



Engineer's Report

SEWER DISTRICT No. 1 Huletts Landing Sanitary Sewer Collection System Study

Town of Dresden
Washington County
New York

Prepared for: Town of Dresden
PO Box 16
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EPG Project No.: 108886
SPDES Permit No.: NY0248983
LaBella Project No.: 2230223

Date: January 14, 2026



This report was prepared with funding providing by the New York State Environmental Facilities Corporation and Department of Conservation with a NYS Engineering Planning Grant.

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A. EXECUTIVE SUMMARY

The Hamlet of Hulett's Landing is a lakeshore community located within the Town of Dresden municipal boundary in Washington County, New York. The Town of Dresden owns and operates a Publicly Operated Sewage System (the system), SPDES Permit Number NY0248983, within Hulett's Landing in the Hulett's Landing Sewer District No. 1 (Sewer District No. 1). Many of the components that constitute the system, which includes gravity sewer, laterals, force main, grinder pump stations, and three outfalls, were constructed in a system rehabilitation project dating to 1994-1995; however, select components from earlier construction efforts remain active within Sewer District No. 1. Some components, such as seepage pits and leach fields, may date to a rehabilitation project conducted in the 1980's, or may even predate the 1950's. The Town has noted recurring maintenance issues, the most notable of which include above-grade utility stream crossings catching debris or freezing during inclement weather and pump failures due to clogging events.

The Town was approved for a NYS Environmental Facilities Corporation (EFC) Engineering Planning Grant (EPG), EPG Project Number 108886, to undertake an inspection and evaluation of the existing sanitary sewer system for Sewer District No. 1 with the goal of identifying system improvements and repairs. The Lake George Association also assisted with funding a portion of this study. In September 2023, LaBella Associates, DPC (LaBella) completed an on-site visual investigation while Kenyon Pipeline Inspection, LLC (KPI), completed a closed-circuit television (CCTV) inspection of the sanitary sewer system. The CCTV investigation was reviewed by LaBella and utilized in the preparation of this report.

This engineering report outlines findings related to the existing system, provides a definition of the problems, and provides preliminary recommendations for repairs, replacements, or upgrades along with an opinion of probable cost. At the time of this evaluation, there did not appear to be any major issues with the existing collection, pumping, and disposal systems. There were specific maintenance issues that were identified and after consideration of the age and condition of existing infrastructure, it is recommended that select improvements be made to address the maintenance concerns of the system operators. Recommended improvements include installation of grinder units upstream of grinder pump stations; improvement to existing alarm systems; burial of force main aerial stream crossings of exposed piping; and improved metering.

Discharge Monitoring Reports (DMR) indicated that at certain times of the year, the discharges measured at the outfall are nearing the SPDES Permit limit. This combined with the subsurface disposal systems nearing their expected useful service life, development of a replacement/expansion plan and construction of new subsurface disposal facilities with the ability to meet future needs is recommended. Further, a review of system capacity, flows and property uses relative to the design capacity of the system be conducted with an eye towards any potential regulatory controls the Town might consider for protection of Sewer District No. 1's assets.



B. PROJECT BACKGROUND & HISTORY

The Town of Dresden, N.Y. currently owns and operates Sewer District No. 1 located in the Hamlet of Hulett's Landing. The sanitary sewer system (system) servicing Sewer District No. 1 is comprised of pump stations, surge tanks, gravity sewer pipe, laterals, force mains, septic tanks, siphon chambers, seepage pits, leaching fields, and outfalls. Many of the components that constitute the system, were constructed in a system rehabilitation project dating to 1994-1995; however, select components from earlier construction efforts remain active within Sewer District No. 1. Some components, such as seepage pits and leach fields, may date to a rehabilitation project conducted in the 1980's, or may even predate the 1950's. Presently there are 81 active hookups out of a total of 84 permitted, with 60 hookups flowing to Outfall No. 1, 10 hookups flowing to Outfall No. 2, and 11 hookups flowing to Outfall No. 3.

The project consists of the inspection and evaluation of the system and the preparation of an engineering report which identifies and evaluates the condition of the system and its deficiencies, and provides recommendations for repairs, replacements or upgrades with an opinion of probable cost.

1. Site Information

Location

The Town of Dresden is located along the eastern shore of Lake George in Washington County, New York. The hamlet of Hulett's Landing is a lakeshore community located within the Town boundaries.

Geologic Conditions

The United States Department of Agriculture (USDA) Soil Survey of Washington County, New York was used to obtain the primary surficial soil conditions for the project corridor.

The soils are primarily composed of three soil groups. Approximately 20% of the soil is HNC (Hollis-Rock outcrop association) gently sloping. These soils are Class D hydrologic soils with a depth to restrictive feature of 10 to 20 inches to lithic bedrock.

Approximately 76% of the soil is HoB (Hoosic gravelly sandy loam) with slopes of 3-8. These soils are Class A hydrologic soils, with depths to restrictive feature and depths to water table both being greater than 80 inches.

Approximately 3% of the soil is NcA (Natchaug Muck, 0 to 2 percent slopes), which is a Class B/D hydric soil. It has a depth to restrictive feature and a depth to water table greater than 80 inches.

The USDA Web Soil Survey Report is included as Appendix A.



Environmental Resources

The Hamlet of Huletts Landing is located along the shore of Lake George, which is classified as an AA-S waterbody by the NYSDEC and serves as the potable water supply for several communities around the lake. Further, the NYSDEC has listed Lake George on its Waterbody Inventory/Priority Waterbodies List as Impaired (IR Category 5), PWL ID 1006-0016. Foster Brook, which passes under Eichler Drive and through the hamlet is tributary to Lake George. Although Foster Brook is not shown on the stream designation mapping, the wetland mapping shows Foster Brook connecting to an unnamed stream, which has an AA-S(TS) designation and enters Lake George immediately to the south of the District. Based on this, Foster Brook is assumed to have an AA-S(TS) designation as well.

A review of the NYS Environmental Resource Mapper shows the corridor along Foster Brook as a Riverine Wetland. The Environmental Resource Mapper indicates the District is in the vicinity of plants listed as endangered, threatened, or rare by NYS, and also in the vicinity of animals listed as endangered or threatened.

An environmental resource map is included in Appendix B.

Cultural Resources & Environmental Justice Areas Potentially Impacted

A review of the Cultural Resources Information System (CRIS) does not indicate the presence of unique sites or national register within the sewer district. Phase 1A and 1B Archeological Surveys were completed previously in the golf course between Bluff Head Road, Albert Way, County Route 6, and the lake. According to the Cultural Resource Information Mapper, there are no environmental justice areas indicated in the sewer district. A summary of the CRIS data is included in Appendix C.

Consultation with the NYSDEC will be required prior to the advancement of any construction activities associated with this project.

Floodplain Considerations

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM – panel number 3614100005B), the sewer district is predominately within Flood Zone X. Areas within Flood Zone X have been determined to be outside of the 500-year flood zone. The tributaries to Lake George indicate the channels are Flood Zone A and a strip along the lake shoreline up to elevation 321' is shown as Flood Zone AE, which is the 100-year flood zone.

The FEMA Flood Insurance Rate Map is included as Appendix D.

Topography

Huletts Landing is a relatively flat area on the eastern shores of Lake George with the area to the east rising up steeply. A topographic map is included as Appendix E.



2. Ownership & Service Area

Sewer District No. 1 serves 84 properties (81 active hookups and 3 non-active) in the hamlet of Hulett's Landing and is owned and operated by the Town of Dresden. The properties within the district are generally single-family vacation homes with three (3) Commercial parcels. For the commercial parcels, one is a recreational area with no structures that is owned by the HOA with two dry hookups, the second is utilized by the Golf Course with no structures and no hookups, and the third parcel is utilized by the Golf Course, a seasonal business, and a seasonal cottage, and is billed one hookup. All 81 active hookups in Sewer District No. 1 are billed at the same user rate. Based on this, the active Equivalent Dwelling Units (EDUs) in the District is 81 EDUs. Due to arrangements within easements between the Town and the previous owner of the sewer system, two of the units are exempted from operation & maintenance costs, therefore 79 units pay O&M costs annually.

Outside Users, Industrial Discharges or Hauled Waste

There are no outside users, industrial discharges, or hauled waste associated with the sewer district.

Population Trends and Growth

The population of the Town of Dresden was 695 persons according to the most recent census data; information for the hamlet of Hulett's Landing was not available. Review of historic census data indicates that population trends are stagnant. Hulett's Landing Sewer District No. 1 currently services 84 properties that are permitted by the Adirondack Park Agency (APA) and there are no plans for future build-out beyond these existing permitted properties.

Pump Station Ownership

All pump stations with associated pumps and equipment are owned, operated, and maintained by the Sewer District. A more detailed description of pump information is included in the next section.

Establishment of Sewer Debt Responsibility

Capital costs and the associated debt payments for projects related to improvements in Sewer District No. 1 will be the responsibility of owners of properties served by Sewer District No. 1. A list of those properties served by the Sewer District, including the property codes and types, along with the maps of the properties are included in Appendix F. The debt is the responsibility of all 84 properties.

3. Existing Facilities & Present Conditions

General Description of Existing Facilities, Existing Flows, & History of Major System Components

General Description of Existing Facilities



Sewer District No. 1 leverages both gravity and pumped conveyance and can be subdivided into three collection networks, each with a distinct outfall (Outfalls 001, 002, and 003). The original sewer system is thought to have been constructed prior to 1950 and is believed to have been rehabilitated in the 1980's and 1990's. Generally, sewer laterals collect flow from individual structures, after which flows are conveyed through a network of gravity piping to centralized pump stations. Each of the three collection networks features a primary grinder pump station that directs flow to one of the three outfalls. In addition to the primary pump stations, several auxiliary pump stations are interwoven throughout the district as necessary where gravity flow is made impossible by site topography. Prior to disposal sewage is treated in large septic tanks, after which septic tank effluent flows to subsurface leach fields or seepage pits. Record Drawings of the Sewer District No. 1 infrastructure were provided by the Town of Dresden and are included as Appendix F.

Pump Inventory

<u>Pump Station</u>	<u>Pumps</u>	<u>Replaced</u>
AGPS-01	(2) EOne AMGP, 1 Hp, 230V, 1P.	(1) 2024, (1) 2020.
MGPS-01	(2) Myers Model WG50-21-25, 5 Hp, 230V, 1P.	(2) 2017-2019.
MGPS 3-1	(2) EOne AMGP, 1 Hp, 230V, 1P.	(2) 2017-2019.
MGPS 4-1	(2) EOne AMGP, 1 Hp, 230V, 1P.	(2) 2017-2019.
(3) Simplex PS	(1) EOne AMGP, 1 Hp, 230V 1P (each PS).	(3) 2017-2019.

All pumps are submersible grinder pumps with solids handling capabilities. Flow capabilities are shown on Pump Curves, which are included in Appendix F. Pumps were originally installed in 1995 and have all been replaced within the last 5-8 years, or more recently as noted. The District currently has one (1) new spare EOne, 1-Hp Pump on site.

Collection, Conveyance, and Disposal System/Asset Inventory

The collection and conveyance system that directs flow to Outfall 001 includes: two pump stations (AGPS-01 and MGPS-01); 2-inch and 3-inch PVC force main piping; and 4-, 6-, and 8-inch PVC gravity piping. Wastewater from 60 structures is conveyed to MGPS 1-1, including those flows that first enter AGPS-01 before being pumped to MGPS 1-1. MGPS 1-1 directs flow to two subterranean septic tanks installed in series, sized 8,000-gal and 25,365-gal. Septic tank effluent then flows through two 3,500-gal surge tanks installed in series before discharging to one of four subterranean leach fields via one of two dual siphon dosing chambers and subsequent distribution boxes. The pump stations, septic tanks, piping and manholes were installed during a 1994 sewer rehabilitation project, while the surge tanks, dosing chambers, distribution boxes and leach fields were constructed at an unknown time, potentially predating the 1950's. cursory visual inspections of the buried tanks are performed during scheduled pump outs, however the overall physical condition of subterranean assets is generally unknown.

Pump station AGPS-01 is a below-grade, duplex, submersible grinder pump station within a 250-gal wet well located west of the intersection of Foster Brook Path and Eichler Drive. The grinder pump



station houses two EOne AMGP grinder pumps (1 Hp each). Sewage from three structures south of Foster Brook collects in AGPS-01 and is conveyed via a 2" PVC force main, aerially across Foster Brook, to a manhole in the gravity collection system for MGPS 1-1.

MGPS 1-1 is located on Margot Lane and consists of a below-grade, 12,000-gal precast concrete wet well with duplex Myers Model WG50-21-25 submersible grinder pumps (5 Hp, 230V single phase).

MGPS 1-1 collects flows from gravity mains and from AGPS-01 and distributes via a 4" PVC force main to the aforementioned septic tanks and leach fields, which are located on the edge of a privately owned golf course, south of County Route 6.

The collection and conveyance system that directs flows to Outfall 002 includes: one pump station (MGPS 3-1); 3-, 6-, and 8-inch PVC gravity piping; and 3-inch PVC force main piping. The network pumps flow to a 6,000-gal septic tank (installed in 1994), which then directs effluent to a leach field constructed before the 1990's and located to the south of the intersection of County Route 6 and

Eichler Drive. Ten (10) structures contribute flow to Outfall 002.

MGPS 3-1 is located southeast of the intersection of Foster Brook Way and Eichler Drive and consists of a below-grade, 4,000-gal precast concrete wet well with two EOne AMGP grinder pumps (1 Hp, each). Flows are conveyed from the pump station via a 3" PVC force aerially across Foster Brook to a 6,000-gal septic tank located within the roadway loop just north of Foster Brook.

The collection and conveyance system that directs flows to Outfall 003 includes: one pump station (MGPS 4-1); 3- and 6-inch PVC gravity piping; and 3-inch PVC force main piping. The network allocates flow to one of two septic tanks (2,000-gal and 6,000-gal), and then ultimately on to seepage pits installed prior to 1990 and located on the edge of the golf course to the north of County Route 6. Eleven (11) structures convey waste to Outfall 003.

MGPS 4-1 is located off of Albert Drive and consists of a below-grade, 4,000-gal precast concrete wet well with duplex EOne AMGP submersible grinder pumps (1 Hp each). Flows are conveyed from the pump station via a 3" PVC force main.

For all pump stations; pumps cycle on and off based on level float switches. A high-level alarm light and horn on the pump panel, is activated by a float switch. High pump temperature will shut down pump also activate alarm.

Simplex Pump Stations: Three pump stations; S 1-1 at Residence #1, an unnamed pump station at Residence #76 pumping into MPS 3-1, and an unnamed pump station at the Post Office (#78), are simplex stations with no standby/backup pump in the event of an emergency. Each simplex pump station serves a single user.

Pump Redundancy: 10 States Standards Section 42.31 states: "Multiple pumps shall be provided. Where only two units are provided, they shall be of the same size. Units shall have capacity such that, with any unit out of service, the remaining units will have capacity to handle the design peak hourly flow." All pump stations are duplex pump stations, with the exception of three simplex pump stations.



The duplex pump stations meet the 10-State Standards; however, the simplex pump stations were evaluated to determine if pump redundancy is needed. A review of their locations revealed that each simplex pump station serves a single user, and it is generally accepted practice for a simplex pump station to serve a single user. Therefore, no further redundancy is required.

Septic Tank Conditions:

Septic tanks are pumped out on a routine basis, most recently in June 2023. Each time a tank is emptied, a visual (non-entry) observation of the interior condition is performed by the operational staff. The interior surfaces are observed for spalling, deflection, cracking, displacement, infiltration, roots, and any other detrimental condition. There is no record of observed deterioration or conditions that would warrant repairs or evaluation. Operational staff confirmed during latest pump-out, that there is no indication of deterioration, spalling, cracks, infiltration, or conditions that would warrant further investigation.

Publicly Owned Sewer System (POSS) Identification Number & SPDES Discharge Permit

The Publicly Owned Sewer System Identification Number for Sewer District No. 1 is NYS 5-5324-00032/00001. The SPDES Discharge Permit is attached in Appendix G and notes the following:

- Outfall 001 has an effluent limitation of 27,550 gallons per day (GPD).
- Outfall 002 has a has an effluent limitation of 3,775 GPD.
- Outfall 003 has an effluent limitation of 3,980 GPD.

Existing Flows

The number of structures that contribute flow to Outfalls 001, 002, and 003 are sixty (60), ten (10), and eleven (11), respectively. To satisfy SPDES permit requirements, the Town must submit monthly Discharge Monitoring Reports (DMR's) to the New York State Department of Environmental Conservation (NYSDEC), which detail metered average daily effluent loading rates. Review of DMR's for Outfall 001 from January 2023 to August 2023 show average daily loading rates of between 0- gpd and 25,800-gpd. A review of the violations included in the database reveals that violations a result of the reports not being received. The Operating Staff indicated that on-line filing is hampered by the internet service in the area. They were submitting paper/hard copies as a result, however this situation has since been resolved. Note that residences within the hamlet are mostly seasonal vacation homes, hence the months with no load and the wide seasonal variation. Single family homes typically have wastewater flows of around 250 gpd. If one assumes a typical usage of 100 gallons per capita per day, that would be between two and three people per household. In general, residents will leave during the day and be home in the evening through morning. The wide seasonal variation would indicate that the usage in the sewer district is not typical of a year-round residence. As most of the residences are vacation homes, the seasonal population fluctuates dramatically during the summer months. The maximum average of 25,800-gpd is equivalent to between four and five people per residence, assuming 100-gallon per capita per day. Discussions with operating staff indicate that having at least four people per residence would not be unusual in the summer months. A formal I&I investigation has not been performed on the system, however the dramatic drop in usage to as low as zero during the



off-season, would indicate that I&I is not a significant contributor to the flows. Operating Staff through regular inspection of the manholes and pump stations have not noted any significant infiltration during the low flow season. The CCTV investigation served to further confirm that there are not obvious I&I paths into the system.

There are no reporting requirements for Outfalls 002 and 003; meters are not installed in these systems and therefore loading rates are unknown.

In 1990, the Town of Dresden hired Adirondack Engineering Associates, P.C. to perform a study of the sanitary sewer system servicing Hulett's Landing. Adirondack Engineering authored an Engineer's Report titled 'Sewer Collection System' dated August 16, 1990 which provided recommendations for system improvements and within which loading estimates were provided for each outfall.

It is understood that the recommendations from the 1990 Engineer's Report were refined during design of the 1994/1995 improvements to arrive at the permitted effluent limits.

History Of Damage Due to Storm or Flood Impacts/Flood Mitigation Measures

There is no history of damage to the collection system documented due to storm or flood impacts. Portions of the collection system are located within the flood zone A along Foster Brook as shown in Appendix D. These are generally limited to the two force main aerial stream crossings that are being relocated under the stream, force mains, and a few residence sewer laterals. One of the crossings will require a new manhole at the connection to the gravity system near the streambank. The new manhole is recommended to include a watertight cover. Other components in the gravity portions of the system such as manholes and pump stations appear to be outside the flood zone limits shown on the map. Gravity components do not have flood mitigation measures such as watertight covers.

Operator Access

Operational Staff confirmed there are no issues with accessing the manholes and pump stations.

Emergency Power

Operational Staff confirmed there is a District Owned, mobile trailer mounted 25-KW electrical generator on site that is used for emergency backup to the pump stations in the event of a power outage. Although still operational, the generator is about 30-years old and is approaching its useful service life. As a result, the Town has recently approved the purchase of a new generator. The existing generator has and the new generator will have the ability to access each pump station, without issues. The certified operating personnel are local and can respond rapidly to reach the pump stations in time to prevent SSOs.

Failure History and Component Limitations

The Town of Dresden has experienced recurring clogging events and pump failures, believed to be



attributable to residents discarding “flushable” wipes. Clogging masses are thought to overload and burnout the grinder pump stations. In response, the Town has recently replaced the affected pumps. All of the pumps originally installed in 1995 have been replaced in the last 5-8 years, with one being replaced within the last year. Overload trips and alarms were also added that shut down overloaded pump(s) and notify the operator via local lights and horns so that he can start up the backup pump and notify pump repair service.

In addition to concerns related to clogging and pump failure, the Town of Dresden has also noted that above-grade force main installations at stream crossings are subject to freezing. Freezing issues are the cause for an annual winterization of MGPS 3-1 and AGPS-01 in which the aerial crossings are drained back to the pump stations and the pump stations are pumped out and shut down. After shutdown, the 6,000-gal septic tank downstream of MGPS 3-1 is pumped out on a regular basis through the winter. Winterization of the two pump stations and aerial crossings occurs every December 1st, with restoration of service occurring prior to the vacation season. The Town reports that costs associated with winterization efforts amount to approximately \$4,800 per year. It is understood that improvements to above-grade piping is being pursued as part of a separate project.

