ACORN ENGINEERING, INC.

Matthew Grooms – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

April 11, 2017

Subject: Comment Response Letter
121 Washington Ave Parking Lot Redevelopment – Portland, Maine

On behalf of CSH 123, LLC we are pleased to respond to the civil-related comments provided by multiple reviewers.

To facilitate the review, comments are provided below in italics followed by Acorn Engineering, Inc.'s response.

Tom Errico, Traffic Engineering – Email, 3/10/2017

Comment – *The project includes the provision of three driveways on Washington Avenue. City standards permit a maximum of two driveways for a commercial development. The applicant shall either revise the plans to meet City standards or provide supporting information justifying a waiver from the standard. In my professional opinion, the plan should be revised to include two driveways. I would further note that the two northerly driveways do not meet City standards for driveway separation. This further supports elimination of one of the driveways.*

Response – Per the discussions held during the collaboration meeting between City Staff and the project team on March 27th, the southernmost driveway, tangent to Madison St, is proposed to be eliminated while the other three driveways would remain.

The northernmost driveway will continue to provide shared access to the rear of the abutting building owned by Fox Street, LLC. This access will continue to be provided and protected via an easement between Fox Street, LLC and CSH 123, LLC. The driveway will be used by Fox Street, LLC for approximately 5 existing parking spaces and deliveries while the North Building tenants for delivery access only. Site signage has been added to the entrance with the following proposed language "Authorized Use Only". Furthermore the driveway width has been reduced from 20 ft to 18 ft to deemphasize the entrance and minimize the use from the general public.

As noted on the Site & Landscaped Plan, the abutting property, 93 Washington Ave, also owned by the Applicant is currently proposed to have a driveway be removed as part of a redevelopment project under pending City approval.

Cross access easements will be provided between Fox Street, LLC, CSH 123, LLC, Cotton Street Holdings, LLC. The easements will be finalized by the applicants attorney and submitted under separate cover.

Comment – *The site plan depicts a painted area along the south side of the building that I presume is to serve as a pedestrian walkway. I would suggest that a raised sidewalk facility be considered if this is to serve pedestrian access and egress movements to a building entrance.*

Response – It is proposed that the pedestrian walkway be protected from vehicle traffic within the parking drive aisle via bollards spaced along the edge. There will be two landings with ramps at each of the secondary egress doorways to maintain ADA accessibility along the entirety of the walkway. Refer to C-10 and C-30 (formally C-20) for bollard locations, and raised landing spot grades.

Comment – *The applicant should provide information regarding details on the northernmost driveway that appears to be partially on the applicant's property. It is unclear to me as to use and ownership of this driveway.*

Response – Refer to above response.

Comment – *I have reviewed the revised site plan as it relates to the Grain Silo and impacts to parking and circulation. Given the location to the rear of the property and limited traffic activity, I find the circulation system to be acceptable and support a design waiver for parking aisle width.*

Response – Thank you for your review; we agree that the narrower drive aisle width at the grain silo should not impact site circulation.

Matthew Grooms, Site Plan and Change of Use Review – 3/10/17

Comment – *Prior to final approval of this Level II Site Plan and Change of Use application, the use, distillery, will need to be approved and adopted as a permitted use within the B-2b zoning district by the Portland City Council.*

Response – Per the City Council order 159-16/17 effective 3/20/17, the Community Business B-2b Zone has been amended to allow distilleries as an approved and acceptable land use.

Comment – *Would the applicant consider closing the northernmost curb cut along Washington Avenue? At present, four points of vehicular ingress and egress exist at this location and this curb cut in particular, does not appear to serve a purpose.*

Response – Refer to the abovementioned response.

Comment – *On the site plan, all points of building ingress and egress shall be called out.*

Response – The Site Plan, C-10, has been revised to show the points of ingress and egress on the North Building as well as the proposed internal floor space layout and uses.

Comment – *How will refuse be handled on site? Per Section 14-527(f), the location and size of all - on-site solid waste receptacles, including on-site storage containers for recyclable materials shall be included.*

Response – The designated area to the rear of the property has been added to to reflect the proposed size of the solid waste and recyclable receptacles as shown on the Site Plan, C-10.

Comment – *Per Section 14-526 (b) Environmental Quality Standards, solid waste containers shall be screened from public sidewalks, streets and adjacent properties by means of dense evergreen landscaping, fencing, masonry wall, building walls or a combination thereof.*

Response – Because the proposed solid waste storage area is behind the building and not directly abutting any properties, the solid waste receptacles are not visible from the public right-of-way and are thus not proposed have additional screening. The receptacles will be screened from public view on Washington Ave by the surrounding building and site landscaping.

