FILE COPY

DiPrete Engineering

September 1, 2021

Ms. Roberta Moneghan, Assistant Planner
Town of North Smithfield
Planning Department
83 Greene Street
Slatersville, RI 02896

RE: Dowling Village - Condominiums
Master Plan Update
Assessor's Plat 13 Lot 111, 123 & 143
30 Old Louisquisset Pike,
North Smithfield, RI 028

Ms. Moneghan:

On behalf of the applicant, BB/WW Properties LLC, we respectfully submit the attached Master Plan application for the property located at 30 Old Louisquisset Pike, North Smithfield Rhode Island, owned by BB/WW Properties LLC. This application is an update to the previously approved Master Plan for 21 condominium units. An additional lot (AP 13 Lot 111) has been incorporated in the application with Assessor's Plat 13 Lots 123 and 143. The total project area is approximately six acres and with the additional lot, the total unit count has been increased to 30. The Site is Zoned BH and is part of the Dowling Village Land Development Project. There are no significant historic cemeteries or features proximate to the site. The area of the site proposed for development generally slopes to the west, from elevation 332 to elevation 296 along Louisquisset Pike. The soils are suitable for residential development.

The proposed development will be accessed from Old Louisquisset Pike. The site is presently developed with two single family dwelling units and a power line easement across the southern portion of the site. The new site layout includes a single condominium building with an improved site layout over the previous design. The site will be served by public water and municipal sewer. The proposed development will meet all RIDEM and Town storm water requirements. Onsite drive lanes, parking, and infrastructure will be privately owned and maintained by the owner.

The Dowling Village Condominium development is proposed as a residential community comprised of 30 2-bedroom condominium units. There are 30 dwelling units planned for the site, with six units to be designated as low/moderate income units.

The following is a brief description of the goals, objectives and planning criteria utilized as a guide in developing plans for the development. Several alternatives have been studied in the design process and it is believed that the plan presented here represents the best expression of the goals and objectives.

- Design a building that will conform to the natural contour of the land to maximize the development potential

- Provide housing that can be afforded by the median income family of North Smithfield with affordable units and market rate units that are also set at a rate that will attract a wide range of tenants.
- Create a development that will cater to empty nesters with a two-bedroom unit design and lack of viable active green space on site
- Assist the Town in reaching their housing goal set forth in the Town's Zoning Ordinance and Comprehensive Plan.

For Population and Fiscal data refer to the Fiscal Impact Study, Old Louisquisset Pike: Proposed Residential Condominium Development in the Town of North Smithfield, RI completed for: BBWW, LLC and prepared by JDL Enterprises - Joseph D. Lombardo, AICP, July 2021.

Based on trip generation rates reviewed from *ITE Trip Generation Rates*, the expected number of trips through peak hour is 16 (30*0.52=15.6), resulting in 1 trip every 4 minutes during peak hour.

The application is seeking approval of revised Master Plan. The detailed site design has already been completed and a RIDEM Wetland Preliminary Determination Application is pending with RIDEM. With Master Plan approval, the applicant will next be seeking Preliminary Plan approval.

If you have any further questions on this matter, please feel free to contact me at your earliest convenience.

Sincerely,
DiPrete Engineering Associates, Inc.

Jason P. Clough, PE
Project Manager
jclough@diprete-eng.com

Town of North Smithfield Planning Board

Master Plan Application Major Land Development Plan - Decision of Approval

1. Applicant
Owner/Developer: Dowling Village Condominiums
30 Old Louisquisset Pike

2. Property
Location: Plat 13, Lot 123 and 143
Type of Application: Major Land Development, Master Plan Application. 21-unit residential condominium (two buildings)

3. The Record:
At its meeting of October 3, 2019, the Planning Board voted by a count of _3-2__ to approve this decision of approval.

4. Statement of Review, Hearing & Authority:
This application was heard under the provisions of the *North Smithfield, Rhode Island Land Development & Subdivision Regulations adopted* pursuant to Title 43, Chapter of the Genera Laws of the State of Rhode Island & Providence Plantations, entitled *The Land Development and Subdivision Review Enabling Act of 1992 as amended.*

5: Findings of Fact:

Pursuant to R.I.G.L. § 45-23-60, The following findings of fact shall serve as the decision:

1. The proposed development is consistent with the comprehensive community plan as follows: Housing Chapter Goal 1. Achieve a diversity of housing opportunities that are affordable for the various population groups of North Smithfield for both current and future populations. Policy 2.c. Discourage increased housing density in areas not supported by public infrastructure. Goal 3. Meet and maintain the 10% threshold of affordable units mandated by the low and moderate income housing act.

2. The proposed development is consistent with the existing special use permit record relating to the footprint allowance for Dowling Village;

3. There are no, anticipated, significant, negative environmental impacts to the project which requires a RIDEM approval for the Preliminary Application stage.

4. The land development will not result in the creation of unbuildable lots; and

5. The proposed land development has adequate and permanent physical access to Old Louisquisset Pike.

6. Conditions of Master Plan Approval:

The following conditions must be addressed and submitted with the Preliminary Application.

1. RI DOT PAPA inclusive of a traffic safety assessment ensuring the additional 21 units do not exacerbate a purported safety concern that exists on Old Louisquisset Pike due to the combined two way / one way configuration -a concern brought up during the public meeting. Applicant agrees to low cost safety improvement measures such as speed tables, lighting and or signage.
2. DEM permit(s) approvals must be submitted with the application along with dark sky compliant lighting.
3. Fire Department review.
4. Review and approval from both the sewer and water authorities.
5. National Grid easement authorizing the parking arrangement within the utility right of way.
6. Low and Moderate Income (LMI) deed restrictions along with affordable housing monitoring agent contract due at Final Approval.

7. Certification:

This is to certify that the above statement of Decision reflects the action of the North Smithfield Planning Board at their regularly scheduled meeting of Thursday, October 3, 2019. This is a true and accurate recording of such action and is intended to be part of the official record of the North Smithfield Planning Board.

Certified:

Thomas J. Kravitz _____ Date: 10-7-19

Thomas J. Kravitz
Administrative Officer

RECORDED IN NORTHSMITHFIELD RI Oct 07,2019
AT 02:56P ATTEST LILLIAN SILVA SCOTT
Town Clerk

CDM Smith

Memorandum

To: *Marc Viggiani, City of Woonsocket, Water Superintendent*

From: *Colleen Heath, CDM Smith*

Date: *December 11, 2020; Revised July 7, 2021*

Subject: *Hydraulic Modeling Evaluation for Proposed Tie-In at Old Louisquisset Pike*

In accordance with the proposal dated October 1, 2020, CDM Smith Inc. (CDM Smith) is pleased to submit this evaluation of the hydraulic impacts associated with the proposed water main tie-in for a new development located on Old Louisquisset Pike in North Smithfield. The previous memorandum has been revised to reflect updated design conditions (one 30-unit condo building with 60 bedrooms) provided by DiPrete Engineering in email dated March 25, 2021.

This memorandum describes the work performed to assess the City of Woonsocket's water system performance at a proposed development at Old Louisquisset Pike in North Smithfield. A model analysis was performed to evaluate system pressures and fire protection results and to determine if any piping improvements are necessary prior to the proposed development connecting to the distribution system.

Model Analysis

CDM Smith utilized the City's existing distribution system hydraulic model, updated in 2018, InfoWater file version 12.4. CDM Smith performed an evaluation of post-construction conditions at the proposed development using the Grading, Drainage and Utilities Plan prepared by DiPrete Engineering in August 2020 and updated in March 2021. The proposed development location is shown in **Figure 1** and **Attachment A**. InfoWater Model runs (simulations) were conducted using a projected 2030 maximum day demand (MDD) for the water system of 7.96 million gallons per day (mgd) for a 24-hour extended period simulation. The following design criteria, provided by DiPrete Engineering, was simulated:

- Average Daily Flow = 30 Units x 2 Bedrooms x 150 gallons per day (GPD)/Bedroom = 9,000 GPD (Previously 2,700 GPD for 21 units)
- Maximum Day Flow (Max Day Factor of 3) = 9,000 GPD x 3 = 27,000 GPD (Previously 18,900 GPD for 21 units)
- Peak Hour Flow (Peak Factor of 4.26) = 9,000 GPD x 4.26 = 38,340 GPD (Previously 26,838 GPD for 21 units)

- Hydrant Flow – 1,000 GPM for 4 hours
- Interior Sprinkler Flow = 250 GPM or 750 GPM if a standpipe is required by the fire department.

Delivery Pressure

Industry standards state that water distribution systems must maintain a minimum residual pressure of 20 pounds per square inch (psi) at all ground elevations throughout the entire system during the maximum day demand (MDD) plus fire flow supply conditions. The minimum pressure of 20 psi will provide adequate supply of water to other customers in the system during fire flow scenarios. Additionally, it will allow for adequate supply for a fire pump truck while overcoming friction losses in hydrant lateral branches, hydrant barrels and nozzles, and through suction hoses to the pumper truck. Simulated system pressure at 7:00 AM (assumed to be peak hour), evaluated under system-wide maximum day demands plus the proposed development maximum day demand of 19 gpm connected to the City's water system, was 72 psi at the tie-in location. Under existing maximum day demands, system pressure at the tie-in location is 73 psi, representing a 1 psi decrease. Refer to **Figure 1** for the results of the static pressure evaluation. The system pressures stayed the 20-psi minimum.

Fire Flow

Fire protection capability was evaluated in the computer model under post development conditions to determine whether fire protection provided from the distribution system is adequate. The Insurance Services Office (ISO) establishes fire protection guidelines pertaining to needed fire flow based on the type of structure and neighboring building spacing, among other criteria. Generally, ISO considers 2 hours for needed fire flows of 2,500 gpm at a residual pressure of 20 psi or 3 hours for needed fire flows between 3,000 and 3,500 gpm with a residual of 20 psi to be the maximum needed fire flow to be provided from a municipality for a fire event. Sometimes this value is reduced if the building meets certain conditions, such as having sprinklers inside the building. Per the developer's requested simulation conditions, a 1,000 gpm flow for 4 hours was evaluated. This demand was simulated using the 2030 MDD demand set plus 19 gpm at the connection site. The fire flow was simulated from 1500 hours to 1900 hours to reflect the time period that most accurately reflects maximum day conditions. The simulated residual pressure at the proposed development at the end of the simulation is 34 psi, exceeding the 20 psi standard by a 14 psi margin. Refer to **Figure 2** for the results of the fire flow evaluation.

Conclusions and Recommendations

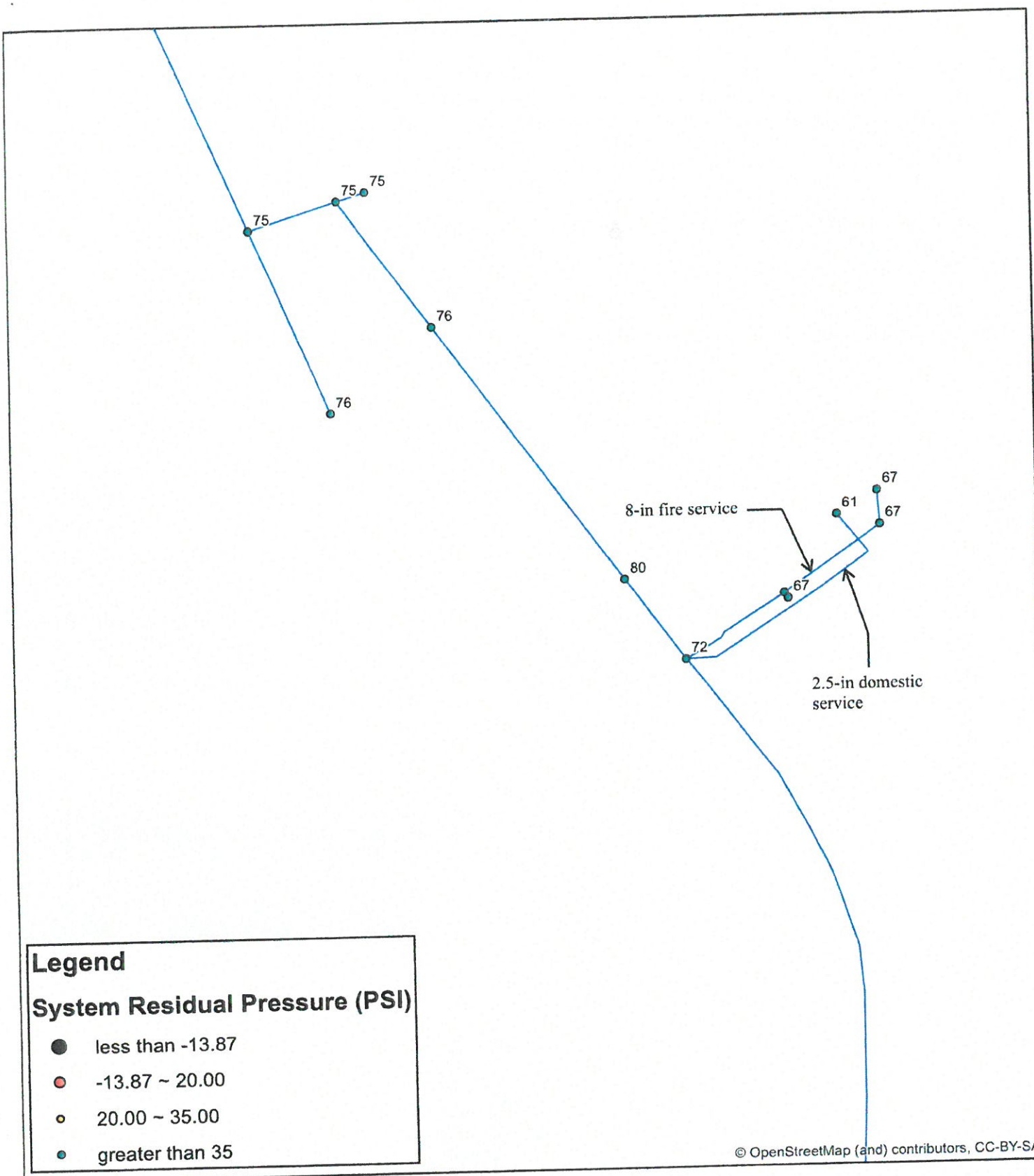
The results of the model evaluation indicate that the delivery pressure at and adjacent to the proposed site remains relatively unchanged from existing conditions. Additionally, the hydrant flow requirement of 1,000 gpm for a 4-hour duration provided by DiPrete Engineering was satisfied, as a residual pressure of 20 psi was maintained for the duration of the hydrant flow.

