

January 13, 2022

Mr. John C. Dawley, President & CEO  
Northland Residential Corporation  
80 Beharrell Street, Suite E  
Concord, MA 01742

RE: McLean Zone 3 – Zone 2/Zone 3 Buffer Planting Proposal Dated January 10, 2022

Dear Mr. Dawley

We, the Eckerts and the Romes, want to acknowledge the receipt of the revised plan and thank you for your and Alan's consideration of our feedback. The revised plan addresses the main concerns with the preliminary plan for Area 2 and Olmstead Drive proposed improvements, but we kindly request few clarifications.

**Area 2 Proposal**

**Fieldstone Wall** – We would like to get clarification on the look and feel of the wall to be similar to the existing wall adjacent to the Chapel that runs along Olmsted Drive or the existing wall you photographed during our meeting between the South Cottage and our driveway at 68 South Cottage Road. We would also like to clarify that the existing wall behind the fence will be removed, the new wall connected to the existing wall on Meadows Lane and the grade extended to the new wall improving the planting area. Lastly, we would like to confirm that it will be owned and maintained in perpetuity by Zone 3. Based on our preliminary discussions with the Woodlands II board members, we do not foresee any hurdles with granting Northland Residential access to the property to complete this work if proper insurance certificate is provided.

**Patio Privacy Screen and Buffer Planting** – We appreciate your agreement of our estimates for this work and will continue to work on refinement of our plan. Since we, the residents, will be hiring a designer and landscape firm to complete this work directly, we would like to request that the funds are provided directly to the us (Eckerts and Romes).

**Terms and Timelines**

As you know, the approved by-law indicates that buffering needs to be provided prior to any construction. We would like to make sure that the work can be accomplished without impacting Northland's Residential construction schedule. As such, we would appreciate confirmation that the Fieldstone wall can be constructed in April 2022 timeframe so we can secure installation of plantings in early May of 2022.

Jack, we appreciate your willingness to work with us in developing the proposed buffering plan for 68 South Cottage Road and 11 Meadows Lane. Nevertheless, we still believe that the most desirable mitigation to the traffic impact on the immediate abutters to Zone 3 is to direct the traffic flow, particularly for Subdistrict B, via the lower access road as was represented in the proposed development plan approved by the 2020 Belmont Special Town Meeting.

Kind Regards,

*Jolanta and Rob Eckert*

*Jan and Stan Rome*



71 S Cottage Road  
Belmont, MA 02478  
January 14, 2022

Mr. John C. Dawley, President & CEO  
Northland Residential Corporation  
80 Beharrell Street, Suite E  
Concord, MA 01742

RE: McLean Zone 3 – Zone 2/Zone 3 Buffer Planting Proposal Dated January 10, 2022

Dear Mr. Dawley:

We appreciate you and Alan Aukeman meeting with us on December 21, 2021 at our home to discuss our buffering needs as it relates to the traffic impact resulting from the proposed Zone 3 development. We also would like to acknowledge your letter of January 10, 2022 outlining the proposed mitigation. The following is our feedback on the proposed mitigations to Area 1.

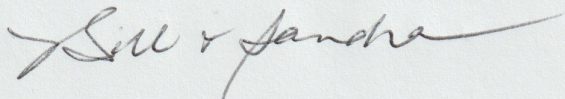
There are two projects of interest:

1. 71 S Cottage Road Buffer. The additional planting of tall Arborvitaes or Taylor Junipers and a flowering tree to achieve additional screening are essential. Our estimate is that the length to be covered by the Arborvitaes or Junipers is about 22 feet, for about 10 Arborvitaes or Junipers. Our estimate for this is about \$10,000.
2. Emergency exit and Gray Fence Area. Our desire would be to extend the installation of the hedge of Arborvitaes or Taylor Junipers or something similar to the emergency exit/gray fence area at the end of South Cottage Road. This would provide buffering against cars coming down Olmstead Drive from the apartment buildings. Our ideal preference would be to route the traffic to the apartment buildings via the lower access road as indicated in the plans presented at the town meeting. Extending and installing the hedge along with providing sufficient irrigation system to maintain the plantings would be minimally \$15,000. In addition, this may require moving the barrier slightly to provide the sufficient planting area.

