

SECTION 7
Completed Inspection Reports

ATTACHMENT E

DPW Water Connection Agreement



City of Saratoga Springs

OFFICE OF PUBLIC WORKS

5 Lake Avenue

Saratoga Springs, New York 12866

Phone 518-587-3550 ** Fax 518-587-2417

www.saratoga-springs.org

ANTHONY J. SCIROCCO
COMMISSIONER

FRANK COPPOLA, JR.
DEPUTY COMMISSIONER

NEW WATER SERVICE CONNECTION AGREEMENT & APPLICATION FORM

Property Owner's Name: Richard J. Spencer

Project Name (if applicable): Belmonte Builders - Spencer

Property Address: Lands between Arrowhead Road and
Kaydeross Park Road

Tax Map#: 192.-1-44.1 & 193.5-1-27

Size of Tap (check one below):

3/4"

1"

Greater than 1"

A unit of water shall be defined as fourteen thousand (14,000) cubic feet of water per year.

Contact the Water Dept at ext. 2502 for assistance with water use estimation and meter specifications before signing below.

Number of Dwellings: 22

Estimated Cubic Feet of Water per Year: _____

To be completed in full without any contingencies or protest, on or before the Building Inspector approval of the rough plumbing, including the installation of the water meter, or at the time of the issuance of a tapping permit.

The undersigned represents to the City that they have full and complete authority to execute this document and bind and commit the developer to abide by the City Water Ordinance. This agreement shall be binding on all of the undersigned transferees.

The undersigned acknowledges that a copy of this document will be delivered to all appropriate and necessary governmental entities.

Authorized Signature: Lindsay Pulmon Company Name: Belmonte Builders

Company Address: 1743 Route 9, Clifton Park, NY 12065

Phone Number: 518-371-1000

Fax Number: 518-371-1267

Date: 11/8/17

Department of Public Works Approval: _____

Date: _____

ATTACHMENT F

Engineering Report for Water and Sanitary



**ENVIRONMENTAL DESIGN
PARTNERSHIP, LLP.**

Shaping the physical environment

900 Route 146 Clifton Park, NY 12065
(P) 518.371.7621 (F) 518.371.9540 edpllp.com

WATER SERVICE NARRATIVE

PROPOSED SINGLE FAMILY SUBDIVISION FOR LANDS OF SPENCER

CITY OF SARATOGA SPRINGS

PREPARED BY:

The Environmental Design Partnership, LLP
900 Route 146
Clifton Park, NY 12065

NOVEMBER 2017

1.0 INTRODUCTION

Belmonte Builders, LLC is proposing the development of a 12.63+/- acre parcel location on the western side of Kaydeross Park Road, approximately 2000 feet south of the intersection of Kaydeross Park Road and Crescent Ave, in the City of Saratoga Springs, New York. The proposed development includes the subdivision of the parcel into twenty-two (22) single family lots with approximately 5.23 acres of open space. Seven (7) of the proposed single-family lots will front on the existing Arrowhead Road and the remaining fifteen (15) lots will front on the proposed extension of Julians Way, which will extend through the project parcel and connect to Kaydeross Park Road.

The City of Saratoga currently owns and operates water mains along Kaydeross Park Road, Julians Way and Arrowhead Road. In order to service the proposed lots to be located along the extension of Julians Way the water main at Julians Way will be extended and connected to the water main along Kaydeross Road. The proposed lots along Arrowhead Road will connect, via individual water services, to the existing water main along Arrowhead Road.

The following narrative provides information related to anticipated water consumption associated with the proposed project and background information relative to the existing City of Saratoga water system serving this area.

Sewer service will be provided via an extension of the gravity sewer mains located on Kaydeross Park Drive and at the end of the existing Julians Way as well as via connections to the existing sewer main along Arrowhead Road. Stormwater will be managed via either underground stormwater management, located within the proposed right of way, or stormwater management devices located on the individual lots. Separate engineering narratives have been prepared for the proposed sewer service and the proposed stormwater management.

2.0 WATER CONSUMPTION DESIGN PARAMETERS

The proposed subdivision will include the development of 22 single family residential lots; the anticipated water consumption for these units has been estimated based on a demand of 100 gallons per day per capita. With an average household size of 2.11 persons within the City of Saratoga Springs (according the US Census data) the estimated water consumption per dwelling would be approximately 211 gallons per day. Applying this demand over the proposed 22 single family dwelling would yield an average daily demand of approximately 4,642 gallons per day.

3.0 DISTRIBUTION SYSTEM

The City of Saratoga Springs existing water distribution infrastructure includes existing mains along Kaydeross Park Drive, Julians Way and Arrowhead Road. The proposed lots 1 through 7 will be serviced via individual water service connections to the existing water main located along Arrowhead Road.

The project will include the extension of the water main at the end of the existing Julians Way to connect to the water main located along Kaydeross Park Road via an 8-inch ductile iron water main constructed along the proposed extensions of Julians Way. This new water main will service lots 8 through 22. The proposed water main will be offered for dedication to the City of Saratoga Springs.

Construction of the proposed water distribution system for the project will include approximately 720 linear feet of 8-inch ductile iron water main, one (1) hydrant and all the necessary valves, fittings and service

connections to serve the project. The proposed water distribution system infrastructure will be constructed in accordance with the City of Saratoga Springs and all State Department of Health requirements.

4.0 OPERATING PRESSURE & FIRE PROTECTION

Based on the current operation of the City of Saratoga Springs water distribution system, EDP anticipates system pressure at the project site will range from 80 to 95 psi during normal operating conditions. Fire flows are expected to exceed 1,500 gallons per minute; actual fire flow testing will be coordinated with the City of Saratoga Springs DPW personnel to confirm flow rates and static system pressures.