Because these two conditions were met, no additional system upgrades are required for the developer to tie into the City's distribution system. However, it is recommended that the

Woonsocket Fire Department confirm that the fire protection capability simulated is adequate for the site prior to tie-in.

cc: Stephen D'Agostino, Director, Woonsocket Department of Public Works
Jon Pratt, P.E., City Engineer, Woonsocket Engineering Department

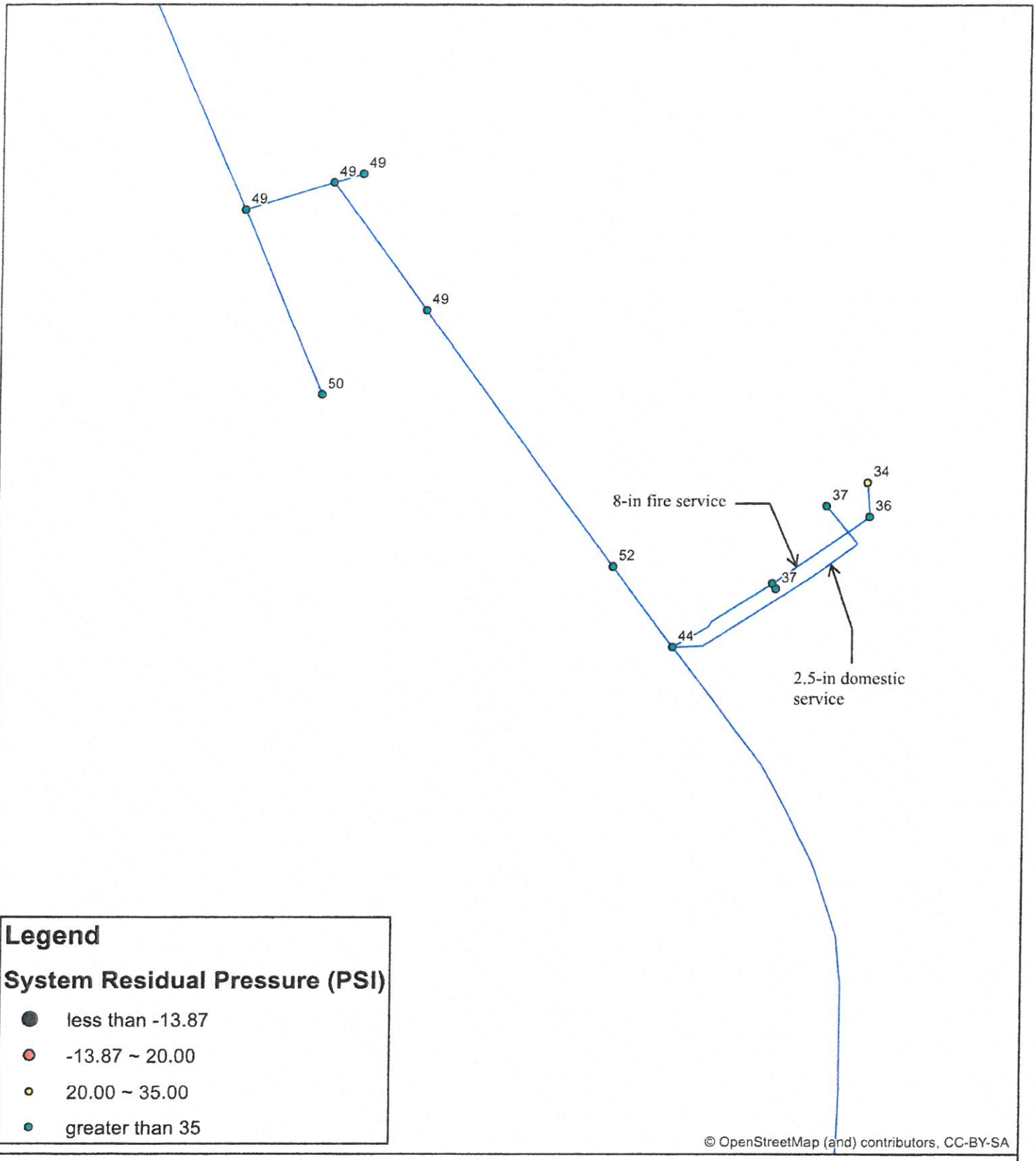
Attachment A – "Grading, Drainage and Utilities Plan" by DiPrete Engineering



Hydraulic Modeling Evaluation for Proposed Old Louisquisset Development
City of Woonsocket, Rhode Island

Results of Delivery Pressure Evaluation
Figure 1

CDM Smith



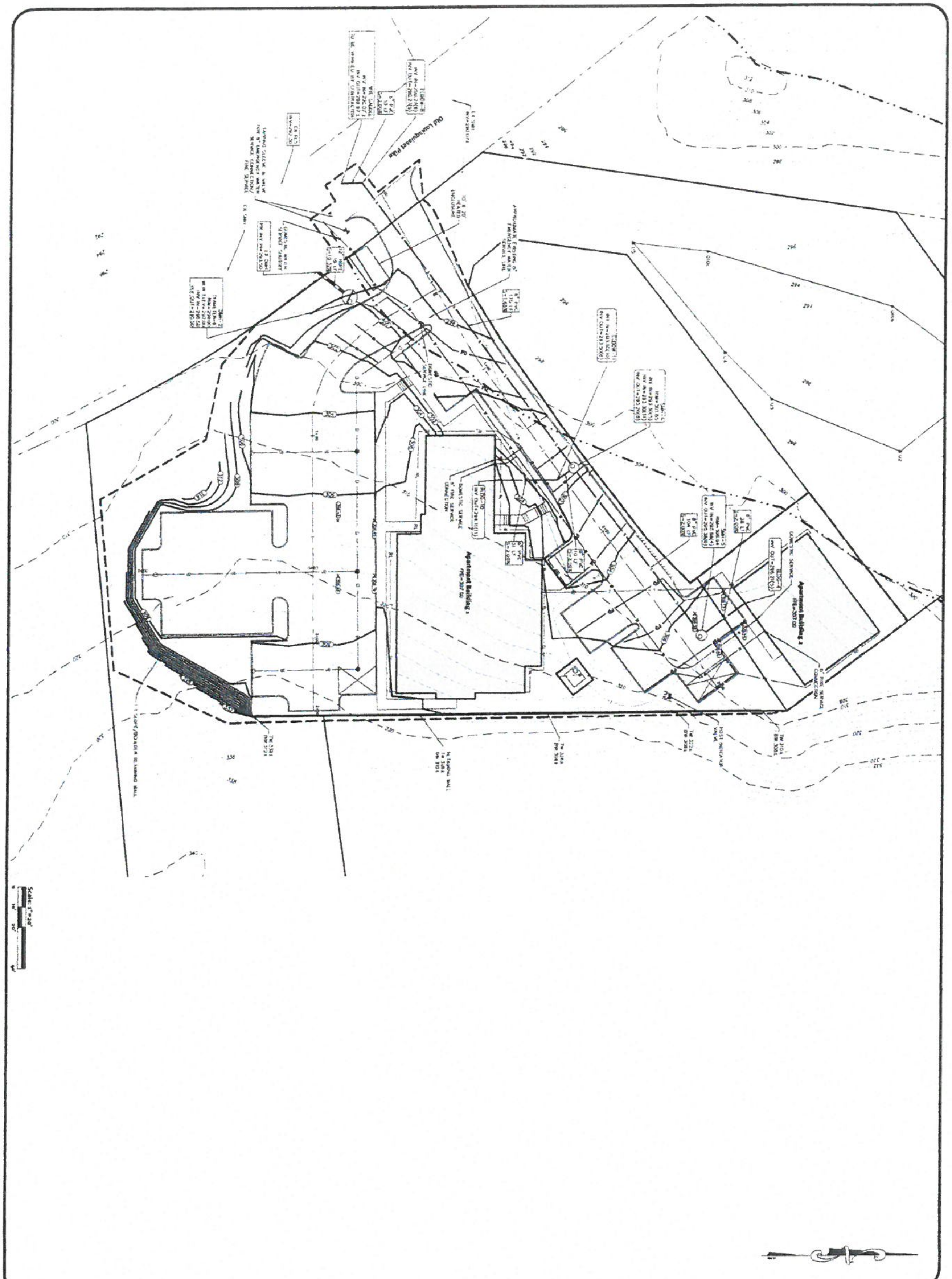
Hydraulic Modeling Evaluation for Proposed Old Louisquisset Development
City of Woonsocket, Rhode Island

Results of Fire Protection Evaluation

Figure 2

CDM Smith

Attachment A - "Grading, Drainage and Utilities Plan" by DiPrete Engineering



Grading, Drainage and Utilities Plan

Old Louisquisset Condos

Prepared for

BBWW, LLC c/o Brian Bucci

Sheet 8 of 12

JASON P. CLOUGH
REGISTERED PROFESSIONAL ENGINEER

DiPrete Engineering

Boston • Providence • Newport

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FISCAL IMPACT STUDY

OLD LOUISQUISSET PIKE: PROPOSED RESIDENTIAL CONDOMINIUM DEVELOPMENT

TOWN OF NORTH SMITHFIELD, RI

FOR:

BBWW, LLC

PREPARED BY: JDL ENTERPRISES -
JOSEPH D. LOMBARDO, AICP

AUGUST 2021

INTRODUCTION ~

This Fiscal Impact Study (FIS) has been prepared to supplement a Land Development Application for a planned Residential Development. The Project is proposed as a 30-unit Condominium Residential Development with 6 Low /Moderate Income Housing (LMI) located on land in North Smithfield, Rhode Island. The subject parcel is AP 13 - Lot #143. The FIS will use the per capita multiplier method for estimating anticipated public revenues and expenses associated with the proposed development. The per capita multiplier is a generally accepted planning method to complete this study for review by the Town of North Smithfield. The FIS will attempt to estimate both future revenues and expenses utilizing past and present statistics and financial data from a variety of sources, to be noted.

SUMMARY ~

The Town of North Smithfield will realize total estimated Revenues of $163,224 from Property Taxes on an annual basis with the development of the proposed residential project. Therefore, with 30 new households will produce additional of tax revenue for the Town.

By subtracting the total expense estimate of $94,204 from the total anticipated revenue of $163,224, the Town of North Smithfield will actually realize a Net Revenue Gain of $69,020, with regard to expenses and revenues on an annual basis with the full development of the project.

In addition, the Town of North Smithfield will be adding 6 qualified LMI Units towards its goal of 10% Low & Moderate Income Housing units.

BASELINE INFORMATION ~

In order to begin the FIS, baseline information needs to be presented, including; population, housing units, Town budget numbers, and school age children. The following table presents this information, and will establish per capita multipliers for North Smithfield, and this particular development proposal at Old Louisquisset Pike.