Ability To Meet Technical Standards for Pump Station Capacities

The duplex pump stations were evaluated to determine if the pump stations have adequate capacity to meet the design peak hourly flow with one pump operating and one pump on standby. The effluent limits for the SPDES Discharge Permit were used as the average daily flow for each associated outfall. The ratio of Peak Hourly Flow to Average Daily used for peak hourly flow was 4.1, which was derived from Figure 1 in the 10-State Standards. The following is the summary of the findings for the evaluation of each outfall and associated pump station:

- MGPS 1-1/Outfall 001: $27,550 \text{ gpd} \times 4.1/1440 = 78.5 \text{ gpm}$ peak hourly flow.
Pump Capacity = **100 gpm** @ 70' TDH.
- MGPS 3-1/Outfall 002: $3,775 \text{ gpd} \times 4.1/1440 = 10.8 \text{ gpm}$ peak hourly flow.
Pump Capacity = **13.5 gpm** @ 15' TDH.
- MGPS 4-1/Outfall 003: $3,980 \text{ gpd} \times 4.1/1440 = 11.5 \text{ gpm}$ peak hourly flow.
Pump Capacity = **12.5 gpm** @ 28' TDH.

Based on these findings, each pump station meets current applicable technical standards for capacity to meet peak hourly flow for their associated outfall with one pump on standby.

Ability To Meet Technical Standards for Treatment

It is unknown if the existing system meets all requirements outlined in the 10 States Standards. It is understood that Adirondack Engineering Associates, P.C. performed a 1990 study of the sanitary sewer system and subsequently designed a capital improvements plan that was completed in 1995. Adirondack has since gone out of business; a comprehensive and detailed set of design plans from the capital improvements project has not been located. As such, LaBella cannot confirm: pipe bury depth,



pipe slope, fluid velocities, manhole spacing, etc. Based on available records, LaBella did not find any explicit violation of 10 States Standards.

The January-August 2023 DMR's do not indicate any effluent quality violation at Outfall 001.

Planned, Current, or Future Improvements

The Town is presently in the final design stage for a project to relocate the two aerial sewer crossings over Foster Brook, to below the streambed, There are no other specific projects planned for Sewer District No. 1, save for any projects that materialize owing to the recommendations of this report. Although no new structures are expected to be connected to the system, the Town has noted that several properties have recently been renovated, possibly adding square footage, bathrooms, etc. and thereby increasing waste loading.

On-Site Investigations/Findings

Closed Circuit Television (CCTV) Investigation

In September 2023, Kenyon Pipeline Inspection, LLC (KPI), completed a closed-circuit television (CCTV) inspection of a portion of the sanitary sewer system. The report associated with the CCTV inspection is provided as Appendix H, along with maps showing the mains that received CCTV inspection. All piping inspected was in the gravity collection system. Service laterals were not inspected beyond looking at the connection to the main via the CCTV video. Force mains were not inspected. A summary of the pipe runs, manhole numbers, pipe lengths (manhole to manhole), pipe materials, and locations are included in the front of the report. The longest pipe run surveyed was 212' and the shortest was 29', which confirms all distances between manholes are less than the maximum of 400' specified in the 10-State Standards. A total of about 2,500 linear feet of 8-inch diameter PVC gravity sewer main was inspected during KPI's investigation.

The CCTV inspection report indicates that the 8-inch PVC gravity main is in good condition and is generally free of stress fractures, holes, root intrusion, sediment, sagging, I/I, and any other deficiency commonly attributed to aged and/or failing sewer main. CCTV inspection did not indicate any infiltration and/or inflow that would be expected if the system was deficient. Actual video logs will be provided to the Town for their records.

On-Site Visual Investigation

In September 2023, LaBella Associates (LaBella) completed an on-site visual investigation of the sanitary sewer system.

On-site Pump Station Inspections:

During the on-site visual investigation, all pump stations were accessed and visually inspected. A visual review of the pump station wet wells, piping, pumps, valves, floats, control/electrical panels, access, and structures was performed at each pump station. Pumps were run manually, and systems were



checked for leaks, unusual noises, and vibrations. Alarms, controls, and electrical systems were checked for proper operation, damage, and corrosion. The interior of each structure was reviewed and checked for structural damage. No structural issues, infiltration or leakage were found in the wet wells. No leaks were noted in the piping with no unusual noises or vibrations occurring during operation. In general, all pump stations along with their supporting electrical, mechanical, plumbing, and controls systems were in maintained in good condition. From these inspections, all pump stations were found to be in general compliance with the Ten-State Standards.

Operator Maintenance Notes:

- SPDES Permit requires that septic tanks be pumped out every 4-years. This was completed most recently in June 2023. At that time a cursory visual inspection was performed, and no apparent deficiencies were noted.
- Semi- annual testing showed all results in compliance with SPDES Permit.
- May-October: 27,550 gpd maximum.
- MGPS 3-1 is shutdown December 1 each year and septic tank pumped out regularly due to freezing of force main crossing stream. AGPS-01 is also shut down and pumped out, however periodic tank pump outs are not required.
- GL LaPlante replaced pumps in main pump stations. Issues were happening with “flushable” wipes clogging and overloading/burning out pumps to a point where several pumps had to be replaced. Overload trips and alarms were added that shut down overloaded pump(s) and notify operator so he can start up backup pump and notify pump repair service.
- Operator replaced E-1 pumps.
- A visual inspection of the subsurface disposal systems revealed no visible breakouts, sink holes, structural issues, or issues of concern.

4. Definition of the Problem

In the event of system failure, the system presents a hazard to Lake George, as any sanitary backup or manhole overflow is likely to discharge directly into the lake. Several problems were identified during the evaluation as follows:

Collection System

Pump Station Clogging: The existing pump stations have experienced clogging and subsequent pump failure due to high “flushable” wipe loadings. Following these failures, the pump stations were upgraded by replacing pumps and installation of a program to shut down pumps and send an alarm to the operator. Although this protects the pumps, if the operator cannot come right away, the wet wells will continue to fill and if not cleared in time, could overflow.

Pump Station Flow Metering: Presently flow rates at all pump stations are determined by the calculation of pump run times and pump design flow curves. 10 States Standards Section 42.8 states: “suitable devices for measuring wastewater flow shall be provided at all pumping stations.”



Force Main Aerial Crossings: Force mains at two locations cross Foster Brook aerially. This leaves the force mains susceptible to damage or failure due to exposure to freezing, or debris and ice during high flows. A failure of the force main would result in sewage entering Foster Brook, which flows directly into Lake George.

Subsurface Disposal System

Outfall Loadings/Service Life: Review of NYSDEC DMR's from January 2023 to August 2023 indicate that the average daily effluent loading at Outfall 001 has been recorded at 25,800-gpd, or approximately 94% of permitted capacity per the SPDES permit (Included in Appendix G). Similarly, preliminary design flows for Outfalls 002 and 003 as discussed in the 1990 Adirondack Report exceed the permitted capacity of each outfall. Note that due to lack of metering, actual flow data to Outfalls 002 and 003 does not exist. The current subsurface disposal systems were constructed in 1995 and have been in service about 30-years. Our inspection found no visible breakouts, sinkholes or apparent issues. Previous SPDES Inspection reports, including the most recent March 17, 2025 Report (included in Appendix G), report no violations visible at the subsurface disposal systems. Based on our inspection and the available information, the useful service life of the subsurface disposals is estimated to be around 40-years, which is a remaining service life of around 10-years. With this relatively short remaining life and the flows near or at the SPDES permitted flows, replacement and possible expansion will be needed.

5. Financial Status

The financial status of the Town of Dresden, Huletts Landing Sewer District #1 is summarized as follows:

1. Sewer Rent and User Charges

- Current Annual Sewer Rent per EDU: **\$850.**
- Total Active EDUs: **81.**
- Total O&M Paying EDUs: **79.**
- Total Annual User Revenue: **\$67,150 (79 x \$850).**

2. Capital Reserve Fund

- Current Capital Reserve Balance: **Over \$50,000.**
- Purpose: Established in anticipation of capital upgrades, such as grinder pump improvements, metering systems, and subsurface disposal evaluations.
- Reserve Growth Strategy: Funded through budgeted surplus and unspent appropriations.

3. Operating Budget and Typical Annual Expenses

- **Legal Services**: Approx. **\$10,000 annually** budgeted for attorney services.
- **Winter Pump-outs and Winterization Procedures**: Approx. **\$4,800 annually** (combined cost to maintain over-the-book systems during winter shutdown periods).
- **Pump Repairs & Replacement**: Average **\$3,000 annually** (based on past 4-year average).



- **Operator Compensation:** Approx. **\$12,000 annually** for the primary sewer operator, including employer contributions to Social Security.

4. Debt Status

- The district carries **no debt** associated with the 1995 rehabilitation project.
- All capital assets are currently owned outright by the district.

5. Current Rate Schedule and Affordability

- All 79 non-exempt active users are charged equally.
- No tiered or usage-based pricing is currently in place.
- While MHI data may suggest moderate income levels, the town notes that the majority of sewer district properties are second homes or seasonal residences of considerable value. As such, the town does not anticipate significant issues with payment delinquency or financial hardship within the user base.
- The town does not own the land where the sewer district's leaching and distribution fields are located. An annually inflation-adjusted lease is paid to the private landowner, which is included in the financial planning and contributes to ongoing affordability considerations.

6. Funding and Future Financial Strategy

- The Town anticipates applying for future EFC and/or NYSDEC grants for infrastructure upgrades.
- If major capital improvements are pursued, user rates may need to be re-evaluated or phased increases considered.
- Town is exploring grant eligibility and interest-free loan options to limit rate impact.
- The Town recognizes that future capital improvements may require taking on debt. It is open to pursuing debt-financed solutions if determined necessary by future engineering studies and planning efforts.

C. ALTERNATIVES ANALYSIS

1. Description

Alternative No. 1 – No Action

With no action, existing infrastructure will continue to operate and no efforts will be made to mitigate concerns associated with clogging, pump failure or system capacity. In the event of a catastrophic pump failure, the worst-case scenario (from an environmental perspective) involves pump station overflow and the resulting untreated discharge of waste to the waters of Lake George. Additional concerns related to pump failure include raw sewage backup into residences and the expense of system maintenance.

Under this alternative, the existing force main aerial crossings will continue to operate as is and no efforts will be made to mitigate concerns associated with a failure of the force mains. In the event of a pipe break, the worst-case scenario (from an environmental perspective) involves the resulting untreated discharge of waste to the waters of Lake George. If a break were to occur unnoticed, the



pump stations would continue to pump out through the break until noticed. Additionally, if the pipe were to freeze and not break, there is a risk of backup into the pump stations and potential sewage backup into residences, possible pump station overflow, and the expense of system maintenance.

Finally, with no further evaluation of system capacity and reserve; as the outfall discharges approach the limits, future increases in flows would potentially exceed the limits with the resulting potential environmental impacts and Regulatory Agency violations.

The Town currently spends approximately \$4,800 annually for winterization of MGPS 3-1; additionally, Several pumps have had to be replaced recently and pump repairs have been averaging around \$3,000 per year over the past 4-years. With no action, the Town should expect to continue to pay those annual costs and should expect costs to increase as the system ages. The Town should also anticipate a Notice of Violation from the NYSDEC in regards to exceeding SPDES-permitted effluent loading rates at one or more of the outfalls. No action is not considered a feasible alternative.

Alternative No. 2 – Select Upgrades to Collection System & Subsurface Disposal System

Alternative 2 includes select upgrades to mitigate concerns associated with pump clogging/failure, the collection system, the subsurface disposal system, and improvements to ensure the system better conforms to the requirements of the 10 States Standards. The conceptual/limited scope of work described under this alternative is not considered to rise to the level that would require a Smart Growth Assessment Form at this time. However, if the Town decides to pursue these improvements in the future, then the Smart Growth Criteria would be reevaluated at that time. If Town seeks project funds through EFC, then a Smart Growth Form will be included as part of financing application.

Problem: Pump Station Clogging

Solution: Pump Protection – Provide Spare Pumps With the installation of the current pump station alarm system, operator notification, newer grinder pumps, and pump protection system, the risk for pump failure is substantially reduced. The estimated replacement cost for a brand-new Myers 5-Hp (MGPS 1-1) pumps is \$10,000 per pump and for a brand-new EOne 1-Hp pumps (MGPS 3-1, & 4-1) is \$3,700 per pump. Therefore, the cost for one spare for each of the three respective pump stations would be \$17,400. Having spares would further reduce the risk of overflows resulting from pump failure at a greatly reduced cost. Spares would also give the operator the ability to switch out a pump, continue redundant operation, while the damaged pump is sent out for repairs or replacement.

Comparative Analysis To provide a comparative alternative to the Spare Pump Solution, installation of grinder units at each pump station was evaluated. A new buried fiber-reinforced plastic (FRP) structures would be cut into the gravity main entering each of the three (3) pump stations MGPS 1-1, MGPS 3-1, and MGPS 4-1. This new structure is designed specifically to house a new grinder unit such as the Taskmaster TM8500 Twin Shaft Grinder, mounted on a rail system to allow removal for maintenance without entering the structure. The smallest unit (TM8508) has a flow capacity of 320 gpm, which exceeds the design peak hourly flows for each of the pump stations. Flows from the



gravity main would pass through the new grinder before entering the pump station. Maintenance of the grinder unit would involve lifting the grinder and making the necessary repairs in the dry and lowering/sliding back into position. During maintenance, flows would pass through the structure by gravity and pumps would operate as normal. Grinder units are specifically designed to process waste flows containing flushable wipes, rags, debris, etc. and will reduce the damaging effects on the grinder pumps themselves. New grinder units preceding the pump stations will reduce downtime and stress on the existing pumps, increase their effective life spans, and reduce the frequency of pump clogging and subsequent failure. The manufacturer's literature for the grinder units is included at the end of Appendix I. This type of technology has been used successfully in wastewater treatment plants and pump stations for many years. If this alternative were pursued in the future, actual installations in New York State for the specific equipment, will be presented to the reviewing agency during the design phase. The anticipated additional O&M costs for electrical and preventive maintenance is estimated to be approximately \$1,500 per year. Total estimated cost is approximately \$212,000 (see Appendix I)

Life Cycle Cost Analysis: As described in the next section, the service life of the grinders is assumed to be 30-years. For a capital cost of \$212,000, this is an annual cost of \$13,650 per year (30-yr @ 5%) plus the additional \$1,500/year for O & M is a total of \$15,150/year. With the recent improvements to the pump protection and alarms, a service life of 10-years is assumed for the pumps. For complete replacement of all six pumps every 10-years a capital cost of \$69,600 results in an annual cost of \$4,488 per year (30-yr @ 5%). Based on these assumptions, maintaining spares and replacing pumps at failure is the more cost-effective approach, and preferred solution. The life cycle cost described herein was based on assumed comparative service lives for the pumps and grinders. If the operators find that the pumps are only lasting two to three years before requiring replacement or rebuilding, then installation of grinders upstream of the pump station is presented for consideration.

Problem: Pump Station Flow Metering

Solution: Install Flow Meters Presently flow rates are determined by the calculation of pump run times and pump design flow curves. 10 States Standards Section 42.8 states: "suitable devices for measuring wastewater flow shall be provided at all pumping stations." It is recommended that clamp-on ultrasonic doppler flow meters such as Dynasonics Badger Meter with monitor, be installed on the pump discharge lines within each active duplex pump station. Manufacturer's literature of the described meter is attached at the end of Appendix I. Meters will be sized to measure the flows for a range exceeding the design peak hourly flow for each pump station/outfall with an accuracy of 0.5%. Additionally, meters matching Outfall 001, are recommended just upstream of Outfalls 002 and 003 so that the Town and NYSDEC can have a better understanding of effluent loading rates. Total estimated cost is approximately \$55,000 (see Appendix I).

Problem: Force Main Aerial Crossings

Solution: Relocate Force Mains Below the Streambed Force mains at two locations cross Foster Brook aerially and to reduce the risk from failure due to freezing, breaks, or damage from high flows, debris



and ice, the crossings should be relocated under the streams. The recommended work includes directionally drilling below frost depth under the stream, installing a durable DR-11 high-density polyethylene (HDPE) pipe and connecting to the existing force main on each side of the stream. Directional drilling was selected as the preferred installation method to reduce the stream impacts, eliminate the need for equipment entering stream, minimize the environmental impacts during construction, and minimize permitting requirements. At the time of this report; design work, preparation of construction documents were complete. Bids were received, the Town awarded the work to the lowest responsible bidder, and construction commenced in November 2025 and substantially completed in December 2025. Final site restoration work is scheduled to be completed in the Spring 2026.

Problem: Outfall Loadings/Service Life

Solution: Develop Subsurface Disposal System Replacement and Expansion Plan With the subsurface disposal systems nearing their expected useful service life combined with discharges nearing the SPDES Permit limit at certain times of the year, replacement and expansion of the subsurface disposal systems is expected to be necessary within the next 10-years. This will require development of a plan to ascertain overall system capacity and replace components and expand reserve capacity of the subsurface disposal systems to meet future needs. As part of this plan review is recommended of system capacity, flows and property uses relative to the design capacity of the system be conducted with an eye towards any potential regulatory controls the Town might consider for protection of Sewer District No. 1's assets.

The 1990 Engineer's Report prepared by Adirondack suggests that the reserve area required for subsurface disposal systems may have been diminished by a previous system rehabilitation project, However, further analysis following the 1994-1995 upgrades is not available, which would confirm the available capacity and reserve capabilities of the present system. As residences are expanded or replaced and the system continues to age, it is likely that wastewater demand will increase in the coming years, further stressing permit limitations.

It is recommended that further evaluation of the present leach fields/subsurface disposal systems be conducted to determine existing capacity and reserve and from that information a plan be developed to expand the subsurface disposal systems, as required to conform to Regulatory requirements and future needs. It is also recommended that as part of the plan, the consolidation of Outfalls 001, 002 and 003 be evaluated.

Development of the replacement/expansion plan:

- Review of design drawings for the two leach fields (Outfalls 001 and 002) and the seepage pits (Outfall 003).
- Compilation and review of flow meter data for Outfalls 001, 002 and 003 once flow meters are installed for Outfalls 002 and 003.
- Subsurface investigation/test pits to evaluate conditions of soils and disposal efficiency.
- Internal inspection of structures, distribution boxes, and piping.



- Capacity analysis of disposal systems based upon review of design drawings.
- Analysis of alternatives to consolidate the three systems into a single system.
- More in-depth evaluation of subsurface structures, while empty.
- A review of potential regulatory controls the Town might consider for protection of Sewer District No. 1's assets.
- Based on findings and evaluations, development of engineering design, scope of work, opinions of probable cost, and preparation of concept plans.

Construction of subsurface disposal system replacements/expansion:

- Construction of the new subsurface disposal system will include all labor and materials necessary to remove and replace designated structures, soils, piping, and accessories, and installing new facilities required to expand the subsurface system as required by the design.

Total estimated cost based on a non-mounded system, is approximately \$568,000 (see Appendix I).

2. Cost Estimates

The table provided below summarizes the costs associated with each alternative. The yearly capital costs are estimated using a bond with a payback period of 30 years and an interest rate of 5.0%.

Alternative No. 1 – No Action	Alt. No. 1 – No Action
Total Capital Cost	\$0
Yearly Capital Cost (Assuming a 30-year bond at 5% interest)	\$0
Yearly User Rate Impact (Based on 81 EDUs)	\$0

Alternative No. 2 – Select Upgrades	Alt. 2 – Spare Pumps	Alt. 2 - Flow Meters	Alt. 2 - Force Main Relocation
Total Capital Cost	\$69,600	\$55,000	Complete
Yearly Capital Cost (Assuming a 30-year bond at 5% interest)	\$4,488	\$3,550	
Yearly User Rate Impact (Based on 81 EDUs)	\$56	\$44	



Alternative No. 2 – Replacement/Expansion Plan	Alternative No. 2 – Replacement/Expansion Plan
Total Capital Cost	\$568,000
Yearly Capital Cost (Assuming a 30-year bond at 5% interest)	\$36,600
Yearly User Rate Impact (Based on 81 EDUs)	\$451

The costs presented above include; legal, engineering, and construction, inflation escalation, and a 35% contingency. A detailed preliminary opinion of probable costs worksheet for Alternative 2 is included in Appendix I.

