

Map, Plan, and Report

For The

**Town of Milo
Water District No. 4**

August 2022



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I. General

The Town of Milo has received public interest in establishing a water district along East Lake Road, north of 2nd Milo Road, as shown in Figure 1 at the end of this report. A water district is a special use district required by Town Law where a specific area of the town receives a specific benefit. The cost for receiving this benefit is borne solely by the property owners in that specific area.

The purpose of this project is to provide a safe and reliable public water supply to the property owners in the proposed Town of Milo Water District No. 4.

II. Project Planning Area

A. Location

The proposed Water District No. 4 will include a total of approximately 4,600 linear feet of 8-inch water main, gate valves, and hydrants. The water main will run along East Lake Road, connecting to existing water main on the north and south ends.

B. Environmental Resources Present

There are farmlands present in the project area. All construction will be taking place in existing road right-of-ways or easements, and proper construction mitigation and restoration efforts will be implemented based on standard practices common to the industry.

There are no known endangered species in the project area.

Historical properties and cultural resources will be further evaluated during design when the precise location of the proposed main can be identified. Construction will not proceed until SHPO is consulted and their approval is obtained.

C. Growth Areas and Population Trends

According to the United States Census, the Town of Milo had a population of 6,803 in 2020 and 7,006 in 2010. This number reflects a population decrease. Note, the population data include the Village of Penn Yan.

D. Community Engagement

The Town held an informational meeting with the public and issued a survey to gauge public support and interest, and to provide the public with additional information throughout the process. There will be additional public meetings should the project move forward to advise the public of construction information and for the District formation.

III. Existing Facilities

A. Location Map

The project area is not currently served by any water district. Refer to the project location map on Figure No. 1 at the end of this report.

B. Existing Systems

The entire area of the proposed water district is presently served by private wells. The Town of Milo has received several complaints about the quality and quantity of the water in the area. Residents in this area have experienced the following problems:

1. **Insufficient quantity** of water is available for residential wells. Residents must conserve water by alternating shower days, alternating laundry days, or not washing clothes in their residences at all.
2. **Poor water quality** is predominant in the existing well supplies. The water quality requires some residents to either boil water for consumption or purchase bottled water for cooking and consumption.
3. **High cost** to operate and maintain existing well supplies. Several residents must purchase chemicals for softening and treatment systems and must frequently replace their plumbing systems due to corrosion of their fixtures. Several residents currently pay over \$2,000 per year to operate and maintain their water system, which provides them with poor quality water and insufficient quantities at times.
4. **Fire Protection:** Currently, there is no water system to provide fire protection in the proposed water district. Likewise, there are no significant bodies of water in the vicinity that provide an adequate supply of water for fire protection.

C. Water Demand

The existing demands for the proposed service area are as follows:

Single Family Homes

Average Day	2,700 gpd
Maximum Day	5,400 gpd

Commercial

Average Day	540 gpd
Maximum Day	1,080 gpd

The future demands for the proposed service area will utilize a 1% increase per year. This increase considers population projections and the land use of the area.

IV. Need for Project

A. Health and Safety

The proposed water main will provide safe potable water to the property owners and will eliminate the public health risks associated with the quality and quantity of ground water in the area.

B. System O & M

A water distribution network will replace highly expensive individual water treatment units; this will reduce the operation and maintenance costs borne by the residents at this time. The Town of Milo will provide retail service and operation and maintenance of the proposed service area.

C. Growth

The project area is both residential and agricultural. The project area has a potential for some growth being that it is located along the shores of Keuka Lake.

V. Alternatives Considered

A. Description

1. Alternative 1 – Null Alternative

Estimated Capital Cost: \$ 0

This alternative proposes to “do nothing”. The residents of the proposed Water District No. 4 would continue using their existing well treatment systems, some whose annual costs exceed \$1,500. Costs for the purchase of bottled water and off-site laundry services add an estimated \$500 to \$1,000 per year to the cost of a private well.

2. Alternative 2 – New Water Distribution System

Estimated Capital Cost: \$610,000

The proposed action includes the installation of approximately 4,600 linear feet of 8-inch water main to provide potable water and fire service. Fire hydrants will be located every 600 feet along the proposed water main. Gate valves will be installed every 1,000 feet and at every branch connection.

A map detailing the proposed water system can be found on Figure 1.

A cost estimate for the Alternative can be found in Appendix B.