TABLE # 1:
PER CAPITA MULTIPLIERS - BASE YEAR OF 2021 –
TOWN OF NORTH SMITHFIELD

	PUBLIC SCHOOL PUPILS	MUNICIPAL BUDGET	SCHOOL BUDGET	HOUSING UNITS (2010 Census)	POPULATION (2010 Census)
TOTAL	1,623	$15,490,784*	$21,101,519*	5,068	11,967
PER HOUSEHOLD	N/A	$1,295	N/A	2.36	N/A
PER PUPIL	N/A	N/A	$13,002	0.33	0.14

NOTES: * Source: Town of North Smithfield Town Budget: FY 2022 Budget (does not include debt service)
Pupils: School Superintendent's Office as of October 2020
School Budget is Town contribution only and does not include the $6,316,374 in RI State Aid contribution for a total school budget of $27,792,893
US Census Data - 2010

Therefore, in summary, the Per Capita Multipliers for North Smithfield are:

- Municipal Budget per capita **$1,295**
- Revised Municipal Budget per capita **$1,100**
- School Budget per capita **$13,002**
- Population Multiplier per household **2.36**
- School age multiplier per household ..... **.0.33**

Revised Municipal Multiplier @85% due to private services provided by the development and typical projected expenses will not occur as this site development is maintained by a private developer/owner versus typical residential development that has town roadways and public works related expenses on site.

OLD LOUISQUISSET PIKE DEVELOPMENT ESTIMATES ~

Based on the per capita multipliers presented above, Table 2 presents the anticipated population projections for Old Louisquisset Pike – Residential Development:

TABLE # 2: POPULATION PROJECTIONS -
PROPOSED OLD LOUISQUISSET PIKE DEVELOPMENT - 2021
TOWN OF NORTH SMITHFIELD

	PER UNIT	# OF UNITS	TOTALS
POPULATION - 2 BDR	2.05*	30	62

* The per capita population estimates of 2.05 for the 2-bedroom units reflect national, regional and local residential housing data, and as described below.

In order to determine the school age children that may result from a development such as proposed, normally it can be expected to mirror the national, regional and more closely, local state averages of 0.05 students per household, or 5 students per 100 households. To verify the number of school age children that may result from a development such as proposed, a recent study of the existing two-bedroom condominiums in Westerly was conducted through the Tax Assessor's Office and School Department. This survey shows that the following complexes total 268 two-bedroom townhouse condominiums: Beachwood, Captain's Watch, High Cliff, Village Terrace, King's Grant, Westwood and Springbrook. Inquiry of the Westerly School Department indicates that only 7 students are enrolled in the public schools from these 268 condominiums. The ratio is therefore one (1) school student per 38 condominiums or **.026** students per housing unit (or 2.6 students per 100 households).

Similar ratios have been determined to exist in several other condominium developments around the state and nearby Connecticut (Refer to Appendix C), notably Greenwich Place and River Farm in West Warwick (Refer to Appendix B & D). With regard to apartment complexes, at Cumberland Crossing, a 258-unit two-bedroom style apartment complex, there were only 14 school age children residing at that location in Cumberland in 2006. (See Appendix A & E for additional information on apartment complexes).

Appendix F is a recent compilation of the existing condominium developments in Smithfield, RI which also indicates similar ratios for school age children in that community. Thus, to estimate the school age children that may result from the residential development as proposed for Old Louisquisset Pike, it can be expected to mirror 0.05 students per household or 5 students per 100 households that have been determined to exist in numerous other condominium and apartment developments as described above. Thus, at 0.05 students per household two (2) students would be expected from the residential development proposed within the Old Louisquisset Pike development. That is primarily due to the proposed design of all (2) bedroom units that typically do not attract or retain families with children as potential residents.

A total of **62** people (including the school age children) will be projected to be residents. Review of Conclusions from the Addendum will substantiate the projected number of school age children from the condominium residential development.

OLD LOUISQUISSET PIKE REVENUE ESTIMATES ~

Based on the projections presented above in Tables 1 & 2, Table 3 presents the projected total municipal revenue for the Residential Development:

TABLE # 3:
TOTAL PROJECT REVENUE PROJECTIONS -
OLD LOUISQUISSET PIKE RESIDENTIAL DEVELOPMENT –
BASE YEAR OF 2021
TOWN OF NORTH SMITHFIELD

	SALES PRICE+	ASSESSED VALUE *	TAX RATE *	UNITS	TOTAL REVENUE PER UNIT	TOTAL REVENUE
RESIDENTIAL MULTIFAMILY TWO BED UNITS MARKET RATE	$345,000 (ave)	$345,000 (ave)	$16.29/ $1000	24	$5,620	$134,880
RESIDENTIAL MULTIFAMILY TWO BED UNITS LOW/MOD RATE	$290,000	$290,000	$16.29/ $1000	6	$4,724	$28,344
TOTALS				30		$163,224

+ Per BBWW, LLC – Old Louisquisset Pike

* Per Town of North Smithfield Tax Assessor's Office – Residential rate @100%
Low/ Moderate Units at just below 100% AMI

Total combined gross revenue from the proposed residential development is: $163,224.

ADDITIONAL REVENUE ~

There will be one-time fee revenue collected for Building Permits, Water and Sewer connections, and Site Plan Review that will accrue to the community for the building and construction of the Old Louisquisset Pike project.

OLD LOUISQUISSET PIKE EXPENSES ESTIMATES ~

Based on the per capita multipliers and population and school age children projections presented above, Table 5 presents the projected total municipal expenses for the Old Louisquisset Pike Development:

TABLE # 5:
TOTAL PROJECT EXPENSES PROJECTIONS –
OLD LOUISQUISSET PIKE
TOWN OF NORTH SMITHFIELD - 2021

	SCHOOL PUPILS	MUNICIPAL BUDGET	HOUSING UNITS	POPULATION
TOTAL	2	N/A	30	62
PER CAPITA	N/A	$1,100*	2.05	N/A
PER PUPIL	$13,002+	N/A	---	N/A
TOTAL EXPENSES	$26,004	$68,200	N/A	N/A

*Revised Municipal Multiplier @85% due to private services provided by the development
+ School Budget is Town contribution only and does not include the $5,715,299 in RI State Aid contribution for a total school budget of $26,274,521

Therefore, the actual cost to the Town for school and municipal expenses for the residential project is **$94,204.**

The municipal expenses highlighted above in Table 5 are conservative as some of that projected expense will not occur as this site development is maintained by a private developer/owner versus typical residential development that has town roadways and public works related expenses on site.

OLD LOUISQUISSET PIKE ANTICIPATED REVENUE AND EXPENSE COMPARISON~

Based on information and statistics presented above in Tables 1-5, Table 6 presents a comparison of the projected total municipal revenue with total projected expenses for Old Louisquisset Pike, as anticipated:

TABLE # 6:
OLD LOUISQUISSET PIKE REVENUE AND EXPENSE COMPARISON – BASE YEAR OF 2021
TOWN OF NORTH SMITHFIELD

	TOTAL MUNICIPAL COSTS	TOTAL SCHOOL COSTS	TOTAL COSTS	TOTAL ESTIMATED REVENUE	NET RESULTS
TOTAL PROJECT	**$68,200**	$26,004 **(2 students)**	**$94,204**	**$163,224**	**$69,020**

SUMMARY ~

The Town of North Smithfield will realize total estimated Revenues of $163,224 from Property Taxes on an annual basis with the development of the proposed residential project. Therefore, with 30 new households will produce additional of tax revenue for the Town.

By subtracting the total expense estimate of $94,204 from the total anticipated revenue of $163,224, the Town of North Smithfield will actually realize a Net Revenue Gain of $69,020, with regard to expenses and revenues on an annual basis with the full development of the project.

In addition, the Town of North Smithfield will be adding 6 qualified LMI Units towards its goal of 10% Low & Moderate Income Housing units.

ADDENDUM – CONCLUSIONS RE: MULTIFAMILY HOUSING & SCHOOL AGE CHILDREN

In order to determine and substantiate the number of school age children that may result from a residential development of apartments or condominiums, normally it can be expected to mirror the national, regional and more closely, local state averages. Empirical data collected over the past 10 years primarily in Rhode Island and a lesser degree from Connecticut, a ratio of 0.05 students per household, or 5 students per 100 households has been verified numerous times. To verify the number of school age children that may result from any such development that is to be newly constructed, in densities exceeding 50 units, contain one and two-bedroom units, the selection of the developments to study over the years of research of similar type developments is key.

Usually this involves and inquiry to the local School Department or bus company to quantify the number of students residing in the various selected residential developments. This will produce a ratio of school age children per 100 units to be used as a multiplier. These ratios have been determined to exist in numerous condominium and apartment developments throughout Rhode Island and Connecticut over the past 10 years.

Based on a recent study in October of 2011 by Community Opportunities Group, Inc. for the Town of Maynard, MA, the following findings and conclusions verify and substantiate the projection of a ratio of 0.05 students per household, or 5 students per 100 households:

- Statistics derived from the Census Bureau's new American Community Survey (ACS) indicates virtually no school-age children in one-bedroom units, and very few in two-bedroom multi-family units

- Households in new multifamily housing are quite different from their counterparts in older multi-family developments. The differences range from household size and composition to household income and employment characteristics. A key factor separating new from old developments is that the former are frequently designed to cater to childless households.

- The number of school-age children in new multi-family housing is driven primarily by the size of the dwelling units (number of bedrooms) and whether the units are subject to age restrictions. For non-age-restricted housing, two-bedroom units attract a mixed population, including some families with school-age children; and one-bedroom units rarely have dependent children, especially older children.

In addition to unit sizes, new multi-family developments have a lesser tendency to attract families based on:

- *Density*. Higher - density developments tend to have fewer children of any age than lower density developments. This seems to correlate with unit size because very high-density developments are usually dominated by one- and two-bedroom units.

- *Other choices in the housing market*. Since new multifamily developments are so often designed to discourage family occupancy, families seeking rental housing will choose other options if available in the same market area

- *Housing costs*. In a given market area, the higher the rent, the more likely it is that a renter household will not have school age children

- *Older multi-family dwellings* are more likely to house families with children because they are relatively small buildings with yards, and the rents (or condominium sale prices) tend to run below market. Families that can afford to own a home generally purchase one.

IN SUMMARY, statistics gathered in a broader manner for an entire community may not accurately reflect the anticipated number of school age children that will be residents of newly constructed, more dense multi-family housing. Townwide averages blend all multifamily residents and do not account for the large differences that determine the choices a family with children will make based on age, density, amenities and most importantly, number of bedrooms. There have been very few studies completed in the three-state region (MA, RI & CT) during the past 10-15 years to really assist any particular community to assess the impact of school age children that may reside in a proposed residential development. Given all the specific and detailed data collection prepared by JDL ENTERPRISES and the chosen methodology, there is a higher degree of confidence in predicting school age children for a new development, such as proposed for the Town of North Smithfield, RI than attempting to utilize generalized older studies that do not reflect the actual project being reviewed by the community.

Appendix A
COMAPARABLE APARTMENT COMPLEXES
SCHOOL AGE CHILDREN (SAC)

COMMUNITY	*APARTMENT NAME*	*TOTAL UNITS*	*SCHOOL AGE CHILDREN*	*# SAC PER 100 UNITS*
Cranston	Springfield	216	9	4.1
No. Prov.	Windsor	240	6	2.5
Warwick	Villa Del Rio	391	25	6.3
Warwick	Briarwood Meadows	456	6	1.3
Providence	Centre Place	225	2	.8
Narragansett	Pier Village	99	0	0
W. Warwick	Greenwich Place	168	15	8.9
TOTALS		1794	63	3.5

Source: Community Impact Study for South County Commons, LLC, So. Kingstown, RI
By Dan Varin – March 2003

Appendix B
COMAPARABLE CONDOMINIUM/APARTMENT COMPLEXES
SCHOOL AGE CHILDREN (SAC)

COMMUNITY	*DEVELOPEMNT NAME*	*TOTAL UNITS*	*SCHOOL AGE CHILDREN*	*# SAC PER 100 UNITS*
Cumberland	Cumberland Crossing	258	14	5.4
Westerly	7 Complexes	268	7	2.6
W.Warwick	Riverview Farm	125	4	3.2
Stonington, CT	8 Complexes (detail in Appendix C)	209	5	2.4
TOTALS		860	30	3.5

Source: JDL ENTERPRISES – March 2006

APPENDIX C

~TOWN OF STONINGTON, CT ~

PUBLIC SCHOOL STUDENTS:
EXISTING CONDOMINIMUM DEVELOPMENTS

• Stonington Landing	54 units	1 Student
• Whitehall Pond Rte (Mystic)	26 units	0 Students
• Whitehall Landing	24 units	4 Students
• Hewitt Road(Mystic)	12 units	0 Students
• Mystic River Square	25 units	0 Students
• Broadway School (Mystic)	21 units	0 Students
• Riverwalk Condos (Pawcatuck)	37 units	0 Students
• Pequot Run (Pawcatuck)	10 units	0 Students
TOTAL =	209 UNITS	5 STUDENTS

AVERAGE NUMBER OF STUDENTS PER UNIT = 209/5 = 0.024
OR 2.4 STUDENTS PER ONE HUNDRED CONDOMINIUM UNITS

SOURCES OF INFORMATION:

1. First Student Bus Company – (Data Released by Mr. Frank Connolly of the Stonington School Dept. – Business Office)
2. Tax Assessor – Town of Stonington, CT

