North Woods Engineering PLLC
Joseph A. Garso, P.E.
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NEW YORK STATE OF OPPORTUNITY. Adirondack Park Agency
RECEIVED
Date: December 16, 2025

Engineering and Design Report

Fox Hill Water and Sewer
Lake Placid, New York

12 December 2025

NEW YORK STATE Department of Environmental Conservation

SUPPORTED BY THE NYS ENVIRONMENTAL PROTECTION FUND, ADIRONDACK PARK COMMUNITY SMART GROWTH PROGRAM

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NYS Certified Service-Disabled Veteran-Owned Business

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1.0 Executive Summary

The Fox Hill subdivision is a proposed workforce housing in the Town of North Elba, outside the Village of Lake Placid, by Homestead Development. It is proposed to be created on undeveloped land. Near the proposed entrance road location, the Village of Lake Placid has water and sewer utilities.

It is proposed to connect to the existing utilities to provide water and sewer service to the proposed workforce housing.

The sewer infrastructure for Fox Hill will be a combination of both gravity sewer and pump stations.

This report outlines the design of the water and the sanitary sewer systems.

2.0 Background

2.1 Site Information

The proposed site for the workforce housing project is raw land. Site clearing and all infrastructure will need to be installed. The proposed project area is surrounded by wetlands, therefore future development of additional housing, beyond what is proposed, is not possible.

Along portions of Algonquin Drive and Iroquois Lane are existing water and sewer mains. The mains are in the Town of North Elba, but they are overseen and maintained by the Village of Lake Placid Department of Public Works.

2.2 Existing Facilities

The existing facilities on Algonquin Drive and Iroquois Lane were installed in the late 1980s or early 1990s when the subdivision was developed. The sewer system has concrete manholes and PVC piping. Water system has mains of unknown material, although ductile iron is assumed, with valves and hydrants.

3.0 Sewer Service

3.1 Sewer Facilities

The workforce housing is proposed to have a total of 22 dwelling units. Each will be built with two bedrooms, with the ability for the homeowner to finish the attic as a third bedroom. Therefore, for design purposes, we are designing the water and sewer to support 22 dwellings, each with 3 bedrooms. Design flow for the entire subdivision is 330 gallons per day (gpd) times 22 dwelling for a total of 7,260 gpd.

Given that the flow is well below 10,000 gpd, New York State Design Standards for Intermediate Sized Wastewater Treatment Systems (Intermediate Systems), March 5, 2014, by NYS Department of Environmental Conservation is consulted for portions of the design, as well as NEIWPCC's Guides for the Design of Wastewater Treatment Works, Technical Report 16, 2011 (TR-16).

Homestead Development will perform construction and installation of the sewer lines, both gravity and force main, and the sewer pump stations. An acceptance letter from the VLP is attached in the Appendix, stating their willingness to have the system connect and to treat the wastewater.

Sewer service from each dwelling will be a 4" PVC gravity lateral, set a 2% slope to the proposed mains.

The proposed gravity sewer lines will be a single 8" SDR 35 PVC collection main to a sewer pump station. The northern portion of the development, with 12 houses, will flow by gravity to the northern pump station, while the southern portion, with 10 houses, will flow by gravity to the southern pump station. The gravity sewer lines will be placed under the proposed road.

Four manholes will be used for the north gravity sewer and three will be used for the south gravity sewer. The manholes will be installed throughout the sewer lines to accommodate changes in grade or direction as needed. Manhole location and inverts are shown on the plans.

A minimum pipe slope of 1.00% was used for the design to ensure proper flow, prevent blockages, and maintain system efficiency. The 1.00% slope was only used between two manholes; all other sections of pipe slope greater than this, generally in the 2 to 4% range, approximately following the slope of the final grade. See sewer line profiles for slopes and elevations.

Each gravity sewer will discharge into its own pump station. The reason for independent pump stations is to accommodate a low area between the two pump stations which does not allow for easy gravity connection between them.

The north system has a daily design flow of 3,960 gpd (12 dwellings * 330 gpd/dwelling), while the south system has a daily design flow of 3,300 gpd (10 dwellings * 330 gpd/dwelling).

For the purposes of design, the north system will be used and the south system will be made the same, since the two flows are relatively similar.

We plan to use a grinder pump system, since this is a relatively small system, which are allowed by both Intermediate Standards and TR-16.

Minimum grinder pump flow needs to exceed expected flows. Flows are expected to be a maximum of 33 gallons per minute (gpm) into the pump station ((3,960 gpd/24 hours/day/60 minutes/hour)*flow factor of 12), so any pump must be able to produce a minimum output of 33 gpm.

Other salient design items include, but are not limited to:

- Velocity in the force main is required to be 2 to 5 feet per second
- Minimum of 2" diameter force mains
- Air release at high points
- Cleanouts at 500 to 1,000 feet intervals, with same size as force main
- Small pumping stations require 24-hour storage or small portable standby generator
- Activated carbon filter

It is proposed to use precast concrete pump stations with alternating, duplex Liberty LSG300 series grinder pumps. A four-float control system: off; lead pump on; lag pump on; alarm, will be used. The valve pit will be in a separate manhole adjacent to the pump station. In the event of power outages, the pump stations will be set up to allow for connection by a portable generator by the municipality,

The force main is proposed to be a 3" HDPE DR11 force main. The force main will combine near the south pump station, and a single force main will be used to manhole discharge. The force main will have an air release at the high point in the system and a clean out structure.

Under the proposed open-bottomed plate arch, the force main will be installed in a sleeve pipe, either steel or ductile iron. The sleeve will allow for the removal and replacement of the force main without taking the arch out of service.