3. Non-Monetary Factors

The anticipated non-monetary factors associated with the alternatives are presented in the following table.

Non-Monetary Factors	Alternative 1: No Action	Alternative 2: Select Upgrades
Increased Recreational Opportunities	No Impact	No Impact
Increased Local Employment	No Impact	No Impact
Aesthetics	No Impact	No Impact
Improved Habitat	No Impact	No Impact
Reduced Carbon Footprint	No Impact	No Impact
Climate Resiliency	No Impact	No Impact
Standardization	No Impact	No Impact
Permit Issues	No Permits Needed	No Permits Needed
Community Objections	To Be Determined in public hearings	To Be Determined in public hearings



D. SUMMARY AND COMPARISON OF ALTERNATIVES

The need for this project included recurring pump failure and maintenance issues primarily attributed to the flushing of disposable wipes and other materials. Review of the existing system indicated that the physical infrastructure, including gravity piping, laterals, force mains, manholes, wet wells, etc. are in decent to good condition and are not in need of immediate repair. Comparison of reported effluent rates with the system's active SPDES permit suggests that the system is near or at maximum capacity; if waste loading increases due to increased infiltration or increased community water usage, the Town risks a violation of its SPDES permit.

After considering findings from the system study, two alternatives were considered. Alternatives 1 and 2, were investigated to contrast a no action approach with a select improvements project to alleviate maintenance concerns, extend the effective life spans of existing pumps, and detail improvements that would bring the system in better compliance with the relevant 10 States Standards. Also, as part of Alternative 2, development of a plan to replace/expand the subsurface disposal systems was presented in response to concerns related to expected remaining service life and effluent loading rates identified when reviewing the existing system and future needs of the community.

Non-monetary factors were accounted for in the selection of the recommended alternative. In this case, there are no significant non-monetary differences between the alternatives.

E. RECOMMENDED ALTERNATIVE

Basis of Selection

Providing no upgrades (Alternative No. 1) to the existing wastewater treatment practices comes at no initial capital cost, but it does not provide any benefit to removing potential sources of contamination for Lake George. Maintenance costs will continue under this alternative. Based on this, Alternative No. 1 is not recommended and Alternative No. 2 is Preferred.

Preferred Alternative No. 2

Collection System: Based on the findings presented in this report, work described under Alternative 2 including installation of flow meters, spare pumps, and relocation of the force main crossings, are recommended. The Town proceeded with the relocation of the force main and work was substantially completed in December 2025. The updated alarm/notification/pump protection system has substantially reduced the risk of overflows due to pump failure. Purchasing spare pumps will reduce the risk further and is recommended.

Subsurface Disposal System: As the existing subsurface disposal systems are operating near their SPDES Permitted limits at certain times of the year and they are nearing their expected useful service life, it is recommended that a review of system capacity, flows and property uses relative to the design capacity of the system be conducted with an eye towards any potential regulatory controls the Town might consider for protection of Sewer District No. 1's assets. From that evaluation, a replacement/expansion plan should be developed, followed by construction of the new subsurface



disposal system replacement/expansion design. This a proactive approach that would have a plan in place, in the event that violations occur in the future.

Next Steps/Project Schedule

Aerial Stream Crossing Relocation: The relocation of the aerial stream crossings project is currently out to bid. By using directional drilling technology within the existing force main easement and connection points to the existing mains outside the stream and environmentally sensitive areas, environmental impacts were minimized. All involved Agencies (LGA, APA, NYSDEC) have confirmed they require no further review. The anticipated construction schedule is as follows:

- Bid Opening: October 1, 2025.
- Bid Award: October 23, 2025.
- Construction Start Date: November 15, 2025.
- Substantial Completion: January 1, 2026.
- Final Completion/Site Restoration: May 1, 2026.

Pump Station Improvements: For the pump station improvements (pump spares/grinders & flow meters), work will also be confined to the existing easements and confines of the pump stations. These improvements should be below the thresholds and require minimal Environmental Agency involvement with associated schedule impacts. This work will require design, funding, bidding, and construction services, which may be eligible for funding assistance under various Agency funding programs, and it is recommended that the Town pursue eligible grant funding. If Town seeks project funds through EFC, then a Smart Growth Form will be included as part of financing application. The anticipated project schedule is as follows:

- Start Design: March 2026.
- Pursue Funding: April 2026.
- Design Complete: June 2026.
- Submit to Permitting/Agencies: June 2026.
- Agency Review Complete: August 2026.
- Funding in Place: October 2026.
- Bids Received/Award: November 2026.
- Construction Start: December 2026.
- Construction Complete: June 2027.

Future Subsurface Disposal Expansion: The cost for these improvements would be significant and planning for this work is recommended to commence soon, as this work will require easement acquisitions, design, funding/grant applications, Agency review/approval, bidding, and construction services. Expansion plans may be eligible for funding assistance under various Agency funding programs, and it is recommended that the Town pursue eligible grant funding, particularly for



Alternative 3. There are various funding programs that this project may be eligible for and would warrant further investigation, including but not limited to the Water Infrastructure Improvement (WIIA) program/Clean Water State Revolving Fund (CWSRF) through EFC, NYSDEC's Water Quality Improvement Project (WQIP), Federal Agencies such as USDA Rural Development, HUD Community Development Block Grants (CDBG), and local sources such as the Lake George Association (LGA). If the Town seeks project funds through EFC, then a Smart Growth Form will be included as part of financing application.

The anticipated project schedule is as follows:

- Start Design: March 2027.
- Pursue Funding/Start Applications: April 2027.
- Start Easement Acquisitions: June 2027.
- Funding/Grant Applications Complete: July 2027.
- Easement Acquisitions Complete: October 2027.
- Design Complete: December 2027.
- Submit to Permitting/Agencies/SPDES Modification Review: January 2028.
- Agency Review/SPDES Modification Complete: April 2028.
- Funding in Place: April 2028.
- Call for Bids: May 2028.
- Bids Received/Award: June 2028.
- Construction Start: July 2028.
- Construction Complete: September 2029.



F. ENGINEERING REPORT CERTIFICATION

During the preparation of this Engineering Report, I have studied and evaluated the cost and effectiveness of the processes, materials, techniques, and technologies for carrying out the proposed project or activity for which assistance is being sought from the New York State Clean Water State Revolving Fund. In my professional opinion, I have recommended for selection, to the maximum extent practicable, a project or activity that maximizes the potential for efficient water use, reuse, recapture, conservation, and energy conservation, taking into account the cost of constructing the project or activity, the cost of operating and maintaining the project or activity over the life of the project or activity, and the cost of replacing the project or activity.

**Title of Engineering Report: Sewer District No. 1
Huletts Landing
Sanitary Sewer Collection System Study**

Date of Report: January 14, 2026

Professional Engineer's Name: A. Thomas Bates, P.E.

Signature:

Date: January 14, 2026

APPENDIX A
USDA Web Soil Survey

Search

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
W	Water	0.0	0.0%
Subtotals for Soil Survey Area		0.0	0.0%
Washington County, New York (NY115)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HNC	Hollis-Rock outcrop association, gently sloping and sloping	5.9	20.3%
HoB	Hoosic gravelly sandy loam, 3 to 8 percent slopes	22.0	76.2%
NcA	Natchaug muck, 0 to 2 percent slopes	1.0	3.4%
Subtotals for Soil Survey Area		28.9	100.0%
Totals for Area of		28.9	100.0%

Soil Map

Scale (not to scale)



Warning: Soil Map may not be valid at this scale.

Washington County, New York

HNC—Hollis-Rock outcrop association, gently sloping and sloping

Map Unit Setting

National map unit symbol: 9xz8
Elevation: 100 to 2,150 feet
Mean annual precipitation: 35 to 42 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 175 days
Farmland classification: Not prime farmland

Map Unit Composition

Hollis and similar soils: 70 percent
Rock outcrop: 15 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hollis

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: A thin mantle of loamy till derived mainly from schist, granite, and gneiss

Typical profile

H1 - 0 to 4 inches: loam
H2 - 4 to 19 inches: fine sandy loam
H3 - 19 to 23 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 0.0 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D

Ecological site: F142XB019NY - Shallow Acidic Till Upland
Hydric soil rating: No

Description of Rock Outcrop

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Minor Components

Charlton

Percent of map unit: 6 percent

Hydric soil rating: No

Sun

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

Carlisle

Percent of map unit: 4 percent

Landform: Swamps, marshes

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Warren County, New York

Survey Area Data: Version 23, Sep 6, 2023

Soil Survey Area: Washington County, New York

Survey Area Data: Version 23, Sep 6, 2023

Washington County, New York

HoB—Hoosic gravelly sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9xzp

Elevation: 100 to 1,100 feet

Mean annual precipitation: 35 to 42 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 110 to 175 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hoosic and similar soils: 75 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hoosic

Setting

Landform: Terraces, outwash plains, deltas

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Sandy and gravelly glaciofluvial deposits

Typical profile

H1 - 0 to 8 inches: gravelly sandy loam

H2 - 8 to 35 inches: very gravelly loamy sand

H3 - 35 to 80 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

Minor Components

Herkimer

Percent of map unit: 5 percent

Hydric soil rating: No

Oakville

Percent of map unit: 5 percent

Hydric soil rating: No

Otisville

Percent of map unit: 5 percent

Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

Fredon

Percent of map unit: 5 percent

Landform: Depressions

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Warren County, New York

Survey Area Data: Version 23, Sep 6, 2023

Soil Survey Area: Washington County, New York

Survey Area Data: Version 23, Sep 6, 2023

Washington County, New York

NcA—Natchaug muck, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2w68z

Elevation: 0 to 1,550 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Natchaug and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Natchaug

Setting

Landform: Depressions, depressions, depressions

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Highly decomposed organic material over loamy glaciofluvial deposits and/or loamy glaciolacustrine deposits and/or loamy till

Typical profile

Oa1 - 0 to 12 inches: muck

Oa2 - 12 to 31 inches: muck

2Cg1 - 31 to 39 inches: silt loam

2Cg2 - 39 to 79 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to high (0.01 to 14.17 in/hr)

Depth to water table: About 0 to 6 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 25 percent

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Very high (about 17.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D
Ecological site: F144AY042NY - Semi-Rich Organic Wetlands
Hydric soil rating: Yes

Minor Components

Catden

Percent of map unit: 8 percent
Landform: Depressions, depressions, depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Limerick

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Sun

Percent of map unit: 4 percent
Landform: Depressions, hills
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Halsey

Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Warren County, New York
Survey Area Data: Version 23, Sep 6, 2023

Soil Survey Area: Washington County, New York
Survey Area Data: Version 23, Sep 6, 2023

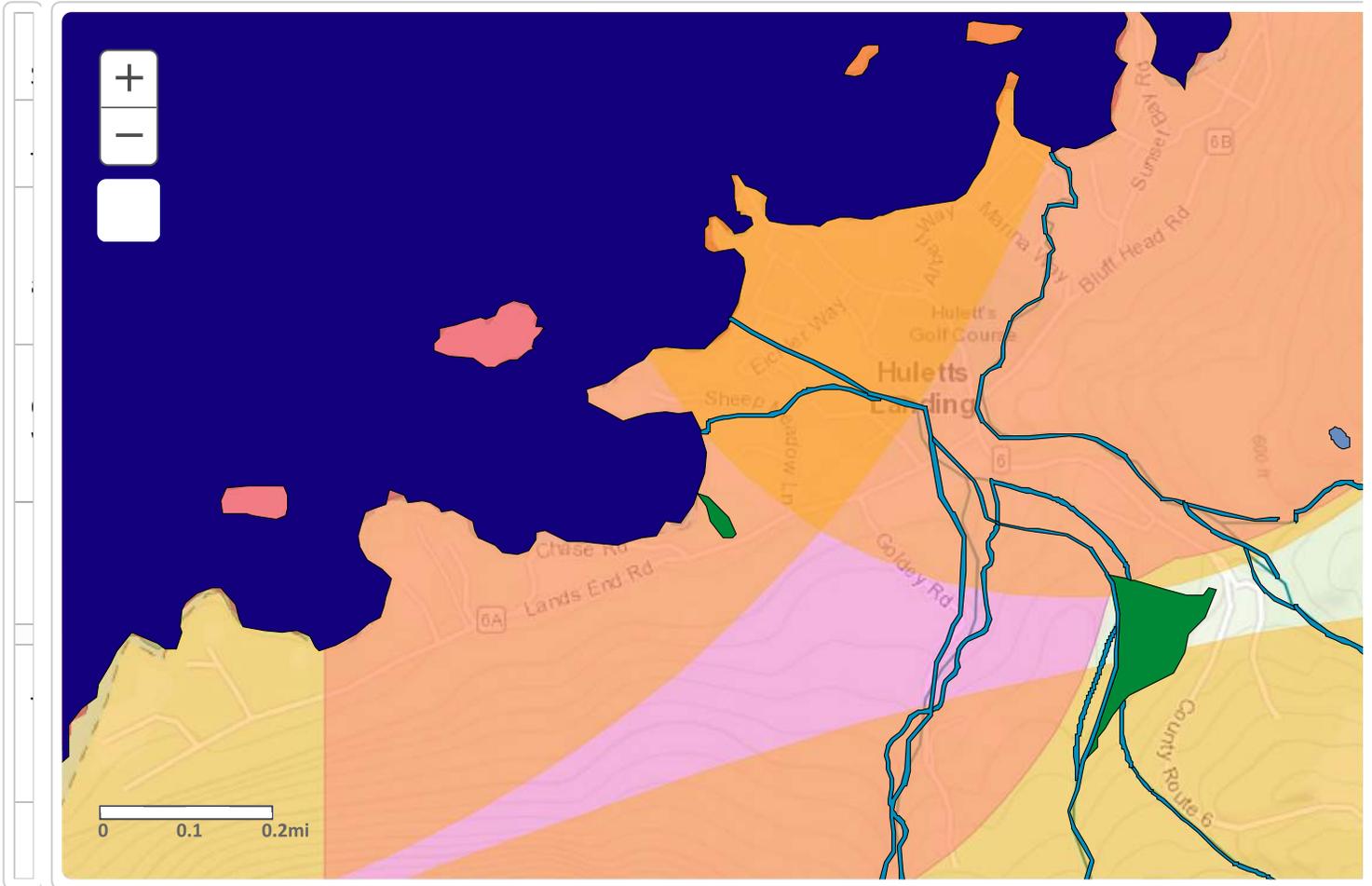
APPENDIX B
NYS DEC Environmental Resource Map

Environmental Resource Mapper

Topographical



[Using this map](#)

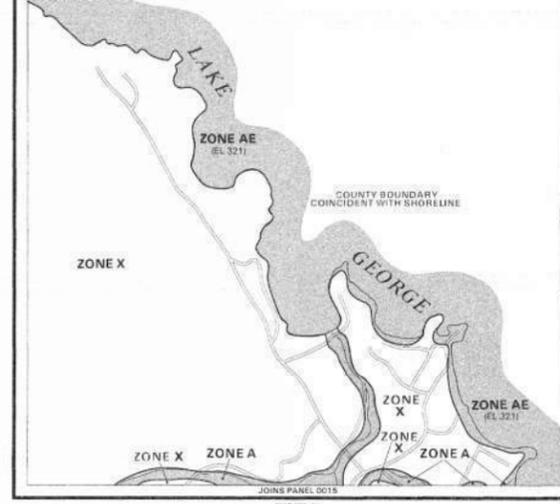


APPENDIX C
NYS Cultural Resource Information System Map



APPENDIX D
FEMA FIRMette

1
2
3
4
5
6



- LOCAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD**
- ZONE AE** No base flood elevations determined.
 - ZONE AH** Base flood elevations determined.
 - ZONE AD** Flood depths of 1 to 3 feet (usually areas of parking); base flood elevations determined.
 - ZONE A99** Flood depths of 1 to 3 feet (usually areas of parking); base flood elevations determined. For areas of elevated tank flooding, elevations also determined.
 - ZONE A99B** To be protected from 100-year flood by Federal flood protection system under construction; base flood elevations determined.
 - ZONE V** Coastal flood with velocity hazard (wave action); base flood elevations determined.
 - ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.
- FLOODWAY AREAS IN ZONE AE**
- OTHER FLOOD AREAS**
- ZONE X** Areas of 50-year flood; areas of 100-year flood with average depth of less than 1 foot or with wave areas less than 1 square mile, and areas protected by levees from 100-year flood.
 - OTHER AREAS** Areas determined to be outside 50-year floodplain.
 - ZONE D** Areas in which flood hazards are undetermined.
- UNDEVELOPED COASTAL BARRIERS**
- Identified 1982
 - Identified 1992 or later
 - Other Areas Protected Areas Identified 1992 or later
- Coastal barrier areas are normally located within or adjacent to special flood hazard areas.
- Floodplain Boundary
 Floodway Boundary
 Zone D Boundary
 Boundary Dividing Special Flood Hazard Zones and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones
 Base Flood Elevation Line; Elevation in Feet
 Cross Section Line
 (EL 997) (D) (D)
 (EL 997) Base Flood Elevation in Feet Where Lettered Within Zone
 RM 7₂ Elevation Reference Mark
 #M1.5 River Mile
 *Reference to the National Geodetic Vertical Datum of 1929.

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly those local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas. The community map repository should be consulted for possible updated flood hazard information prior to use of the map for property purchase or construction purposes.

Coastal base flood elevations apply only landward of 600000 and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of special flood hazard (100-year flood) include Zones A, AE, AH, AD, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway width in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index.

MAP REPOSITORY
 Dresden Town Hall, Dresden Center Road, Whiteshall, New York 12157
 (Maps available for reference only, not for distribution)
 DATE OF REVISION:
 FEBRUARY 14, 1975

FLOOD HAZARD BOUNDARY MAP REVISIONS:
 NONE

FLOOD INSURANCE RATE MAP EFFECTIVE:
 JULY 3, 1988

FLOOD INSURANCE RATE MAP REVISIONS:
 September 20, 1996 - to add base flood elevations, to change zone designations, and to update map format.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 800-485-6623.

