



January 8, 2021

Attn: Loni Fournier  
Senior Planner  
CC: Heather Charles Lis  
Town of Hingham  
210 Central Street  
Hingham, MA 02043  
Phone (781) 741-1419

**RE: Conservation Commission Review  
Proposed Warehouse – 60 Research Road**

Dear Ms. Fournier, Ms. Charles Lis and Members of the Board;

This letter is being submitted in response to the comments provided by Ms. Charles Lis of the Hingham Conservation Commission (HCC) via email on November 25, 2020, and supplemental comments provided via email on November 30, 2020, regarding the Proposed Warehouse Project at 60 Research Road in Hingham, Massachusetts. Crocker Design Group, LLC (CDG) has reviewed the comments and offers the following responses to each comment below. In addition, the following revised and supporting documents are enclosed:

- Site Plans with revision date of 1/4/2021
- Stormwater Report with revision date of 1/4/2021
- Site Plan Peer Review Response Letter to Chessia Consultants, dated 1/4/2021
- Traffic Peer Review Response Letter to Vanasse & Associates, Inc., dated 1/4/2021
- Hingham Police Peer Review Response Letter, dated 1/4/2021
- Hingham Fire Department Response Letter, dated 1/4/2021
- Existing Vs. Proposed Site Layout Exhibit 1/4/2021
- Draft SWPPP, Submitted to Planning Board 10/21/2020
- Purchase & Sales Agreement for 73 Abington Street, Dated 06/24/2020

Original comments provided by HCC indicated below in standard text with CDG's response in **bold text**.



## NOI Application

Comment 1: The list of current property owners and property narrative was clear and helpful, and I understand the owner is in the process of acquiring a portion of the parcel to the south of Lot A, changing lot lines, and acquiring the entire parcel to the southwest. However, we need permission in writing from all current property owners to permit work, so depending on the timing of the acquisitions we will need proof of new ownership or documentation from current owners.

**CDG Response: Acknowledged. Gill Research Drive, LLC owns 60 Research Road and has now completed the purchase of the AW Perry property. Gill Research Drive has the 73 Abington Street property under Purchase and Sales agreement and anticipates closing on the land the week of January 17<sup>th</sup>. Attached are copies of the deeds for both 60 Research Road and the AW Perry portion now owned by Gill Research Drive LLC. Also, attached is the purchase and sales agreement for 73 Abington Street from the seller's attorney granting permission to Gill Research Drive, LLC to perform the work shown on the plans.**

Comment 2: The water main extension and temporary construction access should be included in the project description, and narrative (see comment below).

**CDG Response: The water main extension and temporary construction access has been added to the project description. Please refer to the narrative provided within the Stormwater Report, Section 1.0.**

## Wetland Resource Areas

Comment 3: I'm aware that wetland resource areas, including BVW and Riverfront Area, have current delineations that have been approved by the Commission.

**CDG Response: Acknowledged. Also, as discussed, we have updated the plans to reflect the approved ORAD plans prepared by CHA. As you know, we realized the survey information provided to us by CHA did not the final adjustment of a few of the flag locations as part of the final negotiations with the ConCom's peer review consultant during that ORAD process. Both CHA's survey plans as well as the Site Plan Set have been revised accordingly and the site design has been modified to remain outside the 50' buffer zone.**

Comment 4: I will recommend the Commission make no finding relative to Bordering Land Subject to Flooding, which would require additional analysis for a Zone A, with no associated elevation. In any case, the work does appear to be outside the floodplain given the existing topographic change between proposed work and the FEMA-mapped flood zone. The Commission



also typically factors in proposed changes on FEMA's "preliminary" draft maps for the Charles watershed, as you noted.

**CDG Response: Acknowledged.**

Comment 5: Similarly with regard to the Zone A Surface Water Supply Protection Zone, although you have documented a reasonable suggested change based on actual wetland boundaries, I will recommend the Commission make no specific finding since this is not a wetland resource area.

**CDG Response: Acknowledged.**

Plans

Comment 6: It would be helpful to have a graphical depiction of the existing and proposed limits of pavement and disturbance on the same plan. Although it make sense to also have the separate plans, it's a bit difficult to assess the changes at the edges.

**CDG Response: We have prepared an exhibit accordingly. Please refer to the attached Existing V. Proposed Site Layout Exhibit which depicts existing and proposed limits of pavement in the same plan.**

Comment 7: Please add the 50 and 100ft buffer zones to the "B" series wetland to the plans (at least to the Overall Layout Plan, Layout Plan, Grading & Drainage Plan, Utilities Plans) in the vicinity of the work. Much of the buffer zone around this wetland system is beyond the limit of work and it isn't critical to show on the plans, but in the southeast corner of the 60 Research Rd parcel, there is some overlap.

