

May 18, 2021

Updated September 23, 2021

**Request for Variances &  
Alternative Analysis In Support of the Variance Request  
74, 80 Maynard Road (Map G08, Lot 0025 & 0500), Sudbury MA**

**Relief Sought**

The applicant, John Derderian of Bonnie Brook Realty Corp., seeks relief under Section 7.2 of the Town of Sudbury Wetlands Administration Bylaw Regulations per Section 7.2.2.3 and 7.2.2.4 of the same Bylaw. Specifically, the applicant requests variances and permission to conduct fill and cut work within the Adjacent Upland Resource Areas (AURA) located on the parcels. No portion of the parcels are located within a NHESP Habitat of Rare Species or Areas of Critical Environmental Concern (ACEC). The proposed work is for development of a nine (09) lot single family house residential subdivision as a limited project access per *310 CMR 10.53 (3)(e)*. See Figure 1 for the locus map and site plan for details of the proposed project. This request is made under the provision whereby the variance can be issued because “...it is necessary to avoid so restricting the use of the property as to constitute an unconstitutional taking without compensation.”

**Introduction**

The project consists of two assessor’s parcel lots, 74 Maynard Road (Map G08, Lot 0025, 2.768 acres), and 80 Maynard Road (Map G08, Lot 0500, 27.5 acres) with a total area of 30.268 acres Both lots are vacant woodland with about 20.518 acres of upland and 9.75 acres of wetland and intermittent stream (Mineway Brook). Most of the upland is located in the southern part which can be assessed from Maynard Road. Going north to central narrowing down to an peninsula of about 1.64 acres. Then further north crossing Mineway brook and wetland, there is another peninsula which can only be accessed from south. See Table 1 for detailed general land use breakdown. The dominant upland plants are white pine and oaks in upland area and red maple in wetland area with sparse understory growth shrubs and various groundcover growth. Soil in the area varies from medium sand to loamy sand with moderate to thick topsoil. Some old field stone walls indicate that it was once farmland. See Figure 2 for soil map.

**Table 1. Land Use Summary**

Land use	Area, acres
Total	30.268
Upland	20.518
Main	14.908
Pen 1	1.99
Pen 2	3.62
Wetland	9.75

The wetland delineation was approved by an ORAD on December 5, 2017 and extended to December 2021. In addition, on February 11, 2019, we received an Order of Conditions for soil testing using the same wetland line, which would extend the wetland line to February 11, 2022. The wetland resource area around the large northern peninsula was amended during the soil testing time and reviewed and approved by the Conservation Administrator.

### Alternative Analysis

We have done 4 alternative analysis and discussed them at working meeting with the Conservation Administrator and Mr. Thomas Friedlander to come to the final design plan (Alternative 3). This session will discuss the details of the alternatives.

The alternative analysis is following the principle that avoidance of impact first, and then to minimize the impact with adequate mitigation to allow proper use of one’s property.

1. Alternative 1: Access road crossing buffer zone only with retaining walls and include the most northern ninth lot with 50-ft buffer and BVW and stream crossing: This alternative is allowed under both 310 CMR 10.53 (3) (e) and the Sudbury Wetlands Protection Bylaw as a limited project status. However, it will result in direct impact on core wetland resource and intermittent stream. It is not a good option. See Details in the following table and attached alternative 1 plan.

Impacted Area reference	Alternative 1					
	Impacted WPA Resource Area		Impacted 0-50-Ft Buffer/AURA		Impacted 50-100-ft buffer/AURA,	
	Permanent Dist. Area (Sq.Ft)		Permanent Dist. Area (Sq.Ft)		Permanent Dist. Area (Sq.Ft)	
	Pervious	N/A	Pervious	Impervious	Pervious	Impervious
# 1	0	0	0	0	17594	10317
# 2A	0	0	1605	2179	578.16	828.33
# 2B	0	0	0	0	0	3503
# 2C	0	714	0	2004.69	0	0
# 3	0	0	0	0	0	2938
# 4A	0	0	0	0	1274	3728
# 4B	N/A	N/A	N/A	N/A	N/A	N/A
# 4C	N/A	N/A	N/A	N/A	N/A	N/A
# 4D	N/A	N/A	N/A	N/A	N/A	N/A
Sub Total (Sq.Ft)	0	714	1605	4184	19446	21315
Total (Sq.Ft)	<b>47,264</b>					
Mitigation Required (Ratio)	2:1					

2. Alternative 2: using sloped access road/driveway crossing and move the northern lot construction into the middle peninsula area in the 50-100 ft buffer zone: This option will eliminate direct impact on wetland and stream resources and use the area for mitigation for AUAR impact. As a tradeoff, we would located a house in the middle smaller peninsula. The detailed impact is show in the following table. See attached alternative 2 plan.