APPROXIMATE SCALE
 1" = 1000'

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
DRESDEN,
 NEW YORK
 WASHINGTON COUNTY

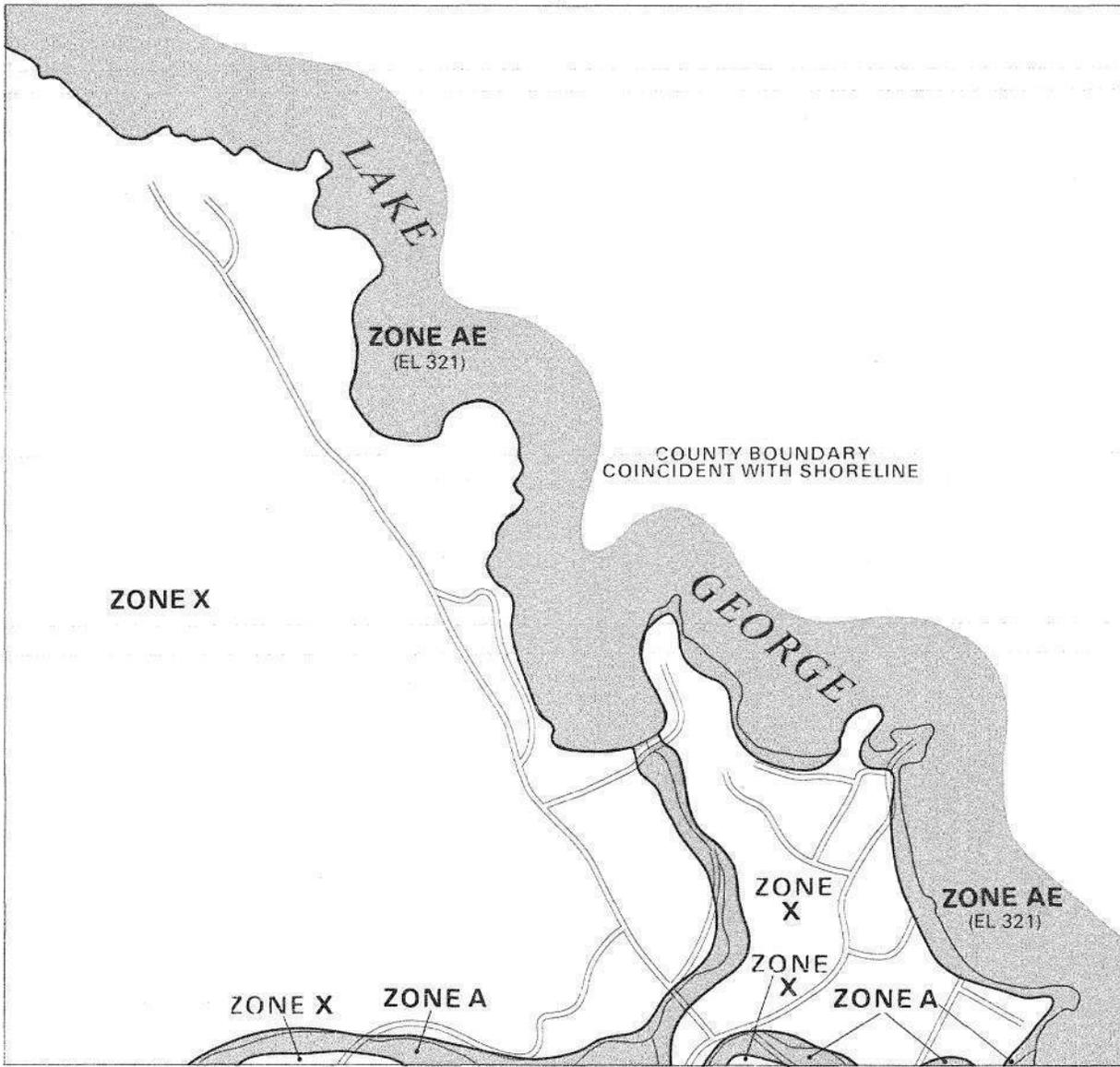
PANEL 5 OF 15
 (SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
 361410 0005 B

MAP REVISED:
 SEPTEMBER 20, 1996

H

J



COUNTY BOUNDARY
COINCIDENT WITH SHORELINE

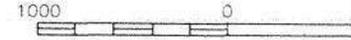
JOINS PANEL 0015

INSET A

insurance agent or call the National Flood Insurance Pr



APPROXIMATE SCALE



SHORELINE

ZONE AE (EL 321)

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
DRESDEN,
NEW YORK
WASHINGTON COUNTY

PANEL 5 OF 15
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
361410 0005 B

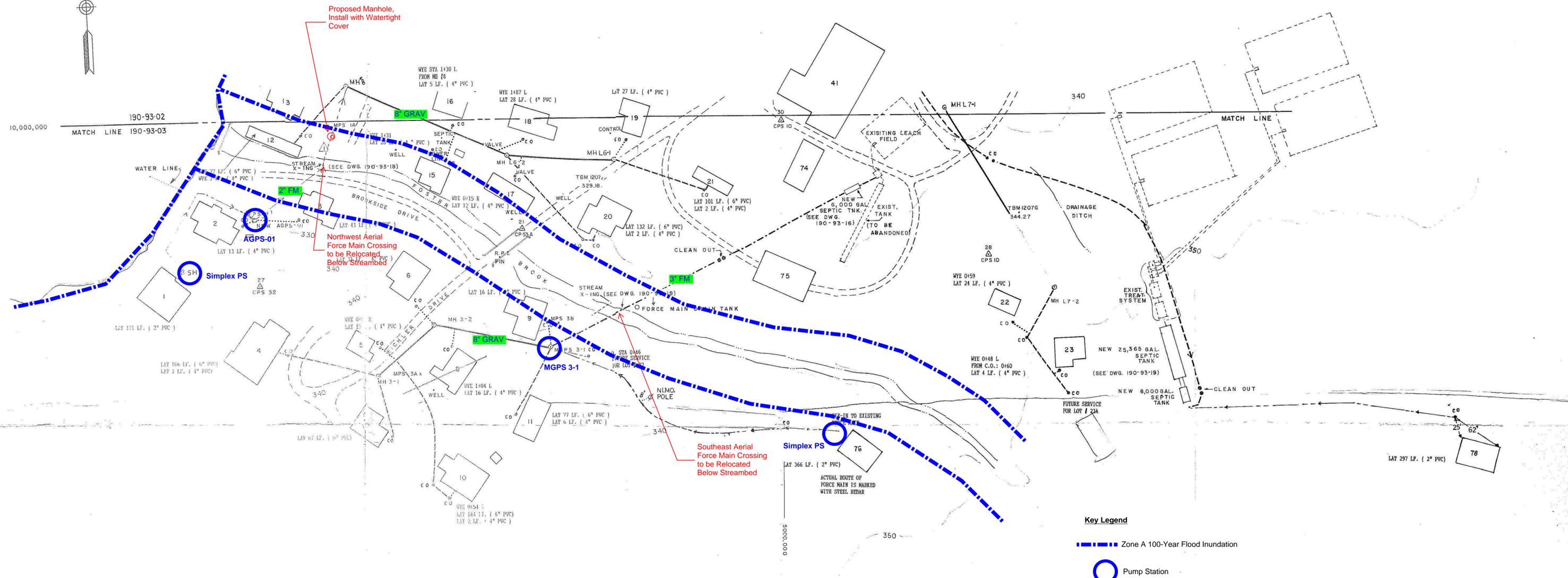
MAP REVISED:
SEPTEMBER 20, 1996



Federal Emergency Management Agency

ADJOINING AREA SHOWN AS INSET A

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.



Proposed Manhole,
Install with Watertight
Cover

Northwest Aerial
Force Main Crossing
to be Relocated
Below Streambed

Southeast Aerial
Force Main Crossing
to be Relocated
Below Streambed

Key Legend

Zone A 100-Year Flood Inundation

Pump Station

**EXISTING SEWER SYSTEM
RELOCATED UNITS**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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JETT INDUSTRIES, INC.
RL-7 P.O.-BOX 219
COLLIERSVILLE, N.Y. 13747
(607) 433-2100

"AS BUILT" DRAWINGS
2/10/95

- SPECIAL NOTES TO CONTRACTOR**
- EXISTING UTILITIES SUCH AS "SANITARY & STORM SEWERS, WATER MAINS, BURIED TELEPHONE CABLES ETC., HAVE BEEN INDICATED ON THE PLANS SOLELY TO INFORM THE CONTRACTOR OF THEIR EXISTANCE AND APPROX. LOCATION PRIOR TO ANY EXCAVATION FOR THE CONSTRUCTION OF THE WORK REQUIRED UNDER THIS CONTRACT. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY THEIR RESPECTIVE UTILITY OWNERS AND HAVE THEM LOCATE AND MARK THEIR UTILITIES AT EACH CONSTRUCTION SITE.
 - INDIVIDUAL WATER SERVICES AND SEWER LATERAL SERVICES HAVE NOT BEEN INDICATED ON THESE PLANS. THE CONTRACTOR SHALL HAVE THESE ITEMS LOCATED AND MARKED PRIOR TO EXCAVATION.
 - THE CONTRACTOR SHALL BE REQUIRED TO PROTECT ALL SUCH UTILITIES DURING THE CONSTRUCTION UNDER THIS CONTRACT. ALL SUCH UTILITIES DAMAGED BY THE CONSTRUCTION WORK WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.

REV 2	12-15-94	RELOC. FM. UNIT 1	TJR WER
REV 1	6-22-93	SRF LETTER 6-1-93	TJR WER
REV. NO.	DATE	DESCRIPTION	BY:

**ADIRONDACK
ENGINEERING
ASSOCIATES P.C.** TICONDEROGA, NY

**SEWER DISTRICT #1
HAMLET OF HULETT'S LANDING, N.Y.
TOWN OF DRESDEN**

DATE 15 JAN 1993	DSN WR	DETAIL PLANS SH. #2,
SCALE 1" = 50'-0"	DRN LG	DWG No 190-93-03
	APP TJR	

U.F.P.O.
1-800-962-7962

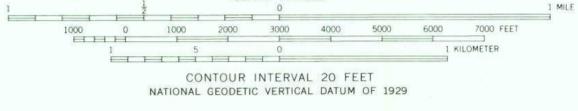
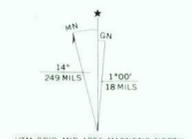
"UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW"

Handwritten signature: Andrew Peale

APPENDIX E
Topographic Map



Mapped, edited, and published by the Geological Survey
Control by USGS and USCGS
Topography by photogrammetric methods from aerial photographs
taken 1965 and 1966. Field checked 1966
Polyconic projection. 1927 North American datum
10,000-foot grid based on New York coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks, zone 18,
shown in blue



ROAD CLASSIFICATION

Primary highway, all weather, hard surface	Light-duty road, all weather, improved surface
Secondary highway, all weather, hard surface	Unimproved road, fair or dry weather
State Route	

OCT 21 1977
3300

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

USGS
Historical File
Topographic Division
SILVER BAY, N. Y.
NE/4 BOLTON LANDING 15' QUADRANGLE
N4337.5-W7330/7.5
1966
AMS 6271 II NE-SERIES V821

APPENDIX F
Existing Infrastructure Map

Hulett's Landing Sewer District No. 1 Properties Served
Revised 10/17/2025

	PARCEL ID	OWNER NAME	ADDRESS	PROPERTY CLASS CODE	PROPERTY TYPE	UNITS	ACTIVE UNITS	INACTIVE DRY UNITS	O&M EXEMPTED UNITS
1	26.8-7-9	4043 EICHLER WAY LLC	4043 EICHLER WAY	280	Res Multiple	2	2		
2	26.8-2-2	BAGGETTA LVG TRST	999 CTY RTE 6	260	Seasonal res	1	1		
3	26.8-8-11	DeVerna, Susan	4256 LAKEVIEW WAY	210	1 Family Res	1	1		
4	26.8-1-3	BORDEN, WILLIAM	1009 CTY RTE 6	210	1 Family Res	1	1		
5	23.20-1-1.4	BRENNAN, GERARD	960 CTY RTE 6	210	1 Family Res	1	1		
6	23.20-1-8	BRIGHTSIDE FAMILY LLC	4054 ALBERT WAY	210	1 Family Res	1	1		
7	26.8-7-4	BUTLER, DAVID	4018 EICHLER WAY	260	Seasonal res	1	1		
8	26.8-6-5	Campbell Family Irrev Trust,	4040 DELALANDE WAY	260	Seasonal res	1	1		
9	26.8-3-4	Carley, William Sean	4526 LADY OF THE LAKE WAY	260	Seasonal res	1	1		
10	26.8-6-6	Corby, James L. Jr	4039 EICHLER WAY	210	1 Family Res	1	1		
11	26.8-3-6	DAVIDOW, TIMOTHY	4532 LADY OF THE LAKE WAY	210	1 Family Res	1	1		
12	23.20-1-3	DAVIDOW, WILLIAM	4067 ALBERT WAY	210	1 Family Res	1	1		
13	26.8-7-3	DAVY FAMILY TRUST	4205 BEACH WAY	210	1 Family Res	1	1		
14	26.8-2-4	DEROSSI, SUZANNE	995 CTY RTE 6	260	Seasonal res	1	1		
15	26.8-8-4	EHLER, ROBERT	4103 MARGOT WAY	210	1 Family Res	1	1		
16	26.8-7-10	ELISEO, MARK	4309 FOSTER BROOK PATH	210	1 Family Res	1	1		
17	26.8-6-7	FITZGERALD, JAMES	4035 EICHLER WAY	210	1 Family Res	1	1		
18	26.8-8-6	FITZGERALD, REGINA	4210 BEACH WAY	210	1 Family Res	1	1		
19	26.8-7-2	FREDRICK, KATHLEEN	4219 BEACH WAY	260	Seasonal res	1	1		
20	26.8-7-6	GORMAN, ELEANOR	4312 ELM TREE PATH	260	Seasonal res	1	1		
21	26.8-6-2	HANNAN, NEIL	4019 EICHLER WAY	260	Seasonal res	1	1		
22	26.8-2-9	HENNESSY, PATRICIA ESTATE	979 CTY RTE 6	260	Seasonal res	1	1		
23	23.20-1-1.1	HULETT'S LANDING PRTY OWR	996 CTY RTE 6	557	Outdr sport	2	0	2	
24	26.8-2-8	HURLEY, GREGORY	981 CTY RTE 6	260	Seasonal res	1	1		
25	26.8-3-2	HURLEY, GARRET	4509 LADY OF THE LAKE WAY	210	1 Family Res	1	1		
26	26.8-2-13	JOHNSON, LORA	4118 ST ANTOINE WAY	260	Seasonal res	1	1		
27	23.20-1-1.5	KAPUSINSKI, GEORGE	962 CTY RTE 6	484	1 use sm bld	1	1		1
28	26.8-2-5	KAPUSINSKI, GEORGE	989 CTY RTE 6	260	Seasonal res	1	1		
29	26.8-3-5	KAPUSINSKI, GEORGE	4009 EICHLER WAY	552	Golf course	2	2		1
30	26.8-1-5	KAPUSINSKI, GEORGE	4136 MARGOT WAY	280	Res Multiple	2	2		
31	23.20-1-1.7	KAPUSINSKI, GEORGE	4057 ALBERT WAY	210	1 Family Res	1	1		
32	26.8-2-11	KAPUSINSKI, GEORGE	4106 MARGOT WAY	260	Seasonal res	1	1		
33	26.8-7-8	KELLY, MARK	4044 EICHLER WAY	210	1 Family Res	1	1		
34	26.8-3-3	KEOUGH, KEVIN	4522 LADY OF THE LAKE WAY	260	Seasonal res	1	1		
35	26.8-2-7	KING, BRADFORD	985 CTY RTE 6	260	Seasonal res	1	1		
36	26.8-1-2	KNIGHT, DELPHINE BROWN	1010 CTY RTE 6	260	Seasonal res	1	1		
37	26.8-8-10	KOENEKE, PATRICE	4260 LAKEVIEW WAY	210	1 Family Res	1	1		
38	26.8-8-5	KOENEKE FAMILY TRUST	4204 BEACH WAY	260	Seasonal res	1	1		
39	23.20-1-4	Fox LE, Roselyn	4083 ALBERT WAY	260	Seasonal res	1	1		
40	23.20-1-6	LAKEVIEW AT HULETT'S LLC	4064 BEACH WAY	260	Seasonal res	1	1		
41	26.8-8-13	LINHART, WILLIAM	4224 BEACH WAY	260	Seasonal res	1	1		
42	26.8-8-1	MACHISKI, JOHN	4117 MARGOT WAY	260	Seasonal res	1	1		
43	23.20-1-1.6	MANUELE, ALEX	970 CTY RTE 6	210	1 Family Res	1	1		
44	23.20-1-1.2	MANUELE, CATHERINE LE	968 CTY RTE 6	210	1 Family Res	1	1		
45	23.20-1-2.2	MARTIN, FREDRICK	4063 ALBERT WAY	260	Seasonal res	1	1		
46	26.8-3-5.1	MARTIN, MICHAEL	2427 JAUQUES WAY EAST	210	1 Family Res	1	0	1	
47	26.8-2-16	MATTHEWS, DONNA TRUST	4126 MARGOT WAY	260	Seasonal res	1	1		
48	26.8-2-15	McCARTHY, JOHN	4122 MARGOT WAY	260	Seasonal res	1	1		
49	26.8-2-12	McNELIS, JOHN	4108 MARGOT WAY	210	1 Family Res	1	1		
50	26.8-2-1	McNELIS, PATRICK	1001 CTY RTE 6	210	1 Family Res	1	1		
51	26.8-8-12	MEEHAN, NORA	4254 LAKEVIEW WAY	260	Seasonal res	1	1		
52	26.8-3-5.7	MEEHAN, ROBERT	4515 LADY OF THE LAKE WAY	210	1 Family Res	1	1		
53	23.20-1-1.3	Gormley, Anne E.	972 CTY RTE 6	210	1 Family Res	1	1		
54	26.8-2-3	MERONE TRUST, JOSEPH	997 CTY RTE 6	210	1 Family Res	1	1		
55	26.8-3-5.2	MILLER, CATHERINE	2436 JAUQUES WAY EAST	210	1 Family Res	1	1		
56	26.8-8-2	MILLER, STEVEN	4111 MARGOT WAY	260	Seasonal res	1	1		
57	26.8-1-6	NASH FAMILY TRUST	4259 LAKEVIEW WAY	260	Seasonal res	1	1		
58	26.8-7-5	NEPHEW, JOHN	4024 EICHLER WAY	260	Seasonal res	1	1		
59	26.8-2-6	O CONNOR, EUGENE TRUSTEE	987 CTY RTE 6	260	Seasonal res	1	1		
60	26.8-7-1	4227 Beach Way Assoc LLC,	4227 BEACH WAY	210	1 Family Res	1	1		
61	26.8-1-1.4	PELL, JOANN	1005 CTY RTE 6	210	1 Family Res	1	1		
62	26.8-3-8	PICKEL, TRUST, JUDITH	931 CTY RTE 6	210	1 Family Res	1	1		
63	26.8-6-3	Carter, Jane E.	4027 EICHLER WAY	210	1 Family Res	1	1		
64	26.8-7-12	PORTELA, PATRICIA	4318 ELM PATH WAY	260	Seasonal res	1	1		
65	26.8-2-14	RAINBOW COTTAGE LLC	4114 MARGOT WAY	260	Seasonal res	1	1		
66	26.8-2-10	RODGERS, TIMOTHY	4006 EICHLER WAY	260	Seasonal res	1	1		
67	26.8-6-4	SAXE, DANIEL	4033 JAUQUES WAY EAST	210	1 Family Res	1	1		
68	26.8-7-13	SCHULTZ, JOHN	4314 ELM TREE PATH	210	1 Family Res	1	1		
69	26.8-1-7	SEITZ TRUST, CATHERINE	4255 LAKEVIEW WAY	210	1 Family Res	1	1		
70	26.8-1-1	SEMCKEN, DUANE	1013 CTY RTE 6	210	1 Family Res	1	1		
71	26.8-7-11	SHAD, SUZANNE HUDSON	4307 FOSTER BROOK PATH	260	Seasonal res	1	1		
72	23.20-1-5	SHERGER, MAUREEN	4070 ALBERT WAY	210	1 Family Res	1	1		
73	26.8-7-7	SMITH, LUKE	4046 EICHLER WAY	210	1 Family Res	1	1		
74	26.8-8-8	SMITH, PATRICK	4213 KATERI WAY	210	1 Family Res	1	1		
75	26.8-3-1	STANTON, MICHAEL	4505 LADY OF THE LAKE WAY	210	1 Family Res	1	1		
76	26.8-1-9	STOECKER TRUST, MILDRED	4253 LAKEVIEW WAY	260	Seasonal res	1	1		
77	26.8-1-4	TRIMBOLI, PATRICIA TRUSTEE	1007 CTY RTE 6	210	1 Family Res	1	1		
78	26.8-8-9	WILLETT, CHARLES	4215 KATERI WAY	260	Seasonal res	1	1		
79	26.8-8-3	WOLF, RAYMOND	4107 MARGOT WAY	260	Seasonal res	1	1		
80	26.8-3-5.3	YARMEL, JEFFREY	2426 JAUQUES WAY EAST	210	1 Family Res	1	1		
Totals						84	81	3	2

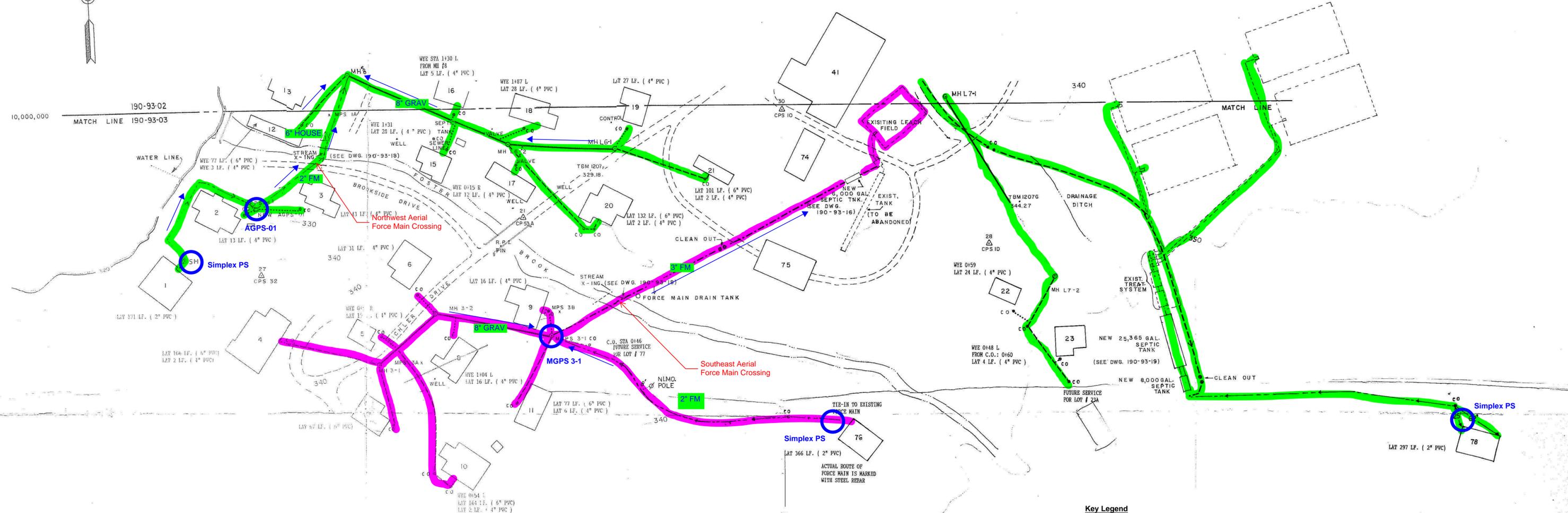
Summary

84 Total Units included in SD#1 system

81 Active units in SD#1 system

3 Units included in SD#1 but not currently connected to it. (dry, inactive hookups)

2 Units are exempted from Operation & Maintenance, but would not be exempt from capital costs (this was negotiated in an easement from the previous sewer system owner and the town in the 1990s). Dry hookups will pay capital, but do not pay O&M. Costs of capital improvements would therefore be spread across 84 parcels. O&M is spread out across 79 parcels.