**CDG Response: We have updated the Overall Layout Plan, Layout Plans, Grading and Drainage Plans and Utility Plans to incorporate the 50' and 100' buffer zones to the "B" series wetlands as requested.**

Comment 8: Similarly, please add the 100ft buffer zone to the "A" series wetland and series "B" as appropriate to the Landscape Plan so it's easier to see which plantings fall within the buffer zones.

**CDG Response: We have added the 100' buffer zone to the "A" series wetland and series "B" as appropriate to the Landscape Plan so it's easier to see which plantings fall within the buffer zones.**

Erosion and Sedimentation Controls



Comment 9: As you may be aware, the Commission does not allow straw or hay products due to concerns over invasive plants/seeds, so for the drain inlet protection, silt socks should be specified (as opposed to being an option) within wetlands jurisdictional areas, and ideally across the site given the drainage to wetlands.

**CDG Response: We have revised the detail to eliminate the callout for straw or hay products and instead call for silt socks, in accordance with the Hingham Conservation Commission’s policies.**

Riverfront Area & Buffer Zone Impacts

Comment 10: I did not see a project narrative submitted with the application (only a property narrative, which only included some information). Ideally a more detailed summary should be provided explaining the proposed work and addressing compliance with the performance standards for Riverfront Area and Buffer Zone.

**CDG Response: Please refer to the Stormwater Report, Section 1.10, which provides a detailed overview of the proposed improvements within the Riverfront Area at the eastern portion of the site.**

Comment 11: There should also be a quantification of the work in terms of increase in impervious area across the project and within buffer zone, and change in surface types.

**CDG Response: Please refer to the Stormwater Report, Section 3, which provides an outline of proposed work within each of the resource areas and buffer zones, as well as proposed mitigation. Please also refer to the table below which provides a breakdown of the existing impervious areas, and the proposed decrease within the BVW buffer zones.**

BVW Buffer Zone	Total Buffer Area		Existing Impervious		Proposed Impervious		Change in Impervious Area	
	(SF)	(AC)	(SF)	(AC)	(SF)	(AC)	(SF)	(AC)
100-50 FT	91,394	2.098	23,014	0.528	29,681	0.681	6,667	0.153
50-0 FT	89,269	2.049	3,989	0.092	2,707	0.062	-1,282	-0.030

Comment 12: Related to this, is there any change in impervious area in Riverfront Area? Assuming the work in Riverfront Area could be considered redevelopment, the regulations still require an improvement to the Riverfront Area, which is in addition to managing stormwater in accordance with the Handbook. Are there any opportunities to improve this area through plantings or other measures?



**CDG Response: Please refer to the table included in the Revised Stormwater Report, Section 1.5,3 , and provided below. The table provides the areas of Riparian Zone within the property, and the respective existing and proposed impervious areas.**

Riparian Zone	Total Riparian Area		Existing Impervious		Proposed Impervious		Change in Impervious	
	(SF)	(AC)	(SF)	(AC)	(SF)	(AC)	(SF)	(AC)
100-50 FT	91,394	2.098	23,014	0.528	29,681	0.681	6,667	0.153
50-0 FT	89,269	2.049	3,989	0.092	2,707	0.062	-1,282	-0.030

Comment 13: I know you have put a lot of effort into extending the water main and it seems that the location has been chosen to avoid the 50ft buffer, which is really appreciated. I also know there are easements to consider. However, is there any possibility of moving it slightly further to avoid the 100ft buffer altogether?

**CDG Response: The water main design has been relocated to be outside the 100’ buffer zone in as short a distance as possible. The end of the existing water main that this extension connects to is within the buffer zone, so that small extent of work within the buffer zone could not be avoided, however the design keeps the water main through the construction access path that was previously created to minimize overall land disturbance accordingly. Please refer to the Proposed Water Main Loop Exhibit, Sheet W-1, in the revised Site Plan Set, enclosed.**

Stormwater Management

Comment 14: I agree with the general and stormwater-related comments made by the peer review engineer hired by the Planning Board (John Chessia) and comments should be addressed to the satisfaction of the Commission.