Impacted Area reference	Alternative 2					
	50-Ft Buffer/AURA (Sq.Ft)	Impacted 50-100-ft buffer/AURA, (Sq.ft)	Impacted 50-100-ft buffer/AURA breakdown			
			Temporary Dist. Area (Sq.Ft)	Limited Dist. Area, pervious (Sq.Ft)	Permanent Dist. Area (Sq.Ft)	
					Pervious	Impervious
# 1	0	29,054	0	11424	8116	9514
# 2	0	1,151	0	0	1151	0
# 3	0	8,215	0	3828	4160	227
# 4	0	1,170	0	0	1170	0
# 5	0	17,641	-	0	13545	4096
# 6	0	6,754	0	0	6754	0
#7 (Peninsula)	5335	6,430	-	2117	-	4313
Sub Total (Sq.Ft)	5335	70415	0	17370	34896	18149
Total (Sq.Ft)	75,750					
Mitigation Required (Ratio)	2:1					

3. Alternative 3: like Alternative 2 without the lot on peninsula. After in depth discussion with the Conservation Agent, we understand that under the current Sudbury Wetlands Protection Bylaw, it is not permissible to put the house inside the 50-100 ft buffer zone unless a variance is granted, which can only be granted for access purpose under the current practice of the bylaw. Therefore, we removed the house and access driveway to keep the Lot 5 as open space and partially for mitigation purpose. As a tradeoff, we seeking some minor grading work into the 50-100 ft buffer (AURA) as shown in the plan. This is the plan we are seeking approval from the Commission. See the following Table for a summary and following with some detailed discussion.

Impacted Area reference	Alternative 3					
	50-Ft Buffer/AURA (Sq.Ft)	Impacted 50-100-ft buffer/AURA, (Sq.ft)	Impacted 50-100-ft buffer/AURA breakdown			
			Temporary Dist. Area (Sq.Ft)	Limited Dist. Area, pervious (Sq.Ft)	Permanent Dist. Area (Sq.Ft)	
					Pervious	Impervious
# 1	0	29,054	0	11424	8116	9514
# 2	0	1,151	0	0	1151	0
# 3	0	8,215	0	3828	4387	0
# 4	0	1,170	0	0	1170	0
# 5	0	17,641	-	0	13545	4096
# 6	0	6,754	0	0	6754	0
Sub Total (Sq.Ft)	0	63985	0	15253	35123	13610
Total (Sq.Ft)	63,985					
Mitigation Required (Ratio)	2:1					
Mitigation Proposed (Sq.Ft)	128,294					
Mitigation Proposed (Ratio)	2.01					

Northern large Peninsula 157687.2 sq. ft (3.62 acres); middle peninsula 86848 sq. ft (1.99 acres).

The proposed work is for a nine (09) lot single family subdivision and includes a lot that is not consider a buildable lot at this time. Work will include the construction of a road, grading for the houses, utilities, septic systems and stormwater managements systems with the AURA. No work is proposed within the 50-Ft Wetland Buffer.

The subdivision will be accessed from Maynard Road via a bituminous asphalt road to be named Bonnie Brook Road. The road will be 24-ft wide and approximately 1100-ft long and will give access to Lots 1-7. It will also include a 5-ft

wide sidewalk along the left side of the road, which will extend to Lot 6. Lots 8 and 9 will be accessed through an approximate 890-ft long communal driveway. The driveway is 20-ft wide up to the house on Lot 9 and then reduced to 12-ft wide up to the house on Lot 8.

