



TOWN OF LITCHFIELD

LITCHFIELD ZONING BOARD OF ADJUSTMENT
Litchfield, New Hampshire December 9, 2020

DRAFT

Regular meetings are held at the Town Hall at 7:00 pm on the 2nd Wednesday of each month.

ZBA Members in Attendance (indented if absent):

Richard Riley, Chairman

Albert Guilbeault

John Devereaux

Thomas Cooney (alternate)

Eric Cushing (alternate)

Greg Lepine (alternate)

Mark Falardeau (alternate)

Kyle D'Urso (alternate)

Laura Gandia, Vice Chairman

I. CALL TO ORDER AND ROLL CALL

Richard Riley called the meeting to order at 7:00 pm. Richard Riley indicated there are four members present and took a roll call attendance.

II. CHAIRPERSON OPENING REMARKS

Richard Riley reviewed the schedule for hearings.

Case Number: 2020-10

Name of Applicant: Theroux Properties LLC

Owner of Property: Theroux Development LLC

Location of Property: 522 Charles Bancroft Hwy, Litchfield, NH 03052, Map 17, Lot 11

Appeal Requested

The Applicant seeks a variance from LZO Section 1254 (b) to permit subsurface storage and transmission of gasoline/fuel in the Aquifer Protection District.

Richard Riley indicated that there is a four member Board this evening, which is a quorum, but not a full quorum. He asked the applicant if he would like to proceed with a four member Board or request a continuance.

Rene Theroux agreed to move forward with a four member Board.

Richard Riley pointed out that this application has many similarities to a previous application from 2012 (Case Number 2012-01), which was the first application for the gas station with underground tanks.

Attorney Morgan Hollis noted that joining him this evening are Frank Monteiro, with GPI Engineering & Construction, and Jim Petropulos, Hanyner/Swanson Engineers. Attorney Hollis indicated that in 2019, he represented Mr. Theroux in a case before the Litchfield Zoning Board (Case 2019-05), in which the previous case from 2012 came up and it was discussed that the variance for a gas station with underground tanks was denied. In 2019, Attorney Hollis came before the Board and argued the difference between the case in 2012 and the case in

2019: 1) the design was revised to include an above ground storage tank, and 2) the contamination of the aquifer had occurred at that time, which resulted in a change that should be evaluated differently. In 2019, all variances and special exceptions were approved, as well as a return appearance to request a variance for underground piping, which was granted by the Board. Attorney Hollis commented that a similar debate could be made this evening, but with the differences that were evident in 2019 with the contamination of the groundwater and the installation of water delivery along Charles Bancroft Highway by Pennichuck Water, those issues may have been resolved.

Richard Riley thanked Attorney Hollis for his statements. He noted that he checked the minutes and decision for the 2019 case, which did include substantial differences in design, specifically above ground storage tanks, and that the contamination of groundwater and subsequent piping installed by Pennichuck is still relevant. He commented that there may be other differences in this application, citing that he believes the underground tanks proposed may be of different construction.

Attorney Hollis indicated that once the application is reviewed, he will make an offer of proof that Mr. Monteiro, a renowned expert in this field, will be able to explain the substantial changes in technology since 2012 with regard to underground lines and piping, as well as the design of the storage tanks.

Richard Riley indicated he also has written testimony from the Litchfield Conservation Commission regarding the new proposal. He proposed that in light of the new information that will be offered and what we already know to be true, a motion to move forward with the new application based on the new criteria to be presented and the contamination of the well, which is still relevant. He noted that the Conservation Commission was opposed to the application from 2012, but is in support of this new proposal.

Al Guilbeault made a motion that the Litchfield Zoning Board move forward with the new application, Case Number 2020-10, with updates to a new design of the plant. Thomas Clooney seconded. The motion carried 4-0-0.

III. PUBLIC HEARING AND DELIBERATION

Notices of the Public Hearings were posted and published in the Union Leader. Notice of the meeting and agenda were posted at the town hall and public library.

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Appeal Requested

The Applicant seeks a variance from LZO Section 1254 (b) to permit subsurface storage and transmission of gasoline/fuel in the Aquifer Protection District.