B. Design Criteria

The proposed Water District No. 4 will be designed to provide safe potable water and fire protection to the residents within the proposed service area.

C. Map

The proposed Town of Milo Water District No. 4 map and description are included in Appendix A.

D. Environmental Impacts

There are no anticipated negative environmental impacts associated with the project. However, an environmental review will be done for the project. All construction will be done in existing road Right-of-Ways or easements, and proper construction mitigation and restoration efforts will be implemented.

E. Advantages/Disadvantages

Although there are significant costs associated with Alternative 2, it is the most viable alternative as it is consistent with the goals and meets the needs of the Town of Milo. The advantages of Alternative 2 are as follows:

1. It will eliminate the ongoing health risks associated with the quality and quantity of ground water in the area.
2. Combined with other proposed water districts, it will be a step towards creating redundancy in the existing system increasing the reliability of potable water supply and fire flow.

VI. Recommended Alternative

The recommended alternative is Alternative 2 – New Water Distribution System

A. Proposed Water District Unit Costs

The residents of the Town of Milo will assume the cost for the project. The estimated project unit costs are based on financing at a 2.25% interest rate for a 38-year term. Multiple methods of funding have been investigated, and the opportunity to combine grants and loans will provide the Town of Milo the ability to complete project while keeping annual costs viable for residents

- The below table shows the possible funding scenario to get the project to an affordable level for the residents of the project area.

Total Capital Cost	\$610,000
Total Grant	\$240,000
Total Local Share	\$370,000
Annual Local Payment	\$583.53
Annual Debt Service/EDU	\$271.26
Annual Water Rate	\$366.00
Annual Estimated Unit Cost (Rounded)	\$950

*Grant funding includes multiple sources to make project affordable for residents of the area

The Town of Milo will apply for funding for this project, in order to achieve an affordable unit cost for the residents of the area. A combination of funding sources will be necessary to make the project viable, and keep the annual cost to the home owners below \$950 per year.

- Equivalent Dwelling Units

The equivalent dwelling units are based on the Town code and estimated as follows:

	Number	Number of Units
Single Family Residential	11	11 units
Double Family Residential	3	4.5 units
Triple Family	1	2 units
Vacant Developable Parcel	9	4.5 units
Commercial	1	3 units
		Total = 25 units

- One Time Costs

The service line to the property line will cost between \$15 and \$20 per linear foot. Additional costs will include internal plumbing and well abandonment, estimated to vary between \$500 and \$1,000.

Each home or business will be responsible for a connection fee ranging between \$1,575 (¾") and \$3,200 (2"), with the majority only requiring a ¾" service.

