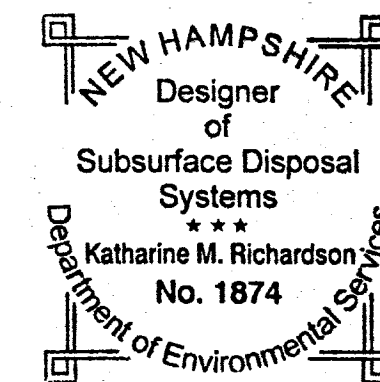


- NOTES:**
- Proposed ISDS is a new leaching field proposed in place of existing failed leaching field on a developed parcel of land serving a bed and breakfast inn with 12 guest rooms, a 2 bedroom owner's apartment, and a bar with seating for 13.
  - The existing Eljen In-Drain leach field is failed. The field is overgrown with trees and other woody growth, blocking the leaching field trenches and preventing infiltration. All tree and woody shrub growth to be completely removed, including root systems in the area of the proposed EnviroSeptic leaching field and within 10' of the outer edge perimeter of the leaching field. This area to be maintained as lawn to prevent future blockage of EnviroSeptic Pipe by tree and shrub root systems.
  - Parcel of Land is Lots #4, #8 & #9 of Hemon Pfeuti subdivision, NHDES subdivision approval #11904, and is proposed with off-site municipal water service.
  - Total Lot Area is 8.3 acres.
  - The Project is not located within 250' of the Protected Shoreland.
  - Wetlands have been delineated in accordance with the techniques outlined in the "Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1", January 1987. Additionally, no hydric soils have been determined by using the "Field Indicators for Identifying Hydric Soils in New England, Version 4", June 2018. Wetlands delineated by Gregory Howard on October 16th, 2018. The proposed leaching field is greater than 75' from delineated wetlands.
  - System sand as shown and identified on the section and cross section shall be as specified in the Presby Wastewater Treatment System NH Design and Installation Manual for Enviro-Septic Wastewater Treatment Systems, most recent version.
  - If failure of this system occurs system to be rebuilt in place.
  - Nearest surface water is greater than 75 feet away from the subsurface disposal system.
  - Installation contractor to clean, service and verify existing pump is properly functioning. In the event that the pump needs replacement replace with Pentair Hydromatic SK60 Submersible Sewage Ejector Pump.

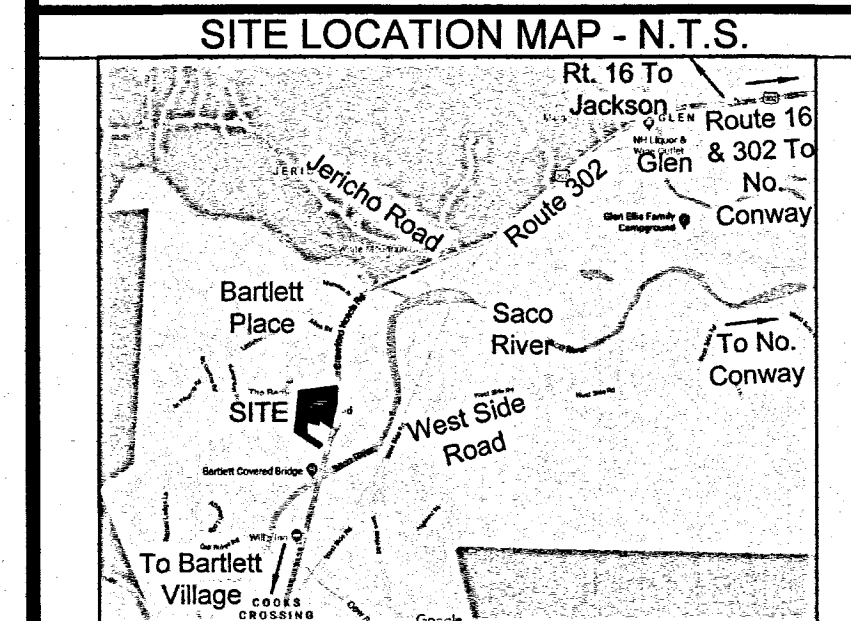
**DENSITY CALCULATIONS**  
 Cotton (CnB): 6.16 acres  
 Croghan (CyA): 2.14 acres  
 Wetland Area: 0.54 acres  
 Slope >35%: 0.15 acres