With the two pump stations, there are three possible run scenarios: south pump station operates alone; north pump station operates alone; and north and south pump stations operate simultaneously. Hazen-Williams calculations were conducted on the different options and are summarized in the chart below.

Flow Summary Chart

Pump Station	Flow Design Point (gpm)	Total Head (ft)	Pipe Flow (fps)	Notes
South, Alone	82	38.2	3.72	
North, Alone	70	43.2	3.18	
South, Combined	50	48.0	4.08	Flow based on combined north and south flows
North, Combined	40	48.7	4.08/1.82	See note above, lower flow is 210’ section from Noth PS to force main connection

The lower flow in the 210’ section is considered acceptable, since the lower flow is not a typical event. If all houses were three-bedroom units, the north pump station would operate 56.6 minutes per day by itself, and the south pump station would operate 40.2 minutes per day. Therefore, there will always be flow on a daily basis over 3 fps to scour away any deposits. Further, we reviewed making that section of force main 2”, and the results were not favorable. The flow in the main section of force main would have a flow of about 2 fps, due to the loss in the first section. Due to those reasons, we elected to maintain a consistent 3” force main throughout.

4.0 Water Service

4.1 Water Facilities

The adjacent subdivision receives water service from the municipal system. We propose to connect to the water system there and extend an 8" HDPE, DR11 water main, along Algonquin Drive and down the subdivision road, terminating near the hammerhead turnaround.

Water flow for the subdivision would be maximum 7,260 gallons per day. Assuming a peak factor of 12, maximum flow would be approximately 60 gpm. This flow is just for domestic purposes. Fire flow will be the deciding flow for design.

An 8" water main is planned to reduce friction in the event of fire flow being required at the terminal end of the water main. For example, the frictional head loss in an 8" HDPE water main with 1,000 gpm fire flow has a frictional head loss of 8 psi, compared to a 6" water main with over 34 psi of frictional loss. Hazen-Williams calculation for the water main is in the Appendix.

In-line valves are installed at least every 500'. Four hydrant assemblies are installed along the proposed route, being located at high points to assist with flushing the line and releasing air.

A total of two water-storm crossings is expected, with existing storm lines. The location of the crossings is called out on the plans. The crossings are specified to be conducted in accordance with the water & sewer crossing detail found on the project plans.

There are no planned crossings with sewer mains. There is a section at the connection to the existing main where it appears that the water line will be within 10' of the sewer. The water line is called out to be sleeved in that location.

Water service to each house will be a ¾" lateral, with a curb stop near the ROW bounds.

5.0 Installation and Inspection Requirements

The proposed replacement sewer line shall be installed in accordance with the attached plans and installation specifications. Construction shall not begin until all required permits are obtained. The installer shall notify the engineer 48 hours before the start of the project.

The engineer shall complete a post-construction inspection and provide a certificate of completion prior to putting the system in service.

The water main will be pressure tested in accordance with the plans. Following successful pressure testing, the line with be disinfected in accordance with the plans and the NYS DOH standards. Two negative bacteriological tests are required before the line can be placed in service.

The sewer lines also require testing. The force main will be pressure tested in accordance with procedures similar to the water main. The gravity system will be tested to ensure alignment and pitch.

The installer has the responsibility to prepare and submit as-built drawings of all underground components.

6.0 Permitting Requirements

The subdivision is jurisdictional to the Adirondack Park Agency (APA). A submission is being made to them concurrently to other state and local agencies. A Class A Regional Permit is required. Projects jurisdictional to the APA are considered a Type II action under SEQR, and are therefore exempt from SEQR.

The subdivision is jurisdictional to the NYS Department of Health for water supply and for the realty subdivision. A submission is being made to them concurrently to other state and local agencies. Realty subdivisions require a Long Form SEQR as part of their approval process, but the DOH will not act as lead agency.

The Town of North Elba and Village of Lake Placid Joint Review Board is jurisdictional for site plan review. In addition to site plan review, the Joint Review Board will be conducting environmental review of the proposed action as a lead agency. Once a Negative Declaration of the proposed action is issued, it will be provided to other stakeholders.

The proposed action is jurisdictional to the New York State Department of Environmental Conservation, as they have review authority over municipal sewer collection and treatment systems, as well as water supply permit applications.

The completed water and sewer infrastructure will be turned over to the municipality. The VLP, as the owner and operator of the system, has provided acceptance letters that they will own, operate and maintain the sanitary sewer. These letters are in the Appendix.

Sign-off is required from the New York State Office of Parks, Recreation and Historic Preservation. A finding of No Impact has been issued by them and that is attached to this document.

APPENDIX A
PERMITTING

LAKE PLACID VILLAGE, INC.

2693 MAIN STREET LAKE PLACID, NEW YORK 12946 PHONE 518-523-2597 FAX 518-523-1362

09/23/25

Mr. Steve Sama
Homestead Development Corporation
2693 Main Street
Lake Placid, NY 12946

Re: Fox Hill — Water and Sewer Capacity and Future Maintenance

Dear Steve,

This letter confirms that the Village of Lake Placid, through the Department of Public Works, attests there is adequate Village water and sewer capacity to service the proposed Fox Hill development, subject to the conditions below.

The Village will agree to accept and assume ongoing maintenance responsibility for the public water and sanitary sewer infrastructure serving the development, provided that all such infrastructure is designed and constructed in full compliance with all applicable Village codes, specifications, standards, and any additional requirements the Department of Public Works may impose.

