

Date: December 17, 2024

To: Peter Gardner, L.S.

Subject Property: 5A Lorenz Industrial Parkway, Ledyard

Plan Designed by: Peter Gardner, L.S. Plan Date: **10/1/2024** Last Revision Date: **12/11/2024** Date Paid: **11/15/2024**.
The plan and associated information submitted to our office on **11/14/2024** for a proposed 2 office commercial building with public water and private septic at the above stated property, in the Town of Ledyard, is:

Approved w/conditions: Complies with the requirements of Section 19-13-B103 of the Connecticut Public Health Code; See conditions below.

Conditions:

1. The plan proposes one row of 25LF in length, of Mantis 536-8 Low Pro to be set at a base elevation of 207.00', and gravity fed by a minimum 1000-gallon tank.
2. Confirmation test pit required at Northeast end of the primary leach field prior to installation.
3. A walkthrough upon completion of the construction of the house will be required prior to the issuance of the permit to discharge.
4. Footing drains shall remain >25' from all septic components. Shall be tight piped anywhere within 25" and the trench shall be backfilled with non-free drainage material.
5. A full sized to scale print of approved plan shall be provided to LLHD prior to issuance of the permit to install.
6. Stable benchmark adjacent to proposed building and sewage disposal system. Installer should not be required to transfer benchmarks when considerable difference (more than 10' to 15') exist between the benchmark and leaching area. If the benchmark is disturbed prior to construction, the engineer should set another one for construction purposes.
7. All tanks requiring risers shall maintain the original covers on the tanks, have riser covers that weight at least 59 lbs. and/or install a safety device below the riser to prevent individuals from falling into a tank. All below grade tank or riser cover handles shall contain or be fitted with a material that can be located with a metal detector

Notes/ Recommendations:

1. If a garbage grinder or large tub over 100-gallon is to be installed the septic tank should be sized accordingly.
2. Underground Utilities shall remain a minimum of 5' from all septic components and the trench shall be backfilled with non-free drainage materials.

The following are not currently required by CT Public Health Code and/or LLHD Plan Review Policies but are encouraged/recommended to protect the proposed structures, onsite septic system, water treatment discharge system and/or water supply/groundwater.

1. All proposed well arcs should be kept on the property they serve (to allow neighbors full use of their properties) and all well casings should be located at least 10' from driving surfaces and/or structures to prevent future damage and allow for future maintenance of the wells.
2. It is strongly encouraged to keep the original tank covers on all tanks requiring risers to prevent the escape of sewer gases and prevent individuals from falling into tanks.

3. The designer should take into consideration the location of potential future water treatment discharge systems, rain gardens and footing/gutter drain discharge locations.

Additional Requirements and Recommendations:

1. **Installer to submit scaled and/or tied as-built to LLHD upon 30 days of completion with distances to flow line at house, inlet and outlet cover of tank, d-boxes, cleanouts and ends of leaching rows, well, footing/curtain drains and between tie points. In addition, provide the name of installer, date, house location and street/directional arrow.**

***Please note that soils testing indicated on this plan are representative of actual soils conditions and additional deep test pits and percolation tests may be required by the Ledge Light Health District if the building or system location is altered and/or the suitable septic area is limited. Applicant should be aware that subdivision approval IS NOT sufficient for individual lot approval. Each lot must be reviewed by the Ledge Light Health District at the time of building permit application in order to obtain lot approval and issue a septic/well permit.**