Richard Riley indicated the applicant is requesting a variance to permit subsurface storage and transmission of gasoline/fuel in the Aquifer Protection District.

Attorney Hollis reviewed the previous case in 2019 and the site design that was presented at the time, which included a gas station with an above ground storage system and underground piping. He indicated the site design has now been changed and redesigned to an underground storage system. He noted that the Conservation Commission was approached first as a direct abutter. During the meeting there was much discussion about aesthetics and safety, and once the information was presented to them they preferred the underground storage vs the above ground storage.

Attorney Hollis explained there are two separate locations of the underground tanks: in front of the property and in the rear of the property where the diesel station will be located. He commented the

Conservation Commission wrote a letter of support for the proposal dated December 3, 2020. He indicated that when the variance request was presented for underground piping for the approved gas station, the Zoning Board granted the variance. He pointed out that it has been determined that the system being presented this evening would be safe for surrounding properties and the environment.

Frank Monteiro, GPI Engineering, explained the technical presentation of the proposed underground tanks. He recalled the above ground tanks in the 2019 approved proposal were located on the north side of the property and the previous application proposed three vaults with a total of 30,000 gallons of gasoline storage. He indicated today's guidelines require more fuel storage than what was proposed previously. Mr. Monteiro noted more people purchase regular unleaded gasoline than they do plus or super. The original design had four dispensers under the canopy, which fueled eight vehicles at one time and a diesel dispenser perpendicular to these dispensers. The new plan is to separate truck traffic from automobile traffic with the diesel canopy located behind the store and the retail canopy in front of the store. The canopy size for the retail is the same capacity as the original design. The diesel has three dispensers with the master dispenser located on the driver side of the truck and a satellite dispenser on the passenger side so the driver can fill both tanks simultaneously/ In the front of the property there are two underground tanks: a tank holding 20,000 gallons of regular unleaded gasoline, and a split tank holding 6,000 gallons of super unleaded and 6,000 gallons of diesel gasoline, which will be in close proximity to the dispensers. In the rear, there will be a tank holding 20,000 gallons of diesel gasoline and a small 4,000 gallon diesel exhaust tank that allows the diesel to burn more efficiently. Mr. Monteiro indicated truckers look for this type of convenience. In terms of total storage, it affects 60,000 gallons of petroleum storage in underground tanks and a 4,000 gallon exhaust tank.

Al Guilbeault asked if the capacity of underground storage has been changed.

Mr. Monteiro indicated in the original plan there were three tanks containing 10,000 gallons each, which totaled 30,000 gallons. He noted they are proposing three triple wall fiberglass tanks that will hold a total of 60,000 gallons.

Richard Riley commented what is basically being said is that the lower number was not a viable number for the business.

Mr. Monteiro commented if the storage was limited to the previous capacity, more deliveries would have to be made. He explained the previous product described was an above ground vault with triple wall containment, consisting of a double wall steel tank inside a concrete vault. (Mr. Monteiro displayed images of above ground storage tanks with different designs) Some downfalls in that design is that steel tanks are subject to corrosion and fiberglass is not. Maintenance to the steel tank would require sending people inside the tank, which is a confined space and requires oxygen to be used. Barricades surrounding the above ground vault would be required, vandalism is a concern, and it is subject to the elements.

Mr. Monteiro displayed images of the proposed underground tank system by Hydrogard. He explained how the triple wall tank is designed with a brine solution in between the inner and outer walls and has a leak detector to monitor leaks and set off an alarm at detection.

Richard Riley asked if the monitoring of the protection layer works as well in the event the outer wall leaks.

Mr. Monteiro explained if the outer wall were to crack or leak, the brine solution would leave the outer shell, the level would decrease and an alarm would sound. He indicated if there is a high water level, the water would enter the outer wall, push the brine level up and trigger the alarm.

Thomas Clooney asked about the possibility of a water level that stays even with no change.

Mr. Monteiro indicated that the water level would have to be at the exact level with the top of the dome and not change; however, during that process the alarm will be triggered if the pressure increases or decreases.

Richard Riley asked about the water table in that area.

Jim Petropulos, Hayner/Swanson Civil Engineering, commented that test pits were dug at the front of the site in the location of the tanks. He explained that they dug down 10 feet and did not hit water. He indicated that the testing that has been completed to date has been good testing and the groundwater in those locations is down 10+ feet.