**CDG Response: Acknowledged. The revised plan set, associated stormwater report and a separate response letter has been submitted to the Peer Reviewer through the Planning Board. We anticipate an updated review being completed ahead of the next Planning Board hearing on January 25<sup>th</sup> and subsequent Conservation Commission hearing on February 1<sup>st</sup>.**

Comment 15: Additional information should be provided on the existing stormwater system if possible to determine why there has been a failure and whether this may affect the proposed system.

**CDG Response: John Hoadley & Sons performed a video inspection of the existing drainage system. They observed that the various catch basins and drain manholes are all connected together with piping to convey the runoff into only three pre-cast concrete subsurface infiltration chambers. The system was found to have no outlet. Based on our observations,**



**we conclude the existing system appears to be drastically undersized for the catchment area it collects, is located within seasonal high groundwater conditions, lacks a formal outlet which leads the system to back up essentially in any/all rain events.**

**We note that the existing hydrology model accounts for the overall catchment area associated with this system to be “woods”. This approach essentially accounts for that area in its prior undeveloped state which would result in conservative (low) existing peak rates of runoff from which to compare the proposed improvements to.**

Comment 16: The Stormwater Handbook requires consideration of Low Impact Development techniques. Were any smaller LID features or vegetated BMPs considered, or are any feasible for inclusion on this site?

**CDG Response: The design has been updated to incorporate a stone drainage trench along essentially the eastern perimeter of pavement edge to help promote stormwater recharge and some treatment prior to the overland discharges that occur today. That trench also includes the placement of boulders approximately every 30-feet along its length to provide a physical and visual barrier to help prevent future migration of the developed site in that direction. There is no feasible alternative to provide an LID based stormwater system in lieu of the subsurface systems proposed given the heavy-use nature of the site for a warehouse/manufacturing type facility such as this.**

Comment 17: As far as I can tell, test pits were not done in the area of the proposed UG-1 subsurface chambers. This should be done to account for any groundwater and impacts on detention chambers. Alternatively and preferably, assuming soils are suitable, could infiltration chambers be considered for this location to increase overall groundwater recharge?

**CDG Response: Test pits were not performed at this location given that portion of the site within the active area used by McCusker Gill as part of their ongoing operations and this area could not be taken out of operation to complete the test pits. We expect the soils characteristics and groundwater elevations in this area to be the similar to those found on site consistently with the test pits performed to date. Given the lower proposed grades in the vicinity of this underground system, we do not anticipate recharge or infiltration credit being feasible at this location as the requisite separations to groundwater cannot be provided. As such, we have proposed this system to have a liner and no recharge or infiltration credit is utilized in the hydrology modeling.**

Comment 18: TSS. More documentation is needed to confirm whether the standard is met. Data is required for the entire site and for the proprietary units, independent testing results or TARP/STEP data are required for proprietary BMPs, not just manufacturer data. For the CDS units, the Commission would likely accept the peer review engineer’s recommendation of 30% TSS removal. I agree that the detention system should not be credited with 80% TSS removal.



**CDG Response:** We have revised the design of the system to include:

- **Off-Line Oil/Grit Separators (sized for the required 400 cu.ft/impervious acre),**
- **Deep sump hooded catch basins (each having less than 0.25 acres of contributing impervious area),**
- **Subsurface Infiltration System with the required 44% pretreatment**
- **Subsurface Detention System with Isolator Row Plus, which provides 80% TSS removal credit per NJCAT.**

Comment 19: LUHPPL. The Stormwater Report mentions oil-grit separators, which I do think would be appropriate on this site, however I'm not seeing them on the plans unless I'm missing something.

**CDG Response:** We concur, Oil/Grit separators have been added accordingly. The Oil/Grit Separators have been sized to provide the required 400 cu. Ft /acre volume in the first chamber as required by DEP. Please refer to the Stormwater Report, Section 4.3, which provides a breakdown of the calculations and variables used in the sizing of the Oil/Grit Separators. Details for each Oil/Grit Separator are also provided on Sheet C8.4 of the revised Site Plans.

Comment 20: A SWPPP will need to be provided and reviewed prior to construction, however this could be conditioned.

**A draft SWPPP has been prepared. A copy was submitted to the Planning Board on 10/21/2020, which is enclosed with this submission.**

#### Operation & Maintenance Plan

Comment 21: Catch basins should be inspected and cleaned as needed, at least quarterly (4x/year) as opposed to twice, in accordance with the Stormwater Handbook. I saw that you are not claiming TSS removal credit for the catch basins, however this cleaning frequency should be maintained to avoid issues, particularly in a Critical Area and LUHPPL.