Date: February 15, 2006

Appendix D
ADDITIONAL COMAPARABLE CONDOMINIUM COMPLEXES
SCHOOL AGE CHILDREN (SAC)

COMMUNITY	*DEVELOPEMNT NAME*	*TOTAL UNITS*	*SCHOOL AGE CHILDREN*	*# SAC PER 100 UNITS*
No. North Smithfield	Silver Pines	29	1	3.5
Woonsocket	Laurelwood (age-restricted)	162	0	0
Cumberland	3 complexes	57	1	1.7
TOTALS		248	2	<1

Source: JDL ENTERPRISES – March 2006

Appendix E
ADDITIONAL COMAPARABLE CONDOMINIUM/APARTMENT COMPLEXES SCHOOL AGE CHILDREN (SAC)

COMMUNITY	*DEVELOPEMNT NAME*	*TOTAL UNITS*	*SCHOOL AGE CHILDREN*	*# SAC PER 100 UNITS*
W. Greenwich (Apts)	Centre of NE*	240	21	8.75
S. Kingstown (Apts) #	So County Commons	234	16	6.84
S. Kingstown (Condo)#	Preserve	52	0	0.00
Coventry	Centre of NE + – Hopkins Hill	90	4	4.44
TOTALS		616	41	6.65

Source: JDL ENTERPRISES – February 2009
*Per City of West Greenwich Planning Dept – as of Dec 1, 2008. A total of 26 of the 240 units are 3 bedroom units. The balance of units is mostly 2 bedroom units, and some 1 bedroom units. These are apartments for rent.
+ Per Universal Properties – as of Dec. 30, 2008
# Per Vin Murray – Planning Director – City of South Kingstown – Current school year statistics

Appendix F
CONDOMINIUM COMPLEXES
SCHOOL AGE CHILDREN (SAC)
Town of Smithfield, RI

Condo	Total # Units	Student total		
Apple Valley Condo	74	7		
Apple Valley Estates	48	3		
Autumn Run	86	5		
Cedar Crest	38	2		
Homestead Mills Apts.	125	14		
Orchard Meadow	94	5		
Pheasant Run	94	4		
Pleasant View condos	54	8		
Shadowbrook	68	1		
Stonehenge	48	1		
Tamarac	84	5		
Timberlane	84	5		
Village at Summerfield (Detached 1- fam.)	125	2		
Village in the Woods (Detached 1- fam.)	31	11		
	1053	73	0.069326	Students Per Unit Average

Source: Unit Count - Smithfield Planning Department
Student count by development provided by Smithfield School Department - October 2014

BETA
IMPROVING COMMUNITIES TOGETHER

September 28, 2020
Revised August 16, 2021

Mr. Brian Bucci
BBWW, LLC
P.O. Box 6187
Warwick, RI 02887

Re: Proposed Residential Land Development Project
Old Louisquisset Condominiums
North Smithfield, Rhode Island

Dear Mr. Bucci:

BETA Group, Inc., has completed an update to our September 2020 Traffic Safety Assessment study in order to address changes made to the residential development proposal, *Old Louisquisset Condominiums*, on Old Louisquisset Pike in the Town of North Smithfield, Rhode Island. This study was completed for submission to the town as part of the development plan approval process and provides a summary of existing roadway conditions and an estimate of future traffic conditions if the project was to be approved and constructed.

Based upon our review of the updated conceptual site plan, it is our understanding that the current proposal includes construction of a single-story residential building containing a total of 30 condominium units along the easterly side of Old Louisquisset Pike. This is a reduction in two buildings on the site, though the new larger building will result in an increase of nine condominium units. Access to the site and parking lot containing 61 spaces for the condominium building will be from a single driveway on Old Louisquisset Pike. Figure 1 on the following page depicts the general vicinity of the project in the Town of North Smithfield. The following is a summary of our investigation of the potential impacts and recommendations to provide safe and adequate access to the subject property.

Traffic Safety Assessment

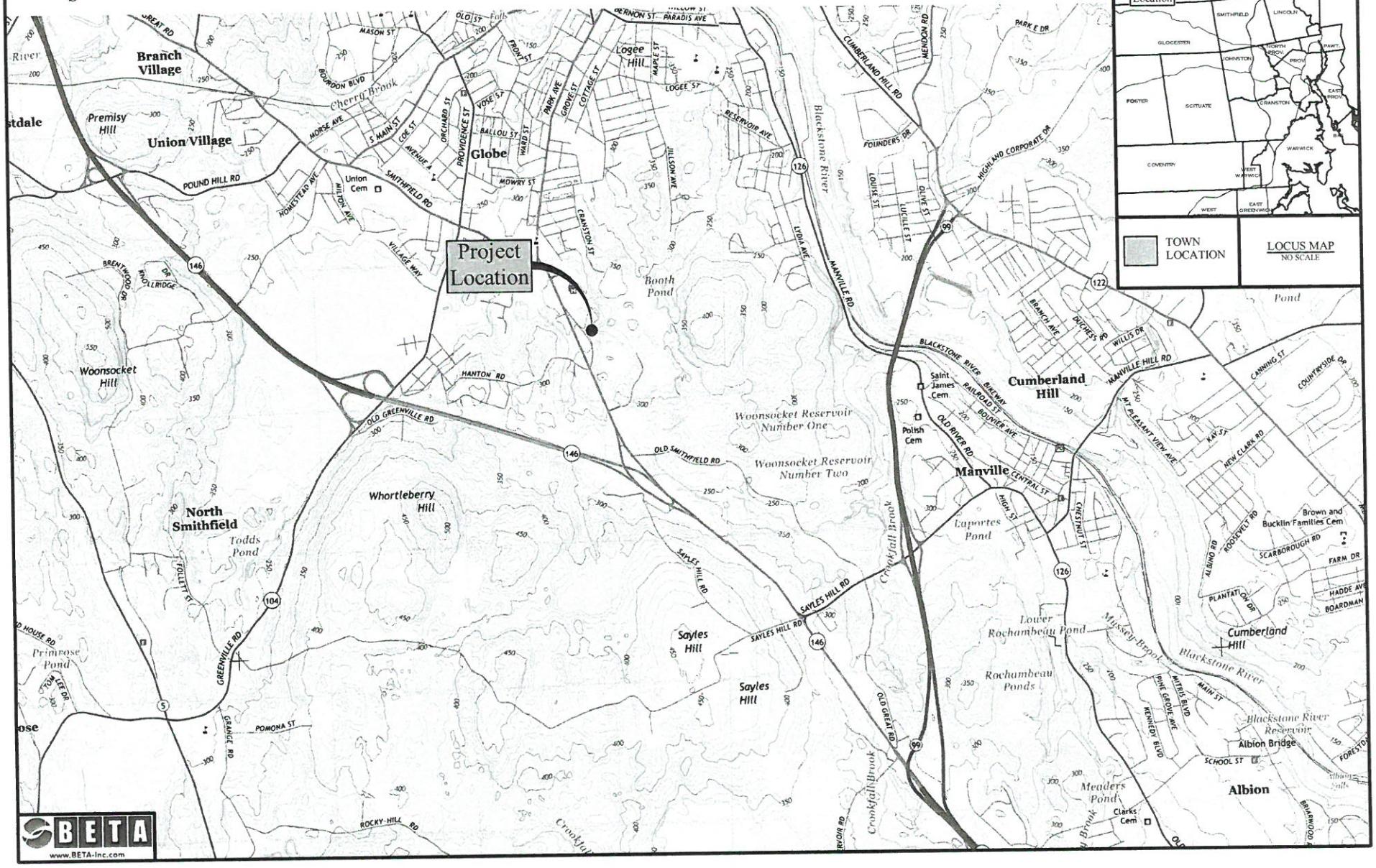
Project Approach

The objective of this study is to define existing and potential future operational and/or safety concerns along the servicing roadways to the proposed residential neighborhood. A review of the existing roadway features was completed to determine if any potential safety deficiencies presently warrant mitigation. In addition to the existing conditions analysis, the study also included the assessment of the modified driveway on Old Louisquisset Pike, and the resultant traffic entering and exiting the driveway to the proposed development project. The study focused on the evaluation of the site driveway safety and general operations as this small-scale residential development will generate a minor volume of daily traffic, and with only 14 AM and 17 PM trips during the daily peak hours.

Old Louisquisset Condominiums

NORTH SMITHFIELD, RHODE ISLAND

Figure 1 - Project Vicinity Map



The study focused on these safety issues and made recommendations for improvements, if determined necessary, based upon the findings of the data collection and analysis phases of the study.

In order to complete our analysis, the following scope of work was completed for the project:

- An inventory of the physical roadway characteristics of Old Louisquisset Pike including roadway alignment, pavement width, signage and traffic control to determine the adequacy of the existing roadway geometric features relating to access, safety, and operations.
- Field investigations including evaluation of sight distances and obtaining vehicle speed data along Old Louisquisset Pike in the vicinity of the site access driveway intersection.
- Crash data obtained from the Town of North Smithfield Police Department was reviewed to determine if there are any safety concerns relative to the frequency, severity or pattern of crashes in the project area.
- A Site Plan for the proposed development project prepared by *DiPrete Engineering* was reviewed to define future roadway conditions at the access driveway intersection to the site.
- Analysis of the data collected, evaluation of the proposed design, and development of recommendations where necessary to provide safe and adequate access to the new residential community.

Project Area

As previously noted, the proposed residential development project will be situated on a parcel of land along the easterly side of Old Louisquisset Pike, which parallels Eddie Dowling Highway (Route 146A). The parcel is defined by AP 13 Lots 111, 123, and 143 which together contain approximately 5.98 acres of partially developed land. The development proposal includes razing two existing single-family residential structures to allow construction of a single-story building containing 30 condominium units on the northerly end of the property including a parking lot containing 61 spaces along the southerly end of the property. Access/egress to the neighborhood will be provided at a 3-way, "T" type intersection with Old Louisquisset Pike.

Land use in the immediate area can be defined as predominantly commercial with some medium density residential properties along both Old Louisquisset Pike and Route 146A. To the north and east of the site is *Dowling Village*, a commercial plaza containing large businesses such as a *Lowe's Home Improvement Center*, and a *Walmart Supercenter*. Other small uses within the plaza include an *Aldi's* grocery store, a *Pet Smart*, *Firestone Tire Center*, *Aspen Dental* and strip commercial buildings containing multiple tenants. Further north are individual commercial lots and small commercial plazas with retail stores, banks, gasoline stations and restaurants. To the south is the *Rock Cliff Farm* residential neighborhood. To the west across Old Louisquisset Pike are wetland areas and the Route 146A corridor.

Old Louisquisset Pike will serve as the primary access route to the new residential development. Based upon the good operating characteristics of Old Louisquisset Pike in the immediate area, and the minor amount of additional peak hour traffic generated by the small-scale *Dowling Village Condominiums* residential development, a study impact area was defined for this project.

The limits of our analysis focused on Old Louisquisset Pike from Eddie Dowling Highway (Route 146A) northerly to Dowling Village Boulevard. Refer to Figure 2 on the following page depicting the subject property and the general project area.

Roadways

Old Louisquisset Pike

Old Louisquisset Pike is a north/south local roadway extending between Route 146A to the south and Dowling Village Boulevard to the north. The roadway is one-way northbound at its southerly end access from Route 146A for a short 200-foot length, where it then becomes two-way to allow full access to the *Rock Cliff Farm* residential neightborhood located on the southerly end of the roadway. It also provides access to two commercial properties and two other residential properties with the subject site situated at approximately midway of the road. The roadway provides immediate local access to abutting properties but also links to higher order facilities including Route 146 via Route 146A.

In the project area, the roadway is generally twenty-two (22) feet wide consisting of a 10-foot travel lane and 1-foot shoulder in each direction, delineated by a double yellow centerline and white shoulder markings. The pavement can be classified as being in fair condition. There was no observed posted speed limit in the project area and was assumed at 25 mph due to the residential/commcercial nature of the area. Cobra head lighting is provided sporadically on utility poles along the easterly side of the roadway for night-time visibility. The adjacent photograph depicts the roadway characteristics looking north with the subject site to the right.

