge line? ☒ Yes ☐ No			Gate valves provided on discharge line? ☐ Yes ☒ No		
If not, explain alternate procedure: Plug valves provided on pump discharge lines.					
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? Redundant power feeds to site and existing emergency diesel generator. Existing pump station to remain for high flow conditions and redundancy.					
Height of Influent Above Pump (suction head) (ft) WWPS Influent - Pump Suction (-12.95) - (-20.25) = 7.3'		Height of Effluent Above Pump (discharge head) (ft) Force Main ϕ - Pump ϕ (3.50) - (-11.00) = 14.5'		Friction Loss (ft) Friction Loss from DWPS to Force Main connection at 60MGD = 1.21'	
Pump Design Point See attached	Pump Operating Point See attached	Static Head (ft) 17.5 ft	Total Head (ft) 39 ft	Required Motor Horsepower (hp) 168 hp	
FORCE MAIN INFORMATION					
Type of Pipe Steel and Ductile Iron		Length (ft) Ductile Iron: 45' Steel: 259'		Diameter (in) Ductile Iron: 24" Steel: 72"	
Hazen-Williams "C" Design Factor Ductile Iron: 140 Steel: 100	Type of Joints Ductile Iron: Flanged Steel: Welded		Velocity Under Design Conditions (ft/sec) Ductile Iron: 7.4fps Steel: 3.3fps		Minimum Pipe Cover (ft) 4.5'
Air relief valves specified? ☒ Yes ☐ No See Below		Clean-outs provided? ☐ Yes ☒ No		Maximum distance between clean-outs (ft) N/A	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? ☐ Yes ☒ No		If not, explain provisions to prevent cross-contamination: Water service to new pump station is only 13" above new force main at crossing. Utility crossing will be encased in concrete.			
Comments New air relief valves (ARVs) are provided on pump discharge lines inside Dry-Weather Pump Station, additional ARVs can be found on the existing force main. The new 72" force main is a connecting pipe between the new pump station and the existing 84" RCCP force main. Connection to the existing force main will be performed via hot tap operation while existing force main remains in service. Additional details can be found on the Contract drawings.					

RECEIPT

	July 24, 2026				106	
RCVD FROM	Dana T. Murray				\$2,800.00	
	Two thousand eight hundred dollars and 00/100				DOLLARS	
FOR	Plan review fee and Public Notice reimbursement WPCC 3041/26					
	11th Street Dry-Weather Pump Station					
ACCT	\$	2,800.00	x	CHECK #	3357	
PAYMENT	\$	2,800.00		CASH		
	\$	-		OTHER	BY	Kevin Bronson

DNREC, Commercial & Government Services Section, 89 Kings Hwy, Dover, DE 19901