The Department of Public Works (or its authorized representatives) reserves the right to inspect the water and sewer work at any time during design and construction to verify compliance with Village standards and to ensure materials and installation meet acceptable quality and performance criteria. The Department will provide the Developer with the applicable design criteria, construction specifications, inspection procedures and any supplemental requirements in writing prior to or at the start of construction.

Prior to final acceptance and turnover to the Village, the Developer must provide all documentation required by the Department. Final acceptance will follow successful final inspections and confirmation that the infrastructure fully complies with Village requirements.

Sincerely,

Brad Hathaway

Brad Hathaway
Superintendent, Department of Public Works
Village of Lake Placid

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Fox Hill

Project Location (describe, and attach a location map):
Portion of tax map parcel 42.10-1-2.000, accessed from Algonquin Drive, Town of North Elba

Brief Description of Proposed Action:
Workforce housing subdivision to prepare 2 homes for sale. Work includes site grading, construction of 1,100' road, water and sewer infrastructure and construction of 22 single family dwelling units.

Name of Applicant or Sponsor:	Telephone: 518-265-7278
Homestead Development	E-Mail: ssama@homesteadadk.org

Address:
70 Trillium Drive

City/PO:	State:	Zip Code:
Lake Placid	NY	12946

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: APA permit, NYSDOH permit, NYS DEC, Town of North Elba Joint Review Board, USACOE PCN NW14	☐	☑

3. a. Total acreage of the site of the proposed action? 30.89 acres
   b. Total acreage to be physically disturbed? 3.9 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 32.22 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☑	☐	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☑	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies:	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☑
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☐	☑
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		
Unnamed wetlands. At road crossing where two adjacent, but not connected wetlands are present. Temporary fill 180 sq ft, temporary dewatered 766 sq ft and permanent fill 256 sq ft.		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☑ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☑ Wetland ☐ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe: _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment: _____		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe: _____		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe: _____		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

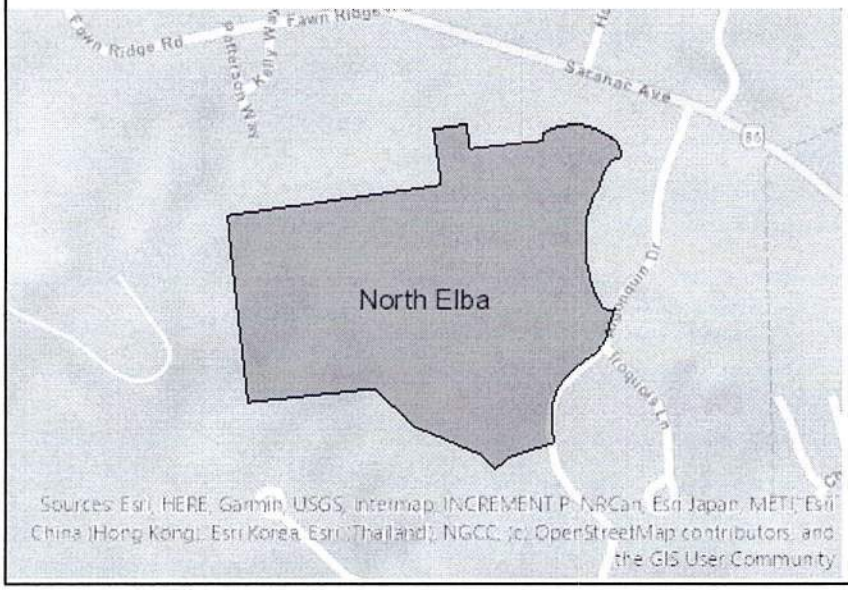
Applicant/sponsor/name: Homestead Development Corp. Date: 12-10-25

Signature: Stephen S. Sama Title: PRES.

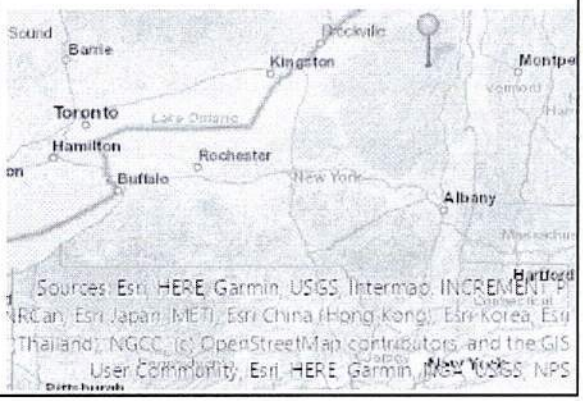
PRINT FORM

EAF Mapper Summary Report

Monday, November 17, 2025 1:50 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources to confirm data provided by the Mapper or to obtain data not provided by the Mapper.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local, New York State, and federal wetlands and waterbodies is known to be incomplete. Refer to the EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	No

NEW YORK STATE | Department of Environmental Conservation | Office of General Services | Department of State

US Army Corps of Engineers

JOINT APPLICATION FORM

For Permits for activities activities affecting streams, waterways, waterbodies, wetlands, coastal areas, sources of water, and endangered and threatened species.

You must separately apply for and obtain Permits from each involved agency before starting work. Please read all instructions.

1. **Applications To:**

>NYS Department of Environmental Conservation ☑ Check here to confirm you sent this form to NYSDEC.