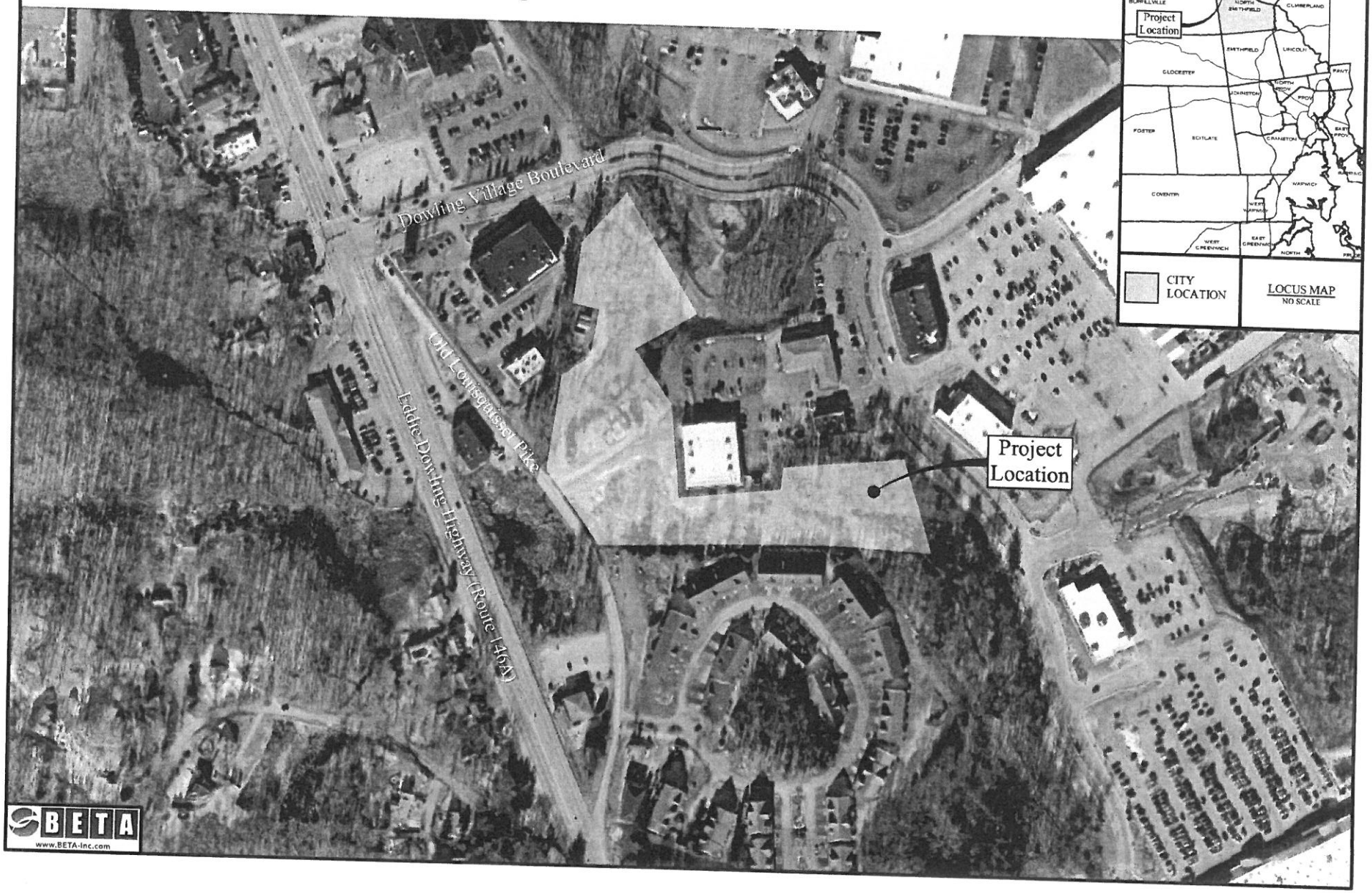
Safety Analysis

The geometry of Old Louisquisset Pike in the project area was investigated to determine if there are any limiting factors affecting safety. These limiting factors would potentially include horizontal or vertical alignment changes or roadside obstructions that limit sight distances for vehicles traveling along the road or entering the road from a side street or driveway location. In this instance, the sight distance standard is necessary to permit turning vehicles to safely enter and exit the proposed site access driveway.

Old Louisquisset Condominiums

NORTH SMITHFIELD, RHODE ISLAND

Figure 2 - Project Area Map



The vertical and horizontal alignment of Old Louisquisset Pike in the project area can be described as generally level and straight, with a gradual curve south of the subject site driveway. The physical features of Old Louisquisset Pike described provide sight distances of approximately 350 feet to the north and south of the proposed site access driveway intersection. These values are in excess of AASHTO's recommended minimum sight distance of 155 feet for the assume speed limit of 25 mph and in excess of 305 feet for the measured 85th percentile speed of 40 mph for vehicles travelling along this section of road.

Also, as part of our analysis, a review of crash statistics was completed. Data was reviewed from the Town of North Smithfield Police Department for the latest full three-year period (2016-2018) to determine if any location in the immediate vicinity of the development experienced a high frequency or pattern of crashes. A total of twenty-seven crashes (avg. nine per year) occurred in the project area over the three-year study period, with three involving an injury. There were no recorded crashes within the three-year study period on Old Louisquisset Pike. Twenty-five of the crashes occurred at the signalized intersection of Old Louisquisset Pike with Eddie Dowling Highway (Route 146A) and Dowling Village Boulevard and two occurred at the intersection of Old Louisquisset Pike and Hanton Road with Eddie Dowling Highway (Route 146A).

Summarizing the data, fourteen were rear-end crashes (two injury), nine were sideswipes, same direction (one injury), three were angle crashes, and one was a sideswipe, opposite direction. Thirteen of the rear-end crashes occurred at the signalized intersection of Eddie Dowling Highway with Dowling Village Boulevard and Old Louisquisset Pike. This is typical of a signalized junction where the majority of crashes are rear end collisions due to the numerous starting and stopping movements required for the signal change intervals. All of the sideswipes occurred at the signalized intersection with the majority being in the same direction due to the double left turn lanes on Route 146A southbound and double left turn and right turn lanes on Dowling Village Boulevard westbound approaches where vehicles collide while turning side-by-side. The angle crashes are attributed to vehicles running a red light and/or not yielding the right of way.

Based upon the historical crash data obtained from the local police, and a review of existing roadway geometry, physical features, and proposed development plan, it does not appear that any significant physical safety deficiencies presently exist on Old Louisquisset Pike requiring mitigation in the project area. Appropriate warning signs could be installed along Old Louisquisset Pike in advance of the horizontal curve noted to alert motorists of the change in roadway alignment and possible need to reduce speeds.

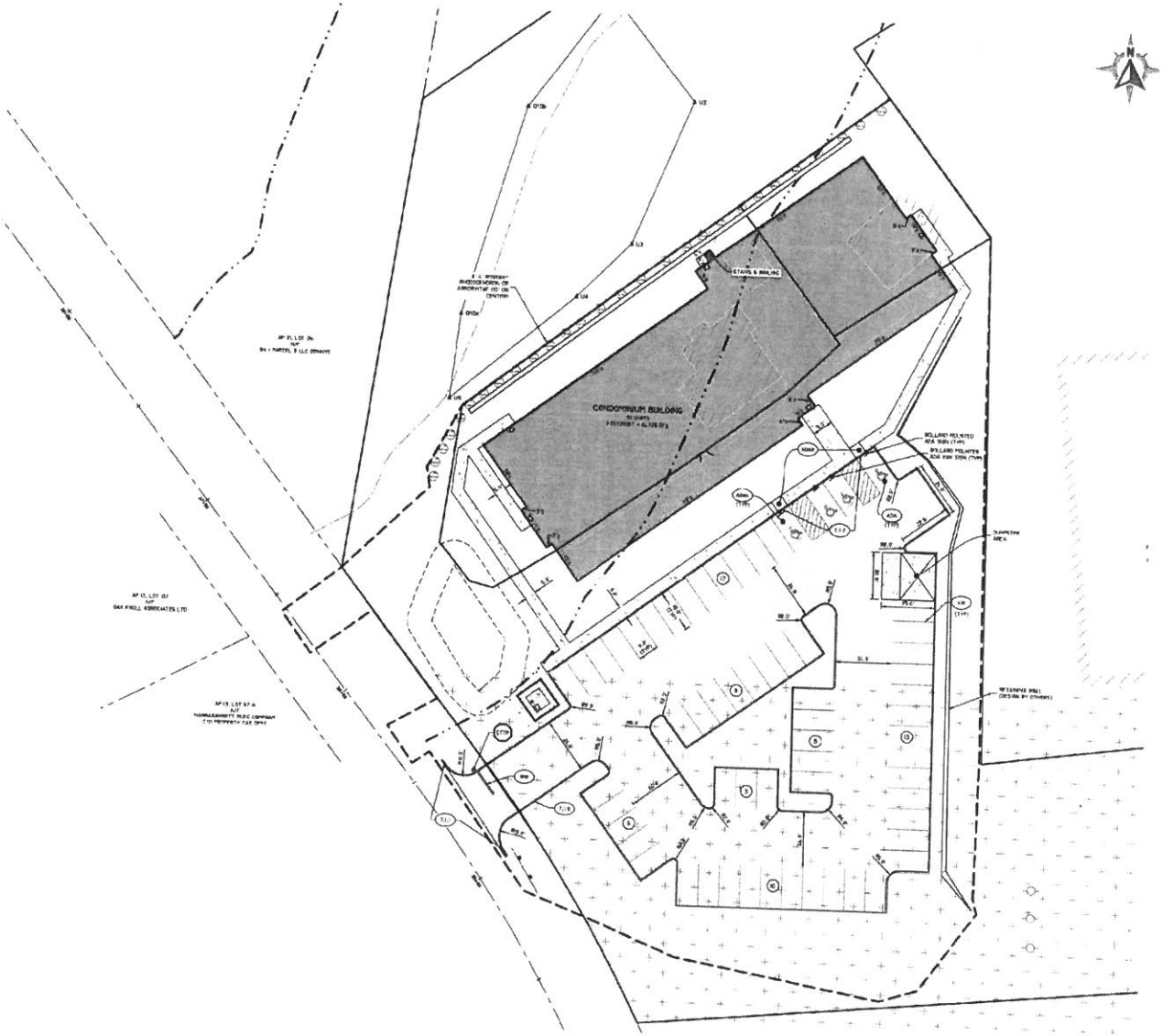
Trip Generation and Analysis

To understand the potential traffic impact of the proposed development, an estimate of anticipated traffic to be generated by the proposed land use has been calculated for reference of the scale of the project as it relates to traffic. As previously discussed, the residential development proposal consists of the construction of a single building containing a total of 30 condominium units along the easterly side of Old Louisquisset Pike. Access and egress to the site will be provided from a modified driveway intersection with Old Louisquisset Pike. Figure 3 on the following page depicts the site layout and access plan, provided by *DiPrete Engineering*.

Old Louisquisset Condominiums

NORTH SMITHFIELD. RHODE ISLAND

Figure 3 - Site Layout



BETA
www.BETA-Inc.com

Site Plan provided by DiPrete Engineering

For this site, projected traffic volumes for the residential project were based on use of trip generation factors. These factors are taken from the "Trip Generation Manual", an informational report published by the Institute of Transportation Engineers (ITE), a national professional organization for traffic and transportation engineers. The data provided in the ITE report are based on extensive traffic studies for various types of land uses (residential, commercial, industrial, etc.). This data has been found to be very reliable and provides a sound basis for estimating future trips to new development projects.

For the proposed residential project, Land Use Code 220 Multifamily Housing (Low-Rise) was reviewed for applicability in developing an estimate of site related vehicles trips. Table 1 below summarizes the peak hour site trips for the residential development that have been estimated utilizing the land use code data available from the ITE manual. The appropriate worksheets from the manual are included in the Attachment, along with the trip estimate calculations.

TABLE 1 – Trip Generation Estimate

	Description	Enter	Exit	Total
AM Peak Hour				
ITE Land Use Code 220	Multifamily Housing (Low-Rise)	3	11	14
PM Peak Hour				
ITE Land Use Code 220	Multifamily Housing (Low-Rise)	10	7	17

Based upon the estimated low volume of daily and peak hour site trips (a maximum of 17 vehicles entering/exiting the site during peak periods), resulting from the proposed small-scale development, there should be no discernable impacts to traffic operations along Old Louisquisset Pike or at its junctions in the immediate project area. During the daily peak hours, it is anticipated that the servicing roadways will operate efficiently as they do today, with no congestion anticipated at the site access road intersection. Based upon the low volume of traffic exiting the site on an hourly basis, typically only one vehicle would be queued on the site access road waiting to turn onto Old Louisquisset Pike, resulting in efficient operations and adequate and safe access to the new neighborhood.

Conclusions and Recommendations

In summary, the study has shown that the proposed residential development project access and circulation plan has been designed to maintain a desirable level of traffic safety and efficiency on the servicing roadway system in the project area. Based upon our analysis of the existing roadway conditions on Old Louisquisset Pike, there appear to be no traffic safety or operational issues that require mitigation.

In addition, the small-scale residential development, *Old Louisquisset Condominiums*, will add a minor volume of traffic during the daily peak hours as indicated. These new vehicles will not change or negatively affect the good operating conditions that presently exist along Old Louisquisset Pike. Therefore, based upon the data collection and analysis completed for this project, it can be concluded

that the project will not have a detrimental impact on traffic safety and operations of the servicing roadways, and that adequate and safe access will be available at the proposed site access driveway intersection with Old Louisquisset Pike. We trust that this letter sufficiently addresses the requirements of the town and state to obtain your access approval. If you should have any questions, please do not hesitate to contact our office.