VIII. Conclusions

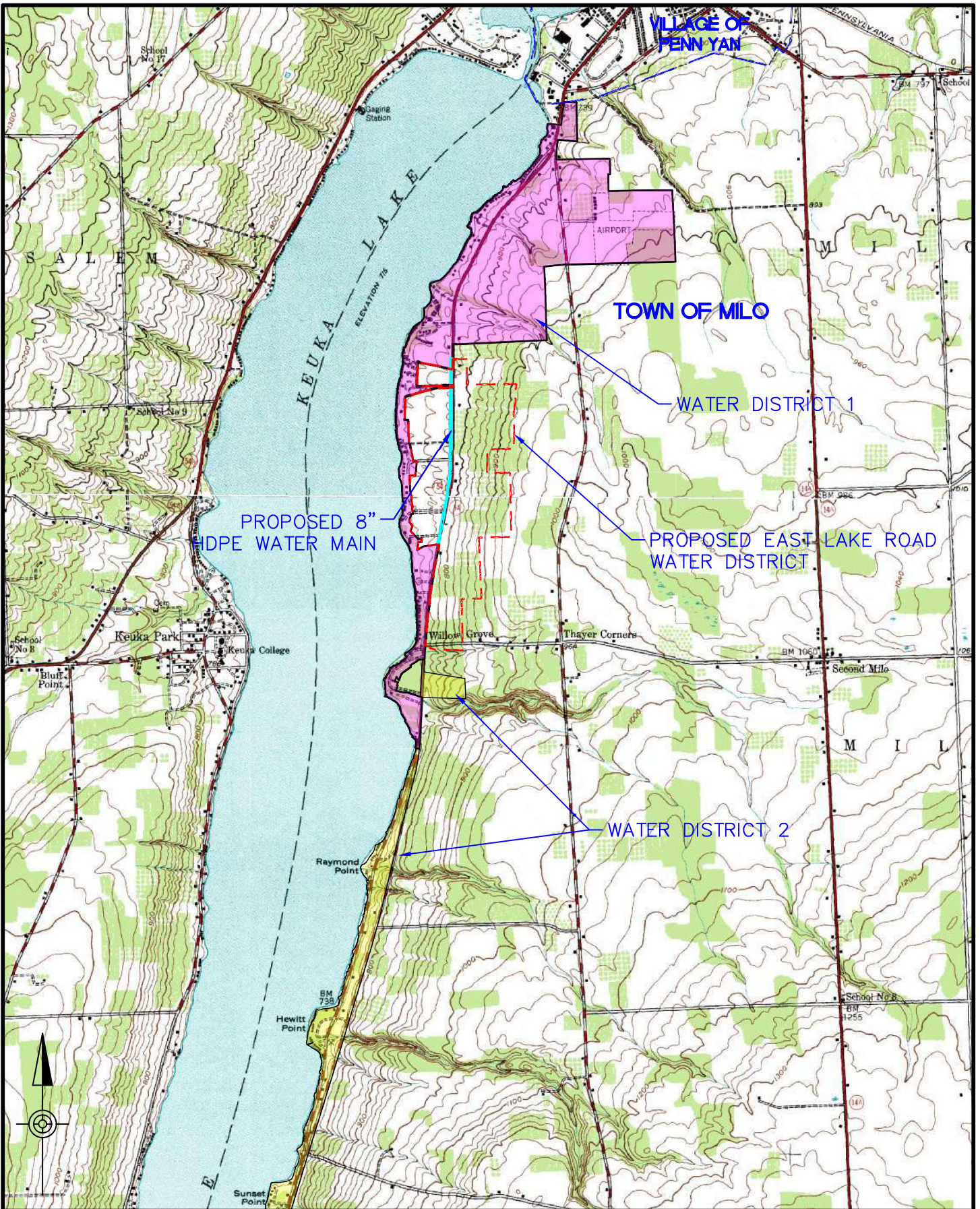
The Town of Milo is committed to providing safe and reliable potable water supply and fire protection to its residents. This specific project will be instrumental in achieving that goal. It is recommended that the Town of Milo seek funding for completion of the project.

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Figure 1

Project Location Map

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PROPOSED 8" HDPE WATER MAIN

TOWN OF MILO

WATER DISTRICT 1

PROPOSED EAST LAKE ROAD WATER DISTRICT

WATER DISTRICT 2

VILLAGE OF PENN YAN

**LOCATION MAP
EAST LAKE ROAD WATER DISTRICT
FOR
TOWN OF MILO**

DATE: APRIL 2020
 SHEET NO.:
 FIGURE 1
 PROJECT NO.: 6493-017
 SCALE: 1"=4000'

Appendix A

**Water District Boundary Map
and
Legal Description**

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**TOWN OF MILO
WATER DISTRICT No. 4**

All that tract or parcel of land situate in the Town of Milo, County of Yates, State of New York, being described as follows:

Beginning at the intersection of the centerline of Second Milo Road (right-of-way varies) and the centerline of East Lake Road (New York State Route 54) (right-of-way varies); thence,