Key Legend

- Collection System to Outfall No. 1
- Collection System to Outfall No. 2
- Collection System to Outfall No. 3
- Pump Station

1600' L.S. DRAINING SEWER SYSTEM
RELOCATED/REPLACED

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78
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U.F.P.O.
1-800-962-7962
Small Scale of Participating Agencies

- SPECIAL NOTES TO CONTRACTOR**
- EXISTING UTILITIES SUCH AS "SANITARY & STORM SEWERS, WATER MAINS, BURIED TELEPHONE CABLES ETC., HAVE BEEN INDICATED ON THE PLANS SOLELY TO INFORM THE CONTRACTOR OF THEIR EXISTANCE AND APPROX. LOCATION PRIOR TO ANY EXCAVATION FOR THE CONSTRUCTION OF THE WORK REQUIRED UNDER THIS CONTRACT. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY THE RESPECTIVE UTILITY OWNERS AND HAVE THEM LOCATE AND MARK THEIR UTILITIES AT EACH CONSTRUCTION SITE.
 - INDIVIDUAL WATER SERVICES AND SEWER LATERAL SERVICES HAVE NOT BEEN INDICATED ON THESE PLANS. THE CONTRACTOR SHALL HAVE THESE ITEMS LOCATED AND MARKED PRIOR TO EXCAVATION.
 - THE CONTRACTOR SHALL BE REQUIRED TO PROTECT ALL SUCH UTILITIES DURING THE CONSTRUCTION UNDER THIS CONTRACT. ALL SUCH UTILITIES DAMAGED BY THE CONSTRUCTION WORK WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.

JETT INDUSTRIES, INC.
RL-7 P.O.-BOX 219
COLLIERSVILLE, N.Y. 13747
(607) 433-2100

"AS BUILT" DRAWINGS
2/10/95

REV 2	12-15-94	RELOC. FM. UNIT 1	JR WER
REV 1	6-22-93	SRF LETTER 6-1-93	JR WER
REV. NO.	DATE	DESCRIPTION	BY:

ADIRONDACK ENGINEERING ASSOCIATES P.C.
TICONDEROGA, N.Y.

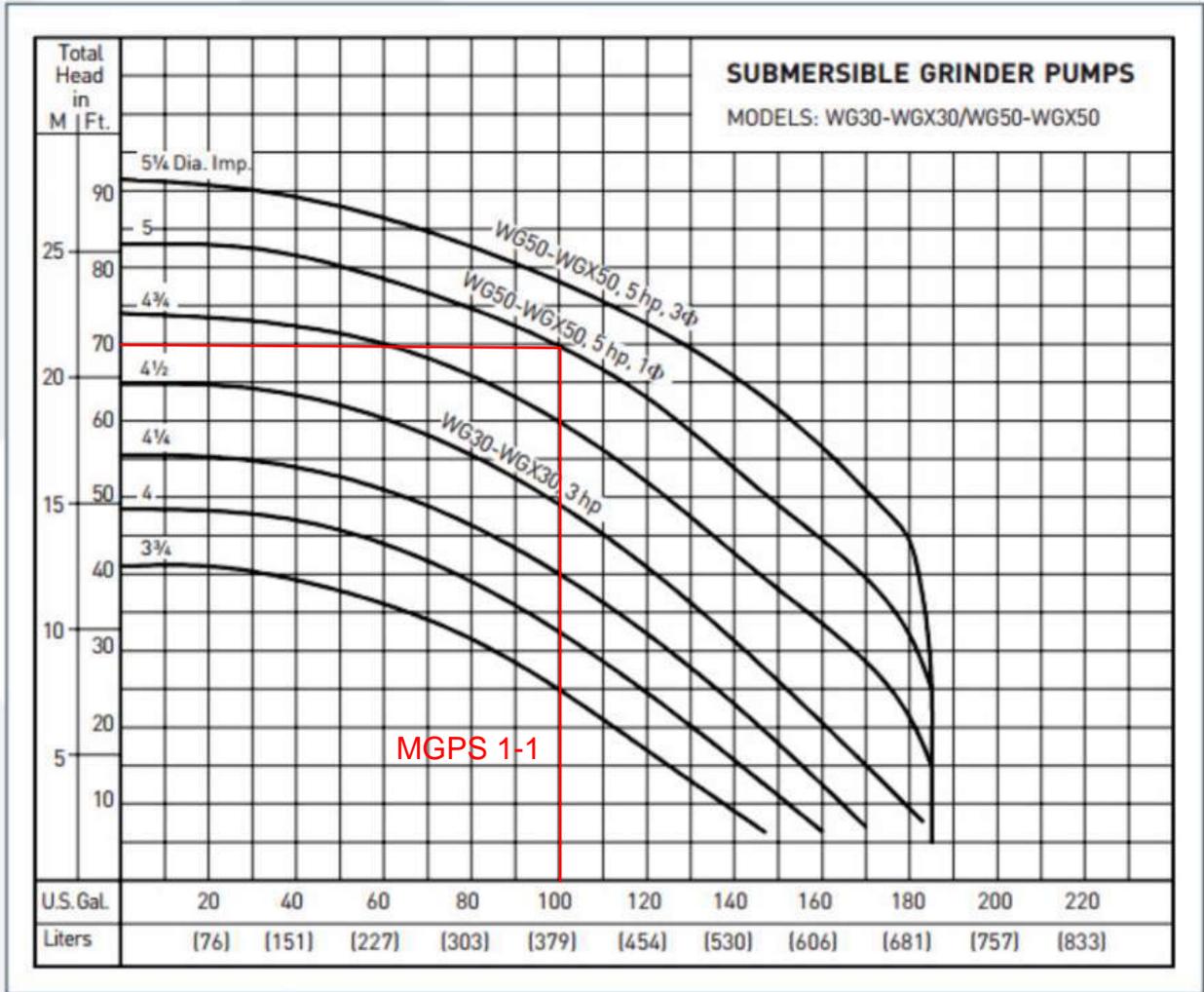
SEWER DISTRICT #1
HAMLET OF HULETT'S LANDING, N.Y.
TOWN OF DRESDEN

DATE 15 JAN 1993	DSN WR	DETAIL PLANS SH. #2,
SCALE 1" = 50'-0"	DRN LG	DWG No 190-93-03
	APP TJR	

"UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW"

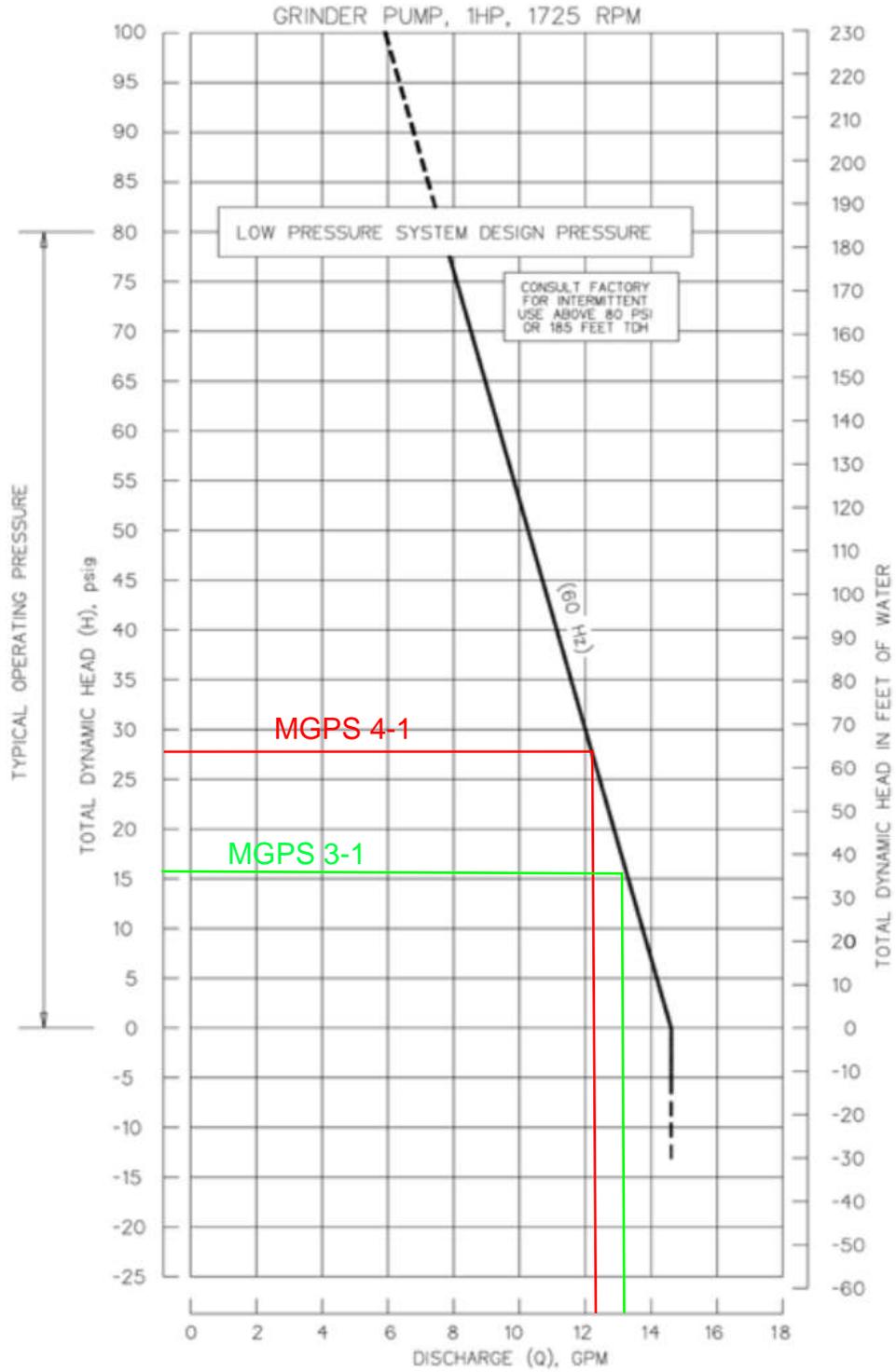


Myers Model WG50/WGX50 Submersible Grinder Pump Curve



Note: On single phase 5 hp pumps, do not exceed 5" dia. impeller.

E/One SPD Pump Performance Curve



APPENDIX G
SPDES Discharge Permit



Sent Via Email Only

March 17, 2025

The Honorable Charles Tall
Supervisor, Town of Dresden
102 Clemons Center Road
Clemons, NY 12819
supervisordresden@aol.com

**RE: SPDES Comprehensive Inspection
Town of Dresden Sewer District #1
SPDES No. NY0248983
Dresden (T), Washington Co.**

Dear Supervisor Tall,

Please find the enclosed inspection report from the announced comprehensive inspection of the Town of Dresden Sewer District #1 wastewater treatment facility conducted by the New York State Department of Environmental Conservation (the Department) on March 6, 2025. The purpose of the inspection was to determine compliance with State Pollutant Discharge Elimination System (SPDES) Permit No. N0248983 and the applicable laws (Environmental Conservation Law – ECL) and regulations (New York Codes, Rules, and Regulations - NYCRR). Overall, the facility appeared to be well operated and maintained, however, the below deficiencies were noted. Therefore, the inspection was assigned an overall rating of ***Marginal***.

1. In accordance with 6 NYCRR Part 750-2.5(a)(1) the Town must comply with all recording, reporting, monitoring, and sampling requirements specified in the permit. It has recently come to our attention that Discharge Monitoring Reports (DMRs) submitted for the facility from October to April utilize the No Data Indicator (NODI) Code #9 for “Conditional Monitoring – Not Required this Period”. The current SPDES Permit, effective November 1, 2020, states that limitations apply all year, therefore, NODI Code #9 is not applicable. **The Town must immediately begin sampling and reporting in compliance with the referenced SPDES Permit.** The Department will verify compliance by reviewing subsequent DMRs.
2. At the time of inspection, I was unable to inspect the monitoring records and lab equipment and supplies because they are currently stored at the operator’s personal home. This situation was also noted in the previous inspection, dated June 28, 2023. The storage building referenced in the previous inspection has not been replaced, and the requested schedule and Certification of Compliance was not submitted to the Department. A building for storage of the monitoring records and lab equipment and supplies must be provided onsite at the facility and the attached Certification of Compliance must be completed and submitted to the Department **within 6 months of the date of this letter.**

Should you have any questions, I can be reached at danielle.baldwin@dec.ny.gov or (518) 623-1215.

Sincerely,

Danielle Baldwin

Danielle Baldwin, P.E.
Professional Engineer 1
NYS DEC, Region 5

encl.: Inspection Report
Certification of Compliance

ec: D. Thorsland, NYS DEC Region 5
B. Borden, Town of Dresden wfborden1@gmail.com
File

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
MUNICIPAL WASTEWATER TREATMENT FACILITY INSPECTION**



Violations of 6 NYCRR Part 750 are subject to applicable civil, administrative, and criminal sanctions set forth in ECL Article 17 and as appropriate, the Clean Water Act.
This form is a record of conditions which are observed in the field at the time of inspection and documentation of compliance with Part 750.

Facility Name, Address, Phone Number(s):						
Permittee Name, Address, Phone Number(s):						
Permittee/LRP E-mail:	Municipality (C/T/V):	County:	SPDES Number: NY	DEC Region:		
Inspector's Name and Title:						Date:
Facility Representative(s) and Company(ies):						Time:
Name and Class of Receiving Water:						Weather:
Inspection Type:				Overall Inspection Rating:		
CODES:	S = Satisfactory	M = Marginal	U = Unsatisfactory	F = Follow-up	NR: Not Rated	NA: Not Applicable
						NI = Not Inspected

A. Facility Description / General:					<input type="checkbox"/> NI	<input type="checkbox"/> NA
<u>Rating</u>	<u>Item:</u>	<u>Comments</u>	<u>Citation/ Reference</u>	<u>F</u>		
1.	A copy of SPDES permit available on-site?	_____	Part 750-2.1			
	(a) Permit valid or expired (Date if expired)?	_____	Part 750-2.1			
2.	Are all outfall discharge points permitted?	_____	Part 750-1.12			
3.	Notified DEC of new/modified discharges?	_____	Part 750-1.12			
4.	Housekeeping (Office/grounds/lab)?	_____	Part 750-2.8			
5.	Flow metering (Types/location/calibration)?	_____	Part 750-2.5			
6.	Odor complaints/issue? (If any odor issues, dates/corrective actions)	_____	Part 750-2.8			
7.	Noise complaints/issue? (If any noise issues, dates/corrective actions)	_____	Part 750-2.8			
8.	WTCs used/records properly maintained?	_____	Part 750-2.5			
9.	Nearby water supply(concerns)?	_____	Part 750-2.8			
10.	Other (Specify)?	_____				

Click Left Button to Clear the Form

B. Collection System / Pump Station:

NI NA

% Separate,	% Combined.	Population of collection system:	Miles of Pipe:
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Number of pump stations in system:	Number pump stations inspected:
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	Rating	Item:		F
1.		Sewer overflows upstream of the plant? If any CSO/SSO (List reason/location) _____	Part 750-2.8	
2.		Unpermitted overflows/bypasses inside the plant since last inspection? (If any, list date/corrective action) _____	Part 750-2.8	
3.		Date when overflow/bypass channel used? _____	Part 750-2.8	
4.		Any other in plant bypass designed for WWTP? (a) List bypass frequency (Times per year). _____ (b) List average duration of bypass (Hours). _____	Part 750-2.8 Part 750-2.8	
5.		CSO/SSO reported via NY-Alert/corrective action? _____	Part 750-2.7	
6.		CSO/SSO routinely inspected? _____	Part750-2.8	
7.		Infiltration/Inflow (I/I) (Present)? _____	Part 750-2.9	
8.		I/I corrective actions? (TV/lining/sealing/replacement/inspections) _____	Part 750-2.9	
9.		Collection system inspection program? (a) Pump station inspection program? _____	Part 750-2.8 Part 750-2.8	
10.		BMP/Wet Weather Plan (Date/reviewed)? _____	Part 750-2.9	
11.		Sewer Use Ordinance (SUO) (Date/copy)? _____	Part 750-2.9	
12.		Are all pump stations operational? (Backup/SCADA/telemetry/monitoring) _____ (a) No. pumps operational (Dry/wet weather)? _____	Part 750-2.8 Part 750-2.8	
13.		Backup/spare pumps/parts available? _____	Part 750-2.8	
14.		Other (Specify)? _____		

C. Industrial Waste/Pretreatment:

NI NA

Rating	Item:		F
1.	Mini program required by SPDES permit?	_____	Part 750-2.9
2.	Industrial waste discharge permits issued?	_____	Part 750-2.9
3.	Industrial waste accepted (Problems)?	_____	Part 750-2.8
4.	Outside septage accepted (Problems)?	_____	Part 750-2.8
5.	Monitoring reqd./available for hauled waste?	_____	Part 750-2.5
6.	Other (Specify)?	_____	

D. Preliminary/Primary Treatment:

NI NA

Rating	Item:		F
1.	Influent pumps/wet wells/SCADA?	_____	Part 750-2.8
	(a) Corrosion observed?	_____	Part 750-2.8
2.	Screens/Comminutor?	_____	Part 750-2.8
	(a) No./type/cleaning method (Auto/manual)?	_____	Part 750-2.8
3.	Screenings/Grit removal (records)?	_____	Part 750-2.5
4.	Flow equalization present/needed?	_____	Part 750-2.8
5.	Settling/Septic tanks?	_____	Part 750-2.8
6.	Sludge depth in primary clarifiers?	_____	Part 750-2.8
7.	Condition of primary clarifier effluent?	_____	Part 750-2.8
8.	Other (Specify)?	_____	

E. Secondary Biological Treatment:

NI NA

Rating	Item:		F
1.	Fixed film/Suspended growth? (Specify recycle rate)	_____	Part 750-2.8
2.	Rotating Biological Contactors? (Specify shaft weight/flow)	_____	Part 750-2.8
3.	Activated sludge/MBR/SBRs?	_____	Part 750-2.8

4.	Foaming/filamentous issues?	_____	Part 750-2.8
5.	Stabilization Ponds/Lagoons?	_____	Part 750-2.8
6.	Sand filter (recycle rate) ?	_____	Part 750-2.8
7.	Process control values?	_____	Part 750-2.8
8.	Other(Specify)?	_____	

F. Secondary Clarifier:

NI NA

<u>Rating</u>	<u>Item:</u>		F
1.	Foam/solids/grease present on surface?	_____	Part 750-2.8
2.	Tank/weir cleaning date & weir level?	_____	Part 750-2.8
3.	Denitrification/gas bubbles on surface?	_____	Part 750-2.8
4.	Sludge blanket depth & RAS/WAS rates?	_____	Part 750-2.8
5.	Scum arm condition?	_____	Part 750-2.8
6.	Secondary effluent quality?	_____	Part 750-2.8
7.	Loss of solids reported/observed? Other	_____	Part 750-2.8
8.	(Specify)?	_____	

