

August 25, 2016

Mr. Jeffrey Cohen, Chair
 Bedford Planning Board
 10 Mudge Way
 Bedford, MA 01730

Regarding: Green Street / Springs Road PRD

Mr. Chair and Members of the Planning Board,

Following up on our previous meeting, and in anticipation of next week’s continued hearing, I offer to you the following responses related to observations and notations made by our team.

1. **Density** – The general consensus from the Board and many in attendance was that although the proposed density was ‘technically’ within the maximum allowable under the PRD – it felt too dense. In our redesign, taking into other concerns below, our proposed density is now total of 11 units: 2 new homes off Buehler (down from 3) and 8 new homes off Fox Run plus the existing (down from 9) – see attached DRAFT Layout & Materials Plans for Fox Run and Buehler Roads.
2. **Alignment** – The alignment of both developments raised concerns over traffic access, headlights and entrance alignment. To this end, on Fox Run at the request of abutters we have moved the curb-cut towards Springs Road and angled it approximately 10 degrees towards the intersection to alleviate headlights and direct cars to Springs Road. Alternatively, on Buehler, we moved the curb-cut further towards the center of the cul-de-sac to allow cars a smooth transition ‘around’ the cul-de-sac onto the now 2-home common driveway.
3. **Conventional subdivision** – the Board asked what ‘could’ be developed on the site – appreciating that a 3-home PRD was previously submitted off Buehler. For the hearing next week, we are finalizing a by-right subdivision plan off Fox Run.
4. **Buehler Lots are too large** – we have revised the now 2 Buehler lots to minimize their lot area thus maximizing the to-be-deeded common and public open space. This Open Space will now include a Fox Run trail connection to the Narrow Gauge Rail Trail by means of a public path with ‘floating board walk’ over wetland resources areas, currently designing for Conservation Commission meetings. In addition, the upland area in the middle of the Open Space will include a bike park along the Narrow Gauge to allow walkers and bikers to pull off and relax on benches.
5. **Fox Run development too narrow** – with a straw poll taken, and input from the BFD and DPW, we have redesigned the road to be a 22 foot road with cul-de-sac turn around.
6. **Water Pressure** – concern over the low water pressure in both neighborhoods resulted in our retaining a hydraulics engineer to prepare a flow test, resulting in their summary:

SUMMARY

In summary, this hydraulic assessment has shown that there will be essentially no impact to the water pressure within the neighborhood as a result of the proposed project. Both sets of calculations indicated that water pressure would drop less than 0.04 psi which is realistically immeasurable and *de minimis* in nature. The calculations show that adding ten homes to the neighborhood will not negatively impact the available water pressure in any measurable way.

If you should have any questions or require additional information, please feel free to contact me (x106 or eennis@gravesengineering.com).

Respectfully submitted,
 GRAVES ENGINEERING INC.


 Elizabeth Ennis, P.E.
 Project Manager

7. **School impact** – concerns over a crowded school system resulted in our looking at the school impact from this development. Over the past 3 census’, the average children per household equated to .4 - .46 students per household from 2013 – 2015. At those calculations over 11 homes, this PRD could expect to produce 4.38 total school aged children. When the total number of households are narrowed to include PRD style homes, that total number can be expected to be closer to .154 students per household – or 1.69 students – see following table:

SCENARIO 1

(represents avg for senior and VA housing and Metco & AFB students)

	*Housing Units	*Students	Children Per *unit	Student Increase 11 unit Development
Condos	9% 460	3% 71	0.15	
Single and Multi Families	78% 3945	91% 2070	0.52	
Rentals	12% 625	6% 136	0.22	
	100% 5030	100% 2277	0.45	4.98 Students

*Each housing unit represents 1 household - MLS Assessors Database

* Housing units adjusted down for senior and VA housing

* student population adjusted down for 135 for Metco and AFB not living in town -2015-2016 Student handbooks and school budget

SCENARIO 2

(represents all households per census and all enrolled students)

	*Census Households Reported	Total Student Population	Children Per unit	Student Increase 11 unit Development
*2015 Annual Report	6300	2509	0.40	4.38 Students
2014 Annual Report	5700	2490	0.44	4.81 Students
2013 Annual Report	5400	2505	0.46	5.10 Students