1. Northeasterly, along the centerline of East Lake Road, a distance of 2,492 feet, more or less, to the easterly extension of a southerly line of tax account number 73.55-1-4; thence,
2. Westerly and southwesterly, along the easterly extension of a southerly line of tax account number 73.55-1-4 and the southerly lines of tax account number 73.55-1-4, a distance of 537 feet, more or less, to the southerly extension of a westerly line of tax account number 73.55-1-4 ; thence,
3. Northeasterly, through the lands of tax account number 73.55-1-4, along the southerly extension of a westerly line of tax account number 73.55-1-4 and a westerly line of tax account number 73.55-1-4, a distance of 195 feet, more or less, to a northerly line of tax account number 73.55-1-4; thence,
4. Easterly, along a northerly line of tax account number 73.55-1-4, a distance of 83 feet, more or less, to a westerly line of tax account number 73.55-1-4; thence,
5. Northerly, along a westerly line of tax account number 73.55-1-4, a distance of 64 feet, more or less, to a southerly line of tax account number 73.55-1-1.11; thence,
6. Westerly, along the southerly line of tax account number 73.55-1-1.11, a distance of 90 feet, more or less, to a point on the southerly line of tax account number 73.55-1-1.11; thence,
7. Northwesterly, through the lands of tax account numbers 73.55-1-1.11 and 73.55-1-1.12, along a line, a distance of 258 feet, more or less, to a point on the southerly line of tax account number 73.47-1-10.1; thence,
8. Northeasterly, through the lands of tax account number 73.47-1-10.1, along a line, a distance of 114 feet, more or less, to a point on the southerly line of tax account number 73.47-1-9; thence,
9. Northwesterly, through the lands of tax account number 73.47-1-9, along a line, a distance of 138 feet, more or less, to a point on the northerly line of tax account number 73.47-1-9; thence,
10. Northeasterly, along the easterly lines of tax account numbers 73.47-1-8 and 73.47-1-7, through the lands of tax account number 73.47-1-7, and along the northerly extension of the easterly line of tax account number 73.47-1-7, a distance of 215 feet, more or less, to the northerly line of tax account number 73.47-1-7; thence,
11. Easterly, along the northerly line of tax account number 73.47-1-7, a distance of 6 feet, more or less, to the southerly extension of the easterly line of tax account number 73.47-1-6; thence,
12. Northerly, through the lands of tax account number 73.47-1-6, along the southerly extension of the easterly line of tax account number 73.47-1-6, the easterly line of tax account number 73.47-1-6, and the westerly line of tax account number 73.01-1-19, through the lands of tax account number

73.01-1-16, a distance of 864 feet, more or less, to the northerly line of tax account number 73.01-1-16; thence,

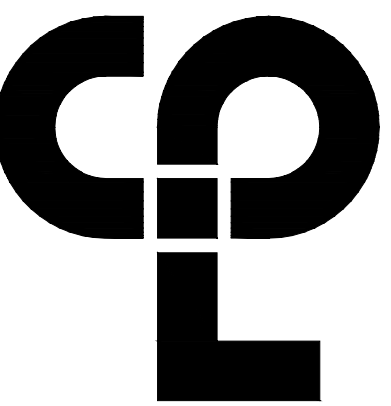
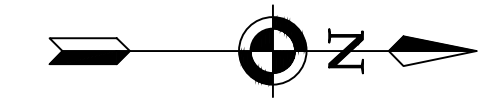
13. Easterly, along the northerly line of tax account number 73.01-1-16, a distance of 134 feet, more or less, to a westerly line of tax account number 73.01-1-10.2; thence,
14. Northeasterly, along a westerly line of tax account number 73.01-1-10.2, a distance of 325 feet, more or less, to a southerly line of tax account number 73.01-1-10.2; thence,
15. Westerly, along a southerly line of tax account number 73.01-1-10.2, a distance of 96 feet, more or less, to the southerly extension of a westerly line of tax account number 73.01-1-10.2; thence,
16. Northwesterly, through the lands of tax account number 73.01-1-10.2, along the southerly extension of a westerly line of tax account number 73.01-1-10.2 and a westerly line of tax account number 73.01-1-10.2, a distance of 426 feet, more or less, to the northerly line of tax account number 73.01-1-10.2; thence,
17. Easterly, along the northerly line of tax account number 73.01-1-10.2, a distance of 9 feet, more or less, to a westerly line of tax account number 73.01-1-17; thence,
18. Northerly, along a westerly line of tax account number 73.01-1-17, a distance of 543 feet, more or less, to a northerly line of tax account number 73.01-1-17; thence,
19. Westerly, along a northerly line of tax account number 73.01-1-17, a distance of 82 feet, more or less, to a westerly line of tax account number 73.01-1-17; thence,
20. Northerly, along a westerly line of tax account number 73.01-1-17, a distance of 538 feet, more or less, to a northerly line of tax account number 73.01-1-17; thence,
21. Northeasterly, along a northerly line of tax account number 73.01-1-17, a distance of 734 feet, more or less, to a northerly line of tax account number 73.01-1-17; thence,
22. Easterly, along a northerly line of tax account number 73.01-1-17 and the easterly extension of the northerly line of tax account number 73.01-1-17, a distance of 363 feet, more or less, to the centerline of East Lake Road (New York State Route 54); thence,
23. Northerly, along the centerline of East Lake Road (New York State Route 54), a distance of 50 feet, more or less, to the easterly extension of the southerly line of tax account number 73.01-1-18.42; thence,
24. Westerly, along the easterly extension of the southerly line of tax account number 73.01-1-18.42, the southerly line of tax account number 73.01-1-18.42, and the southerly line of tax account number 73.01-1-18.41, a distance of 815 feet, more or less, to a westerly line of tax account number 73.01-1-18.41; thence,
25. Northerly, along a westerly line of tax account number 73.01-1-18.41, a distance of 508 feet, more or less, to a northerly line of tax account number 73.01-1-18.41; thence,
26. Easterly, along a northerly line of tax account number 73.01-1-18.41, a distance of 21 feet, more or less, to a westerly line of tax account number 73.01-1-18.41; thence,