The proposed amount is insufficient for what we believe is needed.

Lastly, we would like to get this work done early this spring (April/May timeframe) to make sure buffering is in place prior to beginning of Zone 3 construction and are concerned with the 6-month timeframe outlined. Please clarify when the funds would be available to us to complete this work.

Regards,





## Hummel, Robert

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**From:** mark gouker <gouker.mark@gmail.com>  
**Sent:** Saturday, January 15, 2022 4:47 PM  
**To:** pinkerton@alum.mit.edu  
**Cc:** Michele; ahealy5@partners.org; Jack Dawley; Hummel, Robert  
**Subject:** [EXTERNAL]Mclean Zone 3 Storm Water Management Concern

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Stephen Pinkerton  
Chair, Belmont Planning Board  
Office of Community Development  
Homer Municipal Building, 2<sup>nd</sup> Floor  
19 Moore Street  
Belmont, MA 02478

Dear Mr. Pinkerton,

At a recent Planning Board meeting, more than one resident addressed the Board concerning the adequacy of the existing storm water drainage systems. The Board agreed to take these concerns into consideration. We appear to be nearing the end of the open hearing period, and this issue has not yet been resolved. We write to remind you of that commitment and urge that you, the Town Planner, the Town's engineers and the peer reviewers do not ignore this legitimate and vitally important issue.

The drainage issue, and residents' concern, are not new. In June, Rob Eckert sent an email to you and the Town Planner, laying out the history respecting the storm water systems failures. This correspondence included the observation that the planned Upham Bowl detention infiltration system was not constructed, and the storm water management plan in Zone 3 depended on this feature. Further there was an observation that the current as-built plans for the system did not seem to reflect the actual conditions. The response to Rob and others has been for our residents to present their concerns in the design review process for development of Zone 3. The residents have now done so, but, regrettably, the response is limited to consideration of Zone 3 only. What surprises us is that we have documented current reality that arises from this omission, and the focus remains limited to Zone 3 only.

We were hopeful that the peer review process would have brought this omission to forward and a plan to address the issue would be incorporated into the approval process for the development of Zone 3. Unfortunately, the peer reviewer accepts that "there are existing drainage issues" but, rather than addressing the issues and making recommendations, the reviewer says what was proposed in Zone 3 won't make the existing condition any worse. We disagree with this assessment and feel that the omission of the construction of the detention infiltration cannot be ignored in the planning for Zone 3.

Phased developments require that the pieces fit together. The serenity and safety of the Town's residents depends upon the Town making sure that every step promised of the multiple development phases is delivered. The adequacy of what one developer proposes on its land is dependent on the assurances that prior work, done by others, was done fully and properly. Here that reliance has been broken because the Upham Bowl Detention Improvements were never installed. That what Northland plans on Zone 3 cannot overlook this fact.



We respectfully request for the Town to follow through with the agreed to requirements that have allowed the re-developed campus to proceed to date. If there was a decision to reverse the requirement for the Upham Bowl Detention system we would like to understand that rational and restate that there is a documented issue with the current conditions. Further, if this infiltration system is not to be built, the storm water management for Zone 3 should be modified to reflect this.

Finally, we want to emphasize that this issue is of great concern to our community. We fully support the development of Zone #3. At the same time, we have engaged John Gahan of Sullivan and Worcester as Counsel to advise us on these important issues.

The Planning Board public hearings currently taking place are the appropriate forum to force a resolution now. We are confident that between the Planning Board, the Hospital, and Northland a suitable remedy will be developed before the Zone 3 permits are issued.