Based on the current design, the AURA will be impacted in six (06) different locations. More than 15000 sq. ft road side slop area will have limited disturbance after construction and will provide a decent habitat for bird and wildlife. The impacted buffer locations and areas are summarized in Table 1. See Below:

Table 1 - Buffer Impact Areas		
Buffer Area	Location	Impact Area (Sq.Ft)
#1	Lot 3, Lot 4, Road	29,054
#2	Lot 4	1,151
#3	Lot 4, Lot 5, Lot 6	8,215
#4	Lot 6	1,170
#5	Lot 7, Lot 9, Road, Sidewalk	17,641
#6	Lot 8	6,754
Total		63,985 (1.469 ac)

We have proposed 128,284 Sq. Ft of total mitigation for the 63,985 Sq. Ft upland resource area that will be impacted with this current design for a mitigation ratio of 2.01:1. The mitigation consists of six (6) separate mitigation areas. The mitigation areas and locations are summarized in table 2. See below:

Table 2 - Buffer Mitigation Area		
Buffer Area	Location	Mitigation Area (Sq.Ft)
#1	Lot 5	3,870
#2	Lot 5	10,355
#3	Lot 5	18,555
#4	Lot 5	5,963
#5	Lot 5	42,285
#6	Lot 5	47,266
Total		128,294 (2.94 ac)

### Proposed New Mitigation Plan

After field inspection and discussions with Conservation commission, the applicant is proposed the fourth alternative to increase mitigation area significantly from 2.95 acres upland area mostly in 0-50 ft buffer zone to 4.6 acres (3.13 to 1 mitigation ratio) including area of 1.66 acres of area outside of 50 ft buffer, of which 9591 sq. ft (0.22 acres) area is located outside of 100-ft adjacent upland resource area, which would be buildable area under the current bylaw. This will permanently protect a total of 7.41 acres of land which will provide a 600 ft wide connection corridor between the SVT and Town of Sudbury Conservation land. 22.41% of total upland and 24.48% of total land area will be permanently protected. The subdivision will also provide an affordable building lot to the Town. The applicant would lose a buildable lot by providing this new mitigation and hope the Planning Board can consider waiving the requirement on the remaining 8 lots for another affordable lot. See Tables 3 and 4 for details.

Table 3 - Buffer Mitigation Area – new Alternative		
Buffer Area	Location	Mitigation Area (Sq.Ft)
#1	Lot 5	3,870
#2	Lot 5	10,355
#3	Lot 5	18,555
#4	Lot 5	5,963
#5	Lot 5	42,285
#6	Lot 5	47,266
#7	Lot 5	72,204
Total		200,498 (4.6 ac)

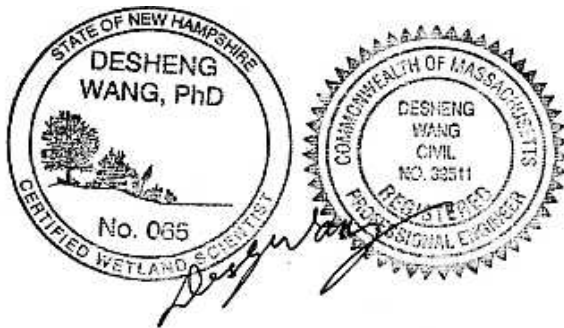
Table 4. BUFFER MITIGATION SCHEDULE			
Buffer Impact area	Area (SF)	Mitigation area	Area (SF)
#1	29054	#1	3870
#2	1151	#2	10355
#3	8215	#3	18555
#4	1170	#4	5963
#5	17641	#5	42285
#6	6754	#6	47266
Total	63985	#7	72204
Mitigation ratio	3.13	Total	200498

Feel free to contact us if you have any questions.