*increase over previous year due to

receipt of more census returns - presidential election year

*housing units may include multiple households

STUDENT DATA

Student Population

		Elementary	Middle	High
Student Population Actual - 2016 School budget	2509	1133	522	854
Backout Metco - 2016 School Budget	97			
Backout Hanscom (HS student handbook)	135			
Unidentified Student Addresses		77	5	0
Total djusted student population	2277			

HOUSING DATA

(unit data gathered from assessors database)

	Total Condo Units	Elementary 2015-2016 Directory	Middle 2015-2016 Directory	High 2015-2016 Directory	Condo Student Total
Condominiums Includes 30 1 Bedrooms					
Huckins Farm	164	5		3	8
Lane Farm	11	0			0
Shawsheen Ridge	36	3	1		4
Bedfordshire	54	5	2		7
Page Place	31	6	2	2	10
Albion Bedford Woods	30	3	1		4
96 Sweetwater	9	0	0	0	0
Stephen Lane House	8	0	0	0	0
7 Brooksbie	4	1			1
Roberts Drive	44	5	5	6	16
70 Great Road	7	0		1	1
Duplexes/Misc/unidentified	62	19	1		20
54 Loomis Street 19 (9 1br) not in count yet					
Total Condos ADB	460	47	12	12	71

	Total SF Units	Multi & SF Student Total
Single Family ADB	3444	

	Total Multi Units	Multi & SF Student Total
Multi Families		
2 Family x 2	226	
3 Family x 3	7	
Other x 2	14	
Total multi's/units ADB	247	2070

	Total Rental Units	Elementary 2015-2016 Directory	Middle 2015-2016 Directory	High 2015-2016 Directory	Rental Student Total
Rentals market/affordable					
Wheeler Drive 2/12	14	3	2	2	7
Caesar Jones 9/3	12	0	1	5	6
Taylor Pond Rental 141/47	200	10	2	4	16
Thompson Farm Rental 131/33	164	24	6	7	37
Avalon Rental 104/35	139	16	6	4	26
Bedford Village Rental 24/72	96	10	8	6	24
Other Rentals/unidentified students	0	19	1		20
Total rentals before other	625	82	26	28	136

8. **Paper Street** – concern that the area is in calculations and otherwise developable. Our title examiner has determined that the fee interest in the paper streets was indeed legally conveyed to Mr. Pino and therefore fully developable and able to be included in any PRD calculations.
9. **Architecture** – For Fox Run PRD, we are designing, marketing and selling senior-oriented / starter homes and the revised floor plans to be presented at next week's hearing will reflect same.
10. **Survey** – there was a desire to include abutting topo and homes to put the PRD into better context. Without the ability to survey on private property, the plan set and exhibits will include an overlay on the Town of Bedford GIS overlay.

We look forward to present again next week to update the board and address any further concerns that you may have. Plan sets, reflecting the above, are being submitted to the Board under separate cover and will be provided by Monday morning.

Regards,

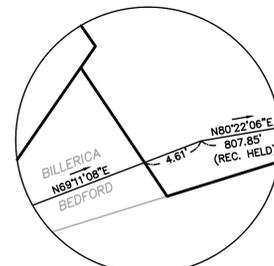
DEVELLIS CONSULTING GROUP



Brian V. DeVellis



PROPOSED R.O.W.
VED - 40' WIDE



DETAIL
NOT TO SCALE

DRAFT

DATE

**PLANNED
RESIDENTIAL
DEVELOPMENT (PRD)**

IN
BEDFORD
MASSACHUSETTS
(MIDDLESEX COUNTY)

LAYOUT & MATERIALS

JULY 13, 2016

REVISIONS:

NO.	DATE	DESC.