**Group 1 Soils Capacity**  
 $Q = (2000 \times 6.16) / 1.0 = 12,320$  GPD Capacity for Group 1 soils on property  
 Town of Bartlett = 75%  
 $12,320 \times 0.75 = 9,240$  GPD Capacity on Lot with Group 1 soils  
 Proposed GPD = 2,280 GPD



**LEGEND**

UTILITY POLE	BENCHMARK	TEST PIT
EXISTING 2' CONTOURS		
BOUNDARY LINE		
DELINEATED WETLAND		
NHDES SEPARATION DISTANCE		
TOWN BUILDING SETBACKS		
PAVEMENT		
2' EXISTING CONTOURS		
PROPOSED CONTOURS AT LEACH FIELD		
NITRATE SETBACKS		



PREPARED BY:  
**BERGERON**  
 TECHNICAL SERVICES LLC  
 PO Box 241  
 North Conway, NH 03860  
 (603) 356-0022

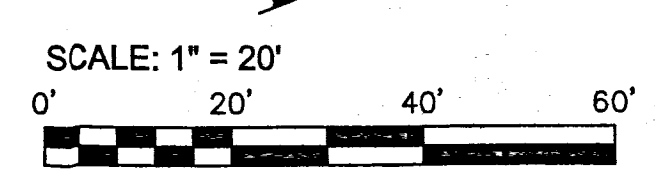
**EFFLUENT DISPOSAL SYSTEM DESIGN FOR:**  
 MLB Hospitality, LLC  
 d.b.a. The Bernerhof Inn  
 PO Box 750, North Conway, NH  
 Property Located at  
 342 Route 302, Glen, NH 03838  
 Town of Bartlett Tax Map 2RT302-3/Lot 167R00  
 CCRD V 2862/P 867

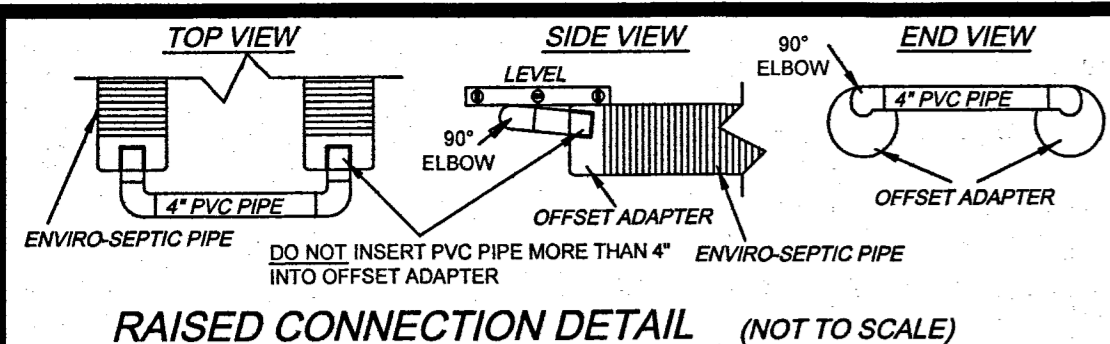
DATE: OCTOBER 29 2018 Rev.  
 DRAWN BY: KMR NH DESIGNER #1874  
 CHK'D BY: SGB      JOB NO. 2018-40

**REVIEWED AND APPROVED**  
 IN ACCORDANCE WITH THE  
 REQUIREMENTS OF THE  
 NH DEPT OF ENVIRONMENTAL SERVICES  
**WATER DIVISION**

Date: 11/9/2018  
 #eCA201810918

524/38  
 NHCOOP  
 TR  
 538/15A/39  
 NETT





**LEGEND**

- BENCHMARK
- UTILITY POLE
- EXISTING 2' CONTOURS
- BOUNDARY LINE
- DELINEATED WETLAND
- NHDES SEPARATION DISTANCE
- TOWN BUILDING SETBACKS
- PAVEMENT
- PROPOSED CONTOURS

**ENVIRO-SEPTIC PIPE ELEVATIONS**

LINE NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TOP OF PIPE	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'	100.90'
BOTTOM OF PIPE	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'	99.90'