Check all permits that apply:

- ☐ Stream Disturbance
- ☐ Excavation and Fill in Navigable Waters
- ☐ Docks, Moorings or Platforms
- ☐ Dams and Impoundment Structures
- ☑ 401 Water Quality Certification*
- ☑ Freshwater Wetlands
- ☐ Tidal Wetlands
- ☐ Wild, Scenic and Recreational Rivers
- ☐ Coastal Erosion Management
- ☐ Water Withdrawal
- ☐ Long Island Well
- ☐ Incidental Take of Endangered / Threatened Species

* See Instructions (page 3)

>US Army Corps of Engineers ☑ Check here to confirm you sent this form to USACE.

Check all permits that apply: ☑ Section 404 Clean Water Act ☐ Section 10 Rivers and Harbors Act

Is the project Federally funded? Yes ✓ No

If yes, name of Federal Agency:

General Permit Type(s), if known: NWP #14

Preconstruction Notification: ✓ Yes No

>NYS Office of General Services ☑ Check here to confirm you sent this form to NYSOGS.

Check all permits that apply:

- ☐ State Owned Lands Under Water
- ☐ Utility Easement (pipelines, conduits, cables, etc.)
- ☐ Docks, Moorings or Platforms

>NYS Department of State ☐ Check here to confirm you sent this form to NYSDOS.

Check if this applies: ☐ Coastal Consistency Concurrence

2. **Name of Applicant**

Homestead Development Corporation`

Taxpayer ID (if applicant is NOT an individual): 850866443

Mailing Address: ~~2693 Main St~~ 70 Trillium Drive

Post Office / City: Lake Placid | State: NY | Zip: 12946

Telephone: 518-265-7278 Email: ssama@homesteadadk.org

Applicant Must be (check all that apply): ☐ Owner ☑ Operator ☐ Lessee

3. **Name of Property Owner (if different than Applicant)**

Fawn Ridge LLC

Mailing Address: 685 Averyville Lane

Post Office / City: Lake Placid | State: NY | Zip: 12946

Telephone: Email: chipbissell@usa.com

For Agency Use Only	Agency Application Number:

4. **Name of Contact / Agent**

Steve Sama

Mailing Address	Post Office / City	State	Zip
70 Trillium Dr	Lake Placid	NY	12946

Telephone 518-265-7278 Email ssama@homesteadadk.org

5. **Project / Facility Name**

Fox Hill

Property Tax Map Section / Block / Lot Number: 42.10-1-2.000

Project Street Address, if applicable	Post Office / City	State	Zip
Algonquin Dr	Lake Placid	NY	12946

Provide directions and distances to roads, intersections, bridges and bodies of water

Bounded by Algonquin Dr to the east and Saranac Ave (NYS Rte 86) to the north.

✓ Town	Village	City	County	Stream/Waterbody Name
North Elba			Essex	unnamed wetlands

Project Location Coordinates: Enter Latitude and Longitude in degrees, minutes, seconds:

Latitude: 44 ° 17 ' 34.458 " Longitude: 73 ° 0 ' 7.07 "

6. **Project Description:** Provide the following information about your project. Continue each response and provide any additional information on other pages. **Attach plans on separate pages.**

a. Purpose of the proposed project:

Provide 22 sustainable, reasonably priced, single-family dwellings to mitigate the deterioration of the Lake Placid community by serving essential local workers/first responders within our area. Eligibility limited to those earning no more than 200% of the Area Median Income.

b. Description of current site conditions:

Undeveloped land with surrounding wetlands.

c. Proposed site changes:

Installation of a access road for the proposed house sites. Open bottomed plate arch culvert planned at the narrow gap between wetlands to minimize impacts and allow for flow from west to east during periods of high water. All work will be completed in such a way as to minimize the impact on existing wetlands.

d. Type of structures and fill materials to be installed, and quantity of materials to be used (e.g., square feet of coverage, cubic yards of fill material, structures below ordinary/mean high water, etc.):

Open bottom plate arch supported by cast-in-place concrete foundations. Site built, dry-stacked boulder retaining walls by each side of openings to prevent fill beyond face of plate arch. Temporary area of coverage for temp dam is 180 square feet. Temp area dewatered 766 square feet. Permanent area of fill 256 square feet. Concrete fill 6.5 cubic yards (cy). Compacted gravel 9.9 cy. Boulders for wing walls 0.4 cy

e. Area of excavation or dredging, volume of material to be removed, location of dredged material placement:

Volume of material removed for footing installation 16.4 cubic yards.

f. Is tree cutting or clearing proposed? ✓ Yes If Yes, explain below. No

Timing of the proposed cutting or clearing (month/year): Spring 2026

Number of trees to be cut: Unknown Acreage of trees to be cleared: 3.6

g. Work methods and type of equipment to be used:

Hand tools, excavator, vibratory roller, chain saws

h. Describe the planned sequence of activities:

Wetland protection fence to be erected first to limit impacts to what is shown on plans. Second, erosion and sediment control items will be installed as shown on the plans, and maintained for duration of project. Temporary dam to be installed with bypass culvert to allow water to continue to flow during high water events. Footings will be excavated, formed and have concrete cast. Footings backfilled and area between graded. Open bottomed arch to be erected. Area backfilled and dry stacked stone retaining walls placed together. Final grading of side slopes. Slopes have topsoil placed, seeded and mulched. After vegetated cover, temp dam and ESC measures removed.

i. Pollution control methods and other actions proposed to mitigate environmental impacts:

Wetland delineation fence to be installed. Silt fence and compost filter sock to be placed downslope of work area. Temporary dam to be installed to conduct work in the dry, to prevent siltation impacts.

j. Erosion and silt control methods that will be used to prevent water quality impacts:

Silt fence and compost filter sock to be placed downslope of work area.

k. Alternatives considered to avoid regulated areas. If no feasible alternatives exist, explain how the project will minimize impacts:

Crossing proposed at location where wetland impact is minimal. No other site exists within close proximity to Lake Placid/North Elba businesses and schools. Improvement of an existing road and culvert for entry to the subdivision from Algonquin Dr. All work will be completed in such a way as to minimize the impact on existing wetlands.

l. Proposed use: ☑ Private ☐ Public ☐ Commercial

m. Proposed Start Date: Spring 2026 Estimated Completion Date: Fall 2028

n. Has work begun on project? Yes If Yes, explain below. ✓ No

o. Will project occupy Federal, State, or Municipal Land? ___ Yes If Yes, explain below. ✓ No

p. List any previous DEC, USACE, OGS or DOS Permit / Application numbers for activities at this location:

No known previous permits for this property exist. APA Permit # 2025-0122 has been issued for this project. The NYSOPRHP has confirmed there are no historical issues with this site.

q. Will this project require additional Federal, State, or Local authorizations, including zoning changes?

✓ Yes If Yes, list below. ___ No

Approvals are required from the APA, NYS Department of Health, NYS Department of Environmental Conservation, and Town of North Elba/Village of Lake Placid Review Board.

7. **Signatures.**

Applicant and Owner (If different) must sign the application. If the applicant is the landowner, the **landowner attestation form** can be used as an electronic signature as an alternative to the signature below, if necessary. Append additional pages of this Signature section if there are multiple Applicants, Owners or Contact/Agents.

I hereby affirm that information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief.

Permission to Inspect - I hereby consent to Agency inspection of the project site and adjacent property areas. Agency staff may enter the property without notice between 7:00 am and 7:00 pm, Monday - Friday. Inspection may occur without the owner, applicant or agent present. If the property is posted with "keep out" signs or fenced with an unlocked gate, Agency staff may still enter the property. Agency staff may take measurements, analyze site physical characteristics, take soil and vegetation samples, sketch and photograph the site. I understand that failure to give this consent may result in denial of the permit(s) sought by this application.

False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the NYS Penal Law. Further, the applicant accepts full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agrees to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from said project. In addition, Federal Law, 18 U.S.C., Section 1001 provides for a fine of not more than $10,000 or imprisonment for not more than 5 years, or both where an applicant knowingly and willingly falsifies, conceals, or covers up a material fact; or knowingly makes or uses a false, fictitious or fraudulent statement.

Signature of Applicant Stephen S. Sama — Date 12-10-25

Applicant Must be (check all that apply): ☐ Owner ☑ Operator ☐ Lessee

Printed Name Stephen S. Sama — Title Pres.

Signature of Owner (if different than Applicant) [signature] — Date 12/15/25

Printed Name ARTHUR D BISSELL — Title MM

Signature of Contact / Agent — Date

Printed Name — Title

For Agency Use Only **DETERMINATION OF NO PERMIT REQUIRED**

Agency Application Number

(Agency Name) has determined that No Permit is required from this Agency for the project described in this application.

Agency Representative:

Printed Name — Title

Signature — Date

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

RANDY SIMONS
Commissioner Pro Tempore

September 18, 2025

Steve Sama
Homestead Development Corporation
70 Trillium Dr
Lake Placid, NY 12946

Re: APA
Fox Hill Residential Subdivision Lake Placid
Lake Placid, NY
25PR06004

Dear Steve Sama:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act (NYSHPA) of 1980 (Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

We note that the project area is adjacent to the Adirondack Park National Historic Landmark as well as the W. Alton Jones Cell Science Center, which is eligible for listing in the State and National Registers of Historic Places. We have reviewed the project information submitted to our office on July 8, 2025 and September 18, 2025. Based on this review, it is the opinion of OPRHP that the proposed subdivision and construction will have No Adverse Impact on historic or cultural resources.

If you have any questions, you can call or e-mail me at the contact information below.

Sincerely,

Theresa Moriarty
Historic Site Restoration Coordinator
518.925.6507 | theresa.moriarty@parks.ny.gov

Cc: Devan Korn, APA; Terry Tubridy
via email only

APPENDIX B
CALCULATIONS AND PRODUCT DATA

North Woods Engineering PLLC
348 Lake Street • Saranac Lake, NY 12983
(518) 891-4975
www.north-woods-engineering.com

Hazen-Williams

Project: **25-073**
Date: 12-Dec-25
By: JA Garso

Fox Hill - North Station operation only
*see pgs 3-20 of Civil Eng Ref Manual

*constant, C	120		
diameter of pipe, D	3	in	
length (+25' for fittings), L	1125	ft	
elevation change	12	ft	
flow	70	gpm	if above curve, decrease flow
total head loss	32.67	ft	
friction head loss	20.67	ft	
friction head loss	8.96	psi	
pipe area	7.07	in^2	
velocity	3.18	fps	

Equation for Friction Head Loss:

$$h_{f,feet} = \frac{10.44 L_{ft} V_{gpm}^{1.85}}{C^{1.85} d_{inches}^{4.87}}$$

Fluid Velocity:

$$Velocity\left(\frac{ft}{s}\right) = \frac{GPM \times 0.00228}{\frac{Pipe\ Area\ (in^2)}{144}}$$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Hazen-Williams

Project: **25-073**
Date: 12-Dec-25
By: JA Garso

Fox Hill - South Station operation only
*see pgs 3-20 of Civil Eng Ref Manual

*constant, C	120		
diameter of pipe, D	3	in	
length (+25' for fittings), L	900	ft	
elevation change	16	ft	
flow	82	gpm	if above curve, decrease flow
total head loss	38.16	ft	
friction head loss	22.16	ft	
friction head loss	9.61	psi	
pipe area	7.07	in^2	
velocity	3.72	fps	