G. Tertiary Treatment:

NI NA

<u>Rating</u>	<u>Item:</u>		F
1.	Filtration (Specify type)?	_____	Part 750-2.8
2.	Microfiltration?	_____	Part 750-2.8
3.	Activated carbon adsorption?	_____	Part 750-2.8
4.	Nitrification?	_____	Part 750-2.8
5.	Denitrification?	_____	Part 750-2.8
6.	Post-aeration?	_____	Part 750-2.8
7.	Phosphorus removal?	_____	Part 750-2.8
8.	Other (i.e. Polishing ponds, Ammonia stripping, etc.) (Specify)?	_____	Part 750-2.8

H. Disinfection: NI NA

<u>Rating</u>	<u>Item:</u>		F
1.	Chlorination/Dechlorination type (Gas/Liquid/Solid)? (Dose/feed pump settings)	_____	Part 750-2.8
2.	Chlorine monitoring (Level)?	_____	Part 750-2.8
3.	Ultraviolet (UV) light (Setting)?	_____	Part 750-2.8
4.	Other (Specify)?	_____	

I. Final Effluent: NI NA

<u>Rating</u>	<u>Item:</u>		F
1.	Polishing pond (Odor/foam/solids/algae)?	_____	Part 750-2.8
2.	Effluent quality (Odor/turbidity/color)?	_____	Part 750-2.8
3.	Receiving water condition(Up/downstream)	_____	Part 750-2.8
4.	Outfall sign at each discharge point?	_____	Part 750-1.12
5.	Other (Specify)?	_____	

J. Sludge Handling: NI NA

<u>Rating</u>	<u>Item:</u>		F
1.	Sludge disposal? (List name and loc. of disposal sites/hauler)	_____	Part 750-2.8
2.	Digestion (Functioning properly/type)?	_____	Part 750-2.8
3.	Sludge pumps?	_____	Part 750-2.8
4.	Sludge Dewatering (Type)?	_____	Part 750-2.8
5.	Maintenance of sludge pumps ?	_____	Part 750-2.8
6.	Records available for disposal practices?	_____	Part 750-2.5
7.	Other (Specify)?	_____	

K. Sampling Evaluation and Lab Information:

NI NA

<u>Rating</u>	<u>Item:</u>	F
1.	Written sampling plan? (Plan being followed)? _____	Part 750-2.5
2.	Need to modify sampling frequency/types? (Explain) _____	Part 750-2.5
3.	Samples collected at specified locations? _____	Part 750-2.5
4.	Adequate for representative sample? _____	Part 750-2.5
5.	Automatic sampler used? (Condition) _____	Part 750-2.5
6.	Type of samples collected (Grab/composite)? _____	Part 750-2.5
7.	If composite, minimum of 8 grab samples? _____	Part 750-2.5
8.	Permittee ELAP certified? (If yes, provide ELAP certificate #) _____	Part 750-2.5
9.	Is the commercial laboratory ELAP certified? (List lab name, address and ELAP cert. #) _____	Part 750-2.5
10.	EPA-approved testing procedures followed? _____	Part 750-2.5
	Testing done for all parameters as required? _____	Part 750-2.5
11.	WET (Whole Effluent Toxicity) testing? _____	Part 750-2.5
12.	Instrumentation calibrated & maintained? _____	Part 750-2.5
13.	Daily calibration, log books maintained? _____	Part 750-2.5
14.	Lab supplies are not expired? (Date if expired) _____	Part 750-2.5
15.	Are lab records retained at facility? _____	Part 750-2.5
16.	Is process control testing performed? (Discuss target values) _____	Part 750-2.5
17.	MLSS for day/week/month? _____	Part 750-2.8
18.	SVI for day/week/month? _____	Part 750-2.5
19.	Microscopic analysis of MLSS? _____	Part 750-2.5
20.	5/30 minutes settleometer (Day/week/month)? _____	Part 750-2.5
21.	Monitoring records kept minimum 5 years? _____	Part750-2.5
22.	Flow records maintained (Influent/effluent)? _____	Part750-2.5
23.	Other (Specify) _____	

L. Operation and Maintenance (Additional Info.):

NI NA

Rating	Item:	F
1.	Preventive maintenance plan (Method)?	Part750-2.5
2.	Records of maintenance/repair cost maintained (Method)?	Part750-2.5
3.	Spare parts inventory?	Part750-2.8
4.	Current O&M manual?	Part750-2.8
5.	O & M manual maintained?	Part750-2.5
6.	Organizational chart for O &M staff?	Part750-2.5
7.	Alarm systems (List)?	Part750-2.8
8.	Back-up power (Exercised)?	Part750-2.8
9.	Unapproved bypass during power failure (If any, date/corrective action)	Part750-2.8
10.	Written back-up power emergency plan?	Part750-2.8
11.	All required treatment units in service during back-up power use?	Part750-2.8
12.	Hydraulic/organic overloads?	Part750-2.8
13.	Schedule for removing critical equipment from service for routine maintenance?	Part750-2.8
14.	Safety railings/gratings in place/good condition?	Part 750-2.8
15.	Lights, ventilation operational (Wet wells)?	Part 750-2.8
16.	As-built plans for collection system /WWTP?	Part750-2.5
17.	Other (Specify)?	

M. Staffing / Personnel Information:

NI NA

Rating	Item:	F
1.	Staffing adequate?	Part 650
2.	Certification/grade adequate?	Part 750-2.8 & Part 650
3.	Plant score and grade?	Part 750-2.8

4.	Chief operator name, Grade, Cert. #, Exp?	_____	& Part 650 Part 750-2.8 & Part 650
5.	Asst. operator Name, Grade, Cert. #, Exp.?	_____	Part 750-2.8 & Part 650
6.	WWTP responsible for collection system?	_____	Part 650
7.	Operators responsible for water supply?	_____	Part 650
8.	Is Chief Operator present at the WWTP as per required guideline?	_____	Part 650
9.	Is certified WWTP operator present at the plant as per required guideline?	_____	Part 650

N. Fiscal:			<input type="checkbox"/> NI	<input type="checkbox"/> NA
How sewer rates are assessed (Flat vs metering)?				
How is the plant budget developed?				
Asset Management Plan (AMP)?	AMP Prepared/Date?	Plans to update AMP?		
Is AMP used to assess/prioritize critical system components?				

Compliance Status (Orders, Schedules, etc.):

Comments:

<input type="checkbox"/> Photographs attached: _____ <input type="checkbox"/> Attachments (graphs, diagrams, etc.): _____ <input type="checkbox"/> DMR Issues: _____ <input type="checkbox"/> SPRTK Issues: _____ <input type="checkbox"/> NetDMR Issues: _____	<i>Danielle Baldwin</i> <hr/> Inspector's Signature / Date
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Certification of Compliance

For DEC Use:

Facility Name SPDES ID

Regional Inspector Date

Complete and return this Certification of Compliance by

Send to Regional Water Engineer:

Send via email to:
 derek.thorsland@dec.ny.gov
 danielle.baldwin@dec.ny.gov

1. Facility has corrected the violations specified in the inspection report cited or attached Notice of Violation; or certifying that permit or order schedule items are completed.
2. I am authorized as the permit holder to file this certification on behalf of the facility.
3. Submission of this certification does not limit enforcement or re-inspection by the department.

Please Submit Items Checked		Description of Compliance/Corrective Actions	Received Date
Photos	<input checked="" type="checkbox"/>	A photo of the building provided for storage of the monitoring record and lab equipment and supplies onsite at the facility.	
Engineer's Certification	<input type="checkbox"/>		
Letter Describing Corrections Made	<input type="checkbox"/>		
As-Built Plans	<input type="checkbox"/>		
Other	<input checked="" type="checkbox"/>	Provide a building for storage of the monitoring records and lab equipment and supplies onsite at the facility.	

For Permittee Use:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Permittee (Per CFR 122.22)
(Print or Type)

Title

Signature

Date Signed



Department of
Environmental
Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	0721	NAICS Code:	115112	SPDES Number:	NY0248983
Discharge Class (CL):	07	DEC Number:	5-5324-00032/00001		
Toxic Class (TX):	N	Effective Date (EDP):	November 1, 2020		
Major-Sub Drainage Basin:	10 - 06	Expiration Date (ExDP):	October 31, 2030		
Water Index Number:	GW	Item No.:			
Compact Area:	NEIWPCC	Modification Dates (EDPM):			

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)

PERMITTEE NAME AND ADDRESS						
Name:	Town of Dresden			Attention:	Paul Ferguson - Supervisor	
Street:	102 Clemons Center Rd					
City:	Clemons			State:	NY	Zip Code: 10536
Email:	Townofdresden@verizon.net			Phone:	518-499-1813	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL								
Name:	Town of Dresden Sewer District #1							
Address / Location:	Hulett's Landing Rd – County Rt 6					County:	Washington	
City:	Hulett's Landing				State:	NY	Zip Code: 12841	
Facility Location:	Latitude:	43 °	38 '	31 " N	& Longitude:	73 °	30 ' 33 " W	
Primary Outfall No.:	001	Latitude:	43 °	38 '	24 " N	& Longitude:	73 ° 30 ' 24 " W	
Outfall Description:	Treated Sanitary		Receiving Water:	Ground Water			Class:	GA

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

CO BWP - Permit Coordinator
CO BWC - SCIS
RWE/RWM
RPA

Permit Administrator:	Beth A. Magee, Deputy Permit Administrator		
Address:	232 Golf Course Rd, Warrensburg NY 12885		
Signature:		Date:	10 / 8 / 20

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DEFINITIONS FOR PERMIT LIMITS, LEVELS AND MONITORING TERMS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by 12.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the Department.
Daily Discharge	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
Daily Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year	Groundwater (GA)	11/1/20	10/31/30

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	27,550	GPD	-	-	1/week	Estimate	X		
pH	Range	6.5-8.5	SU	-	-	1/week	Grab		X	
Settleable Solids	Daily Max	0.3	ml/l	-	-	1/week	Grab		X	
Nitrates as N	Daily Max	10	mg/l	-	-	2/Year	Grab		X	(1)
Nitrates as N	Daily Max	20	mg/l	-	-	2/Year	Grab		X	(2)
Phosphorous as P	Monitor	-	mg/l			2/Year	Grab		X	(1)

FOOTNOTES:

- (1) Sample at monitoring wells
- (2) Sample effluent prior to discharge to subsurface system

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
002	All Year	Groundwater (GA)	11/1/20	10/31/30

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	3,775	GPD	Monitor	-	-	Estimate	X		

OUTFALL	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
003	All Year	Groundwater (GA)	11/1/20	10/31/30

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	3,980	GPD	Monitor	-	-	Estimate	X		

This facility discharges to groundwater and will follow the following permit conditions:

- 1. Maximum Flow, Strength and Character** The disposal system must not receive, or be committed to receive, sanitary wastes without the admixture of industrial wastes that:
 - a) exceed the disposal system design flow, or
 - b) have a strength or characteristic beyond the design capability of the disposal system.
- 2. Certification of Treatment Works** Approval of treatment works construction by a local health agency or certification by a professional engineer licensed to practice in New York State is required as a prerequisite to any discharge of wastewaters.

3. Approval of New or Modified Treatment Works Discharges from new disposal systems, or increases in discharge from the modification or replacement of existing disposal systems are not authorized until appropriate action is taken as follows:

a). In locations where a local health agency has jurisdiction, required approval for on-site system plans, design, and construction must be secured. Prior to commencing a discharge, the permittee must submit a "Permittee Affirmation of Local Health Department Approval of Onsite Treatment Works" to the Regional Water Engineer of the New York State Department of Environmental Conservation's Region 5 Office in Warrensburg, New York. The affirmation must include the date that the system will be placed into service and become operational.

b) Where local health department approval is not required, at the completion of system construction and prior to commencing a discharge, the permittee's engineer must submit a "Professional Engineer's Certification of Onsite Treatment Works Design and Construction" to the Regional Water Engineer of the New York State Department of Environmental Conservation's Region 5 Office in Warrensburg, New York. The certification must include the date that the system will be placed into service and become operational. The certification must be performed by an engineer licensed to practice engineering in New York State, certifying that treatment works were designed and constructed in accordance with Design Standard for Wastewater Treatment Works - Intermediate Size Sewerage Facilities (NYSDEC, 1988) or for facilities in the Lake George Basin, the Design Standards for Wastewater Treatment Works in the Lake George Basin (NYSDEC, 1989).

4. Inspect Septic Tanks A septic tank installed as part of the disposal system shall be inspected by the permittee or his agent for scum and sludge accumulation at intervals not to exceed one year's duration. The permittee shall remove scum and sludge accumulations before they exceed one-fourth of the liquid depth so that no settleable solids or scum will leave the septic tank effluent. Septage materials shall be removed, transported and disposed of in accordance with applicable law and regulation. Such inspections may be performed by the permittee, an engineer licensed to practice in New York State, a National Association of Wastewater Transporters (NAWT)-certified inspector, or a New York Onsite Wastewater Treatment Training Network (OTN)-registered inspector. Records of annual septic tank inspection and pumping information shall be retained onsite and maintained for review by the NYS Department of Environmental Conservation.

5. Maintain Facility The permittee must maintain the facility in effective working condition.

6. No Violation of Water Quality Classifications and Standards The discharge must not cause or contribute to a violation of water quality classifications and standards as contained in New York Codes, Rules, and Regulations, Title 6, Chapter X, Parts 700-705.

7. Certifying Engineering Report, Plans, Specifications The permittee must obtain a signed and sealed copy of the engineering report, plans, specifications, and other related documents from the certifying professional engineer and must maintain this material for inspection by the NYS Department of Environmental Conservation.

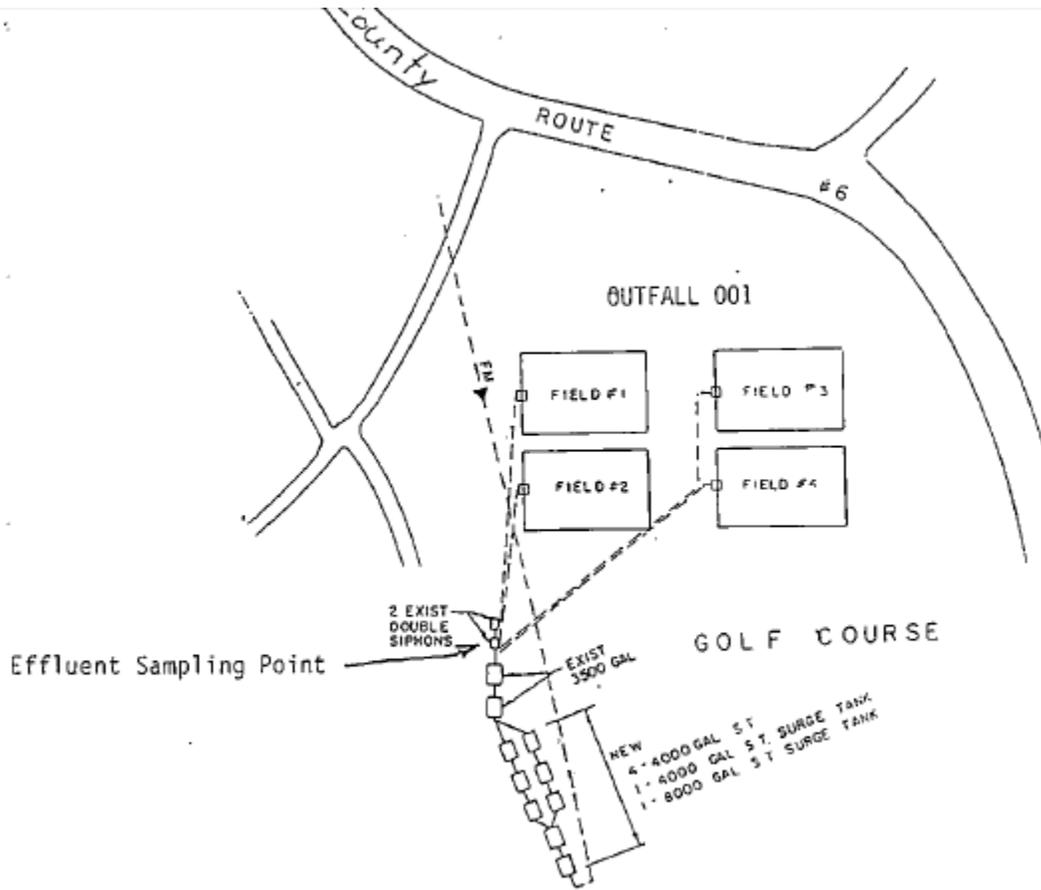
8. Maintain Records The permittee shall maintain a copy of the engineer-certified disposal facility plans, specifications, any engineering reports, as built drawings, required health agency approvals, and other related documents for inspection by the NYS Department of Environmental Conservation.

9. Annual Regulatory Fee Permittees are responsible for payment of the annual regulatory fee billed by the Department. Failure to pay can result in imposition of penalties or revocation or suspension of this permit. The permittee is responsible for payment of the fee until the discharge ceases and the permittee requests and receives Department concurrence for termination of coverage under the permit or the Department approves a transfer of the permit to a new permittee.

10. Operating in Accordance with SPDES Rules The permittee must comply with NYCRR Title 6, Chapter X, State Pollutant Discharge Elimination System (SPDES) Permits, Part 750.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



GENERAL REQUIREMENTS

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:
- B. General Conditions
- | | |
|--|---|
| 1. Duty to comply | 6 NYCRR 750-2.1(e) & 2.4 |
| 2. Duty to reapply | 6 NYCRR 750-1.16(a) |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR 750-2.1(g) |
| 4. Duty to mitigate | 6 NYCRR 750-2.7(f) |
| 5. Permit actions | 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights | 6 NYCRR 750-2.2(b) |
| 7. Duty to provide information | 6 NYCRR 750-2.1(i) |
| 8. Inspection and entry | 6 NYCRR 750-2.1(a) & 2.3 |
- C. Operation and Maintenance
- | | |
|-----------------------------------|--------------------------------------|
| 1. Proper Operation & Maintenance | 6 NYCRR 750-2.8 |
| 2. Bypass | 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset | 6 NYCRR 750-1.2(a)(94) & 2.8(c) |
- D. Monitoring and Records
- | | |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) |
| 2. Signatory requirements | 6 NYCRR 750-1.8 & 2.5(b) |
- E. Reporting Requirements
- | | |
|------------------------------|-----------------------------|
| 1. Reporting requirements | 6 NYCRR 750-2.5, 2.7 & 1.17 |
| 2. Anticipated noncompliance | 6 NYCRR 750-2.7(a) |
| 3. Transfers | 6 NYCRR 750-1.17 |
| 4. Monitoring reports | 6 NYCRR 750-2.5(e) |
| 5. Compliance schedules | 6 NYCRR 750-1.14(d) |
| 6. 24-hour reporting | 6 NYCRR 750-2.7(c) & (d) |
| 7. Other noncompliance | 6 NYCRR 750-2.7(e) |
| 8. Other information | 6 NYCRR 750-2.1(f) |
- F. Planned Changes
1. The permittee shall give notice to the Department as soon as possible of planned physical alterations or additions to the permitted facility when:
 - a. The alteration or addition to the permitted facility may meet any of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

GENERAL REQUIREMENTS (continued)

G. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

H. SPDES Permit Program Fee

The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

I. Water Treatment Chemicals (WTCs)

New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.

1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the Department.
2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the Department's website at: <http://www.dec.ny.gov/permits/93245.html>

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.
- B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each month reporting period in accordance with the DMR Manual available on Department's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at <https://www.dec.ny.gov/chemical/103774.html>. **Hardcopy paper DMRs will only be received at the address listed below for the Bureau of Water Permits, if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

Attach the monthly "Wastewater Facility Operation Report" (form 92-15-7) and any required DMR attachments electronically to the DMR or with the hardcopy submittal.