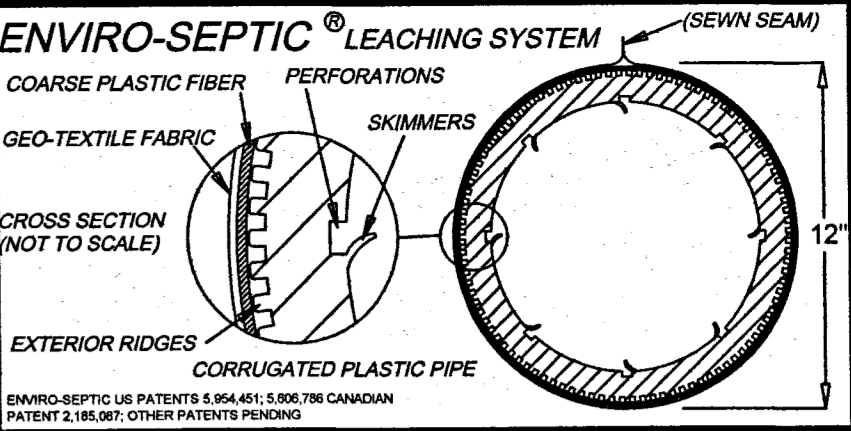
**DESIGN INTENT**  
Bottom of individual sewage disposal system (ISDS) shall be constructed at 99.90' elevation; there is approx. 6\"/>

**SPO ELEVATIONS**

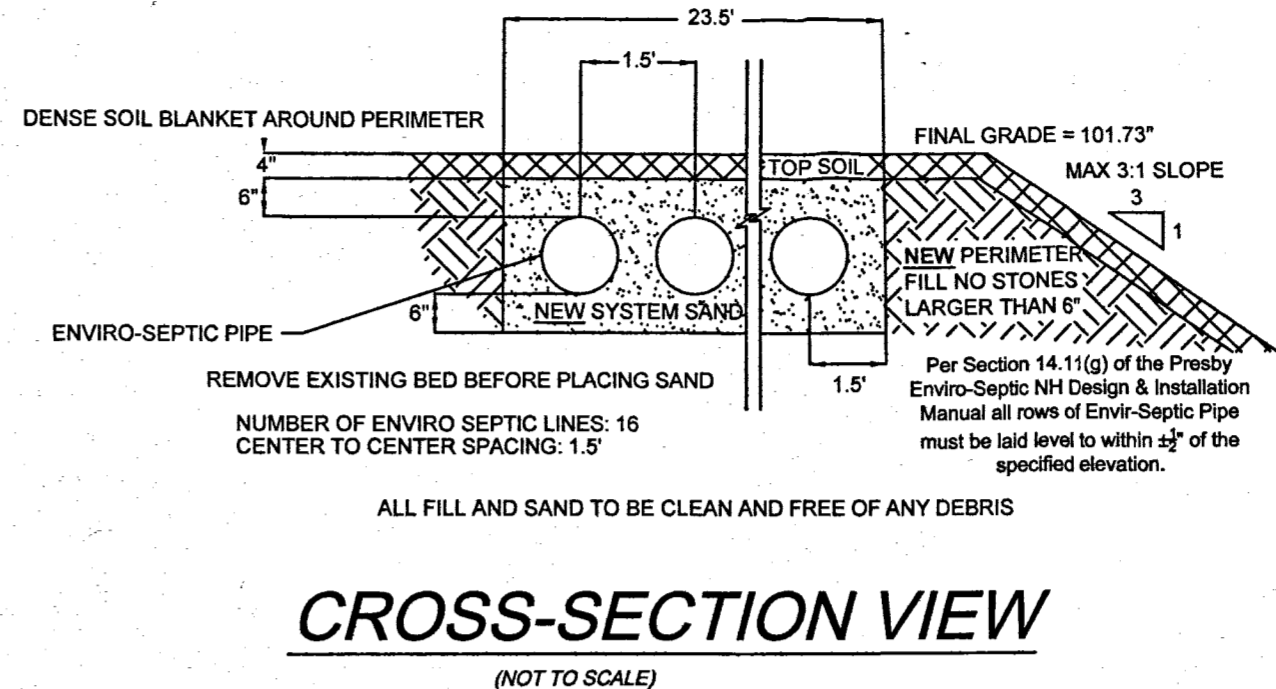
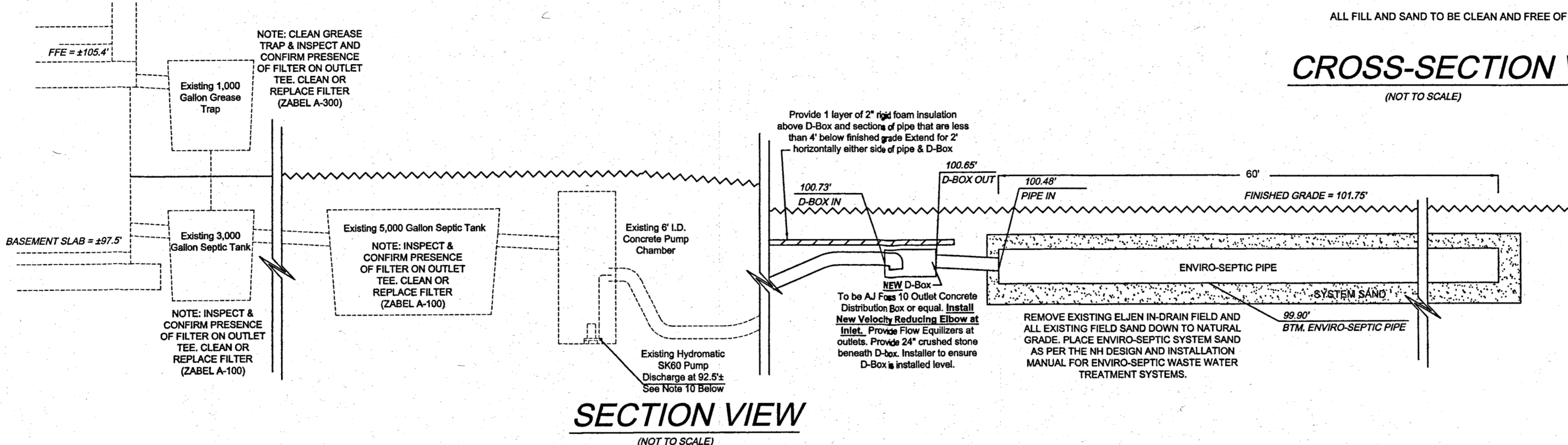
A	E
B	F
C	G
D	H

