



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) 739-9946
Fax: (302) 739-2296

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. (see below)
- ☒ 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 eight hundred twenty-five dollars (\$825.00), 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 eight hundred twenty-five dollars (\$825.00) 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/>

1. Proposed gravity sewer extension from existing manholes to serve Parcels 4 & 7 of Levels Crossing (formerly Poole Property). Building on Parcel 7 will require a grinder pump and forcemain.

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 LEVELS CROSSING - PARCEL 4 & 7 Intersection of Levels Road and Middletown Warwick Road in Middletown DE 19709			
Tax Parcel Number(s) 23-065.00-021 and 23-065.00-024			
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 checked="" type="checkbox"/> Chesapeake Bay <input type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor Town of Middletown		Wastewater Treatment/Disposal Facility Name Middletown Wastewater Treatment Facility	
Anticipated Construction Start Date Spring 2026		Treatment/Disposal Facility Owner and Operating Permit Number Town of Middletown (owner); Artesian Water Co. (Operator) LTS 3020-02-12; DEN #359298-13	
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 <div style="text-align: center; font-weight: bold;">2,199</div>		Peak <div style="text-align: center; font-weight: bold;">8,795</div>	Peak Factor <div style="text-align: center; font-weight: bold;">4</div>
Basis of Design <div style="text-align: center; font-weight: bold;">0.025 GPD/SF</div>			
Description Proposed commercial buildings for retail/restaurant space. See Title Sheet for sewer data breakdown. Construction of gravity sewer to serve proposed building on Parcel 4 and grinder pump with forcemain to serve proposed building on Parcel 7. Details provided below.			
OWNER/DEVELOPER			
Company Name 841 MWR, LLC			
Mailing Address 2710 Centerville Rd, Suite 200			
City Wilmington		State DE	Zip 19808
Contact Name William E. Ward, Member			
E-Mail Address wward@wardtaylor.com			
Telephone 302-225-3353		Cell	Fax 302-225-1227

ENGINEER					
Company Name Woodin + Associates, LLC					
Mailing Address 111 Patriot Drive, Suite D					
City Middletown			State DE		Zip 19709
Contact Name Jayme Baer					
E-Mail Address jbaer@woodinassociates.com					
Telephone 302-494-0082		Cell 302-494-0082		Fax 302-378-7300	
GRAVITY SEWER INFORMATION					
Ownership <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private		Type of Sewer System <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below	
Type of Pipe PVC SDR-26	Length (ft) 668	Diameter (in) 8	Joint Specification Push-on mechanical	Min. Slope (ft/ft) 0.005	Min. Velocity (ft/sec) 2
Minimum Pipe Cover (ft) 4.3	Number of Manholes 4	Drop manholes provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Maximum Distance Between Manholes (ft) 280	
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.)					
Comments					

PUMP/LIFT STATION INFORMATION				
Ownership <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private		Type of Wastewater <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below
Pump Station Flows (gallons/day) Design Retail - building 7		Average 455	Peak 1,820	Peak Factor 4
Basis of Design 0.025 GPD/SF			Pump Type submersible	
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) 6
				Wet Well Detention Time (minutes) 52 (peak)
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Is an alarm system included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
				Alternate source of power? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
What other provisions for emergency operations?				
Height of Influent Above Pump (suction head) (ft) 2.9		Height of Effluent Above Pump (discharge head) (ft) 7.7		Friction Loss (ft) 29.3
Pump Design Point 40 GPM	Pump Operating Point 40 GPM	Static Head (ft) 7.4	Total Head (ft) 36.7	Required Motor Horsepower (hp) 2
FORCE MAIN INFORMATION				
Type of Pipe SCH40 PVC		Length (ft) 193		Diameter (in) 1.5
Hazen-Williams "C" Design Factor 150 (new pipe)	Type of Joints Solvent welded		Velocity Under Design Conditions (ft/sec) 6.3	Minimum Pipe Cover (ft) 3.5
Air relief valves specified? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Clean-outs provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Maximum distance between clean-outs (ft)	
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				