Sincerely,  
Mark Gouker  
Chair, Board of Trustees  
Woodlands at Belmont Hill II  
[gouker.mark@gmail.com](mailto:gouker.mark@gmail.com)



## Hummel, Robert

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**From:** Contact form at belmontma <cmsmailer@civicplus.com>  
**Sent:** Saturday, January 15, 2022 5:21 PM  
**To:** Hummel, Robert  
**Subject:** [EXTERNAL][belmontma] McLean Zone 3--Screening/Buffering of Zone 2 (Sent by Joseph H Newberg, joseph.newberg@outlook.com)

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello rhummel,

Joseph H Newberg ([joseph.newberg@outlook.com](mailto:joseph.newberg@outlook.com)) has sent you a message via your contact form (<https://www.belmont-ma.gov/user/6131/contact>) at belmontma.

If you don't want to receive such e-mails, you can change your settings at <https://www.belmont-ma.gov/user/6131/edit>.

Message:

Dear Mr. Hummel, 1/15/2022

This is for you, and for transmission to the Planning Board and Mr. Dawley before than January 18 hearing.

I am writing to re-iterate several comments I have made in writing since the commencement of the Zone 3 hearings. Since I do not see these reflected in the latest Buffering Plan submitted by the Developer, I would like to call them specifically to the attention of the Planning Board and ask that they be addressed on January 18 and in the final documentation before the Board grants Design and Site Plan approval.

These requests are modest, but important. While I speak only for myself, my requests seek to protect all of those who abut Upham Bowl, but are not in the small group of direct abutters (Eckert/Rome/Chin/Esbah) and are not represented by them. I have not been invited to any of the direct discussions that small group has had with the Developer, nor have I been consulted by them.

Most of these requests have been submitted to you, for the Board, with details, and even diagrams, in the past, so I will be brief:

1. Larger Trees: The proposed (and appreciated) 5 new maples (3-3.5 inch caliper) along the new fence area from 12 Meadows Lane to the side of Building 1 should be larger. (The same comment was made --and accepted-- for the Chapel area, by Mr. Haglund). The current sizing will not provide adequate screening of this "gap" area for many years. Addition of some evergreens in this area would also be welcome, to provide all season screening. The "gap" allows site lines of traffic, lights, and the like from my unit at 16 S.Cottage Rd., and also for at least two units on the South side of Upham House, and this issue can and should be easily addressed. I would ask that the Planning Board incorporate these requirements into the Buffering Plan prior to approval.

2. Replacement of Large Historic Tree in the Bowl: The Board should consider asking the Developer to work with the McLean Hospital to replace with a suitable new tree the large old historic tree that died and was removed from the bowl only a few years ago. This was roughly behind 6 Meadows Lane. That tree provided--and if replaced would someday provide again--suitable and historic buffering of our bowl-abutting properties from sight lines to Olmstead Drive. It would a very welcome exercise of historic upkeep and stewardship by the Hospital, even if at Developer expense, and



would alone contribute substantially to the desirable buffering. I would encourage the Board requesting this as part of the buffering plan.

3. Costs and Responsibilities: The Developer's latest Buffering Plan, worked out with the small group of direct abutters, provides for a 120 ft stone wall, patio screening at two units, and additional plantings at 4 units. The expense and execution of the stone wall is the Developer's, but the plantings and patio screening is addressed only by a "dump some money and run" approach, leaving it to the owners and the Condo Association to undertake any work, and apparently any later upkeep, replacement and maintenance. I ask that the documentation (ie, REA and the Buffering Plan), clearly spell out that: the Developer and thereafter Zone 3 be required to maintain, repair and replace as and when necessary (i) the new stone wall; (ii) any new patio screening, and (iii) the new (additional) shrubs --all of which would be beyond our present Condo Community Standards, and which are in response to buffering obligations imposed on the Developer, not on the Condo Association.

I ask that the Planning Board incorporate such clarity into the documents prior to approval. Again, I am speaking only for myself, and not for the Association, but this is a concern I am also expressing to it.