**PIPE INDEX**

A	4\"/> <tr><td>B</td><td></td></tr> <tr><td>C</td><td></td></tr> <tr><td>D</td><td></td></tr>	B		C		D	
B							
C							
D							



- NOTES**
- SYSTEM TO BE INSTALLED IN ACCORDANCE WITH PRODUCT DESIGN AND INSTALLATION MANUAL, STATE AND LOCAL REGULATIONS. FOR PRODUCT INFORMATION OR THE NEAREST DEALER CONTACT PRESBY ENVIRONMENTAL, INC. 143 AIRPORT ROAD, WHITEFIELD, NH 03598, PHONE 1-800-473-5288 WWW.PRESBYENVIRONMENTAL.COM
  - MINIMUM OF 6\"/>
  - INSTALLER ADVISED TO CONTACT DIG SAFE PRIOR TO CONSTRUCTION.
  - DO NOT INSTALL SYSTEM ON FROZEN GROUND OR LEAVE SYSTEM UNCOVERED FOR EXTENDED PERIODS OF TIME.
  - NO DRAINS, HOT TUBS, SAUNAS, GARBAGE DISPOSALS ETC. SHALL BE INCORPORATED INTO THIS SYSTEM UNLESS OTHERWISE SPECIFIED.
  - MAINTENANCE: RECOMMEND INSPECTION OF SEPTIC TANKS AT LEAST ONCE EVERY TWO YEARS AND CLEAN IF COMBINED THICKNESS OF SLUDGE AND SCUM EQUALS MORE THAN 1/4 OF THE LIQUID DEPTH INSIDE THE TANK.
  - THIS DOCUMENT IS FOR THE CONSTRUCTION OF THE EFFLUENT DISPOSAL SYSTEM SHOWN. ANYONE USING INFORMATION FROM THIS DOCUMENT FOR ANY OTHER PURPOSE DOES SO AT THEIR OWN RISK.
  - SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH ENV-WVS 1000. \*APPROVAL FOR CONSTRUCTION IS VALID FOR 4 YEARS FROM DATE OF ISSUE.
  - ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEMS ARE APPROVED BY NHDES AS ITA IN ACCORDANCE WITH PART ENV-WVS 1024. THE SYSTEM IS DESIGNED IN ACCORDANCE WITH THE ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEMS DESIGN AND INSTALLATION MANUAL NEW HAMPSHIRE ATTACHMENT.