Mr. Monteiro explained the tanks will be 10 feet in diameter and buried 4 to 5 feet deep, so the groundwater will never reach the top of the tanks; however, the tanks are designed to prevent buoyant action through a series of straps that hold the tank down to concrete deadman anchors in the event the water table does reach the top of the tanks. A hydrostatic monitoring system offers leak detection capability. The cavity between the inner and outer tank walls, as well as a reservoir, is filled with a brine solution so that hydrostatic pressure is continuously applied to the tank. An electronic sensor in the tank reservoir will send an alarm if the brine level changes beyond a predetermined level. There are two manholes or tank sumps:

- one houses the submersible pump and sends fuel up to the dispenser
- any piping that comes down between the dispenser and the top of the tank enters the sump, which provides secondary containment
- the brine (solution) reservoir is also attached in the wall of that area
- the other manhole houses the fill/vapor tank pump
- vapor extraction pipe sucks out vapors from the tank when it is being filled, which is returned back to the tanker
- both sumps will be triple walled and contain the brine solution in the wall cavity.

Mr. Monteiro commented some of the benefits of the underground tanks for spill detection is made better with a spill containment box that is protected from the elements. Many studies that have been done on leaks have shown 90% of all leaks are from the filling of the tanks and not the tanks themselves. This is the safest type of fuel system you can have in an aquifer area and it is not the first that we have designed.

Richard Riley commented that Mr. Monteiro spoke about the natural decay of material and that fiberglass is better than steel, as well as safety equipment for above ground tanks and the risks associated with them. He asked what type of risks can damage that tank when it is installed underground.

Mr. Monteiro indicated the potential risks are buoyant forces (tanks that are not anchored). He noted that there are concerns out west with earthquakes. He commented that the technology has been improved and fiberglass lines are designed to have flexibility in rigid points and flexible points.

Richard Riley commented it appears what you are proposing has less risk.

Al Guilbeault commented that test pits were dug and the height of the groundwater is 10 feet or so. He asked if this tank could sit in six feet of water. Mr. Monteiro indicated that it is possible, which is why we design the tanks with the strap system.

Richard Riley asked if that would be true for the tanks in both locations.

Mr. Petropulos mentioned that as the property falls back from Charles Bancroft Highway the grade slopes downward. He believes the tanks behind the building will be in a greater depth. He indicated the site will

likely need additional testing in the rear location.

Richard Riley asked if it is tolerable to put this type of tank in this environment with the high water table.

Mr. Monteiro responded it is perfectly tolerable. He indicated it is common not to find a water table in New Hampshire as the water table tends to be lower in an aquifer. He noted there is no restriction on putting tanks in water and it is common to place tanks within a high groundwater table.

Al Guilbeault asked if salt will affect the fiberglass tanks. Mr. Monteiro indicated that salt will not affect the fiberglass.

Attorney Hollis addressed the criteria:

- 1) The variance is not contrary to the public interest because the proposed use as a gas station with subsurface transmission of gasoline through pipelines from underground tanks to the pumps will not materially alter the character of the neighborhood as the tanks and transmission pipes will not be seen and cannot be hit by vehicles, and will be installed and maintained in accordance with standard gas station procedures. The proposed construction will not threaten public health, safety or welfare as the design of the subsurface transmission pipes and underground fuel storage tank is designed to control the flow of gasoline when an above ground pump calls for gas, which limits gas in the pipe to a finite amount and will not threaten the aquifer. The underground tank will be double lined and contain a leak detection system. The carrier pipe will be encased in another secondary pipe that will be monitored to set off an alarm in the event of a leak. The carrier pipe will also have a leak detector, which uses changes in pressure to detect any leaks. As the discovery of pollution from PFAS particles has already affected the aquifer, Pennichuck Water now supplies water to all properties in the area and even if there were an undetected leak the water supply would not be adversely affected. With the larger capacity storage tanks, fewer gas deliveries will be required, which would be of interest to the public.
- 2) The spirit of the ordinance is observed because it will not change the character of the neighborhood. This is a mixed use area and the tanks and pipelines will not be visible. There will be no threat to public health, safety or welfare as the design of the underground storage will be double walled tanks, a carrier pipe encased in a secondary pipe and a leak detection system, which will limit the potential for undetected leaks.
- 3) Substantial justice is done because a gas station is permitted use by conditional use permit in the Northern Commercial District and is predetermined to be a reasonable use.
- 4) The values of surrounding properties are not diminished because the specific use for the underground storage tank and underground pipeline to the above ground pump will be out of sight and regularly monitored for leaks.