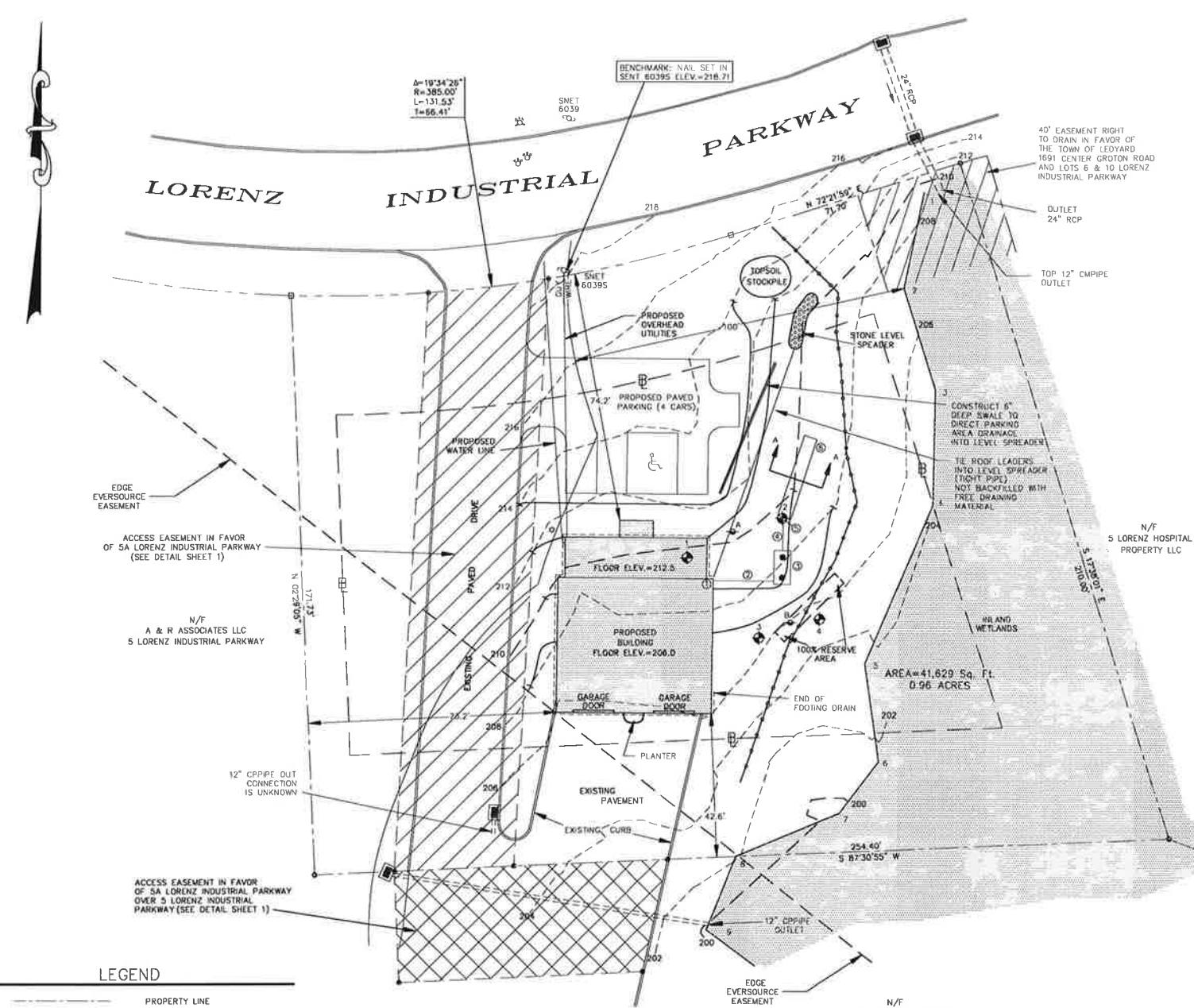
Please call me at 860-448-4882 ext 1383 with any questions regarding this matter.

Sincerely,



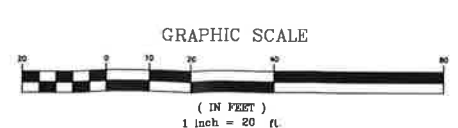
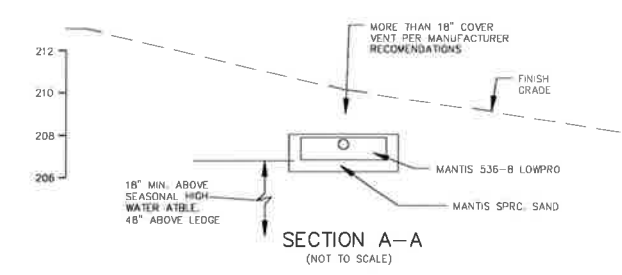
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Cc: Town of Ledyard Code Enforcement Officials.



LEGEND

- PROPERTY LINE
- STREET LINE
- - - EXISTING CONTOUR
- - - PROPOSED CONTOUR
- BUILDING SETBACK LINE
- ◆ DEEP TEST PIT LOCATION
- ◆ PERCOLATION TEST LOCATION
- UTILITY POLE
- CATCH BASIN
- SILTFENCE/HAYBALES/WOODCHIPS
- EDGE OF WETLANDS & FLAG NUMBER
- CURBING
- ⊕ WATER GATE
- ⊕ HYDRANT



DEEP TEST PIT DATA

WITNESSED AND RECORDED BY CHERYL HAASE RS, LEDGE LIGHT HEALTH DISTRICT ON JULY 21, 2021.