5.0 SUMMARY

The proposed 22 lot subdivision will include the extension of the existing water main along Julians Way to connect to the existing water main located along Kaydeross Park Drive. It is anticipated that the proposed 22 single family lots will result in an average daily water demand on the order of 4,642 gallons per day.

All construction and design will be in conformance with the City of Saratoga Springs and the Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers publication "Recommended Standards for Water Works".

Prepared by:



Brandon M. Ferguson, P.E.
The Environmental Design Partnership, LLP



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SANITARY SEWER NARRATIVE

PROPOSED SINGLE FAMILY SUBDIVISION FOR LANDS OF SPENCER

CITY OF SARATOGA SPRINGS

PREPARED BY:

The Environmental Design Partnership, LLP
900 Route 146
Clifton Park, NY 12065

NOVEMBER 2017

1.0 INTRODUCTION

Belmonte Builders, LLC is proposing the development of a 12.63+/- acre parcel location on the western side of Kaydeross Park Road, approximately 2000 feet south of the intersection of Kaydeross Park Road and Crescent Ave, in the City of Saratoga Springs, New York. The proposed development includes the subdivision of the parcel into twenty-two (22) single family lots with approximately 5.23 acres of open space. Seven (7) of the proposed single-family lots will front on the existing Arrowhead Road and the remaining fifteen (15) lots will front on the proposed extension of Julians Way, which will extend through the project parcel and connect to Kaydeross Park Road.

Saratoga County Sewer District No. 1 currently owns and operates gravity sewer mains located on Kaydeross Park Road, Julians Way and Arrowhead Road. With the development of this parcel the existing sewer mains on Kaydeross Park Road and Julians Way will be extended to service the proposed lots to be located along the extension of Julians Way while the proposed lots located along Arrowhead Road will connect, via individual sewer services, to the existing gravity sewer main along that road.

The following narrative provides information related to anticipated sewer hydraulic loading associated with the proposed project and background information relative to the existing Saratoga County sewer system serving this area.

Water service will be provided via an extension of the water main located at the end of the existing Julians Way as well as via connections to the existing water main along Arrowhead Road. Stormwater will be managed via either underground stormwater management, located within the proposed right of way, or stormwater management devices located on the individual lots. Separate engineering narratives have been prepared for the proposed water service connection and the proposed stormwater management.

2.0 ANTICIPATED HYDRAULIC LOADING

The proposed subdivision will include 22 single family residential lots. The anticipated hydraulic loading has been calculated in accordance with the Recommended Standard for Wastewater Facilities, 2014 Edition (10 State Standards) as follows:

- Residential Hydraulic Loading:
 - Proposed Number of Dwellings = 22
 - Average persons/dwelling (2010 Census Data for Saratoga Springs) = 2.11
 - Design flow Rate = 100 gal/cap/day
 - Average Daily Flow = $22 \times 2.11 \times 100 = 4,642$ gpd
 - Peaking Factor = $4,642 \times 4/1440 = 13$ gpm
 -
- **Total Average Daily Flow = 4,642 gpm**
- **Total Peak Hourly Flow Rate = 13 gpm**

3.0 PROPOSED COLLECTION SYSTEM

The proposed lots 1 through 7 will front along Arrowhead Road and will connect, via individual sewer laterals, to the existing 8-inch sewer main located along the western side of Arrowhead Road. Lots 8 through 13 and 18 through 20 will be served via a proposed extension of the existing 8-inch sewer located along Julians Way. Lots 9 through 17 will be served via the proposed extension of an existing 8-inch sewer main located along Kaydeross Park Road.

All proposed sewer mains will be 8-inch PVC installed with a minimum slope of 0.5%. Assuming a Manning's coefficient of 0.012 the maximum flow rate within 8" PVC installed at 0.5% is approximately 400 gpm. The total peak hourly flow rater for the proposed project is 13 gpm; therefore, sufficient capacity will existing with in the 8 inch gravity sewer to support the proposed project.

Sanitary sewer will be constructed in accordance with the 10 State Standards and the Saratoga County Sewer District No. 1 Standards. The proposed gravity sewer mains will be proposed for dedication to the Saratoga County Sewer District No.1.

4.0 EXISTING GRAVITY SEWER AND DOWNSTREAM INFRASTRUCTURE

Saratoga County Sewer District No. 1 currently owns and operates the existing gravity sewer mains located along Kaydeross Park, Julians Way and Arrowhead Road. The gravity sewer along Julians Way conveys flows to the gravity sewer on Arrowhead Road which in turn connects to the gravity sewer along Kaydeross Park Road at the intersection of Kaydeross Park Road and Vista Drive. From there the gravity sewer flows east along Kaydeross Park Road to the existing Vista/Waters Edge Pump Station.

Initial discussions with the Saratoga County Sewer District No. 1 indicate that the Vista/Waters Edge pump station has been recently upgraded and has the capacity to receive the flows from this project. They have also indicated that there are no downstream capacity issues that would limit the ability of the collection system to accommodate the additional hydraulic loading proposed with this project.

5.0 SUMMARY

The proposed 22 lot subdivision will include the existing of the existing Saratoga County Sewer District No. 1 gravity sewer mains located on Kaydeross Park Road and Julians Way. It is anticipated that the proposed 22 single family lots will result in an average daily wastewater loading on the order of 4,642 gallons per day.

All construction and design will be in conformance with the City of Saratoga Springs and Saratoga County Sewer District No. 1 requirements and specifications. The theoretical daily discharge from the proposed development (4,642 gpd) is within the Saratoga County Sewer District's downstream trucking and treatment capacity.

Prepared by:



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