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MEMORANDUM

To:	***Peter F. Durning***	
From:	***Michael Lannan***	
Subject:	***Sanctuary Medicinals Littleton***	
Date:	***January 19, 2024***	**Ref 4834**

Tech Environmental, Inc. ("Tech") submits this memorandum in support of the Sanctuary Medicinals, Inc. ("Sanctuary") application for the renewal of the facility's Adult Use Marijuana Establishment Special Permit and in support of the Site Plan Review/Water Protection District Special Permit for the expansion of the facility that are currently pending before the Planning Board, and to the Board of Health for review.

As Tech has shared with the Planning Board, Tech endorses the continued current operation under the existing Special Permit, and the anticipated renewal of the Special Permit, which has been enhanced by the development and implementation of the Odor Management Plan (OMP). Tech also endorses the Planning Board's approval of the expansion of the facility operations (with no additional grow capacity) under the Site Plan Special Permit.

Any effective OMP is treated as a working document that is updated over time as odor control needs change or system modifications are made. Attached is the first revision of the OMP based upon the design progression for the new building. It also addresses some of the minor text inconsistencies the Planning Board raised. Typically, HVAC designs are minimal at the Planning Board permitting stage, but in this case, at the request of the Planning Board, many final design odor control details have been added to the OMP and permitting submissions.

The combination of the building expansion and the OMP will be excellent tools to safeguard that odors emanating from the facility will not constitute a nuisance under applicable MassDEP Air Regulations at 310 CMR 7.00.

In general, the odor potential from marijuana cultivation is the highest during the last stages of the growing process, so facilities that fully enclose the grow process during the later stages of growth will have the least odor potential. Sanctuary is a fully enclosed and recirculating system design, which is the best available option for controlling odors.

In a fully enclosed facility like this one, odorant production from each grow room varies with time. But since each grow room is in a different stage of growth, the facility, as a whole, has a normalized odor potential with time. The grow rooms have no exterior doors or windows. Though they are fully isolated from the outside world, they are connected to the inside of the building via access doorways. The grow rooms are positively pressurized, and the hallways are negatively pressurized to minimize the potential for outside contamination of the product. As is the case when growing or raising any monoculture product, molds or fugus that are often harmless to us, can spread rapidly if they are allowed to enter and destroy the product. When the grow room doors open, there is the potential for fugitive odor generated in the grow

rooms to leak to the hallways and headspaces around the grow rooms. It is important to remember that these odors may be "fugitive" to the inside of the building, but they are still contained in the main building.

There is also the potential for residual product odor to be emitted in the hallway during harvesting and processing of the final product. The odor potential from the finished product is exponentially lower since there is no more odor generation or odor loading flux. There is only minor odor off-gassing that continually reduces the potential odor within the product. Nevertheless, the facility maintains all post-harvest processing operations completely within the enclosed building for both security and odor capture reasons.

However, as noted during the last Planning Board meeting, the primary reason for the new ancillary building proposed is that currently there is very little space in the hallways. This lack of space requires the shifting of product and equipment to occur more than once during transfer due to limited space. The less efficient the transfer process is while moving product and equipment, the more potential there is for fugitives to be emitted from the grow rooms into the headspaces within the main building and processing areas. Therefore, simply by approving the ancillary building project under the Site Plan Special Permit, the facility will be better able to follow Best Management Practices for moving product. This should greatly reduce the fugitive odor potential within the existing building.

The new building will include three 1,000 cfm dust and odor control recirculating carbon adsorption units. The systems will be sized the same so that spare parts can be interchangeable. Although they will be the same size, they are being applied strategically with higher recirculation rates, or more passes through the system per day, for the new building processing areas with the higher odor potential, and less for the lower potential areas such as those areas for labeling and storing of packaged product.