Attorney Hollis referred to a letter from J. Chety Rogers, Real Estate Appraiser, testifying that the - letter from J. Chet Rogers, Real Estate Appraiser, testifying that the gas station will not diminish surrounding properties. He noted the abutter across the road supports this project as does the Conservation Commission.

- 5) Literal enforcement of the provisions of the ordinance would result in an unnecessary hardship because a gas station is a permitted use. Above ground tanks with underground transmission pipes have been approved. The purpose of the ordinance is to ensure protection of groundwater resources. There is no fair and substantial relationship between the proposed use and the application of this restriction to this property and this use. There will be sufficient safety measures taken in the design of the subsurface storage and transmission of gas through the pipeline. Underground storage tanks are required as part of the conditional use permit in the

Northern Commercial District.

Richard Riley indicated he has a copy of the letter from Mr. Rogers and attached photos, which he will put in the applicant's file. He commented that Attorney Hollis mentioned earlier that the applicant has approval for above ground storage. He noted with all the approvals received to date, the applicant could move forward today. He asked Attorney Hollis to explain why it would be a hardship if the underground storage tanks are not granted.

Attorney Hollis commented that the old standard was if you have the ability to use the property as zones you have no hardship. He indicated that has changed and that the focus of the ordinance is if there is no fair and substantial relationship between the proposed use and the application of this restriction to the property and the use. He noted that this is a unique property in the aquifer protection district. The purpose of the ordinance is to protect the groundwater resources, which is what this underground storage system will do more than will the above ground storage system. If this ordinance is enforced it would not bear a relationship to the purpose of the aquifer protection.

Hearing no further discussion, Richard Riley opened public input.

Hearing no further public input, Richard Riley asked for motion to close public input.

Richard Riley made a motion to close public input. Al Guilbeault seconded. The motion carried 4-0-0.

Richard Riley indicated the Board would deliberate through the criteria.

John Devereaux commented Attorney Hollis' testimony is fairly flawless and the information provided is agreeable.

Thomas Clooney commented the aquifer is worth protecting. John Devereaux agreed with the testimony that the aquifer will be protected.

Richard Riley indicated the demonstrated technology is favorable and the best that is offered. He commented that the applicant, legal counsel and the experts addressed all concerns. He observed that the Conservation Commission is the expert body on the aquifer and they are in support of the proposed use.

- 1) The variance is not contrary to the public interest: the Board agreed that the water table concerns were addressed as is the safety of the aquifer with new technology.
- 2) The spirit of the ordinance is observed: the Board agreed with the testimony presented.
- 3) Substantial justice is done because there is public interest in the decision: the Board agreed.
- 4) Values of surrounding properties are not diminished as photos of the above ground tanks show that they are not aesthetically pleasing: the Board agreed.
- 5) Literal enforcement of the provisions of the ordinance would result in an unnecessary hardship due to the uniqueness of the property and the new technology would protect the aquifer: the Board agreed.

Thomas Clooney made a motion to grant a variance from Section LZO 1254 (b) to allow the subsurface storage and transmission of regulated substances, including gasoline, in the aquifer protection district

as presented. John Devereaux seconded. The motion carried 4-0-0.

IV. COMMUNICATIONS AND OTHER BUSINESS

Al Guilbeault asked about the ease of public access to the meetings.

Richard Riley indicated the public can call in or watch digitally. He noted public notice is published in the Union Leader and all the information is uploaded digitally to the ZBA portal so the public can have access.

V. ADJOURNMENT

Al Guilbeault made a motion to adjourn the meeting and Richard Riley seconded the motion. The motion passed 4-0-0.

The meeting was adjourned at 8:45 p.m.

Respectfully submitted,
Michele E. Flynn