Very truly yours,
BETA Group, Inc.

Paul J. Bannon
Associate

ATTACHMENTS

A. Traffic Volume Data

B. Traffic Crash Data

C. Trip Generation

ATTACHMENT A – Traffic Volume Data

Automatic Traffic Recorder Count

Old Louisquisset Pike

Traffic Volumes

BETA Group, Inc.
701 George Washington Highway
Lincoln, Rhode Island 02865

Project Name: Dowling Village Condoes
Town/City: North Smithfield, RI
Roadway: Old Louisquisset Pike
Location: House No. 28

Start Date: 1/3/2020
End Date: 1/13/2020

12/30/2019	12/30/2019		12/31/2019		1/1/2020		1/2/2020		1/3/2020		Weekday Average		1/4/2020		1/5/2020	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	5	0	2	1
1:00	*	*	*	*	*	*	*	*	*	*	*	*	2	0	1	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	1	0	2	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	4	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	2	0	0	1
5:00	*	*	*	*	*	*	*	*	*	*	*	*	0	1	3	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	7	0	1	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	10	0	9	1
8:00	*	*	*	*	*	*	*	*	*	*	*	*	20	1	15	3
9:00	*	*	*	*	*	*	*	*	*	*	*	*	27	5	19	3
10:00	*	*	*	*	*	*	*	*	*	*	*	*	31	0	21	2
11:00	*	*	*	*	*	*	*	*	*	*	*	*	33	0	16	2
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	34	3	29	3
1:00	*	*	*	*	*	*	*	*	*	*	*	*	26	2	13	4
2:00	*	*	*	*	*	*	*	*	*	*	*	*	24	4	14	2
3:00	*	*	*	*	*	*	*	*	6	1	6	1	24	3	9	4
4:00	*	*	*	*	*	*	*	*	17	4	17	4	13	4	13	5
5:00	*	*	*	*	*	*	*	*	28	6	28	6	18	3	14	3
6:00	*	*	*	*	*	*	*	*	21	4	21	4	11	1	11	3
7:00	*	*	*	*	*	*	*	*	18	5	18	5	12	2	8	1
8:00	*	*	*	*	*	*	*	*	11	2	11	2	4	1	6	1
9:00	*	*	*	*	*	*	*	*	13	3	13	3	7	2	3	2
10:00	*	*	*	*	*	*	*	*	10	1	10	1	7	2	6	1
11:00	*	*	*	*	*	*	*	*	7	0	7	0	7	1	4	0
Total	0	0	0	0	0	0	0	0	7	1	7	1	325	35	223	42
Day	0		0		0		0		138	27	138	27	360		265	
AM Peak									165		165		12:00 PM	9:00	12:00 PM	8:00
Volume	0	0	0	0	0	0	0	0	0	0	0	0	34	5	29	3
PM Peak									4:00	4:00	4:00	4:00	12:00 PM	2:00	12:00 PM	4:00
Volume	0	0	0	0	0	0	0	0	28	6	28	6	34	4	29	5

BETA Group, Inc.
701 George Washington Highway
Lincoln, Rhode Island 02865

Project Name: Dowling Village Condoes
Town/City: North Smithfield, RI
Roadway: Old Louisquisset Pike
Location: House No. 28

Start Date: 1/3/2020
End Date: 1/13/2020

1/6/2020	1/6/2020		1/7/2020		1/8/2020		1/9/2020		1/10/2020		Weekday Average		1/11/2020		1/12/2020	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	0	0	2	1	1	0	4	0	1	0	2	0	3	0	6	0
1:00	3	0	1	1	3	0	1	0	0	0	2	0	5	0	1	0
2:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
3:00	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0
4:00	3	0	3	0	2	0	1	0	3	0	2	0	1	0	1	0
5:00	5	1	5	2	7	2	3	1	6	1	5	1	3	2	3	2
6:00	16	2	12	1	20	2	17	0	17	4	16	2	7	0	2	0
7:00	27	2	25	1	34	5	26	2	33	2	29	2	9	0	3	0
8:00	26	3	30	3	24	1	38	2	30	4	30	3	17	3	11	2
9:00	18	1	26	3	26	2	28	2	25	2	25	2	21	7	12	2
10:00	20	1	22	4	26	3	17	3	20	2	21	3	36	4	16	3
11:00	19	3	29	1	27	2	29	7	38	8	28	4	34	4	30	2
12:00 PM	23	6	36	1	28	4	23	3	28	3	28	3	35	1	24	3
1:00	26	4	26	4	27	4	32	3	28	2	28	3	32	9	22	4
2:00	26	3	21	4	35	6	26	7	28	4	27	5	30	5	19	5
3:00	25	6	36	5	25	4	26	8	25	5	27	6	23	5	11	6
4:00	31	6	27	3	22	3	37	4	26	4	29	4	19	4	19	5
5:00	26	3	27	5	24	6	34	1	23	2	27	3	14	2	10	1
6:00	19	5	26	5	31	7	28	5	19	3	25	5	16	4	11	1
7:00	12	6	8	3	14	3	9	4	13	2	11	4	6	1	6	1
8:00	11	3	7	2	9	4	16	5	23	2	13	3	9	7	5	1
9:00	2	1	5	1	2	1	11	3	10	0	6	1	7	2	3	0
10:00	1	1	5	0	2	0	2	1	7	1	3	1	4	1	5	0
11:00	1	0	6	1	3	0	4	2	3	1	3	1	6	1	3	0
Total	341	57	385	51	393	59	412	64	407	52	387	56	338	62	223	38
Day	398		436		452		476		459		443		400		261	
AM Peak	7:00	12:00 PM	12:00 PM	10:00	7:00	7:00	8:00	11:00	11:00	11:00	8:00	11:00	10:00	9:00	11:00	10:00
Volume	27	6	36	4	34	5	38	7	38	8	30	4	36	7	30	3
PM Peak	4:00	12:00 PM	12:00 PM	3:00	2:00	6:00	4:00	3:00	12:00 PM	3:00	4:00	3:00	12:00 PM	1:00	12:00 PM	3:00
Volume	31	6	36	5	35	7	37	8	28	5	29	6	35	9	24	6

BETA Group, Inc.
701 George Washington Highway
Lincoln, Rhode Island 02865

Project Name: Dowling Village Condoes
Town/City: North Smithfield, RI
Roadway: Old Louisquisset Pike
Location: House No. 28

Start Date: 1/3/2020
End Date: 1/13/2020

1/13/2020	1/13/2020		1/14/2020		1/15/2020		1/16/2020		1/17/2020		Weekday Average		1/18/2020		1/19/2020	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	3	0	*	*	*	*	*	*	*	*	3	0	*	*	*	*
1:00	5	0	*	*	*	*	*	*	*	*	5	0	*	*	*	*
2:00	0	0	*	*	*	*	*	*	*	*	0	0	*	*	*	*
3:00	1	0	*	*	*	*	*	*	*	*	1	0	*	*	*	*
4:00	2	0	*	*	*	*	*	*	*	*	2	0	*	*	*	*
5:00	5	0	*	*	*	*	*	*	*	*	5	0	*	*	*	*
6:00	12	0	*	*	*	*	*	*	*	*	12	0	*	*	*	*
7:00	34	2	*	*	*	*	*	*	*	*	34	2	*	*	*	*
8:00	24	2	*	*	*	*	*	*	*	*	24	2	*	*	*	*
9:00	25	2	*	*	*	*	*	*	*	*	25	2	*	*	*	*
10:00	23	3	*	*	*	*	*	*	*	*	23	3	*	*	*	*
11:00	30	5	*	*	*	*	*	*	*	*	30	5	*	*	*	*
12:00 PM	26	2	*	*	*	*	*	*	*	*	26	2	*	*	*	*
1:00	32	3	*	*	*	*	*	*	*	*	32	3	*	*	*	*
2:00	37	6	*	*	*	*	*	*	*	*	37	6	*	*	*	*
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
6:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	259	25	0	0	0	0	0	0	0	0	259	25	0	0	0	0
Day	284		0		0		0		0		284		0		0	
AM Peak	7:00	11:00									7:00	11:00				
Volume	34	5	0	0	0	0	0	0	0	0	34	5	0	0	0	0
PM Peak	2:00	2:00									2:00	2:00				
Volume	37	6	0	0	0	0	0	0	0	0	37	6	0	0	0	0
Comb Total	682		436		452		476		624		892		760		526	
ADT	ADT: 360		AADT: 360													

Speed Study Data

BETA Group, Inc.
701 George Washington Highway
Lincoln, Rhode Island 02865

SPEED DATA ANALYSIS

Location

Old Louisquisset Pike
North Smithfield, RI

Analysis Time Period

Start	End
1/3/2020	1/13/2020
2:41 PM	3:35 PM

Vehicles Analyzed

3,970

Average Speed

32

85th Percentile Speed

37

ATTACHMENT B – Traffic Crash Data

January 2016 through December 2018

Old Louisquisset Pike – Eddie Dowling Highway to Dowling Village Boulevard

Accident Data Summary

	Year			Total	Average per Year
	2016	2017	2018		
Intersections					
Old Louisquisset/Hanton Rd at Eddie Dowling Hwy	0	2	0	2	1
Old Louisquisset/Dowling Village Blvd at Eddie Dowling Hwy	9	7	9	25	8
Total	**9**	**9**	**9**	**27**	**9**

Old Louisquisset Pike/Hanton Rd at Eddie Dowling Hwy

	2016	2017	2018	Total	Percent
Collision Type					
Rear End	0	1	0	**1**	50%
Angle	0	1	0	**1**	50%
Head-On	0	0	0	**0**	0%
Pedestrian	0	0	0	**0**	0%
Sideswipe, Same Direction	0	0	0	**0**	0%
Sideswipe, Opposite Direction	0	0	0	**0**	0%
Collision with Object	0	0	0	**0**	0%
Collision with Deer	0	0	0	**0**	0%
Other	0	0	0	**0**	0%
Unknown	0	0	0	**0**	0%
Accident Severity					
Property	0	2	0	**2**	100%
Injury	0	0	0	**0**	0%
Light Condition					
Daylight	0	2	0	**2**	100%
Dawn	0	0	0	**0**	0%
Dusk	0	0	0	**0**	0%
Dark - Lighted	0	0	0	**0**	0%
Dark - Not Lighted	0	0	0	**0**	0%
Dark - Unknown Lighting	0	0	0	**0**	0%
Road Condition					
Dry	0	2	0	**2**	100%
Wet	0	0	0	**0**	0%
Snow	0	0	0	**0**	0%
Other	0	0	0	**0**	0%
Unknown	0	0	0	**0**	0%
Hour of Day					
6:00 AM - 9:00 AM	0	0	0	**0**	0%
9:00 AM - 3:00 PM	0	2	0	**2**	100%
3:00 PM - 6:00 PM	0	0	0	**0**	0%
6:00 PM - 6:00 AM	0	0	0	**0**	0%
Total Accidents:	**0**	**2**	**0**	**2**	

Old Louisquisset Pike/Dowling Village Blvd at Eddie Dowling Hwy

	2016	2017	2018	Total	Percent
Collision Type					
Rear End	6	3	4	**13**	52%
Angle	0	2	0	**2**	8%
Head-On	0	0	0	**0**	0%
Pedestrian	0	0	0	**0**	0%
Sideswipe, Same Direction	3	2	4	**9**	36%
Sideswipe, Opposite Direction	0	0	1	**1**	4%
Collision with Object	0	0	0	**0**	0%
Collision with Deer	0	0	0	**0**	0%
Other	0	0	0	**0**	0%
Unknown	0	0	0	**0**	0%
Accident Severity					
Property	9	6	7	**22**	88%
Injury	0	1	2	**3**	12%
Light Condition					
Daylight	8	7	6	**21**	84%
Dawn	0	0	0	**0**	0%
Dusk	0	0	0	**0**	0%
Dark - Lighted	1	0	3	**4**	16%
Dark - Not Lighted	0	0	0	**0**	0%
Dark - Unknown Lighting	0	0	0	**0**	0%
Road Condition					
Dry	9	6	5	**20**	80%
Wet	0	1	3	**4**	16%
Snow	0	0	1	**1**	4%
Other	0	0	0	**0**	0%
Unknown	0	0	0	**0**	0%
Hour of Day					
6:00 AM - 9:00 AM	0	1	1	**2**	8%
9:00 AM - 3:00 PM	6	3	2	**11**	44%
3:00 PM - 6:00 PM	0	3	2	**5**	20%
6:00 PM - 6:00 AM	3	0	4	**7**	28%
Total Accidents:	**9**	**7**	**9**	**25**	

APPENDIX C – Trip Generation

ITE Trip Generation Summary

ITE Land Use Code

ITE Land Use Code 220 – Multifamily Housing (Low Rise)

C

ITE Trip Generation Summary

Trip Generation Summary

Summary;

	Description	Enter	Exit	Total
AM Peak Hour				
ITE Land Use Code 220	Multifamily Housing (Low-Rise)	3	11	14
PM Peak Hour				
ITE Land Use Code 220	Multifamily Housing (Low-Rise)	10	7	17

Calculations;

ITE Land Use Code 220 Multifamily Housing (Low-Rise) (30 Dwelling Units)

Independent Variable (X) = Dwelling Units X = 30

AM Peak *Directional Distribution: 23% Entering 77% Exiting*

T = 0.46 x (X)
T = 0.46 x 30
T = 14

Enter: 3
Exit: 11
Total: 14

PM Peak *Directional Distribution: 63% Entering 37% Exiting*

T = 0.56 x (X)
T = 0.56 x 30
T = 17

Enter: 10
Exit: 7
Total: 17

C

ITE Land Use Code

ITE Land Use Code 220 – Multifamily Housing (Low Rise)

Land Use: 220
Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels (floors). Multifamily housing (mid-rise) (Land Use 221), multifamily housing (high-rise) (Land Use 222), and off-campus student apartment (Land Use 225) are related land uses.