27. Northeasterly, along a westerly line of tax account number 73.01-1-18.41, a distance of 60 feet, more or less, to a northerly line of tax account number 73.01-1-18.41; thence,
28. Southeasterly, along a northerly line of tax account number 73.01-1-18.41 and the easterly extension of a northerly line of tax account number 73.01-1-18.41, a distance of 786 feet, more or less, to the centerline of East Lake Road (New York State Route 54); thence,
29. Northerly, along the centerline of East Lake Road (New York State Route 54), a distance of 241 feet, more or less, to the westerly extension of the northerly line of tax account number 73.01-1-1; thence,
30. Easterly, along the westerly extension of the northerly line of tax account number 73.01-1-1 and the northerly line of tax account number 73.01-1-1, a distance of 340 feet, more or less, to the easterly line of tax account number 73.01-1-1; thence,
31. Southerly, along the easterly lines of tax account numbers 73.01-1-1, 73.01-1-2, and 73.01-1-3, a distance of 600 feet, more or less, to the northerly line of tax account number 73.01-1-4.1; thence,
32. Easterly, along the northerly line of tax account number 73.01-1-4.1, a distance of 1,160 feet, more or less, to the easterly line of tax account number 73.01-1-4.1; thence,
33. Southerly, along the easterly lines of tax account numbers 73.01-1-4.1, 73.01-1-4.2, 73.01-1-5.1, and 73.01-1-10.1, a distance of 1,516 feet, more or less, to a southerly line of tax account number 73.01-1-10.1; thence,
34. Westerly, along a southerly line of tax account number 73.01-1-10.1, a distance of 613 feet, more or less, to an easterly line of tax account number 73.01-1-10.1; thence,
35. Southerly, along the easterly lines of tax account numbers 73.01-1-10.1 and 73.01-1-11, a distance of 546 feet, more or less, to the northerly line of tax account number 73.01-1-13; thence,
36. Easterly, along the northerly line of tax account number 73.01-1-13, a distance of 611 feet, more or less, to the easterly line of tax account number 73.01-1-13; thence,
37. Southerly, along the easterly line of tax account number 73.01-1-13, a distance of 872 feet, more or less, to the northerly line of tax account number 73.01-1-14; thence,
38. Easterly, along the northerly line of tax account number 73.01-1-14, a distance of 701 feet, more or less, to the easterly line of tax account number 73.01-1-14; thence,
39. Southerly, along the easterly line of tax account number 73.01-1-14, a distance of 639 feet, more or less, to the southerly line of tax account number 73.01-1-14; thence,
40. Westerly, along the southerly line of tax account number 73.01-1-14, a distance of 1,460 feet, more or less, to the southerly line of tax account number 73.56-1-11; thence,
41. Southerly, along the easterly lines of tax account numbers 73.56-1-11, 73.56-1-3, 73.64-1-1.11, and 73.64-1-1.2, a distance of 1,386 feet, more or less, to the southerly line of tax account number 73.64-1-1.2; thence,

42. Westerly, along the southerly line of tax account number 73.64-1-1.2, a distance of 460 feet, more or less, to the easterly line of tax account number 73.64-1-2; thence,
43. Southerly, along the easterly lines of tax account numbers 73.64-1-2, 73.64-1-3, 73.72-1-2, and 73.73-1-5 and the southerly extension of the easterly line of tax account number 73.72-1-5, a distance of 1,227 feet, more or less, to the centerline of Second Milo Road; thence,
44. Westerly, along the centerline of Second Milo Road, a distance of 877 feet, more or less, to the centerline of East Lake Road (New York State Route 54) and the point of beginning.

Water District, as described above, contains approximately 265.26 acres of land.