Equation for Friction Head Loss:

$$h_{f,feet} = \frac{10.44 L_{ft} V_{gpm}^{1.85}}{C^{1.85} d_{inches}^{4.87}}$$

Fluid Velocity:

$$Velocity\left(\frac{ft}{s}\right) = \frac{GPM \times 0.00228}{\frac{Pipe\ Area\ (in^2)}{144}}$$

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Hazen-Williams

Project: **25-073**
Date: 12-Dec-25
By: JA Garso

Fox Hill - North Station combined with South
*see pgs 3-20 of Civil Eng Ref Manual

*constant, C	120		
diameter of pipe, D	3	in	
length (+25' for fittings), L	900	ft	
elevation change	16	ft	
flow	40	gpm	if above curve, decrease flow
total head loss	21.87	ft	
friction head loss	5.87	ft	
friction head loss	2.55	psi	
pipe area	7.07	in^2	
velocity	1.82	fps	

Head loss from 40 gpm output. Combined with first 235' plus South Pump Station, total head loss approx 48.7' at 40 gpm output North PS. Added to South PS total flow approx 90 gpm, total head approx 49' and velocity 3.6 fps.

Equation for Friction Head Loss:

$$h_{f,feet} = \frac{10.44 L_{ft} V_{gpm}^{1.85}}{C^{1.85} d_{inches}^{4.87}}$$

Fluid Velocity:

$$Velocity\left(\frac{ft}{s}\right) = \frac{GPM \times 0.00228}{\frac{Pipe\ Area\ (in^2)}{144}}$$

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Project: **25-073**
Date: 12-Dec-25
By: JA Garso

Fox Hill - North Station combined with South
*see pgs 3-20 of Civil Eng Ref Manual

*constant, C	120		
diameter of pipe, D	3	in	
length (+25' for fittings), L	235	ft	
elevation change	9	ft	
flow	40	gpm	if above curve, decrease flow
total head loss	10.53	ft	
friction head loss	1.53	ft	
friction head loss	0.66	psi	
pipe area	7.07	in^2	
velocity	1.82	fps	

Add head loss to other section for design point of north pump station in operation with south pump station

Equation for Friction Head Loss:

$$h_{f,feet} = \frac{10.44 L_{ft} V_{gpm}^{1.85}}{C^{1.85} d_{inches}^{4.87}}$$

Fluid Velocity:

$$Velocity\left(\frac{ft}{s}\right) = \frac{GPM \times 0.00228}{\frac{Pipe\ Area\ (in^2)}{144}}$$

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LSG300-SERIES
Sewage Grinder Pump

Liberty Pumps®
A Family and Employee Owned Company

commercialseries

3 hp

2", 2-1/2" & 3" ANSI® Horizontal Discharge with 2" NPT

2"/3" NPT Vertical Discharge Models Available

Patent: See LibertyPumps.com/patents

Features

- Cast iron construction with durable powder coat finish
- Stainless steel hardware
- Buna-N O-ring seals
- Quick-connect cords in 35' & 50' lengths
- V-Slice® Cutter Technology
- Dual seal with seal leak detection
- MidTherm™ Cooling provides more efficient motor cooling

NEW! **Combo Volute**

One pump, multiple discharge options

Horizontal discharge models feature ANSI® 150# 2"-3" and a 2" NPT

Vertical discharge models feature a 2" threaded elbow with a 3" threaded flange

Proudly made in the USA with US & global components

innovate. evolve.

LSG300-Series

Impeller

Balanced stainless steel

Finish

Powder coat

Max Fluid Temperature

104°F (40°C) Continuous duty

Motor

Oil-filled, Class F insulation,
Inverter duty rated

Power Cord Type

SOOW, Quick-connect 35' or 50'
length options

Motor Housing

Class 30 cast iron

Volute

Class 30 cast iron

Shaft

Stainless steel

Mechanical Shaft Seals

Dual seal arrangement
- Lower (primary) silicon carbide/ silicon carbide
- Upper (secondary) carbon/ceramic

Bearings

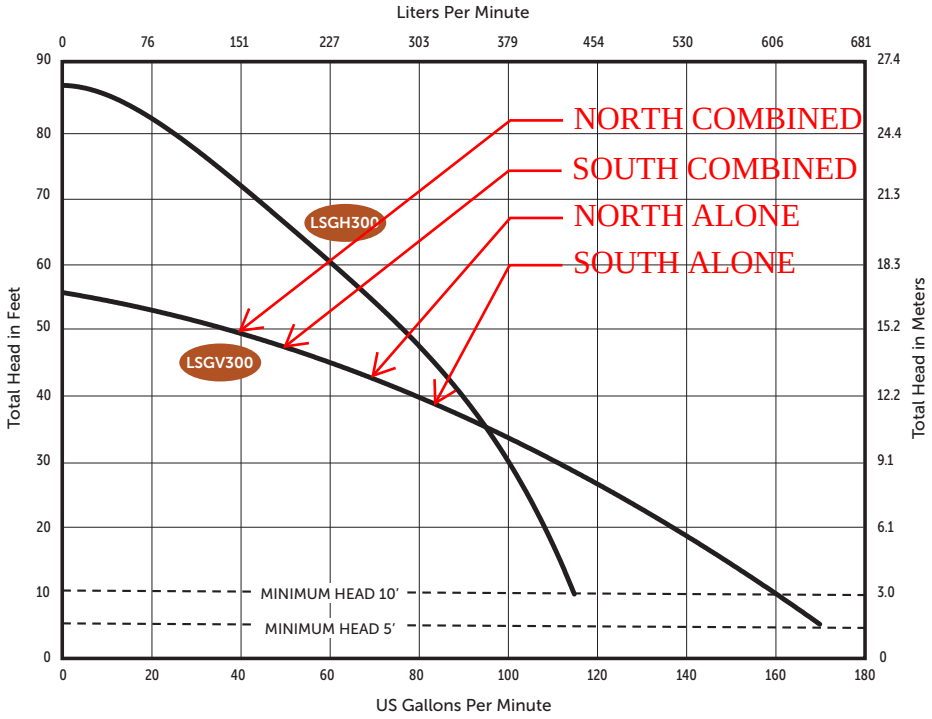
- Upper bearings single row deep groove
- Lower bearings double row angular contact