Additional Data

In prior editions of *Trip Generation Manual*, the low-rise multifamily housing sites were further divided into rental and condominium categories. An investigation of vehicle trip data found no clear differences in trip making patterns between the rental and condominium sites within the ITE database. As more data are compiled for future editions, this land use classification can be reinvestigated.

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there were an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

This land use included data from a wide variety of units with different sizes, price ranges, locations, and ages. Consequently, there was a wide variation in trips generated within this category. Other factors, such as geographic location and type of adjacent and nearby development, may also have had an effect on the site trip generation.

Time-of-day distribution data for this land use are presented in Appendix A. For the 10 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:15 and 8:15 a.m. and 4:45 and 5:45 p.m., respectively. For the one site with Saturday data, the overall highest vehicle volume was counted between 9:45 and 10:45 a.m. For the one site with Sunday data, the overall highest vehicle volume was counted between 11:45 a.m. and 12:45 p.m.

For the one dense multi-use urban site with 24-hour count data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:00 and 8:00 a.m. and 6:15 and 7:15 p.m., respectively.

For the three sites for which data were provided for both occupied dwelling units and residents, there was an average of 2.72 residents per occupied dwelling unit.

The average numbers of person trips per vehicle trip at the five general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.13 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.21 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, District of Columbia, Florida, Georgia, Illinois, Indiana, Maine, Maryland, Minnesota, New Jersey, New York, Ontario, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, and Washington.

It is expected that the number of bedrooms and number of residents are likely correlated to the number of trips generated by a residential site. Many of the studies included in this land use did not indicate the total number of bedrooms. To assist in the future analysis of this land use, it is important that this information be collected and included in trip generation data submissions.

Source Numbers

168, 187, 188, 204, 211, 300, 305, 306, 319, 320, 321, 357, 390, 412, 418, 525, 530, 571, 579, 583, 864, 868, 869, 870, 896, 903, 918, 946, 947, 948, 951

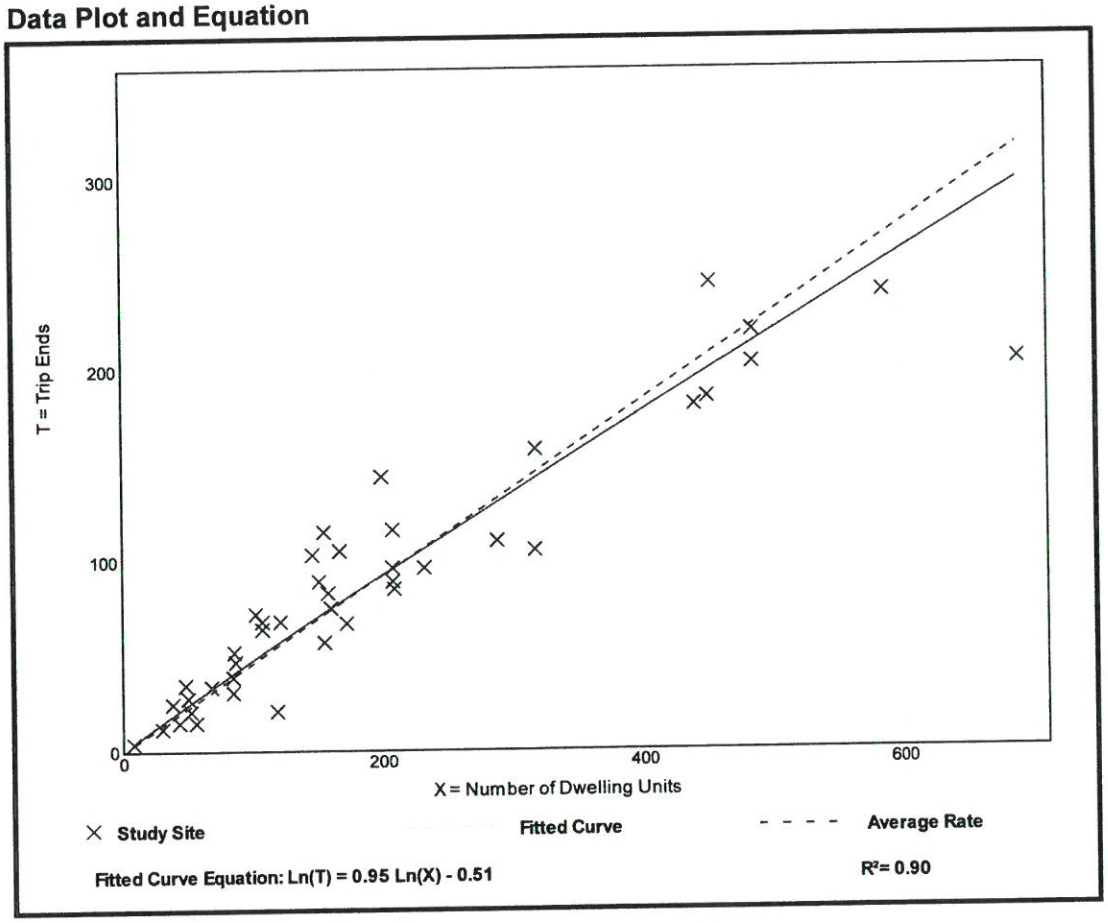
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 42
Avg. Num. of Dwelling Units: 199
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.46	0.18 - 0.74	0.12

Data Plot and Equation



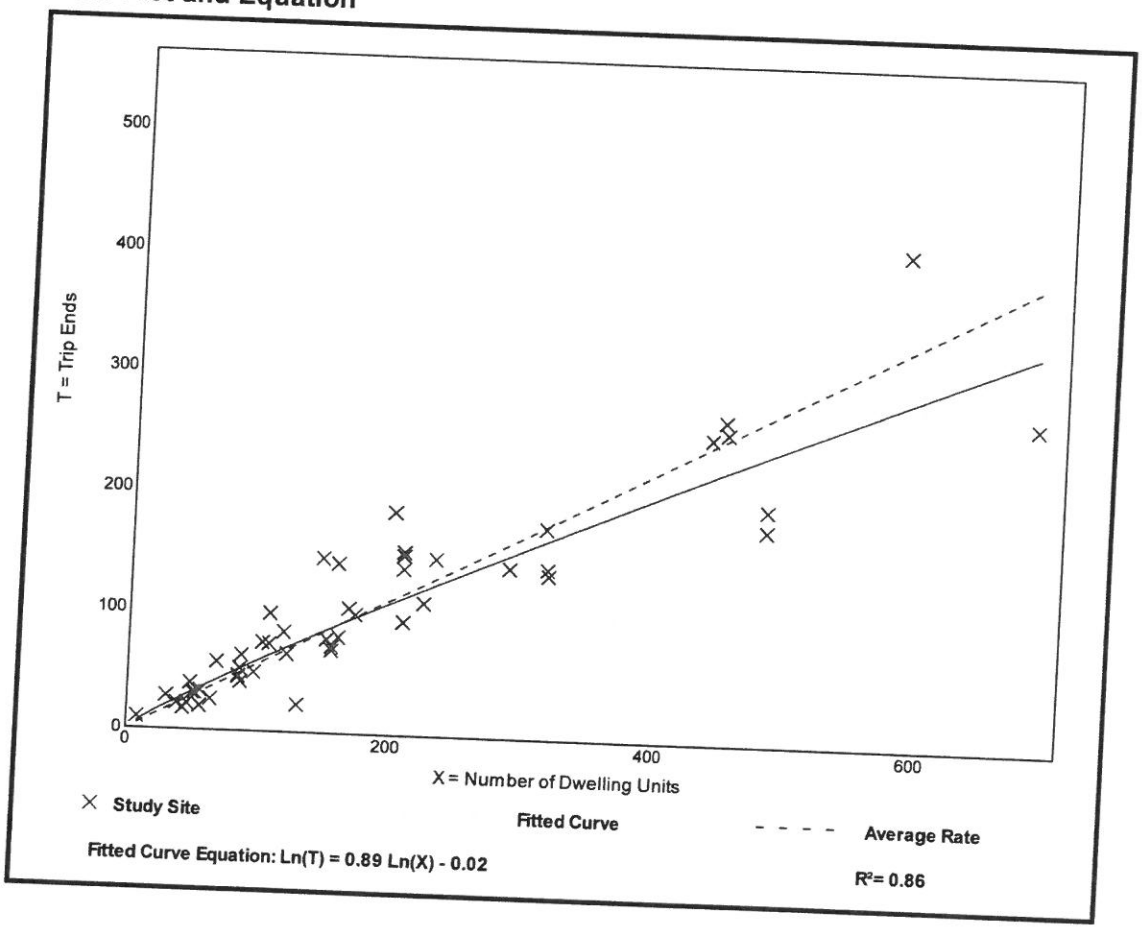
Multifamily Housing (Low-Rise)
(220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 50
Avg. Num. of Dwelling Units: 187
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.56	0.18 - 1.25	0.16

Data Plot and Equation



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WRIGHT-PIERCE
Engineering a Better Environment

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www.wright-pierce.com

April 22, 2021
W-P Project No. 20419

Mr. Russell Carpenter
Town of North Smithfield Department of Water and Sewer
575 Smithfield Road
North Smithfield, RI 02896

Subject: Old Louisquisset Condos
Pump Station Re-Evaluation for 60 Total Bedrooms

Dear Mr. Carpenter:

At the request of the Sewer Commission, Wright-Pierce has conducted an evaluation of the analysis of the existing sewer pump station and its ability to accommodate the Old Louisquisset Condos project. This letter is a re-evaluation of the pumping station capacity as the developed has requested an increase in the number of new condos to 30 with a total of 60 bedrooms from the previous submission consisting of 24 new condos with a total of 48 bedrooms. This results in an increase in the estimated average daily flow from 23,094 gpd to 25,164 gpd. The results of our evaluation are discussed throughout this letter.

Wright-Pierce was provided with the following information to complete this evaluation:

1. Pump Station and Force Main Analysis for Rockcliff Farms prepared by John P. Caito Corporation (Caito) dated May 2004
2. Rockcliff Farms Condominium Development - Pump Station and Force Main Analysis prepared by Milestone Engineering dated March 2, 2016
3. A Master Plan submission for Dowling Village Condominiums dated August 16, 2019, and
4. A Grading, Drainage, and Utilities plan dated April 4, 2020 from DiPrete Engineering
5. Pump Size and Force Main Analysis prepared by Milestone Engineering dated July 2020.
6. A July 23, 2020 letter from DiPrete Engineering

Note: Wright-Pierce was not provided with the plans or record drawings of the pump station or the force main. Therefore, a review was conducted strictly with the documents provided.

Evaluation:

The May 2004 Pump Size and Force Main Analysis estimates an average daily flow of 23,654 gpd for 154 bedrooms. The July 2020 Pump Size and Force Main Analysis estimates an average daily flow of 23,094 gpd for 154 bedrooms. Upon review, it appears that the RIDEM Minimum Design Requirements

for Sewage Flow was updated since the 2004 analysis. The 2004 analysis cites a required capacity of 75 gallons of effluent per bedroom, obtained from the "2002 Minimum Design Requirements."

The July 2020 analysis cites a required capacity of 115 gallons of effluent per bedroom, obtained from OWTS Rules (250-RICR-150-10-6), established in July 2010. However, the 2004 calculations used 150 gpd per bedroom to estimate the average daily flow, based upon the standard at that time. Due to this change in the standard, the estimated average daily flow, with the addition of the Old Louisquisset Condos, decreases from the original calculation, even though 21 units are being added.

The July 2020 analysis was for the addition of 21 condos with a total of 42-bedrooms. Old Louisquisset Condos has proposed a modification in the site plan, which would increase the number of new condos to 30 with a total of 60 bedrooms. This would increase the estimated average daily flow from 23,094 gpd to 25,164 gpd.

However, the estimated average daily flow of 115 gpd per bedroom was used from the RIDEM "Rules Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of Onsite Wastewater Treatment Systems" (250-RICR-150-10-6) to calculate the projected sanitary flow rate. These rules establish minimum standards for the proper location, design, construction and maintenance of onsite wastewater treatment systems.