Sincerely,

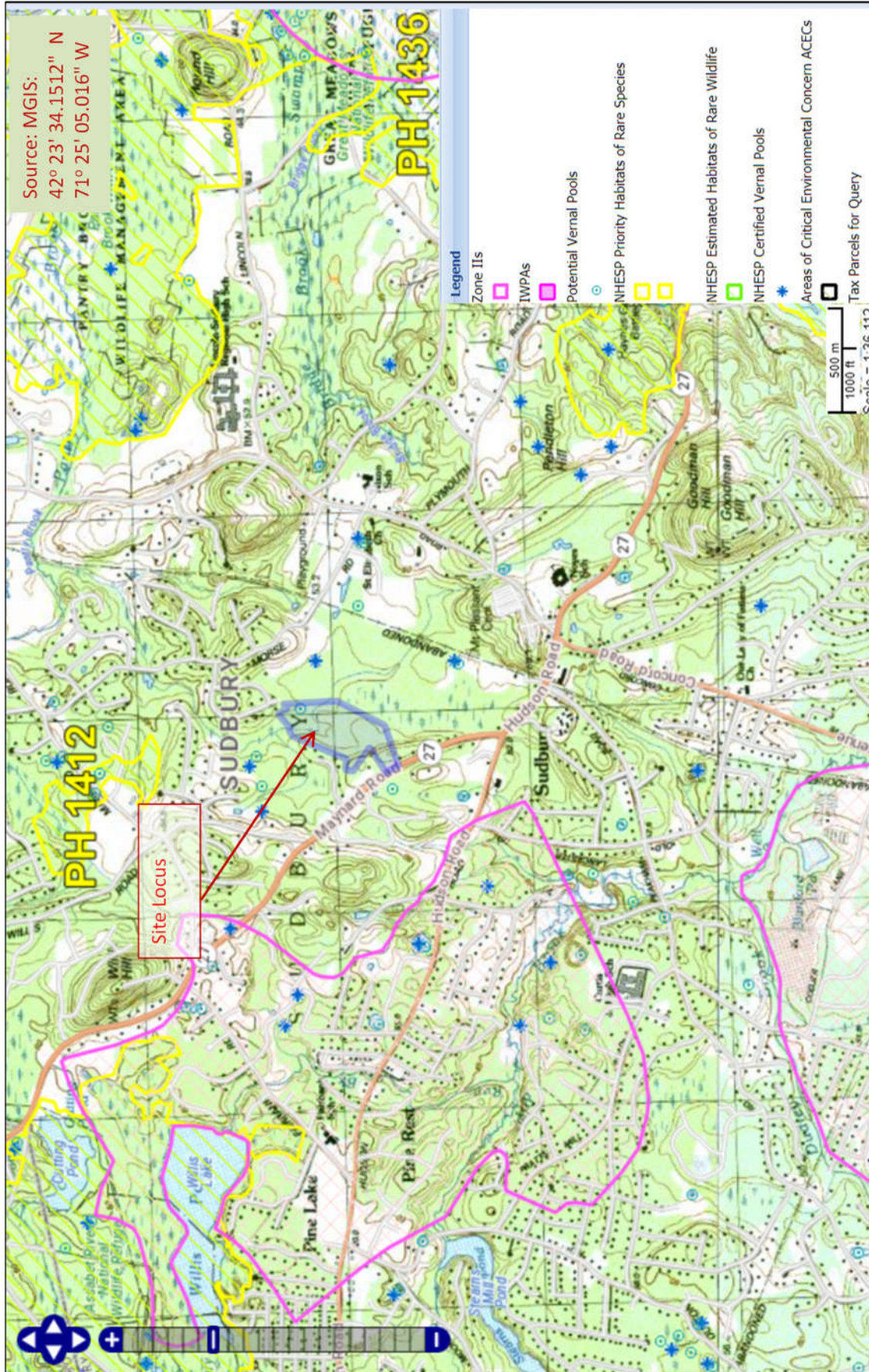
Creative Land & Water Engineering, LLC

By



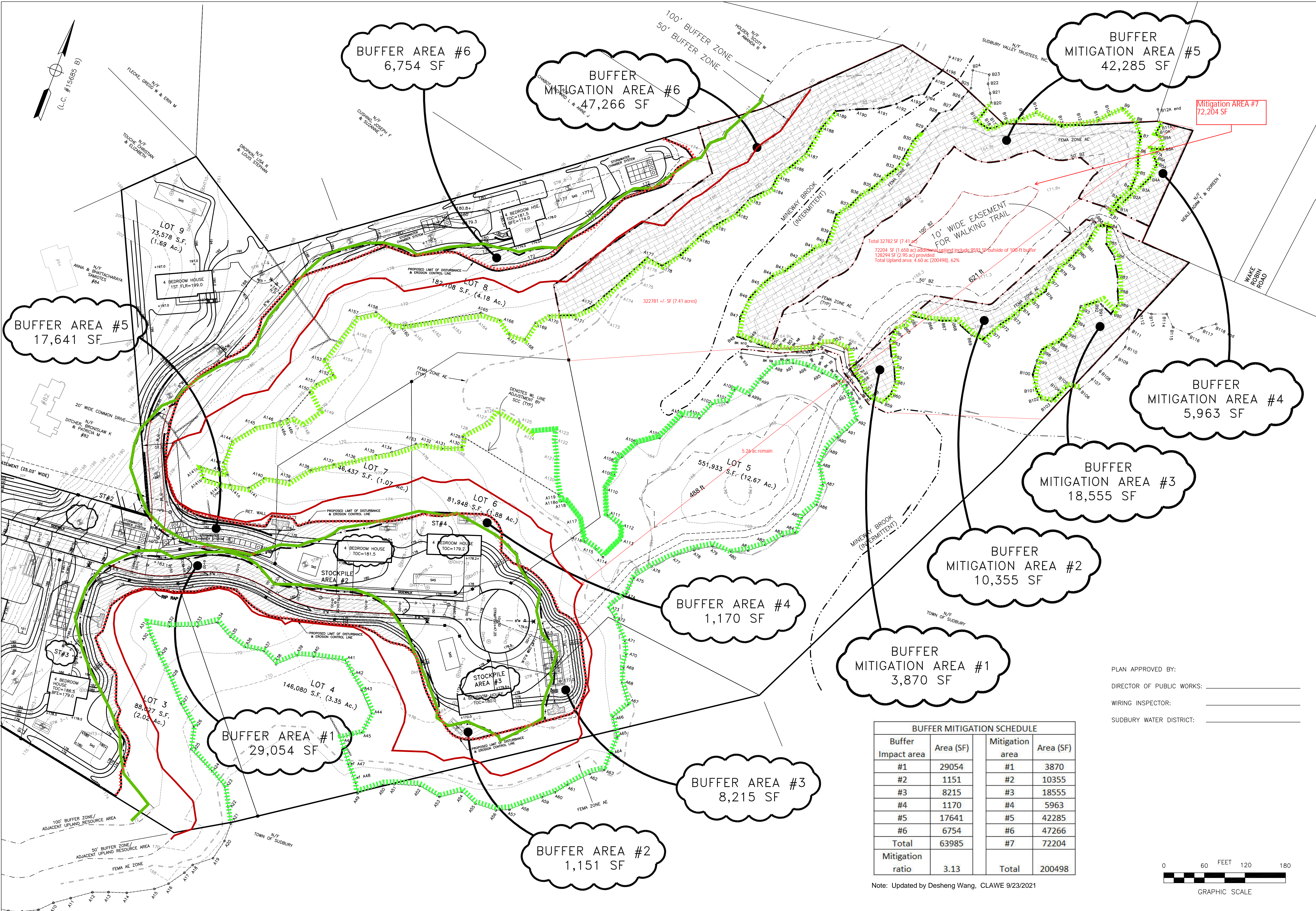
Desheng Wang, Ph.D., P.E.  
 Certified Wetland Scientist  
 Sediment Control Specialist  
 Civil/Environmental Engineer  
 Certified Soil Evaluator

Francis Alves  
 Civil/Environmental Engineer



By: Desheng Wang, Ph.D., P.E.  
 Creative Land & Water Engineering, LLC  
 P.O. Box 584  
 Southborough, MA 01772  
 508-281-1694 WWW.CLAWENG.COM

Figure 1. USGS Site Locus Map Project: 74-80 Maynard Road Sudbury, MA



BUFFER AREA #5  
17,641 SF

BUFFER AREA #6  