Comment – *The central parking lot landscaping aisle appears to be roughly 7.15 feet in width, whereas under Section 14-526 (b) Environmental Quality Standards, a landscaping island measuring 8 feet in width not including curbs is required.*

Response – The parking island has been widened to reflect the 8-foot minimum; refer to the Site & Landscape Plan, C-10.

Comment – *Lighting cut sheets are included as a separate document with this submittal. Are there to be any newly proposed exterior lighting as part of this project? If so, the applicant shall clearly indicate location and include associated photometric plan.*

Response – There will be new exterior lighting along the North Building; the approximate location is as noted on the Site Plan, C-10. The photometric plan has been developed by Swaney Lighting and has been added to the application submission package. The lighting cut sheets have been updated to reflect the lighting specifications as well.

Comment – *The proposed development includes multiple parcels listed under separate controlling entities. Would the applicant consider putting all lots under common ownership? If not, the applicant shall formalize and submit for review new access easements for this site.*

Response – It is proposed that the parcels remain under separate entities. As such, we have drafted a stormwater, access, parking, and landscaping easement between CSH 123, LLC and Cotton Street Holdings; the easements are to be submitted under a separate cover by the project attorney.

Comment – *At present, are there any formal agreements that allow off-site patrons to utilize the existing off-street parking at this location? If so, will these agreements remain in effect once this project is complete?*

Response – The Applicant currently leases a portion of the parking spaces to off-site patrons of 75 Washington Ave. 75 Washington Ave is also owned by the applicant. These agreements are to remain and a summary of allocated spaces to off-site patrons is as listed within the Site Plan.

Comment – *Once operational, what are the proposed hours of operation for these businesses?*

Response – The proposed hours of operation for the businesses are as follows:

South Building	
Office Space	8am – 5pm
North Building	
Distillery	12pm – 11pm
Wholesale Seafood	12pm – 10pm
Bakery/Café	8am – 6pm

Comment – *In order to more clearly demonstrate parking requirements at this location, the applicant shall provide a detailed breakdown of internal uses at this site, listing the square footage for each proposed use. This information shall be included in the parking calculation table located on the site plan.*

Response – A parking space breakdown has been added to the Site Plan. An extension of the table, including the assumptions behind the calculations is as follows:

			Floor Area (sf)	Floor Area per Parking Space	Required Parking Spaces	
North Building	Distillery	Warehouse/Production	8,859	1,000	9	
(123 Washington)		Bar & Retail	2,073	150	14	
	Wholesale	Wholesale/Production	1,153	0		
		Bar	1,153	150	8	
	Bakery	Production	2,061	0		
		Café (Restaurant)	2,061	150	14	
				TOTAL	**45**	*Minimum*
					50	*Proposed*
South Building	Office	Office	5,070	400	**13**	*Minimum*
(107 Washington)					**14**	*Proposed*
			TOTAL ON-SITE PATRONS		64	
Off-Site *(75 Washington)*	Office	Office	*16,400*	400	**46**	*Proposed*

Comment – *How many spaces will be made available for bicycle parking?*

Response – At least eight (8) bicycle parking spaces be made available in the area as highlighted on C-10.

Comment – *Per discussions with the City Arborist, the center island shall include 3 additional parking lot trees, and all trees should be more uniformly distributed throughout the island as opposed to being clustered towards the rear of the site.*

Response – The landscaped islands is proposed to be planted as such to avoid root impact to the new storm drain that crosses below the island and bypasses the modular concrete slab BMP. As such, a less root intensive deciduous shrub is proposed to maintain a landscaped element to the parking island and not affect the integrity of the subsurface piping system. However, as a result of

the recent modifications to the site stormwater design, another tree within the landscaped parking area was added to the Landscape Plan.

Lauren Swett, Civil Engineering – 3/9/17

Comment – *Basic Standard: plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500. However, the Erosion Control Plan should specify a location for a stabilized construction entrance.*

Response – C-30 has been revised to note the proposed location of the stabilized construction entrance.