TEST PIT 1 0-8" TOPSOIL 8-31" ORANGE-BROWN FINE SANDY LOAM 31-84" LIGHT BROWN MED-FINE SAND/GRAVEL (LARGE BOULDERS THROUGHOUT)	TEST PIT 2 0-10" TOPSOIL W/FINE ROOTS 10-30" ORANGE FINE SANDY LOAM 30-84" LIGHT BROWN MED-COARSE SAND/GRAVEL
NO MOTTLING NO GROUNDWATER NO LEDGE	NO MOTTLING NO GROUNDWATER NO LEDGE
TEST PIT 3 0-16" TOPSOIL W/ LEAF DEBRIS 16-22" ORANGE FINE SANDY LOAM 22-80" TAN-GRAY SAND W/SILT (COMPACT)	TEST PIT 4 0-12" TOPSOIL 12-24" ORANGE FINE SANDY LOAM 24-84" LIGHT BROWN MED-COARSE SAND/GRAVEL
MOTTLING AT 18" GROUNDWATER 80", SEEPAGE AT 26" NO LEDGE	NO MOTTLING NO GROUNDWATER LEDGE AT 64"

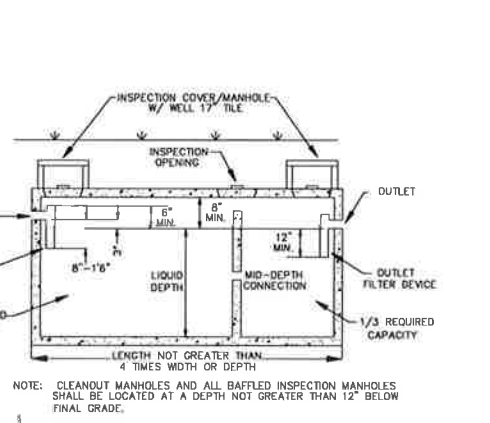
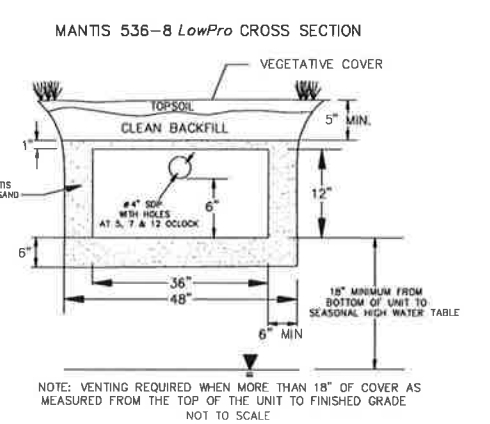
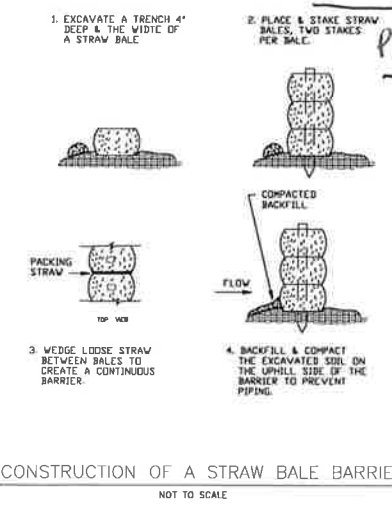
PERCOLATION TESTS
PERFORMED BY DIETER & GARDNER, INC. ON AUGUST 2, 2021.