Warranty

18 Months from the date of installation or
24 months from the date of manufacture
See Liberty Pumps Limited Warranty - Wholesale Commercial Series

Performance Curve

60 Hz, 3450 RPM



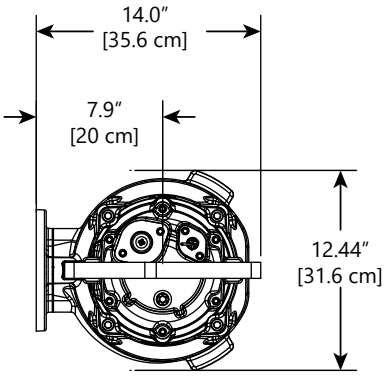
DESIGN POINTS

V-Slice® Cutter Technology

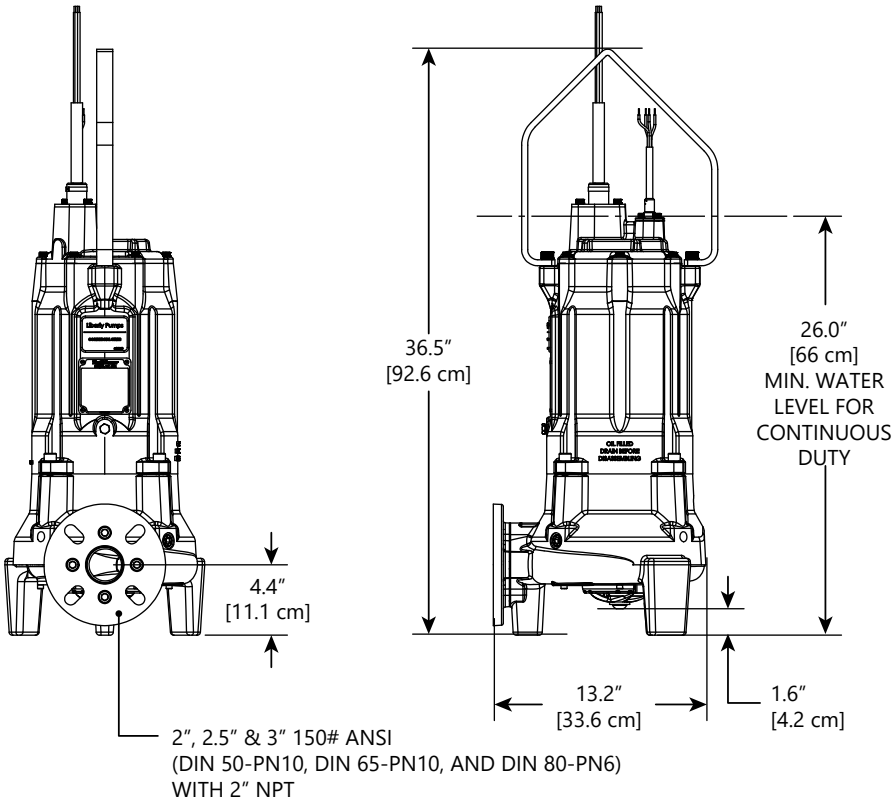
Submersible Wastewater Pump Association
SWPA MEMBER

C SA US

Dimensional Data - ANSI® Horizontal Discharge



Optional 4" ANSI® Discharge Kit K002016 (sold separately)