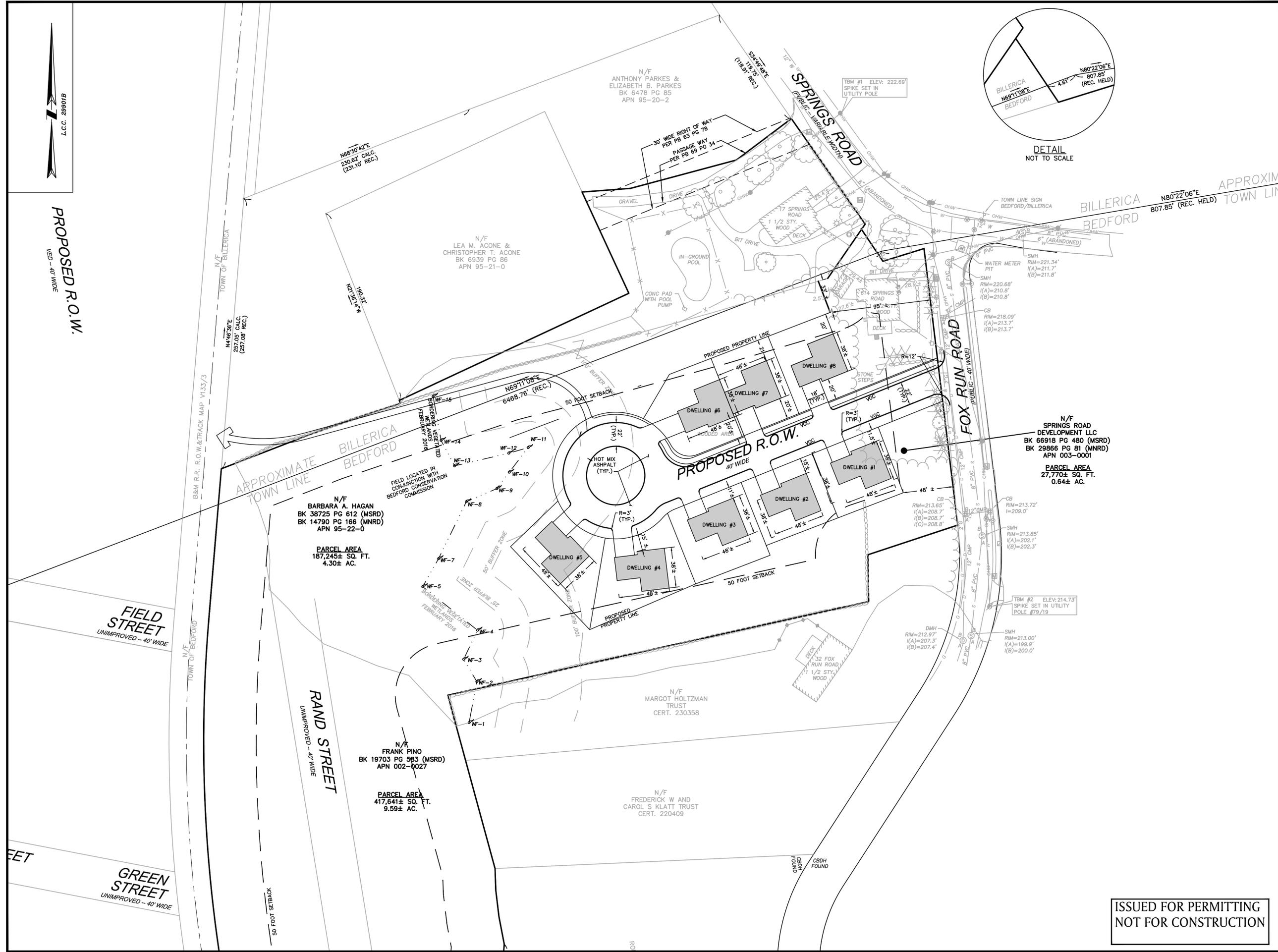
PREPARED FOR:
BERNSTEIN DEVELOPMENT LLC
C/O DEVELLIS CONSULTING GROUP
41 NORTH ROAD-SUITE 203
BEDFORD, MA 01730

BSC GROUP
803 Summer Street
Boston, Massachusetts
02127
617 896 4300

© 2016 The BSC Group, Inc.
SCALE: 1" = 40'
0 20 40 80 FEET

FILE: 2327100\Civil\Drawings
DWG. NO:
JOB. NO: 23271.00
SHEET **C-104**

**ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION**





ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION

DRAFT

DATE

PLANNED
RESIDENTIAL
DEVELOPMENT (PRD)

IN
BEDFORD
MASSACHUSETTS
(MIDDLESEX COUNTY)

LAYOUT & MATERIALS

JULY 13, 2016

REVISIONS:

NO.	DATE	DESC.

PREPARED FOR:
BERNSTEIN DEVELOPMENT LLC
C/O DEVELLIS CONSULTING GROUP
41 NORTH ROAD-SUITE 203
BEDFORD, MA 01730

BSC GROUP
803 Summer Street
Boston, Massachusetts
02127
617 896 4300

© 2016 The BSC Group, Inc.
SCALE: 1" = 40'
0 20 40 80 FEET

FILE: 2327100\Civil\Drawings
DWG. NO:
JOB. NO: 23271.00 SHEET C-105