Comment –*General Standard: The proposed project will result in a net increase in impervious area of 2,386 square feet. As such, the project is required to include stormwater management features for stormwater quality control. The Applicant has proposed a series of Modular Pervious Concrete Pavers with an underdrained subbase. The following comments should be addressed:*

1. *The amount of re-developed impervious area is unclear; if there will be 5,000 sf or more of non-roof re-developed impervious area, Section 5 of the City's Technical Manual requires treat of 50% of this area, in addition to the treatment of new impervious areas. The Applicant should clarify.*
2. *The Applicant should clarify how the Treatment Volume Provided was calculated.*
3. *The Porous Pavement Detail should be revised to specify the depth of each layer per chapter 7.7 of Volume III of the MaineDEP Stormwater BMP Manual.*
4. *The Underdrained layer should consist of gravel meeting the MDOT Specification 703.22, Type C per Chapter 7.7 of Volume III of the MaineDEP Stormwater BMP manual.*
5. *Per Chapter 7.7 of Volume III of the MaineDEP Stormwater BMP Manual, the area of pervious pavement should be no less than 20% of the impervious area that drains to it; it appears that the proposed pervious pavement is approximately 15% of the impervious area that drains to it.*

Response –

1. As described in the Stormwater Report, the net impervious surface area does not include the existing compacted gravel section of the parking lot because paving the area at the same line and grade would be considered a maintenance activity by the MaineDEP and thus not considered redeveloped impervious area as defined by Chapter 500. The surface breakdown is shown in greater detail in Attachment D of the Stormwater Report.
2. Per Chapter 7.7 of the MaineDEP Stormwater BMP Manual, the water quality treatment volume is to be provided by the reservoir layer within the Pervious Panels system. The volume required and calculations are as follows:

$$Treatment\ Volume\ (cf) = \frac{\left((Impervious\ Area \times 1.0") + (\text{Disturbed Area} \times 0.4")\right)}{(12"/1')}$$

$$Required\ Treatment\ Volume\ (cf) = \frac{(2{,}809\ sf \times 1.0")}{(12"/1')} = 234.08\ cf$$

$$Water\ Quality\ Volume = Filter\ Area \times Reservoir\ Depth \times Porosity$$

$$Provided\ Water\ Quality\ Volume = (480\ sf)\times(1.25\ ft)\times(40\%) = 240.00\ cf$$

3. The layer depths within the Precast Pervious Panels detail on C-32 has been revised to reflect the minimum depths as stated in Chapter 7.7. This includes defining the crushed stone reservoir depth by storage volume required and reducing the underdrain layer to the minimum 12".
4. The underdrained crushed stone layer has been revised in the to meet the MDOT specification 703.22, Type C per Chapter 7.7.
5. The surface area of the pervious concrete has been increased to 480 sf to be adequately sized for the 2,329 sf of impervious area draining into the system.

Comment – *<u>Flooding Standard:</u> The proposed project will result in a net increase in impervious area of 2,386 square feet. As such, the project is required to include stormwater management features to control the rate or quantity of stormwater runoff from the site. The Applicant has proposed an Underdrained Infiltration Trench. The following comments should be addressed:*

1. *The Post-Development Stormwater Plan indicates that the proposed Infiltration Trench will collect runoff form adjacent impervious area; however, based on proposed grading, it does not appear that the proposed Infiltration Trench will collect runoff from any impervious area; the proposed grading should be revised as necessary.*
2. *The HydroCAD models should be revised to utilize the rainfall amounts specified in MaineDEP Chapter 500 Rules.*
3. *The grass cover for the Site has been modeled as "Poor Condition" (<50% growth) in the Pre-Development HydroCAD model and "Good Condition" (>75% growth) in the Post-Development HydroCAD model. This does not appear to be an accurate representation of the existing condition. The Applicant should clarify what measures will be implemented to ensure such significant growth.*
4. *The Pre-Development HydroCAD Routing Diagram includes nodes not shown on the Pre-Development Stormwater Plan. The Applicant should clarify.*
5. *The Time of Concentration for several subcatchments in both the Pre- and Post-Development models have been calculated to be less than five minutes; a minimum time of Concentration should be utilized for these subcatchments to maintain consistency with subcatchments that utilize a Direct Entry Method of five minutes.*
6. *The Infiltration Trench overflows during the 25-year storm event; the HydroCAD model should be revised to include a secondary outlet from the Infiltration Trench that routes overflow to the downgradient catch basin.*
7. *The Applicant should clarify what Outlet Device #2 in the Porous Concrete is intended to represent.*

Response –

1. Additional spot grades have been added to C-30 to detail how the runoff from the newly paved surface is to flow into the infiltration trench.
2. The HydroCAD rainfall amounts have been updated for the 2-, 10-, and 25-yr storm to 3.1", 4.6", and 5.8" respectively as listed in Appendix H of the MaineDEP Chapter 500 Rules. The Stormwater Report has been updated to reflect these changes.
3. The HydroCAD has been revised to reflect Good Conditions for the on-site grass coverage in

both the Pre- and Post-development conditions; refer to the Stormwater Report for additional information.

