



LETTER REPORT SEWER SYSTEM EXTENSION FEASIBILITY STUDY

DATE: JUNE 21, 2024

PREPARED FOR: CHARLES P. KELLEY AND ANN G. KELLEY FAMILY TRUST
523 SOUTH ROAD
WAKEFIELD, RI 02879

RE: KELLEY MINOR SUBDIVISION (A.P. 47-3 LOT 119)
SOUTH ROAD & ALLEN AVENUE
SOUTH KINGSTOWN, RI
CE&C #24052.00

This letter report has been prepared in accordance with the Connection Policy located in Section 19-115 of the Town's ordinances.

PROJECT DESCRIPTION

The applicant of the Kelley Minor Subdivision is proposing to subdivide A.P. 47-3 Lot 119 into four lots, one being the existing dwelling (#523 South Road). The area is zoned R-20 and the parcel size is 3.95 acres.

POTENTIAL FUTURE SERVICE AREA

Subject property is situated in the proposed municipal sewer future service area and is more than 2,870 feet away from the closest sewer which can be extended by gravity. Due to this excessive distance and the construction impact on the area and town roads, the owners have made the decision to apply for individual Onsite Wastewater Treatment Systems in lieu of extending the municipal sewer system.

CRITERIA FOUND IN SECTION 19-115.(1).b.2:

(i) Conformity To Comprehensive Plan

The proposed 4-lot subdivision conforms to the Town of South Kingstown Comprehensive Plan since the parcel is zoned R-20 and no variances are proposed.

(ii) Areas of Existing OWTS Problems or Failures

There are no known excessive OWTS failures in the area. RIDEM GIS indicates soils in the immediate area typically have estimated seasonal high groundwater tables exceeding 6 feet and depth to bedrock exceeding 5 feet.



(iii) Soil Conditions Not Suitable for OWTS Placement

Soil conditions in this area are suitable for onsite wastewater treatment systems as depicted on RIDEM GIS. Subject property and all surrounding lots contain Bridgehampton-Charlton (BnB) and Narragansett (NbB) soils. Both soil types typically have estimated seasonal high groundwater tables exceeding 6 feet and depth to bedrock exceeding 5 feet.

(iv) Proximity To Wetlands, Coastal Ponds, Groundwater Resources, Etc.

There are no wetlands or coastal ponds on subject property or along the route of the proposed sanitary sewer extension based on RIDEM GIS mapping. The subject property and properties abutting the sewer extension are not identified in a groundwater reservoir, groundwater recharge area, or sole source aquifer.

(v) Existing and/or Planned Municipal Potable Waterline Locations

Veolia Rhode Island owns the water main on South Road. There are no water lines on Allen Avenue along subject property. Three of the four proposed lots will be serviced by the Veolia water system while the fourth lot along Allen Avenue will be serviced by a private well.

(vi) Economic Feasibility

To extend the gravity sewer to service subject property, the sewer on Weathervane Road would be extended south 515' +/- to Allen Avenue, then westerly 2,055' +/- on Allen Avenue to the intersection with South Road, then southerly 300' +/- along South Road. The total length of 8" sewer main extension is 2,870'. The extension will require 14+/- manholes. It is estimated 32 services will be constructed to lots along the main extension at an average of 25'/service equates to 800' of 6" service pipe. We assume a temporary asphalt trench patch will be placed, replaced with a permanent patch after 90 days, then the full width of road will be milled down and a full width surface course of asphalt will be placed. The total tonnage of asphalt is approximately 1,900 tons. Total cost of the sewer extension project is approximately \$1,200,000.

Please note that there is a second option of sewer extension from Foster Sheldon Road but this system would comprise of a section of gravity line and a section of low pressure sewer line do to topography. We did not price this option since having low pressure sewers when gravity sewers are feasible is generally not an acceptable practice.

(vii) Lot Size

Plat 47-3, Lot 119 is currently a 3.95-acre lot in the R-20 zoning district that requires 20,000 square feet per building lot and 100 feet of street frontage. The applicant is proposing to subdivide the lot into four lots each exceeding 20,000 sq. ft. and 100 feet of frontage.

(viii) Impact on Areas in The Vicinity of The Proposed Main Extension

Potential impacts on the area include 1) the introduction of municipal sewer availability may increase the density of the area therefore altering the character of the area, and 2) construction



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impacts relating to excavations in the roadway, bumpy roads with temporary pavement patches, traffic delays, one-way traffic during work hours, and dusty conditions during dry periods.

(ix) Potential effect on private/municipal potable water groundwater wells within the future DEM OWTS section has regulations regarding OWTS placement in and/or near private/municipal groundwater wells. OWTS's are prohibited from discharging more than 345 gallons/day per 20,000 sq. ft. of land area. Should OWTS exceed that criterion, a nitrogen removal system is required. This regulation protects groundwater quality.

Should you have any questions, please contact me at 273-6604.

Sincerely yours,
COMMONWEALTH ENGINEERS & CONSULTANTS, INC

A handwritten signature in black ink, appearing to read 'Timothy Behan', is written over a faint, light-colored signature line.

Timothy Behan, P.E.
Principal