All as shown on a map prepared by CPL, entitled "Town of Milo Proposed Water District No. 4", dated August 29, 2022.



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 Latham, NY 12110
 CPLteam.com



PROJECT INFORMATION

Project Number
 ENTER VALUE
 Client Name

TOWN OF MILO

Project Name
**TOWN OF MILO PROPOSED
 WATER DISTRICT No. 4**

Project Address
 ENTER VALUE

PROJECT ISSUE & REVISION SCHEDULE

No.	Date	Description

PROFESSIONAL STAMPS

**FOR REVIEW ONLY
 NOT FOR PERMIT OR
 CONSTRUCTION**

NEW YORK STATE EDUCATION STATEMENT
 IF A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S
 REGULATIONS OR ANY PERSON HAS BEEN ADVISED UNDER THE DIRECTION OF A LICENSED
 ARCHITECT, ENGINEER OR LAND SURVEYOR TO ALTER AN EXISTING PLAN, IF AN EXISTING
 SEALING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING
 PARTY SHALL AFFIX TO THE SEAL THIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THE
 INITIALS AND THE DATE OF SUCH ALTERATION, AND A BRIEF DESCRIPTION OF THE
 ALTERATION.

SHEET INFORMATION

Issued	Scale
08/29/2022	1" = 300'
Project Status	
ENTER VALUE	
Drawn By	Checked By
KMS	ECW
Drawing Title	
TOWN OF MILO PROPOSED WATER DISTRICT No. 4	

Drawing Number
**XXX
 X###**

Plotted By: Kathrine Schaefer

Date last plotted: 8/29/2022 1:22 PM

Date last accessed: 8/29/2022 1:22 PM

Sheet Size: 22x34
 Drawing Name: S:\Projects\Milo_TL_General\East Lake Water & Sewer\Water\East Lake Road Water District.dwg

Appendix B

Opinion of Probable Costs

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TOWN OF MILO
 PROPOSED WATER DISTRICT NO. 4
 OPINION OF PROBABLE COST

ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	ESTIMATED UNIT PRICE	ESTIMATED TOTAL
1	Furnish and Install 8" Diameter Water Main	LF	4,600	\$ 70.00	\$ 322,000.00
2	Furnish and Install 8" In-Line Gate Valves Complete	EA	4	\$ 3,000.00	\$ 12,000.00
3	Furnish and Install Short Side Water Service	EA	0	\$ 1,000.00	\$ -
4	Furnish and Install Long Side Water Service	EA	0	\$ 2,000.00	\$ -
5	Furnish and Install Hydrant Assemblies	EA	7	\$ 8,000.00	\$ 56,000.00
6	Rock Excavation	CY	10	\$ 75.00	\$ 750.00
7	Maintenance & Protection of Traffic Including Signs	LS	1	\$ 11,700.00	\$ 11,700.00
8	Mobilization	LS	1	\$ 11,800.00	\$ 11,800.00

SUBTOTAL = \$ 414,250.00
 CONTINGENCY (20%) = \$ 82,850.00
 LEGAL, ENGINEERING, & ADMINISTRATION (25%) = \$ 103,562.50
TOTAL (ROUNDED) = \$ 610,000.00

Town of Milo
Water District No. 4

8/29/2022

	USDA-RD Loan	USDA-RD Loan & Grant
TOTAL ESTIMATED CAPITAL COST =	\$ 610,000	\$ 610,000
GRANT =	\$ -	\$ 240,000
LOCAL SHARE =	\$ 610,000	\$ 370,000
LOAN TERM =	38	38
LOAN RATE =	2.25%	2.25%
ANNUAL DEBT SERVICE =	\$ 24,050.79	\$ 14,588.18
SINGLE FAMILY UNITS =	11	11
DOUBLE FAMILY UNITS =	4.5	4.5
3 FAMILY UNITS =	2	2
WINERY UNITS =	3	3
VACANT UNITS =	4.5	4.5
TOTAL NUMBER OF UNITS =	25	25
ANNUAL DEBT SERVICE PER UNIT =	\$ 962.03	\$ 583.53
ANNUAL WATER COST =	\$ 366.00	\$ 366.00
TOTAL ANNUAL UNIT COST =	\$ 1,328.03	\$ 949.53

Residential - Minimum: up to 12,000 gallons, per quarter
Residential - per 1,000 gallons after initial 12,000 gallons