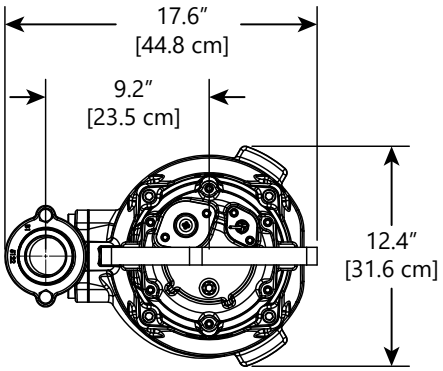


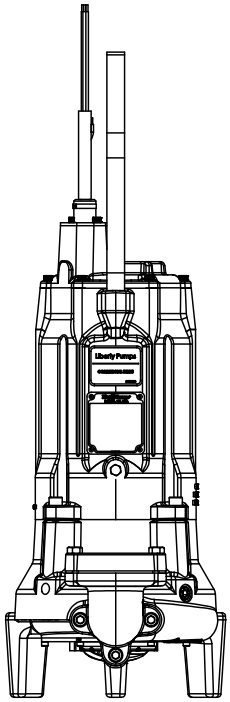
Models - ANSI® Horizontal Discharge

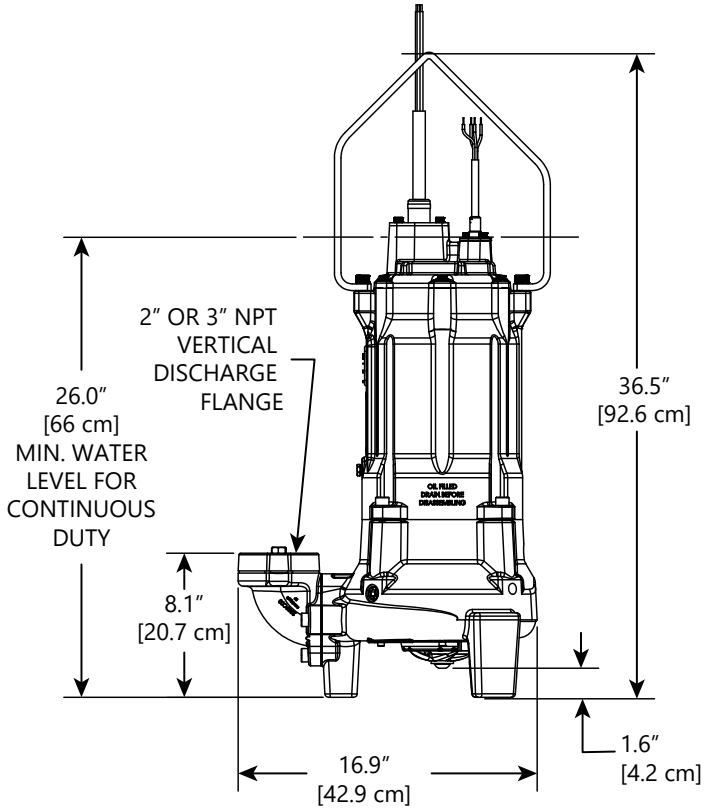
MODEL	HP	VOLTS	PHASE	AMPS	CORD LENGTH	DISCHARGE	WEIGHT in LBS
LSGV302M-3	3	230**	1	19	35'	2", 2.5" & 3" ANSI Horizontal	270
LSGV303M-3	3	200/230*	3	13/11.8	35'	2", 2.5" & 3" ANSI Horizontal	270
LSGV304M-3	3	460	3	5.8	35'	2", 2.5" & 3" ANSI Horizontal	270
LSGV305M-3	3	575	3	5	35'	2", 2.5" & 3" ANSI Horizontal	270
LSGH302M-3	3	230**	1	19	35'	2", 2.5" & 3" ANSI Horizontal	270
LSGH303M-3	3	200/230*	3	13/11.8	35'	2", 2.5" & 3" ANSI Horizontal	270
LSGH304M-3	3	460	3	5.8	35'	2", 2.5" & 3" ANSI Horizontal	270
LSGH305M-3	3	575	3	5	35'	2", 2.5" & 3" ANSI Horizontal	270

For 50' cord option, add "-5" suffix to model number. Example: LSGV302M-5 *System voltages: 208 and 240 volts with utilization voltages: 200 and 230 volts
**1-phase models require an externally mounted start circuit for operation. Start circuit kits are available and sold separately.
Refer to installation manual for circuit details.

Dimensional Data - Vertical Discharge







Models - Vertical Discharge

MODEL	HP	VOLTS	PHASE	AMPS	CORD LENGTH	DISCHARGE	WEIGHT in LBS
LSGV302MV-3	3	230**	1	19	35'	2" & 3" NPT Vertical	270
LSGV303MV-3	3	200/230*	3	13/11.8	35'	2" & 3" NPT Vertical	270
LSGV304MV-3	3	460	3	5.8	35'	2" & 3" NPT Vertical	270
LSGV305MV-3	3	575	3	5	35'	2" & 3" NPT Vertical	270
LSGH302MV-3	3	230**	1	19	35'	2" & 3" NPT Vertical	270
LSGH303MV-3	3	200/230*	3	13/11.8	35'	2" & 3" NPT Vertical	270
LSGH304MV-3	3	460	3	5.8	35'	2" & 3" NPT Vertical	270
LSGH305MV-3	3	575	3	5	35'	2" & 3" NPT Vertical	270

For 50' cord option, add "-5" suffix to model number. Example: LSGV302MV-5 *System voltages: 208 and 240 volts with utilization voltages: 200 and 230 volts
**1-phase models require an externally mounted start circuit for operation. Start circuit kits are available and sold separately.
Refer to installation manual for circuit details.

Specifications subject to change without notice.

Liberty Pumps - 7000 Apple Tree Avenue - Bergen, New York 14416
Phone 800-543-2550 - Fax 585-494-1839 - LibertyPumps.com

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348 Lake Street • Saranac Lake, NY 12983
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www.north-woods-engineering.com

Hazen-Williams

Project: **25-073**
Date: 12-Dec-25
By: JA Garso

Fox Hill - Water Main
*see pgs 3-20 of Civil Eng Ref Manual

*constant, C	140		
diameter of pipe, D	8	in	
length (+25' for fittings), L	1200	ft	
elevation change	23	ft	
flow	1000	gpm	if above curve, decrease flow
total head loss	42.21	ft	
friction head loss	19.21	ft	
friction head loss	8.33	psi	
pipe area	50.27	in^2	
velocity	6.38	fps	

Equation for Friction Head Loss:

$$h_{f,feet} = \frac{10.44 L_{ft} V_{gpm}^{1.85}}{C^{1.85} d_{inches}^{4.87}}$$

Fluid Velocity:

$$Velocity\left(\frac{ft}{s}\right) = \frac{GPM \times 0.00228}{\frac{Pipe\ Area\ (in^2)}{144}}$$

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