6,754 SF

BUFFER MITIGATION AREA #6  
47,266 SF

BUFFER MITIGATION AREA #5  
42,285 SF

Mitigation AREA #7  
72,204 SF

BUFFER MITIGATION AREA #4  
5,963 SF

BUFFER MITIGATION AREA #3  
18,555 SF

BUFFER MITIGATION AREA #2  
10,355 SF

BUFFER MITIGATION AREA #1  
3,870 SF

BUFFER AREA #4  
1,170 SF

BUFFER AREA #3  
8,215 SF

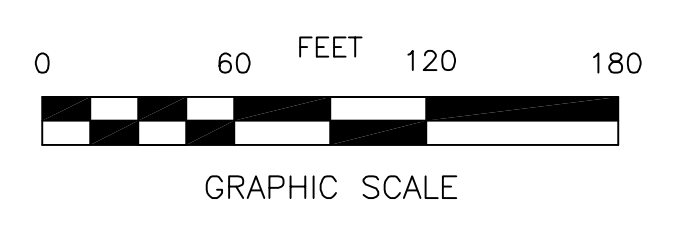
BUFFER AREA #2  
1,151 SF

BUFFER AREA #1  
29,054 SF

Total 32782 SF (7.41 ac)  
72204 SF (1.658 ac) additional Upland include 2921 SF outside of 100-ft buffer  
128294 SF (2.95 ac) provided  
Total Upland area: 4.60 ac (200498), 62%