**CDG Response:** The O&M included in the stormwater report has been revised to include quarterly inspections/cleaning.

Comment 22: Similarly, street sweeping should ideally happen at least quarterly, particularly in a Critical Area and LUHPPL.

**CDG Response:** The O&M included in the stormwater report has been revised to include quarterly street sweeping accordingly.



Comment 23: Snow storage areas should be designated, and the plan should specify that snow storage is prohibited not only in wetland resource areas, but also in the 50 or 100ft buffer zones, outside paved areas. Ideally snow storage would be outside the buffer zone and the Zone A entirely as it seems there is space to do this.

**CDG Response: The plans have been updated to identify the two large Trailer/Outdoor Storage Areas as the designated snow storage areas. Both of these areas are located entirely outside of the resource area buffer zones.**

Comment 24: The Commission typically conditions a prohibition on the use of pesticides, herbicides, and fertilizers, as well as the use of de-icing chemicals, except for magnesium acetate or an alternative approved by the Commission, on sites in close proximity to sensitive areas. Although the pest and insect control and snow removal sections do provide some valuable guidance, the plan should be updated to reflect the likely prohibitions, and could note that Commission approval would be required.

**CDG Response: The O&M was updated to include a section regarding deicing which states *“It is anticipated the Hingham Conservation Commission will include a condition of approval regarding prohibition of the use of de-icing chemicals except for magnesium acetate or an alternate approved by the Commission. Refer to the Order of Conditions issued by the Commission. Further approvals may be required should the Applicant wish to propose the use of alternate deicing materials other than what is ultimately conditioned in the Order.”***

Comment 25: The plan should cover the entire site.

**CDG Response: The O&M has been updated to cover the entire site accordingly.**

#### Mitigation Plantings & Landscaping

Comment 26: Thank you for considering the Commission’s Tree Removal and Replacement Policy. I will also inspect the area during my site visit next week, however it’s possible that you will need to stake the proposed limit of work and evaluate the trees to be removed directly.

**CDG Response: Thank you for this comment and the subsequent comments received. Based on the field survey staking of the limits of work in the buffer zone, we have identified that 38 trees require replacement. The landscape plan has included the replacement of those trees in with the same number and species as what has been identified to be removed. Please refer to the revised Landscape Plan, C-6.**



Comment 27: Specific species and scientific names should be specified for the plantings to ensure the proper species are planted, and that the plantings are straight species, as opposed to cultivars, which are not permitted in the buffer zone. The native species that are being proposed do seem appropriate, however please be aware the Commission will also factor in which tree species are being removed.

**CDG Response: The Landscape Plan has been revised to specifically call out the same tree species and quantity as is being removed accordingly.**

Comment 28: Plantings, seeding, or other restoration/stabilization methods should be included for the temporary construction access and staging areas, following construction. Any areas to remain disturbed or in use should be clarified.

**CDG Response: We have revised the plan to identify that any/all disturbed areas on the temporary construction staging property shall be cleared of any/all construction debris, the disturbed areas covered with 6" of loam and reseeded with the New England Wetland Plants, Inc. Conservation/Wildlife Mix.**

Comment 29: Open OOC DEP 034-1320. Typically I would not recommend that the Commission allow multiple Orders to be open for the same property when proposed work is in the same location, as is the case with the current proposal and the previously approved work. I think this will be less of an issue given the current conditions on this site and the fact that most of the proposed work would be temporary construction access and staging areas, with the exception of the water main work. I do understand that Order has an approved wetland delineation. Assuming the Commission issues an Order for the current proposal, it would be helpful to know whether the intention would still be to keep the old Order open at that point. I think this should be clarified or ideally the old Order closed out prior to the water main work proceeding.

**CDG Response: The Applicant is purchasing the property as a fully permitted site. As such, the Applicant requests that the current permits/approvals in place through the Commission for 73 Abington Street remain in effect. While the Applicant has no plans to proceed at the moment with the approved design, he asks that the current approvals be allowed to remain active in the event he chooses to proceed with implementing those plans once the temporary use of the property for construction access for this project is complete. The water main routing has been designed to work with the approved design for this property as well.**

#### Site Visit

Comment 30: There has been some dumping and unpermitted alteration in the Riverfront Area, mostly in the inner riparian, in the southeast corner of the site off the edge of the existing pavement as well as the buffer zone around this area. The area is in close proximity to the



perennial stream. Although ground conditions are partially obscured by leaves currently, I observed a large area of gravel that has been pushed/dumped here, piles of sod and piles of grass clippings that have been dumped relatively recently, old chunks and large pieces of asphalt, and a small amount of trash and debris. In addition, a small number of large sheet metal products are being stored off the pavement. On a positive note, cleaning up this area and adding some plantings would be a great opportunity to meet the requirement for an improvement to the Riverfront Area (as noted in my earlier comments).