PERC A 15" DEEP		PERC B 15" DEEP	
TIME	READING	TIME	READING
10:31	0"	10:31	0"
10:36	2 1/2"	10:36	4 1/2"
10:41	4 1/2"	10:41	8 1/2"
10:46	6 1/2"	10:46	11"
10:51	7 1/2"	10:51	12"
10:56	8 1/2"	10:56	13"
11:01	9 1/2"	11:01	14"
11:06	10 1/2"	11:06	15"
11:11	11 1/8"		

PERCOLATION RATE: 10.0 MIN./INCH PERCOLATION RATE: 10.0 MIN./INCH

- SANITARY DESIGN CRITERIA**
- PROPOSED 430 SQ. FT. OFFICE (430; 200 SQ. FT. GROSS AREA/PERSON) = 2.15 EMPLOYEES X 20 GPD = 43 GPD
 - GARAGE AREA (INDUSTRIAL BUILDING) 1840 SQ. FT. X 0.1 GPD = 184 GPD TOTAL = 227 GPD. (PER TABLE IV OF THE CODE)
 - 1000 GALLON TWO COMPARTMENT SEPTIC TANK REQUIRED BY CODE AND PROVIDED.
 - DESIGN PERCOLATION RATE: 10.0 MIN./IN.
 - MINIMUM LEACHING SYSTEM SPREAD: NOT APPLICABLE
APPLICATION RATE (TABLE B) 1.5 GPD PER S.F. 227 GPD / 1.5 = 151.3 S.F. EA
 - EFFECTIVE LEACHING AREA REQUIRED PER CODE: 152 S.F.
 - MANTIS 536-B LOW PRO SELECTED FOR PRIMARY SYSTEM DESIGN.
EFFECTIVE LEACHING AREA PROVIDED PER L.F. PER CODE: 6.5 S.F./L.F.
MINIMUM LENGTH OF TRENCH REQUIRED: 152 S.F. / 6.5 S.F./L.F. = 23.4'
 - EFFECTIVE LEACHING AREA PROVIDED:
1 - ROW - 25' LONG MANTIS 536-B LOW PRO 1 X 25' X 6.5 S.F./L.F. = 162.5 S.F.
 - 100% RESERVE AREA REQUIRED AND PROVIDED AS 25' LONG 536-B MANTIS LOW PRO.

- SANITARY ELEVATION DATA:**
- SANITARY INVERT AT FOUNDATION: 209.00
 - 18"-4" DIA. SCHEDULE 40 ASTM D1785 OR EQUAL PIPE (1 MIN. SLOPE = 1/4" PER FT.)
 - 1000 GALLON TWO COMPARTMENT SEPTIC TANK INVERT IN: 208.25
 - 9' - 4" DIA. SDR 35 PVC PIPE
 - "D" BOX INVERT IN: 207.70
 - 25' LONG MANTIS 536-B LOW PRO BOTTOM TRENCH ELEV.: 207.00 TRENCH INV.: 207.50



Handwritten notes:
 209 - 208.50 = .50 prov
 210 controllable
 84" (7')
 36" (3')
 207.00 MAX BTM
 Proposing 207.00

Handwritten note:
 Approved w/ conditions ORm 12/17/24

PLAN SHOWING PROPOSED BUILDING ON PROPERTY OF A & R ASSOCIATES INC. 5A LORENZ INDUSTRIAL PARKWAY LEDYARD, CONNECTICUT
 SCALE: 1" = 20'
 OCTOBER 2024
 REVISED: DECEMBER 11, 2024

THE WORD "CERTIFY" IS UNDERSTOOD TO BE AN EXPRESSION OF THE PROFESSIONAL OPINION BY THE LAND SURVEYOR WHICH IS BASED ON HIS OR HER BEST KNOWLEDGE, INFORMATION AND BELIEF, AS SUCH IT CONSTITUTES NEITHER GUARANTEE OR WARRANTY. THE STONE WALLS AND/OR FENCES SHOWN AS BOUNDARIES MAY HAVE IRREGULARITIES OF COURSE BETWEEN PRINCIPAL POINTS OF COURSE INDICATED.

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DIETER & GARDNER
 LAND SURVEYORS & PLANNERS
 1641 ROUTE 12
 P.O. BOX 335
 GALES FERRY, CT. 06355
 (860) 464-7455
 EMAIL: DIETER.GARDNER@YAHOO.COM



THIS MAP AND SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - MINIMUM STANDARDS OF ACCURACY, CONTENT AND CERTIFICATION FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, ADOPTED EFFECTIVE JUNE 21, 1998, REVISED OCTOBER 26, 2016. IT IS A BOUNDARY SURVEY BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 TOPOGRAPHIC ACCURACY T-2 TO MY KNOWLEDGE AND BELIEF. THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

TITLE: LAND SURVEYOR CT. No. 14208
 DATE: OCTOBER 1, 2024