BUFFER MITIGATION SCHEDULE			
Buffer Impact area	Area (SF)	Mitigation area	Area (SF)
#1	29054	#1	3870
#2	1151	#2	10355
#3	8215	#3	18555
#4	1170	#4	5963
#5	17641	#5	42285
#6	6754	#6	47266
Total	63985	#7	72204
Mitigation ratio	3.13	Total	200498

Note: Updated by Desheng Wang, CLAWE 9/23/2021



NO.	DATE	DESCRIPTION

PREPARED BY:  
BRUCE SALUK & ASSOC., INC.  
CIVIL ENGINEERING & LAND SURVEYING  
576 BOSTON POST ROAD EAST  
MARLBOROUGH, MA 01752

BUFFER MITIGATION PLAN  
- BONNIE BROOK ESTATES -  
DEFINITIVE PLAN OF LAND  
MAYNARD ROAD  
SUDBURY, MA



PLAN APPROVED BY: \_\_\_\_\_  
DIRECTOR OF PUBLIC WORKS: \_\_\_\_\_  
WIRING INSPECTOR: \_\_\_\_\_  
SUDBURY WATER DISTRICT: \_\_\_\_\_

PREPARED FOR:  
JOHN DERDERIAN  
60 WINDSOR ROAD  
WELLESLEY, MA 02481

DATE: OCTOBER 1, 2020

C1.03

September 23, 2021

Town of Sudbury-  
Conservation Commission,  
275 Old Lancaster Rod  
Sudbury, MA 01776

Attn. Ms. Lori Capone

Re: 74-80 Maynard Road, DEP file # 301-1341

Dear Ms. Capone, Mr. Chairman, and Commissioners:

After we have site visit and extensive discussions with Ms. Capone, the applicant is proposing a more Comprehensive mitigation to include the entire large peninsula of 3.62 acres of upland and a total 7.41 acres of land creating a more than 620-ft wide connection corridor between SVT and the Town Conservation Land. The rest of Lot 5 will not be buildable and make the total area over 12 acres in open space with a corridor over 1100 ft wide for wildlife. The total upland area to be preserved will exceed 3:1 ratio for the proposed access roadway and some minor grading in some houses' backyard to avoid significant vertical retaining wall barrier. See the updated Alternative analysis report and Mitigation plan for details.

We also received comments from abutters July 22, 2021 forwarded to us by email via Ms. Capone. We will quote the comments first and followed with our response in red in the following:

1. Concerned with impacts from proposed septic systems on existing adjacent wells  
**Response: All septic system will comply with required setback from existing or proposed wells.**
2. Concerned with increased runoff to adjacent properties due to tree clearing and impervious surfaces  
**Response: The subdivision is in general located in lower elevations from abutting properties and will not impact the neighbors. All runoff will be managed to comply with the DEP stormwater management standards.**
3. Concerned with loss of snags on site  
**Response: It can be conditioned to plant snags in area of wildlife use to replace existing snags found on each house lot.**
4. Concerned with impact to wildlife and connectivity between Wake Robin Conservation Land and SVT's Mineway Brook Reservation  
**Response: It is proposed to preserve the land more then 600 ft wide to allow for wildlife connection through the site.**
5. Is this development even a practical possibility given the potentially disastrous implications it could have on the existing Minebrook neighborhood and the wetlands and wildlife? As I



read the Sudbury Wetlands Bylaws it seems to me the property meets almost every condition for protection.