Since this development does not involve an onsite wastewater treatment system, the use of this document is not appropriate to estimate the average daily flow. The analysis should have been performed following the guidelines outlined in RIDEM's "Flow Estimation Policy for Design of Sanitary Sewers" (Flow Estimation Policy), attached. The guidelines state that the average daily flows generated by households to be serviced by sewers shall be estimated based on historical water usage data and a minimum of 300 gpd shall be used. A household is defined as single family homes, duplexes, apartments, condominiums, mobile homes, or any other structures which are used solely as living accommodations.

Wright-Pierce calculated the average and peak hourly flows based on RIDEM's Flow Estimation Policy for Design of Sanitary Sewers. Based upon this document and the 300 gpd per household, the average daily flow was calculated as 32,054 gpd for 75 households, the two office buildings, and the 30 condos. This equals 9,000 gpd greater than the value of 23,094 gpd which was calculated by Milestone Engineering in the July 2020 analysis. Using a peaking factor of 4.0 according to the Flow Estimation Policy, the maximum hourly flow is calculated to be 89 gpm, which is close to the 90 gpm as calculated by Milestone Engineering.

Conclusion:

The original analysis used a peaking factor of 5.6, which resulted in a peak hourly flow of 90 gpm. Although the average daily flow rate calculated is greater than the flows calculated in the Pump Size and Force Main Analysis prepared by Milestone Engineering dated July 2020, the peak flow of 90 gpm is greater than those calculated by Wright-Pierce, such that the Milestone Engineering analysis provides a more conservative estimate.

Based upon the use of the more conservative peak hourly flow rate of 90 gpm, Wright-Pierce agrees that the existing sewer pump station has capacity to accommodate the Old Louisquisset Condos project.

Recommendations:

It should be noted that existing pump station has a capacity of 183 gpm at the calculated total dynamic head of 38 feet. The optimum duty point of the pump is 485 gpm at 25.7 feet of head, therefore although the pump has adequate capacity, it is not operating at its optimum efficiency.

As reported in the Milestone Engineering Pump Station and Force Main analysis dated March 2, 2016, the wet well operating range is 1.5 feet. The average daily flow rate with the inclusion of the Old Louisquisset Condos project reduces the cycle time of the pump station from 32 minutes to 25 minutes. Should a greater cycle time be desired, the operating range of the wet well can be increased.

It is our understanding that the existing pump station was designed for future build-out of the area. If the addition of the Old Louisquisset Condos represents the maximum buildout which will contribute to this pumping station, Wright-Pierce recommends that the Sewer Commission considers investigating replacement of the pump impeller or consider resizing the pump when a new pump is scheduled to be installed, in an effort to operate more efficiently.

If you have any questions, please do not hesitate to contact our office.

Sincerely,
WRIGHT-PIERCE

Louis Ragozzino

Louis Ragozzino, PE
Regional Group Leader
louis.ragozzino@wright-pierce.com

Cc: Maura Beck, Town of North Smithfield

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H. MASTER PLAN CHECKLIST
MAJOR LAND DEVELOPMENT PROJECTS AND MAJOR SUBDIVISIONS
CONSERVATION DEVELOPMENTS

The applicant shall submit to the Administrative Officer at least ten (10) blueline or photocopies of all master plan maps and information required below. Plans must be no larger than 24" x 36". The scale and number of all plans shall be sufficient to clearly show all of the information required and shall be subject to the approval of the Administrative Officer. All plan sheets and related documents must be provided in portable document format (PDF) files as well. Plans shall include a certification that all plans and improvements conform to a minimum Class IV standard of the State of Rhode Island and Providence Plantations, Board of Registration for Professional Engineers and Board of Registration of Land Surveyors.

The following information shall be presented in the form of a written narrative report, supplemented as necessary with drawings, sketches or plans to convey intent. The narrative report shall include reduced sets of all drawings and plans required below on maximum 11" x 17" sheets. Initially, the applicant shall submit to the Administrative Officer at least ten (10) blueline or photocopies of preliminary plan maps required below. The number of reduced copies of the plans and narrative report shall be determined by the Administrative Officer, based upon the required distribution to the Planning Board, and other agencies listed in Supporting Materials, below.

Every submission must also be accompanied by an Application for Approval of a Major Land Development Project or Major Subdivision, as contained in Appendix B.

At a minimum, required information includes the following:

1. Site Base Map (see below).
2. Existing Resources and Site Analysis Map. See Section 4-1 (O).
3. Site Context Map. See Section 4-1 (F).
4. Sketch Plan Overlay Sheet. See Section 4-1 (E).*
5. Conventional Yield Plan. See Section 4-1 (H).*

* Required for Conservation Developments only

6. Proposed Conditions Map (Conventional Subdivisions only).

BASE MAP

All Master Plan Drawing(s) required by this Checklist shall show the following information (if applicable):

A. All maps required by this Checklist shall show the following information (if applicable):

1. __X__ Name and location of the proposed subdivision.

2. __X__ Name and address of property owner and applicant.

3. __X__ Name, address and telephone number of engineer and/or land surveyor.

4. __X__ Date of plan preparation, with revision date(s) (if any).

5. __X__ Graphic scale and true north arrow. Legend to explain any graphic representations or symbols on the plan.

6. __X__ Inset locus map at 1" = 2000' exact or approximate scale so labeled.

7. __n/a__ Plat and lot number(s) of the land being subdivided.

8. __n/a__ Zoning district(s) of the land being subdivided. (If more than one district, zoning boundary lines must be shown.)

9. __n/a__ Perimeter boundary lines of the subdivision, in heavy shaded line, drawn so as to distinguish them from other property lines.

10. __n/a__ Area of the subdivision parcel(s) and proposed number of buildable lots.

11. __n/a__ Location and dimensions of existing property lines within or forming the perimeter of the subdivision parcel(s).

12. __X__ Easements and rights-of-way within or adjacent to the subdivision parcel(s).

13. __X__ Location, width and names of existing streets within and immediately adjacent to the subdivision parcel.

14. __X__ Names of abutting property owners and property owners immediately across any adjacent streets.

EXISTING RESOURCES AND SITE ANALYSIS MAP

The information required in Section 4-1 (O) shall be shown on the Existing Resources and Site Analysis Map(s), and shall be subject to the approval of the Administrative Officer. This information may be based on the information provided at the Pre-application stage of review (Checklist C), with updates as required.

A. Topography and Slopes

15. __X__ Existing contours at intervals of two or five feet elevation relative to sea level.
16. __X__ Slope map, with slopes grouped according to three categories based on development suitability: <15%, 15-25% and over 25%. Steeper slopes should be shown in progressively darker colors or shades of gray.

B. Natural Resource Inventory

17. __X__ Location of land unsuitable for development as defined in the Zoning Ordinance, including wetlands, ponds, streams, ditches, drains, special aquatic sites, vernal pools. Wetland locations do not need to be verified by RIDEM.
18. __X__ Vegetative cover on the property, indicating any unfragmented forest tracts
19. __X__ Soils map, indicating any prime farmland soils, and any land in active agricultural use.
20. __n/a__ Geologic formations
21. __X__ Ridge lines of existing hills
22. __X__ Wellhead protection areas for public or community drinking water wells
23. __X__ Groundwater Aquifer Overlay District (Town)
24. __X__ 100-year floodplains as shown on federal flood protection maps

25. n/a State, regional, or community greenways and greenspace priorities
26. n/a State-designed Natural Heritage Sites (RIDEM)

C. Cultural Resource Inventory

27. X Approximate location of man-made features such as roads, structures, outbuildings, roads or trails, and other such features on the parcel
28. n/a Historically significant sites or structures
29. n/a State or locally-designated historic sites, districts, cemeteries or landscapes
30. n/a Location of any stone walls within or forming the perimeter of the site
31. n/a Archaeological sites
32. n/a Scenic road corridors and state-designated scenic areas
33. n/a Viewshed analysis

D. Recreational Resource Inventory

34. n/a Existing hiking, biking and bridle trails within and adjacent to site
35. n/a Boat launches, lake and stream access points, beaches and water trails
36. n/a Existing play fields and playgrounds on or adjacent to the site

E. Utilities and Infrastructure

37. X Size and approximate location of public or private water lines
38. X Size and approximate location of public or private sewer lines
39. X Gas service
40. X Electrical service
41. X Telephone, cable, and other communication services
42. X Width and surfacing material of existing road(s) at access points
43. X Existing drainage and drainage structures, such as culverts and pipes, etc.

SITE CONTEXT MAP

The Contextual Analysis process is described in detail in Section 4-1 (F) and in the design process Section 4-1 (D), Step 2 of these Regulations. This information may be based on the information provided at the Pre-application stage of review (Checklist C), with updates as required.

44. X Site Context Map
45. X Soils Map of surrounding area. See Supporting Materials, No. 4.

SKETCH PLAN OVERLAY SHEET (Conservation Developments)

The applicant shall present initial proposals for development, using a conceptual sketch plan(s) for development. This information may be based on the information provided at the Pre-application stage of review (Checklist C), with updates as required.

46. n/a Identification of areas proposed for development
47. n/a Location of proposed open space areas
48. n/a Initial layout of streets
49. n/a Land Unsuitable for Development, as defined in the Zoning Ordinance

CONVENTIONAL YIELD PLAN (Conservation Developments)

An updated Conventional Yield Plan, as discussed at the Pre-application stage of review shall be presented for further review by the Planning Board, if required.
50. n/a Conventional Yield Plan, if modified from Pre-application review

PROPOSED CONDITIONS MAP(S) (Conventional Subdivisions)

For conventional subdivisions, the applicant shall submit the following information in lieu of a Sketch Plan Overlay Sheet and Conventional Yield Plan:

1. n/a Proposed improvement including streets, lots, lot lines, with approximate lot areas and dimensions. Proposed lot lines shall be drawn so as to distinguish them from existing property lines.

2. n/a Grading plan in sufficient detail to show proposed contours for all grading proposed for onsite construction of drainage facilities and grading upon individual lots if part of proposed subdivision improvements (if applicable).

3. n/a Proposed utilities plan, including sewer, water, gas, electric, phone, cable TV, fire alarm, hydrant, utility poles, or other proposed above or underground utilities, as applicable.

4. n/a Location, dimension and area of any land proposed to be dedicated to the Town for use as open space, conservation or recreation.

5. n/a Base flood elevation data

6. n/a Certification by a Registered Land Surveyor that all interior and perimeter lot lines and street lines of the land being subdivided have been designed to conform to Class 1 survey requirement and are certified as being correct

7. n/a Rectangular box showing zoning district(s), dimensional requirements for each district, and the minimum dimensions actually provided.

SUPPORTING MATERIALS

The applicant shall submit to the Administrative Officer a narrative report providing a general description of the existing physical environment and existing use(s) of the property along with a general description of the uses and type of development proposed by the applicant. The narrative report shall include reduced copies of all plan required above plus items 3-11, below:

1. * Administrative (filing) Fee: 600.00 Plus No. of Lots 30 x Per/lot Fee $25.00= 1,350.00 Total Fee

2. ____ Project Review Fee (if required)

3. X An aerial photograph or blue line copy of an existing aerial photograph of the proposed subdivision parcel and surrounding area

4. X A copy of the soils map of the subdivisions parcel and surrounding area, and general analysis of soil types and suitability for the development proposed. If any prime agricultural soils are within the subdivision parcel(s), the soils map shall be marked to show the location of said prime agricultural soils

* To be provided under separate cover.

5. X An estimate of the approximate population of the proposed subdivision

6. X An estimate of the number of school-aged children to be housed in the proposed subdivision

7. X Fiscal impact statement (if required)

8. n/a Proposed phasing, if any

9. X A narrative detailing potential neighborhood impacts

10. n/a Open Space Use and Management Plan. See Section 4-1 (K) 5. (Required for Conservation Developments only)

11. n/a Written request for waivers of subdivision standards as per Section 7-2.

12. X Copy of Plan in digital format. (AutoCAD 2007 or newer)

13. ____ Initial written comments on the Master Plan from the following agencies

A.____	Planning Department	Date:_____
B.____	Public Works Department	Date:_____
C.____	Sewer Department	Date:_____
D.____	Building Inspector	Date:_____
E.____	Fire Department	Date:_____
F.____	Town Solicitor	Date:_____
G.____	Conservation Commission	Date:_____
H.____	Police Department	Date:_____
I.____	Other (specify)_____	Date:_____

Adjacent Communities (specify):

A. _____ Date:_____
B. _____ Date:_____
C. _____ Date:_____
D. _____ Date:_____
E. _____ Date:_____

State Agencies:

A.____ Environmental Management	Date:_____
B.____ Transportation	Date:_____
C.____ Other (specify)	Date:_____

Federal Agencies:

A.____ U.S. Army Corps Engineers	Date:_____
B.____ FEMA	Date:_____