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**FLOW CALCULATIONS:**  
Bemhof Inn, Bed & Breakfast

- 12 Guest Rooms
- 1 Owners Apartment
- Bar/Lounge (Open to Inn Guests Only)

(10) Guest Rooms with 2 person capacity @ 60 GPD per Guest  
10 x 2 = 20 persons x 60 GPD = 1200 GPD

(2) Guest Rooms with 4 person capacity @ 60 GPD per Guest  
2 x 4 = 8 persons x 60 GPD = 480 GPD

(1) 2 Bedroom Owner's Apartment @ 150 GPD per Bedroom  
2 x 150 GPD = 300 GPD

Bar & Lounge with Seating available to 13 @ 20 GPD per Seat  
13 x 20 GPD = 260 GPD

2 employees @ 20 GPD = 40 GPD

**Total Daily Sewage Flow: 1,280 GPD**

**PUMP CALCULATIONS:**  
(Pump to remain as is) Information taken from design by James Rimes, White Mountain Surveys, dated 5/20/04

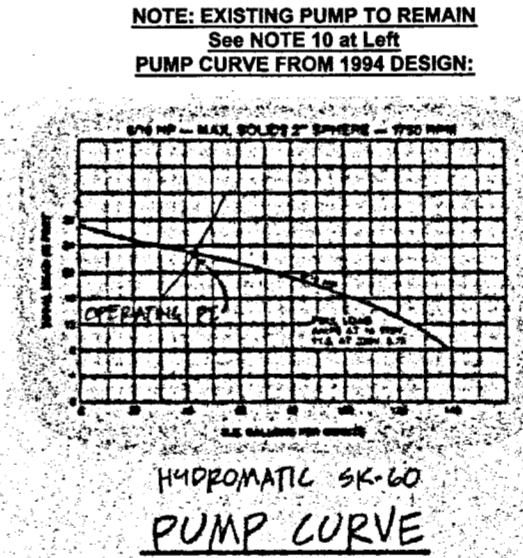
Specified Pump is Hydromatic SK60

Dose Volume: 2,280 GPD  
Dose Frequency: 5.3x per day  
2,280 / 6 = 382 gallons per dose  
Static Head: 100.73' - 92.5' = 8.23'

Length of Pipe: 320'  
Equivalent length of fittings:  
(1) Check valve: 20'  
(4) 90° Elbow: 27'  
(1) Gate Valve: 1.7'  
(1) Wye: 8'

Total Equiv Length of Fittings: 57'  
Pipe Ø: 2"  
(Total Equiv. Length + Actual Length = 377')  
377(0.55 (40)) / (140(2)2.63) \* 1.85 = 13.3' @ 40 GPM  
Total Head = 13.3' + 8.23' = 21.53'

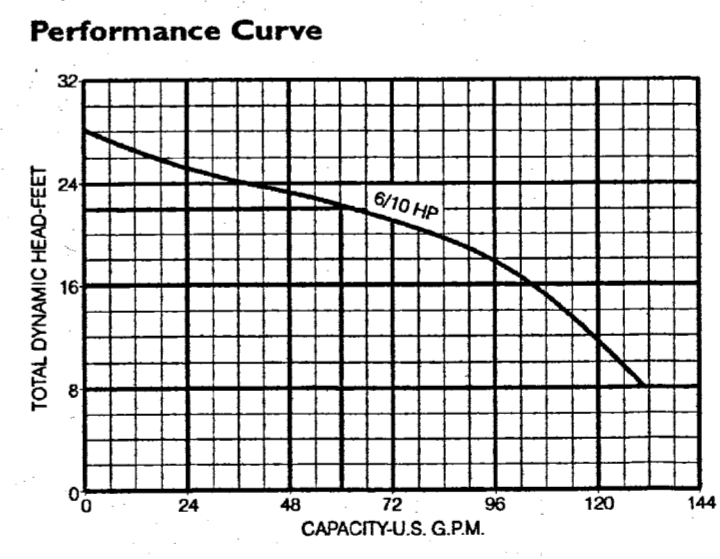
Actual Operating Point per Pump Curve = 42 GPM @ 22.5' T.D.H. V = 4.3 FPS  
Actual Run Time: 362 Gall/Dose / 42 GPM = 8.62 minutes