**Response: The design of the subdivision will be required to meet all current requirements in laws and regulations that is likely more stringent than that was then for Minebrook development. Therefore, we believe that this subdivision can be designed and constructed in a way to accommodate both for beautiful homes and for protection of environment resources.**

6. The applicants request for a variance based on the restrictions as to "constitute an unconstitutional taking without compensation" feels wholly inaccurate given that they purchased the property in 1996 and the Wetlands Bylaws were enacted in 1972 and Sudbury Conservation Commission in 1962 - they could not have actually thought they'd be able to develop that parcel given its composition. It has only become more forested and important to wildlife through the last 22 years of sitting undisturbed.

**Response: The land has been in the family for long time predate the wetland protection act in 1950s. There could be much more houses that could be build at the time when they purchased the land and would expect so in the future. There were a 20-lot subdivision plan was created at one point. While laws are constantly updated to promote protection of environment, they also should allow a reasonable use of people's property in compliance with current laws in a allowed reasonable way.**

7. If some homes are approved, is it a possibility that SVT and Conservation might extend the existing conservation easement to maintain a true and natural buffer zone of generous forested space on the identified peninsula or lot 5 area?

**Response: The mitigation plan is revised to dedicate more than 600 ft wide corridor to connect SVT and the town Conservation land, which will be protected permanently.**

8. What exactly constitutes a buffer zone and mitigation area as the plan outlines?

**Response: It is our understanding of the bylaw and state law, any upland in area not to be developed can be used as mitigation area for permanent protection.**

9. When outlining lot 5 there is a part where the NOI reads no development "at this time" which should lead us all to understand that they would absolutely build something later and use the development that was first allowed to bolster their claim for more development.

**Response: This is an open-end issue depending on the future of laws and regulations governing the development. At the current time, it is not developable, especially the revised mitigation plan will deed the upland buildable area as mitigation area.**

10. Desheng explained that in lieu of building on Lot 5, they would expand to lots 8 & 9. This trade isn't really a trade at all, because the access to Lot 5 isn't viable to begin with. Yes, the access to lot 5 would result in a greater wetland disturbance, but lots 8 & 9 are not without fault. The proposed homes along the main development entrance and the cul-de-sac greatly impact wetlands and no touch buffers per our wetlands bylaws, extending the development further to lots 8 & 9 seems over reaching.

**Response: All proposed house lot have area outside of 100ft adjacent upland resource that can host a house and needed septic system except the limited access in the buffer zone that will be mitigated. This is allowed under both state wetlands protection regulations and the Sudbury Wetlands Protection Bylaw.**

11. Some of proposed homes just barely meet the 100ft buffer. What will happen if a home owner intends to do any landscaping work, additions or renovations to their property/homes?  
**Response: The house with mitigation will have at least 20 ft setback to limit of disturbance. This may not seem large but will be adequate. Afterward, it will be restricted through order of conditions for any future activities on the lot. The house lot will only fit the people who can accept the limit of work conditions.**
12. There appear to be several areas where walls, slopes, grading and roads are right up against abutter property lines (particularly my property line, 34 Minebrook, and 82 Maynard). Is appropriate set back maintained? How will vegetation, trees, and root systems on the abutters properties be impacted?  
**Response: It is for limited access only. The area will require fill in general and the roots going over on the project site might be partially impacted but will unlikely cause detrimental impact to the trees have more than half of the root zone untouched.**
13. Have any individual trees been surveyed as part of this proposal? They have identified impacted zones as part of this proposal but does that capture the true impact of disturbing these wetlands the vegetation with roads, homes, stormwater treatment, retaining walls, slopes, etc.?  
**Response: No direct impact on wetland. There will be only limited impact on 100ft buffer (adjacent upland resource area). The minimum setback is about 50 ft for construction of access roadway or driveway.**
14. Given the wetlands and the way this parcel sits between Sudbury Valley Trustees land and Broadacres this area is undeniably a significant pathway for wildlife. At our home we consistently have deer, woodchucks, coyotes, fisher cats, owls, hawks, turkeys, chipmunks, squirrels, snakes, spotted salamanders and more (some pictures included) We are concerned with the disturbance of the pathway and habitat for these animals.  
**Response: Lot 5 will mostly be preserved for the concerned purpose of pathway. An updated mitigation plan is provided for the project.**
15. Is there any storm water management at the start of the new road from Maynard road? The road leading to maynard is a downward slope, what will happen to the runoff water from road?  
**Response: yes. See plan.**
16. I never received the notice of intent from 2019. Is there any record that this certified mail was sent to my home?  
**Response: We checked our record, at the time of NOI filing in 2019, her parcel (84 Maynard Road) had not been registered in the Town GIS. We called the Assessor's office and spoke with John there to confirm it. We also have out abutters list GIS map to show that her parcel was not shown in the data base so we cannot notify her at that time. See attached maps. She was notified this time when we have the updated abutters list from the town data base.**
17. I know this is more of a planning board issue, but from a safety prospective, how will an emergency vehicle be able to turn around in lots 8 & 9? It seems as though the road is very