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

- C. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- D. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- E. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- F. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- G. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

APPENDIX H

CCTV Investigation



Section Profile

Project

TOWN OF DRESDEN - HULETT'S LANDING CCTV INSPECTION

9/13/2023

Nr.	Upstream MH	Downstream MH	Date	Street	Media Label	Material	Total Length	Length Surveyed
1	MH 2	MH 3	9/13/2023	MARGOT LN		Polyvinyl Chloride	168.06	168.06
2	MH 3	MH 4	9/13/2023	MARGOT LN		Polyvinyl Chloride	105.95	105.95
3	MH 4	MH 5	9/13/2023	MARGOT LN		Polyvinyl Chloride	87.12	87.12
4	MH 5	MH 6	9/13/2023	MARGOT LN		Polyvinyl Chloride	130.53	130.53
5	MH 6	MH 6A	9/13/2023	MARGOT LN		Polyvinyl Chloride	58.05	58.05
6	MH 6A	PUMP	9/13/2023	MARGOT LN		Polyvinyl Chloride	29.78	29.78
7	MH L1-2	MH 3	9/13/2023	MARGOT LN		Polyvinyl Chloride	66.74	66.74
8	MH L1-1	MH L1-2	9/13/2023	MARGOT LN		Polyvinyl Chloride	85.71	85.71
9	MH L2-1	MH 4	9/13/2023	MARGOT LN		Polyvinyl Chloride	76.51	76.51
10	MH L5-4	MH L5-3	9/13/2023	MARGOT LN		Polyvinyl Chloride	77.40	77.40
11	MH L5-5	MH L5-4	9/13/2023	MARGOT LN		Polyvinyl Chloride	68.59	68.59
12	MH L5-2	MH L5-3	9/13/2023	MARGOT LN		Polyvinyl Chloride	89.25	89.25
13	MH L5-1	MH L5-2	9/13/2023	MARGOT LN		Polyvinyl Chloride	66.58	66.58
14	MH L5-3	MH 5	9/13/2023	MARGOT LN		Polyvinyl Chloride	81.83	81.83
15	MH 9	MH 6	9/13/2023	MARGOT LN		Polyvinyl Chloride	212.00	212.00
16	MH L3-1	MH 6	9/13/2023	MARGOT LN		Polyvinyl Chloride	79.58	79.58
17	PUMP	MH 7	9/13/2023	MARGOT LN		Polyvinyl Chloride	144.27	144.27
18	MH 7A	MH 7	9/13/2023	MARGOT LN		Polyvinyl Chloride	104.08	104.08
19	MH 1	MH 2	9/13/2023	EICHLER DR		Polyvinyl Chloride	85.30	85.30
20	MH 17-1	MH 1	9/13/2023	EICHLER DR		Polyvinyl Chloride	150.96	150.96
21	MH L6-1	MH L6-2	9/13/2023	EICHLER DR		Polyvinyl Chloride	119.36	119.36
22	MH L6-2	MH 8	9/13/2023	EICHLER DR		Polyvinyl Chloride	191.53	191.53
23	MH 3-2	MH 3-1	9/13/2023	EICHLER DR		Polyvinyl Chloride	79.36	79.36
24	MH 3-2	PUMP	9/13/2023	EICHLER DR		Polyvinyl Chloride	125.93	125.93

24 x Circular 8 = 2484.49 Total Length (2484.49 Length Surveyed)

Total: 24 = 2484.49 Total Length (2484.49 Length Surveyed)



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 2 - MH 3
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 2
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 3
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:1269	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH 3	00:00:07		
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:08		
	104.00	TF	Tap Factory Made, at 2 o'clock , 3 inch dim	00:03:10		
	121.39	TF	Tap Factory Made, at 10 o'clock , 4 inch dim	00:03:50		
	168.06	AMH	Manhole / MH 2	00:05:25		



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 3 - MH 4
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 3
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 4
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:800	Distance	Code	Observation	Counter	Photo	Grade	
	MH 3	0.00	AMH	Manhole / MH 3	00:00:05			
		0.00	MWL	Water Level, 5% of the vertical dimension	00:00:08			
		105.95	AMH	Manhole / MH 4	00:02:49			
MH 4								
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 4 - MH 5
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 4
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 5
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:658	Distance	Code	Observation	Counter	Photo	Grade
	0.00	MWL	Water Level, 5% of the vertical dimension / MH 4	00:00:04		
	87.12	AMH	Manhole / MH 5	00:03:07		
QSR	QMR	QOR	SPR	MPR	OPR	SPRI
						MPRI
						OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 5 - MH 6
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 5
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 6
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:986	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH 5	00:00:08		
	0.00	MWL	Water Level, 5% of the vertical dimension	00:00:09		
	130.53	AMH	Manhole / MH 6	00:06:19		
QSR	QMR	QOR	SPR	MPR	OPR	SPRI
						MPRI
						OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 6 - MH 6A
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 6
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 6A
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:439 Distance	Code	Observation	Counter	Photo	Grade
MH 6	0.00	AMH	Manhole / MH 6	00:00:04		
	0.00	MWL	Water Level, 10% of the vertical dimension	00:00:07		
MH 6A	58.05	AMH	Manhole / MH 6A	00:01:57		
QSR	QMR	QOR	SPR	MPR	OPR	SPRI
						MPRI
						OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 6A - PUMP
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 6A
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: PUMP
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:225	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH 6A	00:00:05		
	0.00	MWL	Water Level, 10% of the vertical dimension	00:00:08		
	29.78	AMH	Manhole / PUMP	00:01:34		
MH 6A						
PUMP						
QSR	QMR	QOR	SPR	MPR	OPR	SPRI
						MPRI
						OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L1-2 TO MH 3
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L1-2
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 3
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:504	Distance	Code	Observation	Counter	Photo	Grade	
		0.00	AMH	Manhole / MH 3	00:00:06			
		0.00	MWL	Water Level, 0% of the vertical dimension	00:00:09			
		37.86	TF	Tap Factory Made, at 2 o'clock , 4 inch dim	00:01:25			
		66.74	AMH	Manhole / MH L1-2	00:03:04			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L-1 TO MH L1-2
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L1-1
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH L1-2
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:647 Distance	Code	Observation	Counter	Photo	Grade		
	0.00	AMH	Manhole / MH L1-2	00:00:05				
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:11				
	59.89	TF	Tap Factory Made, at 10 o'clock , 3 inch dim	00:01:54				
	85.71	AMH	Manhole / MH L1-1	00:03:23				
MH L1-2								
MH L1-1								
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L2-1 TO MH 4
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L2-1
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 4
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:578	Distance	Code	Observation	Counter	Photo	Grade	
		0.00	AMH	Manhole / MH 4	00:00:04			
		0.00	MWL	Water Level, 10% of the vertical dimension	00:00:06			
		50.26	TF	Tap Factory Made, at 10 o'clock , 3 inch dim	00:01:04			
		71.68	TF	Tap Factory Made, at 3 o'clock , 4 inch dim	00:01:31			
		76.51	AMH	Manhole / MH L2-1	00:01:58			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L5-4 TO MH L5-3
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L5-4
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH L5-3
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:585 Distance	Code	Observation	Counter	Photo	Grade
MH L5-3	0.00	AMH	Manhole / MH L5-3	00:00:05		
	39.57	TF	Tap Factory Made, at 3 o'clock , 3 inch dim	00:01:26		
MH L5-4	77.40	AMH	Manhole / MH L5-4	00:02:50		
QSR	QMR	QOR	SPR	MPR	OPR	SPRI
						MPRI
						OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L5-5 TO MH L5-4
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L5-5
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH L5-4
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:518	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH L5-4	00:00:06		
	32.49	TF	Tap Factory Made, at 3 o'clock , 3 inch dim	00:02:19		
	59.36	TF	Tap Factory Made, at 9 o'clock , 4 inch dim	00:04:28		
	68.59	AMH	Manhole / MH L5-5	00:05:42		

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L5-2 TO MH L5-3
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L5-2
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH L5-3
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:674 Distance	Code	Observation	Counter	Photo	Grade		
	0.00	AMH	Manhole / MH L5-3	00:00:05				
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:08				
	60.99	TF	Tap Factory Made, at 9 o'clock , 3 inch dim	00:04:59				
	63.67	TF	Tap Factory Made, at 2 o'clock , 3 inch dim	00:05:06				
	89.25	AMH	Manhole / MH L5-2	00:06:17				
MH L5-3								
MH L5-2								
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L5-1 TO MH L5-2
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L5-1
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH L5-2
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:503	Distance	Code	Observation	Counter	Photo	Grade	
		0.00	AMH	Manhole / MH L5-2	00:00:06			
		0.00	MWL	Water Level, 0% of the vertical dimension	00:00:09			
		31.78	TF	Tap Factory Made, at 9 o'clock , 3 inch dim	00:01:10			
		66.58	AMH	Manhole / MH L5-1	00:02:25			
MH L5-1								
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L5-3 TO MH 5
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L5-3
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 5
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:618	Distance	Code	Observation	Counter	Photo	Grade		
	MH L5-3							
	0.00	AMH	Manhole / MH L5-3	00:00:06				
	0.00	MWL	Water Level, 5% of the vertical dimension	00:00:08				
	15.24	TF	Tap Factory Made, at 10 o'clock , 3 inch dim	00:01:07				
	21.60	TFA	Tap Factory Made Active, at 1 o'clock , 3 inch dim	00:01:25				
	81.83	AMH	Manhole / MH 5	00:03:26				
	MH 5							
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 9 - MH 6
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 9
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 6
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:1600	Distance	Code	Observation	Counter	Photo	Grade		
	0.00	AMH	Manhole / MH 6	00:00:06				
	0.00	MWL	Water Level, 5% of the vertical dimension	00:00:09				
	46.26	TF	Tap Factory Made, at 2 o'clock , 3 inch dim	00:01:52				
	205.81	TF	Tap Factory Made, at 2 o'clock , 3 inch dim	00:04:43				
	212.00	AMH	Manhole / MH 9	00:06:32				
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L3-1 TO MH 6
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L3-1
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 6
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:601 Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH 6	00:00:06		
	0.00	MWL	Water Level, 5% of the vertical dimension	00:00:09		
	79.58	AMH	Manhole / MH L3-1	00:02:40		
	79.58	RTJ	Roots Tap Joint, at 9 o'clock , 90% of cross sectional area	00:02:42		
QSR	QMR	QOR	SPR	MPR	OPR	SPRI
						MPRI
						OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: PUMP - MH 7
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: PUMP
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 7
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:1089	Distance	Code	Observation	Counter	Photo	Grade
PUMP						
	0.00	AMH	Manhole / MH 7	00:00:07		
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:07		
	66.10	TFA	Tap Factory Made Active, at 10 o'clock , 3 inch dim	00:01:45		
	92.79	TFA	Tap Factory Made Active, at 2 o'clock , 3 inch dim	00:02:25		
	144.27	AOC	Special Chamber / PUMP	00:04:19		
			MH 7			



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 7A - MH 7
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 7A
Street: MARGOT LN	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 7
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:786	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / 7	00:00:07		
	0.00	MWL	Water Level, 5% of the vertical dimension	00:00:10		
	104.08	AMH	Manhole / MH 7A	00:02:50		

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 1 - MH 2
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 1
Street: EICHLER DR	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 2
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:644	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH 2	00:00:08		
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:11		
	20.51	TF	Tap Factory Made, at 3 o'clock , 3 inch dim	00:00:46		
	85.30	AMH	Manhole / MH 1	00:02:25		

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
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Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 17-1 TO MH 1
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 17-1
Street: EICHLER DR	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 1
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:1140	Distance	Code	Observation	Counter	Photo	Grade	
		0.00	AMH	Manhole / MH 1	00:00:11			
		0.00	MWL	Water Level, 0% of the vertical dimension	00:00:14			
		106.20	TF	Tap Factory Made, at 9 o'clock , 3 inch dim	00:06:12			
		150.96	MSA	Survey Abandoned / BURIED MH NO ACCESS	00:23:51			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH L6-2 TO MH 8
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH L6-2
Street: EICHLER DR	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 8
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:1446 Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH L6-2	00:00:05		
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:08		
	6.88	TF	Tap Factory Made, at 3 o'clock , 3 inch dim	00:00:34		
	62.38	TF	Tap Factory Made, at 12 o'clock , 3 inch dim	00:01:45		
	63.86	TF	Tap Factory Made, at 9 o'clock , 3 inch dim	00:02:04		
	191.53	AMH	Manhole / MH 8	00:06:30		



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 3-1 TO MH 3-2
Year laid:	Pre-cleaning: Not Known	Direction: Upstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 3-2
Street: EICHLER DR	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: MH 3-1
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

	1:599 Distance	Code	Observation	Counter	Photo	Grade		
	0.00	AMH	Manhole / MH 3-2	00:00:05				
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:10	18744.jpg			
	49.98	TF	Tap Factory Made, at 2 o'clock , 3 inch dim	00:01:46				
	52.91	TF	Tap Factory Made, at 9 o'clock , 4 inch dim	00:01:57				
	79.36	AMH	Manhole / MH 3-1	00:02:55				
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI



Inspection report

Date: 9/13/2023	Work Order:	Weather: Light Rain	Surveyed By: JAMIE MCKINNEY	Certificate Number: U-614-06021674	Pipe Segment Ref.: MH 3-2 TO PUMP
Year laid:	Pre-cleaning: Not Known	Direction: Downstream	Pipe Joint Length:	Total Length:	Length Surveyed:

City: DRESDEN	Drainage Area:	Upstream MH: MH 3-2
Street: EICHLER DR	Media Label:	Up Rim to Invert: 0.0
Location Code: Light highway	Flow Control:	Downstream MH: PUMP
Location Details:	Sheet Number:	Down Rim to Invert: 0.0
Pipe shape: Circular	Sewer Use: Sanitary	Total gallons used: 0.0
Pipe size: 8	Sewer Category: SEC	Joints passed: 0
Pipe material: Polyvinyl Chloride	Purpose: Maintenance Related	Joints failed: 0
Lining Method:	Owner:	

Additional Info:

1:951	Distance	Code	Observation	Counter	Photo	Grade
	0.00	AMH	Manhole / MH 3-2	00:00:10		
	0.00	MWL	Water Level, 0% of the vertical dimension	00:00:13		
	23.23	TF	Tap Factory Made, at 3 o'clock , 3 inch dim	00:01:19		
	125.93	AOC	Special Chamber / PUMP	00:04:30		

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
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HULETT'S LANDING SEWER SYSTEM
RESIDENT/UNIT NUMBERS

- 1 DOLAND
- 2 HUDSON
- 3 HUDSON
- 4 DOLAND
- 5 EICHLER
- 6 SMITH
- 7 CORRY
- 8 WHELAN
- 9 PORTELA
- 10 CAMPBELL
- 11 O'SULLIVAN
- 12 HUDSON
- 13 EICHLER
- 14 O'KEEFE
- 15 GORMAN
- 16 FRIEDRICKS
- 17 COLLINS
- 18 DAVYS
- 19 NEPIEW
- 20 HANNAN
- 21 EICHLER
- 22 KOUGH
- 23 CARLEY
- 24 EICHLER
- 25 STOECKER
- 26 SEITZ
- 27 MEEHAN
- 28 EICHLER
- 29 LINHART
- 30 MEEHAN
- 31 BUONDO
- 32 GALLAGER
- 33 MACHISKI
- 34 FITZGERALD
- 35 MC ELHENNY
- 36 REEVES
- 37 MILLER
- 38 D'AMATO
- 39 KOENNECKE
- 40 BROWN
- 41 EICHLER (CASINO)
- 42 EICHLER
- 43 BORDEN
- 44 BROWN
- 44A TRIMBOLEY
- 44B PELL
- 45 PALMERYMAN
- 46 MC NELIS
- 47 OLSEN
- 48 WEITONE
- 49 EICHLER
- 50 DE ROSSI
- 51 LANCASTER
- 52 VITALE
- 53 EICHLER
- 54 BRADLOCH
- 55 MACKELL
- 56 EICHLER
- 57 KING
- 58 HURLEY
- 59 RODGERS
- 60 HENNESSY
- 61A QUICK
- 61 STANTON
- 62 U.S. POST OFFICE
- 63 MANUELE
- 64 EICHLER
- 65 DAVIDOM
- 66 EICHLER
- 67 HILDEBRAND
- 68 KAVAN
- 69 SHERGER
- 70 WEINGARTEN
- 71 EICHLER (DORM)
- 72 EICHLER (STORE)
- 73 EICHLER (BAKERY)-TOWN DOWN
- 74 EICHLER (REC. HALL)
- 75 EICHLER (SHOP)
- 76 VAN DORSTEN
- 77 MITCHEL
- 78
- 79

Key Legend

- CCTV Inspection Runs (9/13/2023)
- ⊕ CCTV Run Number (Nr.)

LEGEND

- ⊙ MH - MANHOLES
- ✕ MPS# - (EXISTING) MAIN PUMP STATION
- ⊙ MGPS# - MAIN PUMP STATION
- 8" PVC GRAVITY SEWER
- - - 4" PVC FORCE MAIN
- - - 3" FORCE MAIN
- - - 4" HOUSE SERVICE
- - - 6" HOUSE SERVICE
- S - EXISTING SEWER LINE
- C - (EXISTING) CULVERT
- - - (EXISTING) 6" C.I.P.
- S# - SIMPLEX PUMP STATION
- - - 2" FORCE MAIN
- ⊕ SHALLOW TEST PIT
- ⊕ DEEP TEST PITS
- ⊕ P-K# Δ C/P - SURVEY POINTS
- CO - CLEAN OUT

10,000,000 MATCH LINE 190-93-02 190-93-03

REV 2
NOTE: THE CONTRACTOR SHALL LIMIT OPERATIONS TO WITHIN THE AREA SHOWN ON DETAIL 14A SHEET # 20, TO THE EXTENT POSSIBLE.

"AS BUILT" DRAWINGS
2/10/95

REV.	NO.	DATE	DESCRIPTION	BY:
3	11-22-94		REPLACE EXIST. 6" CIP & ABANDONE EXIST. SEPTIC TANKS IN SYSTEM #4	WER
5	5/18/95		S&F LETTER C-183	WER

ADIRONDACK ENGINEERING ASSOCIATES P.C. TOWN OF DRESDEN, NY

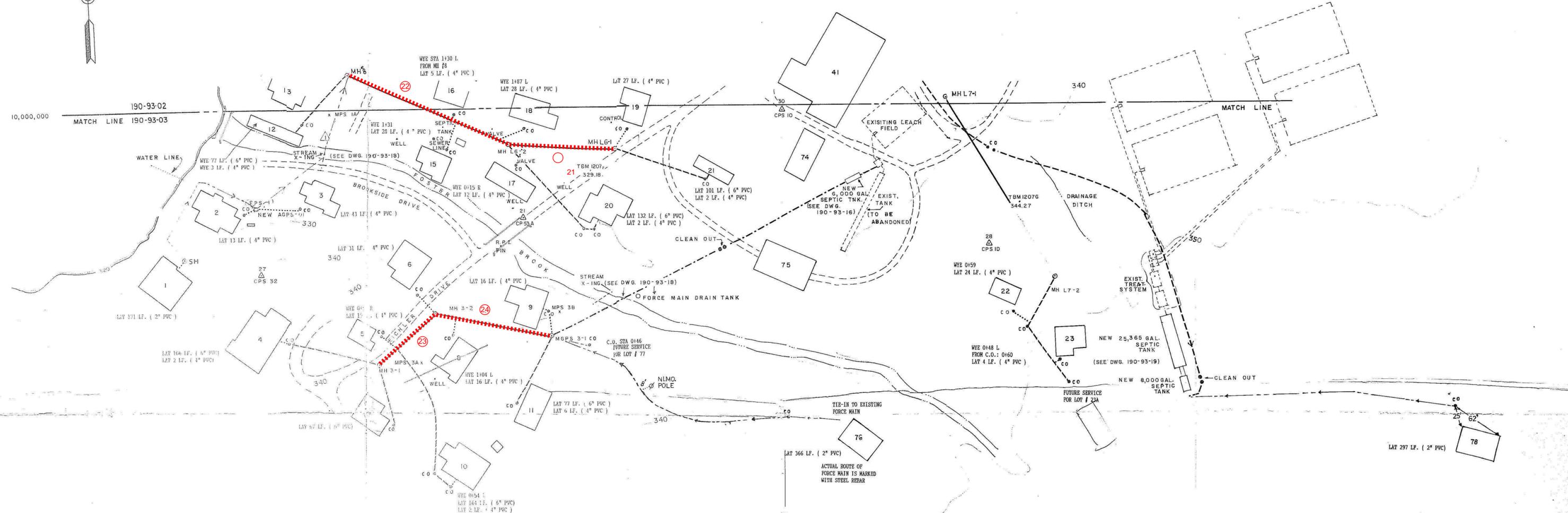
SEWER DISTRICT #1
HAMLET OF HULETT'S LANDING, NY
TOWN OF DRESDEN

DATE: 15 JAN 1995
SCALE: 1" = 50'-0"

DESIGNER: WR
CHECKER: LG
DRAWN BY: TJR

DETAIL PLANS SH. #1
190-93-02

"UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW"



Key Legend

- CCTV Inspection Runs (9/13/2023)
- (#) CCTV Run Number (Nr.)