The grinding room headspace will have the highest indoor odor and dust potential in the new ancillary building, so the air within it, without considering the air exchanges of outside air to the new exhaust carbon system will pass through the recirculating system over 70 times per day on average. This continual recirculation will make sure that the baseline odor and dust in the room remains low.

The second area, the main processing and packaging area, is where ground raw material products are converted to end products and packaged. In this area the odor potential has dropped substantially after grinding, but the product is still directly exposed to the room headspace. In this area, the air in the headspace on average within the room will pass through its recirculating odor control system over 20 times per day.

In the last two areas the odor potential is essentially lower, but the same in each room. These areas are separated into different rooms for security reasons. These two areas are the labeling areas and the final product storage areas. In these areas the product is fully sealed and has very little odor potential but given that there can be quite a bit of product in this area, minimal continual odor control will still be installed. In this area, the air within these rooms will pass through its recirculating dust and odor control system over 12 times per day on average.

These recirculating carbon units are fully self-contained and require no ductwork to operate effectively. In the last area, the unit will be installed along the common wall separating the two rooms and minimal

ducting will be included to split both the intake and discharge of the common recirculating carbon system into and from the unit, and the labeling and storage rooms.

The new ancillary building will have a second layer of odor control added for redundancy as well. An exhaust carbon adsorption system will be located outdoors between the two new buildings on the commercial side of the building, or in the new odor control/HVAC room labelled on the new building plan. The ultimate exhaust odor control system location will be determined during final design, but it is shown currently outdoors at this time.

In addition to the specific recirculating carbon adsorption odor control improvements for the building expansion noted above, Sanctuary recently installed three recirculating carbon systems in the existing building. The facility is also committing to purchasing a second ozone system to improve redundancy to the existing building regardless of the expansion plans, so the existing building will soon have three layers of odor control from a redundancy perspective (the three new recirculating carbon units located within the building in different area, the existing ozone system, and a second new ozone system).

The facility will also implement proactive odor tracking under the OMP. This will enhance responsiveness and speed resiliency. The benefit of any proactive odor monitoring is to identify potential odor increase on-site as they are occurring, so as to limit any changes in odor off-site. Tech fully endorses the proactive tracking of the actual odor on a regular basis so that it can be quickly compared to the odor baseline. This work will also provide an opportunity to provide odor screening and odor training for any Planning Board representative, Board of Health agent, public safety official, or public servant that would like to be included in the process.

The facility will also implement the odor complaint system outlined in the OMP. This will help the facility track and respond to complaints so they can explore the cause or any deficiencies in controls, and make any odor minimization adjustments needed, as soon as possible. The facility has considered the Planning Board request for a way to maintain a public facing database to track complaints. To be a good neighbor, Sanctuary is willing to provide a separate webpage that will track confirmed complaints, any causes determined, and actions taken. If requested by the Planning Board, the facility is still willing to summarize this complaint information quarterly as well and provide it to the Town in a pdf format, as we originally presented to the Planning Board.

With respect to the Site Plan Special Permit, it is important to remember that the new building is adding odor control redundancy, so any odor control downtime can be minimized, and any odor control adjustments that may be needed can be made quickly. Therefore, the approval of both applications will improve odor management at the facility.

I am confident that with existing odor control installed to date and improvements underway such as the new carbon systems and the future second ozone system, the facility has the suitable level of odor mitigation and redundancy for the existing grow and processing operations, regardless of the approval of the new auxiliary building proposed.

In addition, going forward under the OMP, odor from the facility will be monitored, and the facility will also train other town officials to provide independent odor monitoring. The facility also agrees to track confirmed complaints and post them on a website that is accessible to the public.

Lastly, the site improvements under the Site Plan Special Permit will promote even more odor mitigation. I am convinced that with the additional space and the new odor control systems associated with the Special Permit Renewal and Site Plan Special Permit, facility wide there will be more efficient operations, improved odor mitigation, and further odor control. Accordingly, Tech supports renewal of the Special Permit and approval of the Site Plan Special Permit.