**PUMP CALCULATIONS:**  
(This calculation is based on pump curve for a NEW Pentair Hydromatic SK60 Sewage Ejector Pump, if necessary)

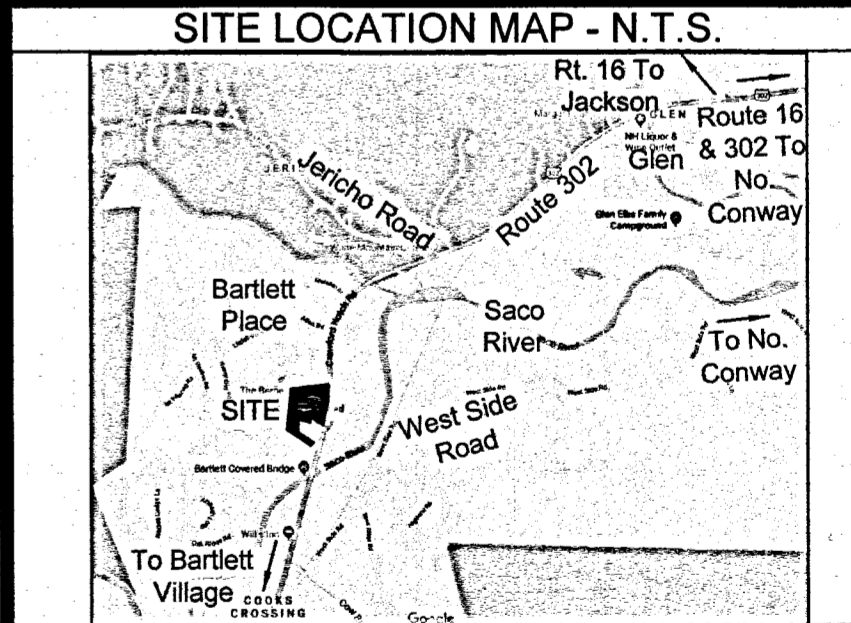
Specified Pump is Hydromatic SK60

Actual Operating Point per Pump Curve = 60 GPM @ 22' T.D.H. V = 5.7 FPS  
Actual Run Time: 362 Gall/Dose / 60 GPM = 6.03 minutes



**RECEIVED**  
NOV 08 2018  
NHDES LAND RESOURCE MANAGEMENT

**NEW HAMPSHIRE**  
Designer of  
Subsurface Disposal  
Systems  
Katharine M. Richardson  
No. 1874  
Department of Environmental Services



PREPARED BY:

**BERGERON**  
TECHNICAL SERVICES LLC

PO Box 241  
North Conway, NH 03860  
(603) 356-0022

EFFLUENT DISPOSAL SYSTEM DESIGN FOR:

MLB Hospitality, LLC  
d.b.a. The Bemhof Inn  
PO Box 760, North Conway, NH  
Property Located at  
342 Route 302, Glen, NH 03838  
Town of Bartlett Tax Map 2RT302-3/Lot 167R00  
CCRD V 2862/P 867

DATE: OCTOBER 29 2018 Rev.

DRAWN BY: KMR NH DESIGNER #1874

CHK'D BY: SGB

JOB NO. 2018-40

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NH DEPT OF ENVIRONMENTAL SERVICES  
WATER DIVISION

Date: 11/9/2018

#eCA2018110918

- DESIGN NOTE:**  
THIS DESIGN IS TO REPLACE THE FAILED EXISTING LEACHING FIELD, DISTRIBUTION BOX AND RELATED PIPING & FITTINGS ONLY. THE EXISTING GREASE TRAP, SEPTIC TANKS, PUMP CHAMBER, AND PUMP ARE TO REMAIN AS IS. THE BUILDING HAS A REDUCED DESIGN FLOW AS THE FOLLOWING USES HAVE BEEN DISCONTINUED/ADDED:
- REMOVED:
- 75 SEAT RESTAURANT
  - 10 SEATS IN LOUNGE
  - 2 EMPLOYEES
- (LOUNGE IS NO LONGER OPEN TO PUBLIC - ITS USE IS FOR INN GUESTS ONLY)
- ADDED:
- (1) 2 OCCUPANT GUEST ROOM
  - (2) 4 OCCUPANT GUEST ROOMS

TOWN OF BARTLETT  
REVIEWED BY: [Signature]  
DATE: 11/09/2018