close to the buffer lines with no margin for expansion. How will they be able to make this feasible without resulting in a greater impact to buffer zone?

**Response: The applicant team had consulted with PLB and Fire Dept to address the concern.**

18. Would it be possible to attend the site walk?

**Response: Due to COVID 19 and liability issue, our attorney advised us that no abutters should be allowed on the property during the site walk.**

19. I would be interested to hear views/opinion on the difference between approving a waiver for wetland bylaws for an existing structure versus a new construction. It would seem to me that a waiver for the former (existing structure) might be more compelling whereas for the latter (new construction) it seems more unreasonable and bad precedent without significant mitigation.

**Response: It will be reviewed in accordance with the Sudbury Bylaw.**

20. Even with the existing root systems in place we have had water in our basement on numerous occasions over the years (where the sump pump was overwhelmed). So, the water table in the area is already high. Our concern is that with the removal of a significant number of trees and brush to try and squeeze in parcel 8 (in addition to the other planned foundations and driveways/roads) that the ecosystem which is already a bit out of balance for homes in this area tips over and we are having to clear water out of our basement on a regular basis.

**Response: While we are not sure what exactly the causes to the neighbor's basement water problem, which can be combination of groundwater and surface water pattern change around the house. We have seen hundreds of basement drainage problems, most of them is due to the change of their landscaping change and clogged roof drains. We have done more than 65 deep hole soil evaluation for the site wastewater, stormwater design. The house will be designed to avoid any drainage problems and not impact the neighbors' houses. In general, all the abutting houses are located on upgradient side of our site and we do not see the potential impact on their homes from us as water does not flow uphill. Nesting 8 homes in a over 30 acers does not appear out of balance as the members have viewed the site stake out. On average, the density will be less and distance between homes larger than the nearby homes.**

21. Wondering why retaining walls are proposed, is here – are there concerns about the stability of the land?

**Response: To minimize impact and is balance with sloped area for wildlife path. There is no stability issues of the land to our knowledge.**

22. There is already a fieldstone wall on the property line that looks like it has been there forever – will that be taken down to make room for this new wall/driveway?

**Response: It will depend on the need for house construction that who owns the stone walls.**

23. There are also two massive Ash trees that appear to be right in the middle of that planned wall/driveway – both have circumferences of ~115/120 inches so appear to be

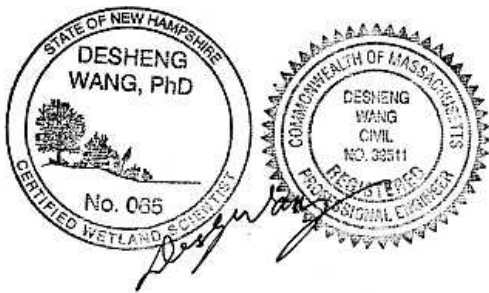
well over 100 years old. Will those large trees be coming down? If so, I imagine the impact of losing such a deep root system on drainage in the area could be significant (that's potentially up to 100 gallons of water consumption a day per tree that will go away).

Response: Tree removal for land development like this is common and unavoidable. It needs to look the project in holistic way. Over 20 acres of upland nested in 30 acres of land will just host 8 SFH is like an open space development. More than 60% will remain wooded area. The impact will further be mitigated by stormwater management plan. Large mature trees have mostly fulfilled their mission in sequestering CO2 while planted young trees will take the mission forward better just like human beings. No trees will live forever.

In summary, we addressed all the comments from the abutters, and we are make extra effort to improve the project design for better environmental and wildlife protection.

Please feel free to contact us if you have any questions.

Sincerely,  
Creative Land & Water Engineering, LLC  
By



Desheng Wang, Ph.D., P.E.  
Civil/Environmental Engineer and  
Certified Wetland Scientist