PROPERTY OWNERS

1 BOARDMAN	43 BORDMAN
2 BOARDMAN	44 BORDMAN
3 BOARDMAN	45 BORDMAN
4 BOARDMAN	46 BORDMAN
5 BOARDMAN	47 BORDMAN
6 BOARDMAN	48 BORDMAN
7 BOARDMAN	49 BORDMAN
8 BOARDMAN	50 BORDMAN
9 BOARDMAN	51 BORDMAN
10 BOARDMAN	52 BORDMAN
11 BOARDMAN	53 BORDMAN
12 BOARDMAN	54 BORDMAN
13 BOARDMAN	55 BORDMAN
14 BOARDMAN	56 BORDMAN
15 BOARDMAN	57 BORDMAN
16 BOARDMAN	58 BORDMAN
17 BOARDMAN	59 BORDMAN
18 BOARDMAN	60 BORDMAN
19 BOARDMAN	61 BORDMAN
20 BOARDMAN	62 BORDMAN
21 BOARDMAN	63 BORDMAN
22 BOARDMAN	64 BORDMAN
23 BOARDMAN	65 BORDMAN
24 BOARDMAN	66 BORDMAN
25 BOARDMAN	67 BORDMAN
26 BOARDMAN	68 BORDMAN
27 BOARDMAN	69 BORDMAN
28 BOARDMAN	70 BORDMAN
29 BOARDMAN	71 BORDMAN
30 BOARDMAN	72 BORDMAN
31 BOARDMAN	73 BORDMAN
32 BOARDMAN	74 BORDMAN
33 BOARDMAN	75 BORDMAN
34 BOARDMAN	76 BORDMAN
35 BOARDMAN	77 BORDMAN
36 BOARDMAN	78 BORDMAN

U.F.P.O.
1-800-962-7962
Small Scale of Participating Agencies

SPECIAL NOTES TO CONTRACTOR

- EXISTING UTILITIES SUCH AS "SANITARY & STORM SEWERS, WATER MAINS, BURIED TELEPHONE CABLES ETC., HAVE BEEN INDICATED ON THE PLANS SOLELY TO INFORM THE CONTRACTOR OF THEIR EXISTANCE AND APPROX. LOCATION PRIOR TO ANY EXCAVATION FOR THE CONSTRUCTION OF THE WORK REQUIRED UNDER THIS CONTRACT. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY THEIR RESPECTIVE UTILITY OWNERS AND HAVE THEM LOCATE AND MARK THEIR UTILITIES AT EACH CONSTRUCTION SITE.
- INDIVIDUAL WATER SERVICES AND SEWER LATERAL SERVICES HAVE NOT BEEN INDICATED ON THESE PLANS. THE CONTRACTOR SHALL HAVE THESE ITEMS LOCATED AND MARKED PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL BE REQUIRED TO PROTECT ALL SUCH UTILITIES DURING THE CONSTRUCTION UNDER THIS CONTRACT. ALL SUCH UTILITIES DAMAGED BY THE CONSTRUCTION WORK WILL BE REPAIRED AT THE CONTRACTORS EXPENSE.

JETT INDUSTRIES, INC.
RL-7 P.O.-BOX 219
COLLIERSVILLE, N.Y. 13747
(607) 433-2100

"AS BUILT" DRAWINGS
2/10/95

REV 2	12-15-94	RELOC. FM. UNIT 1	TJR
REV 1	6-22-93	SRF LETTER 6-1-93	TJR
REV. NO.	DATE	DESCRIPTION	BY:

ADIRONDACK ENGINEERING ASSOCIATES P.C. TICONDEROGA, NY

SEWER DISTRICT #1
HAMLET OF HULETT'S LANDING, N.Y.
TOWN OF DRESDEN

DATE 15 JAN 1993	DSN WR	DETAIL PLANS SH. #2
SCALE 1" = 50'-0"	DRN LG	DWG No 190-93-03
	APP TJR	

"UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW"



APPENDIX I
Engineer's Opinion of Probable Cost



LaBella Associates, PC
 4 British American Blvd.
 Latham, NY 12110

Alternative 2: Foster Brook Sewer Relocation Project: Town of Dresden, Washington County, New York

Engineer's Opinion of Probable Cost for Foster Brook Sewer Relocation

Date Last Revised 01.14.2026

Sanitary Sewer Utilities						
Item No.	Description	Quantity	Units	Material	Labor and Equipment	Cost
1	Construction Contract - Substantially Complete December 2025	1	LS	-	-	\$142,850
SEWER UTILITY CONSTRUCTION SUBTOTAL						\$142,850
Engineering Design, Bid, Construction Services						\$62,840
Legal Services						\$10,000
SANITARY SEWER UTILITY TOTAL COST						\$215,690



LaBella Associates, PC
 4 British American Blvd.
 Latham, NY 12110

Alternative 2: Grinder Installation Project; Town of Dresden, Washington County, New York

Engineer's Preliminary Opinion of Probable Cost for Grinder Installation Upstream from Pump Stations

Date Last Revised 03.17.2025

Sanitary Sewer Utilities						
Item No.	Description	Quantity	Units	Material	Labor and Equipment	Cost
1	Mobilization and General Conditions (6%)	1	LS	\$0	\$7,332	\$7,332
2	Sediment and Erosion Control	4	EA	\$1,250	\$1,500	\$11,000
3	Grinder Structure, incl. piping, excavation and backfill ¹	4	EA	\$4,500	\$3,500	\$32,000
4	Grinder Installation, Including Electrical	4	EA	\$15,000	\$2,400	\$69,600
5	Site Restoration	4	EA	\$1,200	\$1,200	\$9,600
SEWER UTILITY CONSTRUCTION SUBTOTAL						\$129,532
35% Construction Contingency						\$45,336
3% Inflation Escalation						\$5,246
Engineering Design, Bid, Construction Services						\$32,000
SANITARY SEWER UTILITY TOTAL COST						\$212,114

Footnotes:

1. Labor and equipment includes excavation, backfill and compaction.
2. Prices presented in 2025 dollars plus escalation. Please note that the Pandemic recovery, inflation, material increases, and market conditions have led to highly variable bidding conditions/pricing as such this estimate should be revisited regularly as the project progresses.
3. Costs of the acquisition of easements is not included in this estimate.



LaBella Associates, PC
 4 British American Blvd.
 Latham, NY 12110

Alternative 2: Flow Meter Installation Project; Town of Dresden, Washington County, New York

Engineer's Preliminary Opinion of Probable Cost for Flow Meter Installations in Pump Stations

Date Last Revised 03.17.2025

Sanitary Sewer Utilities

Item No.	Description	Quantity	Units	Material	Labor and Equipment	Cost
1	Mobilization and General Conditions (6%)	1	LS	\$0	\$1,908	\$1,908
2	Flow Meter Installation, Including Electrical	3	EA	\$7,000	\$2,400	\$28,200
3	Testing & Commissioning	3	EA	\$0	\$1,200	\$3,600
SEWER UTILITY CONSTRUCTION SUBTOTAL						\$33,708
35% Construction Contingency						\$11,798
3% Inflation Escalation						\$1,365
Engineering Design, Bid, Construction Services						\$8,000
SANITARY SEWER UTILITY TOTAL COST						\$54,871

Footnotes:

1. Prices presented in 2025 dollars plus escalation. Please note that the Pandemic recovery, inflation, material increases, and market conditions have led to highly variable bidding conditions/pricing as such this estimate should be revisited regularly as the project progresses.



LaBella Associates, PC
 4 British American Blvd.
 Latham, NY 12110

Alternative 2: Subsurface Disposal Future Replacement/Expansion Plan; Town of Dresden, Washington County, New York

Engineer's Preliminary Opinion of Probable Cost for Subsurface Disposal Replacement/Expansion Plan

Date Last Revised 09.19.2025

Sanitary Sewer Utilities						
Item No.	Description	Quantity	Units	Material	Labor and Equipment	Cost
1	Mobilization and General Conditions (6%)	1	LS	\$0	\$18,920	\$18,920
2	Sediment and Erosion Control	3	LS	\$3,500	\$5,250	\$26,250
3	Removal of Existing Piping/Structures (3 Sites)	1	LS	\$0	\$21,250	\$21,250
4	Bypass Sewer Flows During Construction	3	EA	\$0	\$8,000	\$24,000
5	Site Grading (3 Sites)	2,370	CY	\$4	\$12	\$37,926
6	Lateral Trenches	1,778	CY	\$10	\$15	\$44,444
7	Structures	8	EA	\$1,250	\$2,500	\$30,000
8	Backfill	2,370	CY	\$8	\$12	\$47,407
9	Topsoil & Seeding	593	CY	\$50	\$10	\$35,556
10	Flow Monitoring	3	EA	\$4,500	\$5,500	\$30,000
11	Site Restoration	1	LS	\$6,000	\$12,500	\$18,500
SUSURFACE CONSTRUCTION SUBTOTAL						\$334,253
35% Construction Contingency						\$116,989
3% Inflation Escalation						\$13,537
Engineering Design, Bid, Construction Services						\$92,956
Legal Services						\$10,000
SANITARY SEWER UTILITY TOTAL COST						\$567,735

Footnotes:

- Labor and equipment includes excavation, backfill and compaction.
- This estimate assumes a mounded system is not required.
- Prices presented in 2025 dollars plus escalation. Please note that the Pandemic recovery, inflation, material increases, and market conditions have led to highly variable bidding conditions/pricing as such this estimate should be revisited regularly as the project progresses.
- Costs of the acquisition of easements is not included in this estimate.

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TASKMASTER® TM8500 Wastewater Grinder

Product Information

- ✓ [Product Brochure](#)
- ✓ [Request a Quote](#)
- ✓ [Product Family](#)
- ✓ [Specifications](#)

The **TASKMASTER® TM8500** twin shaft grinders provide unsurpassed grinding of wastewater solids, and design features that make them truly unique. These units have proven their capability and unique reliability in installations worldwide. TASKMASTER grinders feature dependable mechanical seals in a cartridge design and CUTTER CARTRIDGE® Technology.

These grinders reduce pump ragging and problems with downstream equipment by finely reducing such solids as rags, plastics, wipes, paper, disposables, fabrics, wood, bottles and much more. They are built for sewage, sludge, septage and screenings applications in either open



channel, inline or gravity installations. Each unit is heavily constructed for low vibration and quiet operation.

Features

- CUTTER CARTRIDGE® Technology
- Coarse or Finely Cut Output Configurations
- Few Moving Parts
- No Stack Retightening
- Rugged Construction

[Learn More](#)

TASKMASTER TM8500 Wipes Grinder

The TASKMASTER, installed inline, significantly reduces pump downtime, ragging from stringy solids and sanitary wipes, as well as offers protection from premature filter press media failure.



Franklin Miller Taskmaster TM8500 Wipes Grinder

Franklin Miller

01:01

Description

These grinders reduce pump ragging and problems with downstream equipment by finely reducing such solids as rags, plastics, wipes, paper, disposables, fabrics, wood, bottles and much more. They are built for sewage, sludge, septage and screenings applications in either open channel, inline or gravity installations. Each unit is heavily constructed for low vibration and quiet operation.

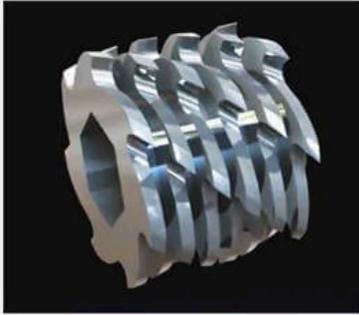


Options

- **CUTTER CARTRIDGE® Technology**
- **Coarse or Finely Cut Output Configurations**
- **Few Moving Parts**
- **No Stack Retightening**
- **Rugged Construction**
- **Wet Well Frame**
- **Pre-engineered FRP Manhole**
- **Hydraulic Drive**
- **Stainless Steel**



Cutter Cartridge Advantage



How They're Different

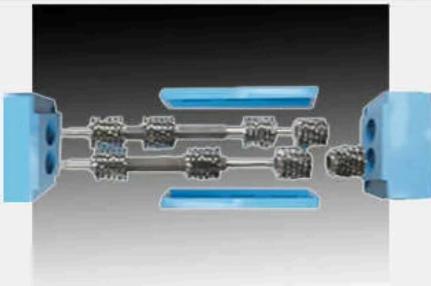
One-piece monolithic elements replace thin individual cutter and spacer disks resulting in a drastic increase in cutter strength. Each cutter cross-section increases from approx. 5/16" to over 3.75", all but eliminating cracking and misalignment. The precision of these cutters is unequalled. In fact, unlike typical grinders, an entire 60" tall grinder stack can be assembled without misalignment, adjustment or shimming.

With *Cutter Cartridge Technology*, there's no Stack Re-tightening Required!



Made from One Solid Block of Alloy Steel

Six cutters and spacers are formed from one solid block of alloy steel. The result is far higher strength than individual cutter disks and no gaps between cutters to get contaminated and loosen.



1/12th the Cutter Parts

With *Cutter Cartridge Technology* there are far less parts so unit reliability is greatly enhanced. With 1/12 the parts unit strength is more than doubled. With only a few cutters taking the place of banks of individual cutter and spacer disks, maintenance is made fast and easy.



Power to the Cutters

Instead of having to assemble or disassemble multitudes of cutter and spacer disks, there is the advantage of the one-piece *cutter cartridge*. Each cutter bore has a broad surface engaging the shaft for solid transmission of power.



No Shaft Scoring

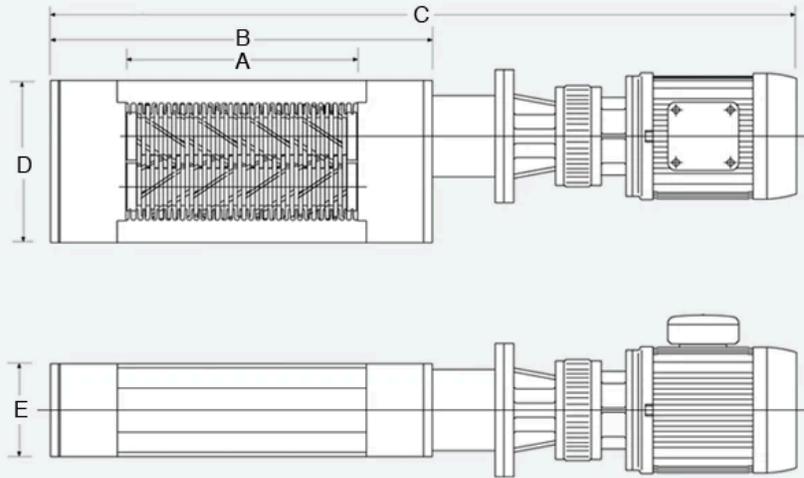
Because there's no thin cutters and spacers, shaft scoring is eliminated. This makes disassembly far easier and eliminates a major cause of grinder failures.

Interested In Learning More About Our Taskmaster®
TM8500 Grinder?

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TM8500 Dimensions

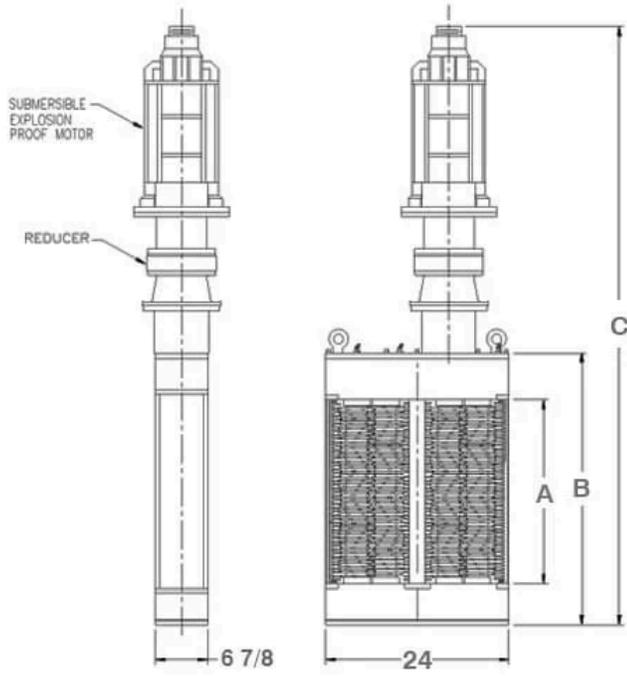


DIMENSIONS

Model No.	A	B	C	D	E	HP	WEIGHT	GPM/ls
TM8508	9 (229 mm)	17.25 (439 mm)	34.75 (884 mm)	12 (305 mm)	6.875 (175 mm)	3	425 (193 kg)	320 (20 ls)
TM8512	12.9 (328 mm)	21.7 (552 mm)	50.3 (1278 mm)	12 (305 mm)	6.875 (175 mm)	3	463 (210 kg)	550 (35 ls)
TM8516	16.6 (422 mm)	25.4 (646 mm)	54 (1372 mm)	12 (305 mm)	6.875 (175 mm)	3	495 (225 kg)	775 (49 ls)
TM8524	24.1 (612 mm)	32.9 (837 mm)	61.5 (1562 mm)	12 (305 mm)	6.875 (175 mm)	3	560 (255 kg)	1200 (76 ls)
TM8532	31.6 (803 mm)	40.4 (1027 mm)	69 (1753 mm)	12 (305 mm)	6.875 (175 mm)	3	625 (284 kg)	1650 (104 ls)
TM8540	39.1 (993 mm)	47.9 (1218 mm)	76.5 (1943 mm)	12 (305 mm)	6.875 (175 mm)	3	690 (314 kg)	2100 (132 ls)
TM8552	50.3 (1278 mm)	59.1 (1502 mm)	90.9 (2308 mm)	12 (305 mm)	6.875 (175 mm)	5	870 (395 kg)	2750 (173 ls)
TM8560	57.8 (1468 mm)	66.6 (1693 mm)	98.4 (2499 mm)	12 (305 mm)	6.875 (175 mm)	5	935 (425 kg)	3200 (202 ls)
TM8524D	24.1 (612 mm)	32.9 (837 mm)	61.5 (1562 mm)	24 (610 mm)	6.875 (175 mm)	3	878 (399 kg)	2429 (153 ls)
TM8532D	31.6 (803 mm)	40.4 (1027 mm)	69 (1753 mm)	24 (610 mm)	6.875 (175 mm)	3	988 (444 kg)	3311 (209 ls)
TM8540D	39.1 (993 mm)	47.9 (1218 mm)	76.5 (1943 mm)	24 (610 mm)	6.875 (175 mm)	3	1099 (499 kg)	4194 (265 ls)
TM8552D	50.3 (1278 mm)	59.1 (1502 mm)	90.9 (2308 mm)	24 (610 mm)	6.875 (175 mm)	5	1346 (612 kg)	5512 (347 ls)

Dimensions shown for TEFC motors in inches and millimeters

TM8500 Duplex Dimensions



TM8500 DUPLEX DIMENSIONS (INCHES)

MODEL	A	B	C	FLOW (GPM)	HP	WEIGHT
TM8524D	24.1	32.9	65.1	2640	5	1,035*
TM8532D	31.6	40.4	75.6	3520	5	1,135*
TM8540D	39.1	47.9	81.1	4400	5	1,395*
TM8552D	56.1	59.1	90	6160	5	1,485*
TM8560D	62.8	66.6	97	6653	5	1,785*

TM8500 DUPLEX DIMENSIONS (MM)

MODEL	A	B	C	FLOW (GPM)	kW	WEIGHT
TM8524D	612	836	1653	167	3.7	469*
TM8532D	803	1026	1920	222	3.7	515*
TM8540D	993	1217	2060	278	3.7	633*
TM8552D	1425	1501	2286	389	3.7	674*
TM8560D	1595	1692	2464	420	3.7	810*

Related Products



TASKMASTER® TM6500

- A Choice of Cutter Profiles
- 2 HP (1.5kW) Motor

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TASKMASTER® TM8500 Inline

- CUTTER CARTRIDGE® Technology
- Low-Speed, High-Torque Cutting

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- Submersible Motor
- Guide Rails

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TASKMASTER® TM1600 Grinder

- Heavy-Duty Construction
- Heavy Solids Capacity

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