**CDG Response: The plans have been updated to incorporate the restoration of the large gravel areas that appears to have been added over the past few years. This area has been proposed to be restored with loam and seed mix as well as the planting of trees. The overall limits of pavement have been scaled back somewhat along the eastern boundary to provide a clean straight pavement edge and to allow for the installation of the new stone trench off the edge of the pavement.**

Comment 31: Along the southern edge of the site, just off the pavement, there is an old silt sock and some gravel that has been deposited off the pavement, as well as a small amount of trash. Only a small portion of this is within RA or the buffer zone, however some of the area appears to be outside the limit of work, so I'll note that this material should be removed by hand and the area seeded if needed and then allowed to naturally revegetate.

**CDG Response: Acknowledged. The removal of the silt sock, gravel and trash outside the limit of work and/or within the BVW/Riverfront Area has been called out to be removed and restored. Please refer to the Demolition Plan C-1.**

Comment 32: To the north of the proposed limit of work, I observed that the edge of the pavement along the eastern side of the site is crumbling, particularly in an area opposite the main entrance to the existing building, where the pavement edge skirts around a large outcropping of ledge that is labeled on the plans. There is some erosion and sedimentation off the pavement in this area. It is a relatively small amount; however it is in the buffer zone and partially in Riverfront Area. Do you know whether there are any plans to repave in this area in the future, or could a curb be added or other measures taken to prevent this issue from getting worse in the meantime?

**CDG Response: To address this concern, the edge of pavement has been cut back and straightened out, resulting in a decrease in the amount of impervious area in that location. In addition, a stone trench is proposed to be added adjacent to the edge of pavement to help collect the runoff and promote recharge and some treatment without changing the existing overland discharge drainage patterns.**



Comment 33: In terms of tree removals in the buffer zone, I did observe that a number of healthy trees will be removed, many of which will require replacement in accordance with the Commission's policy, however it is too difficult to determine how many trees will be impacted without having the limit of work staked or trees tagged. If you want to proceed with doing this, then I could return and evaluate the trees again. Alternatively, you could wait for the Commission's input on how to proceed.

**CDG Response: Thank you for the comment. We surveyed the limits of that work and based on our collective site visits, we concur that there are 38 trees to be replaced in accordance with the bylaw.**

Comment 34: Finally, has the existing outfall in the SE corner of the site and the associated drain pipe been inspected to ensure that they are in good condition? Given that this infrastructure is proposed to be reused, and there are some documented issues with current drainage system, it's important to be sure they will function as intended going forward. On a related note, all existing catch basins and manholes should be cleaned out prior to construction and again post-construction as needed.

**CDG Response: The outfall at that location was found to be in overall good working order. As you'll see, the updated design redirects much of the runoff that was utilizing this direct outfall to the Zone A to the new outfall location proposed outside the Zone A. We concur, any/all existing drainage structures shall be cleaned prior to construction and again upon completion. The Applicant is agreeable to this as a condition of approval accordingly.**

**Please note that an Illicit Discharge study was performed at the site by Hoadley & Sons on 12/22/2020. They performed dye testing of all interior floor drains as well as the roof drains, using different colored dyes to track each drain system/connection independently. The end result is that no illicit discharges exist— all floor drains are properly connected to the sewer system – and the three main building roof areas (manufacturing section, office section and warehouse section) all connect where expected into the drainage system.**

Thank you for your thoughtful review. Our goal with the redesign effort was to incorporate design revisions that fully address your comments as well as those we received from the Planning Board and the Board's peer review consultants, Chessia Consulting and VAI. Please note that we have included with this submission the response letters to Chessia Consulting Services, LLC., Vanasse & Associates, Inc., the Hingham Police Department and the Hingham Fire Department. We look forward to hearing from you on this revised submittal and look forward to presenting to the Commission on February 1<sup>st</sup>.

Should you have any questions or require any further information, please do not hesitate to contact Gabe Crocker, P.E. at [gabecrocker@crockerdesigngroup.com](mailto:gabecrocker@crockerdesigngroup.com) or 781-919-0808.



Sincerely,  
Crocker Design Group LLC

A handwritten signature in blue ink, appearing to read "Gabe Crocker".

Gabe Crocker P.E.  
President