4. The Pre- and Post-Development Stormwater Plan has been revised to reflect the final point of interest #99 along Washington Ave. The pond on the Pre-Development HydroCAD schematic has also been updated to 1P.
5. All subcatchments that previously used a calculated time of concentration less than 5 minutes have been revised to reflect a minimum assumed time of concentration of 5 minutes.
6. The infiltration trench was lowered 9" to ensure that the system does not overflow away from the downgradient catch basin during the 25-year storm event.
7. There is no longer an Outlet Device #2 proposed for the pervious concrete.

Comment – *The Stormwater Management Plan should include a stormwater inspection and maintenance plan developed in accordance with and in reference to the maintenance criteria of the MaineDEP.*

Response – A Stormwater Inspection and Maintenance Plan has been added to the application.

Comment – *The Applicant should clarify what provisions are being taken to ensure that depth to groundwater in the vicinity of the proposed BMPs will not be an issue.*

Response – As outlined in Chapter 7.7 of the Stormwater BMP Manual there is a minimum required separation from the groundwater table for infiltration systems but no minimum separation outlined for filtration systems. The Cumberland County Soil Conservation Service also identified Hinckley soil series as the existing site soils. Hinckley soils are defined as deep, excessively drained soils.

In addition, no standing water was observed on March 16th, 2017 during onsite earthworking activities at depths approximately ten feet below finished floor elevation (about 65'). The field observation was made following a large snowstorm thaw which would have impacted the groundwater level. Therefore, it is our professional opinion that if no water was observed in these conditions combined with the use of underdrains, that it is unlikely that the panel BMP system at a minimum 68' elevation will be impacted by groundwater.

Comment – *A photometric plan should be provide demonstrating minimal light trespass in accordance with Section 12 of the City of Portland Technical Manual.*

Response – See above answer.

Comment – *Per Section 13 of the City's Technical Manual, the Applicant is required to submit a Boundary Survey that has been stamped by a Maine Licensed Professional Surveyor.*

Response – A stamped Boundary Survey (Existing Conditions Plan) was submitted as part of the application drawing plan set.

Comment – *A location in the parking lot to the east of the building has been identified as reserved for solid waste storage and bicycle parking. The layout of this area should be shown in detail. If a*

dumpster is to be installed, the Applicant should show how solid waste trucks will be able to access the site for removal.

Response – The area has been more clearly detailed in the revised Site Plan, C-10. An Autoturn exhibit has also been added to the application to outline the ability of a solid waste removal truck to enter, maneuver, and exit the site successfully.

Comment – *Proposed storm drains have been designed with only 2 feet of cover; the Applicant should clarify what provisions are being made for frost conditions.*

Response – The detail for a typical storm drain and sewer trench section as provided on C-32 states that storm drains with between 2' – 3' of cover are to be surrounded in 4" rigid insulation.

Comment – *Sheet C-20 indicates existing CB-1 will be removed; the Applicant should clarify whether existing storm drain associated with this basin will also be demolished and revise the plans accordingly.*

Response – An additional note has been added to C-30 to indicate that the existing 12" PVC outlet pipe from CB-1 is to be removed alongside the catchbasin. All flows conveyed by this stormdrain will be redirected to the proposed catch basins and storm drains.

Comment – *The Applicant has provided a bituminous pavement profile for Washington Avenue, but it doesn't appear that any work is proposed within Washington Ave; the Applicant should clarify.*

Response – The detail had previously applied to the replacement pavement depths for the pavement cuts required for vertical curb replacement within the Washington Ave right of way. However, there is now new utility work proposed within the street for sewer and water service connections that will require full-depth pavement reconstruction in Washington Ave.

Comment – *The Applicant should provide a detail for the full depth construction of new pavement.*

Response – The Geogrid Pavement Profile on C-40 is to be used for the entirety of the parking lot to be paved. This profile has been used on past completed projects at 89 Anderson Street and 165 Presumpscot Street.

Comment – *The Applicant should provide a detail for the proposed paved drainage swale and clarify whether the proposed drainage course will interfere with traffic through the driveway entrance.*

Response – Additional spot grades for the paved drainage swale has been added to sheet C-30 to further clarify that the proposed drainage course will have minimal impact on traffic flow but still adequately convey stormwater to the proposed catch basin. The detail on C-40 (formally C-30) has also been updated.

Please let me know if you have any additional questions or comments.

Sincerely,

William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.

Olivia Dawson, E.I.
Design Engineer
Acorn Engineering, Inc.