4. Snow Maintenance. Zone 2 has two emergency-only access/egress areas, one at lower South Cottage and one at Meadows Lane. Since access and egress to/from those areas is by Olmstead Drive and over its sidewalks, Zone 3 should have the express obligation to clear such access, with at least the same priority as it has to clearing Olmstead Drive. Removal and storage of the snow from such areas should also be required by Zone 3. I do not see any such provision even for just clearing those entrance/exit points, in the snow management plan. Indeed, if there is any provision for snow storage, it is to suggest that snow will be hauled away by Zone 3 only if it cannot be dumped by zone 3 on abutters land. Inadequate provision for snow storage within Zone 2 has been severely limited by the design of Zone 2, and access by Zone 2 via Olmstead Drive to places it owns for storage outside of the egress areas (e.g., behind the stone wall that wraps along 71 S Cottage), has--after initially being available-- been denied by the Hospital and presumably also will be by the Developer. I suggest that Zone 3 be required to clear the two exit/egress areas, and they can put the snow behind that wall (assuming the Condo Association has no objection, which it should be asked).

None of these requests seem to be onerous. At the least, they merit desirable clarifications. But they all should be specifically addressed, and if accepted be incorporated into the REA and/or Buffering Plan prior to Design and Site Plan Approval.

It would of course be helpful and appreciated to know where these items stand.

Respectfully, and with appreciation for the extraordinary efforts and dedication of you and the Board to date,

Joe Newberg  
16 S.Cottage Rd  
Belmont, Ma  
617-512-1528  
[Joseph.Newberg@outlook.com](mailto:Joseph.Newberg@outlook.com)

## Hummel, Robert

---

**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Sunday, January 16, 2022 10:30 AM  
**To:** Stephen Pinkerton; Hummel, Robert  
**Cc:** jdawley@northlandresidential.com  
**Subject:** [EXTERNAL]FW: Zone 2 -3 Buffer Planting Proposal

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Mr. Pinkerton,

I'm forwarding a copy of some of the comments I have received from members of the Woodlands II community. I had previously sent this to Mr. Dawley based on the original draft of the CMP and some interim updates we obtained. I think Mr. Dawley may have addressed a few of these in his most recent update of the CMP draft, which I haven't had time to review and I'm not certain it has been posted with adequate time for neighbors to review.

Item 1 is clearly the most significant item the direct abutters, as the noise from worker vehicles and others traveling up and down the road at all hours including police patrols etc. seems like an easy item to address and not really an over-reaching request given the size of the site.

Please consider this formal response to the prior submitted CMP.

Respectfully,

Rob Eckert

-----Original Message-----

From: Robert Eckert  
Sent: Monday, January 10, 2022 3:20 PM  
To: Jack Dawley <jdawley@northlandresidential.com>  
Subject: RE: Zone 2 -3 Buffer Planting Proposal

Thanks Jack,

Here's the gist of the comments on the CMP:

- 1.) For daily site hours, what you propose seems fine, however the neighbors would like to make sure a gate in the approximate location of the "Barrels & Chain", is maintained and kept closed on a daily basis, to prevent early arrivals and late departures. Maybe it could be opened at approximately 6:45am? This would run until an initial Certificate of Occupancy is obtained, and then be phased back to contain the subsequent phases of Work.
- 2.) We'd prefer no work on Holiday Weekends and the Weekends from Thanksgiving until New Year's without a "special exception" (final completion deadline, before a storm event, emergency etc.)?
- 3.) We would prefer no blasting or land clearing on weekends, the issue here is if there is a problem, there is no one at Town Hall to call, most Fire Departments don't allow this work (high risk) on off hours??

4.) We would like the parking locations for workman/women more clearly defined, particularly for the Apartment Buildings, we're concerned that bulk parking on dirt can/will create dust and would prefer parking be located as far from the abutters as practical.

5.) We want to make certain that dust control and street sweeping is maintained, and that we have someone to call both on the developer's team and at Town Hall. This may be an issue addressed in the REA along other notices, like road closings, blasting, etc..

On the land access issue, I think people's sense is that prior to the Hospital installing the Sewer Line there was a path which was passable, and now it seems that the only real value of the land being transferred to the Town is to act as a buffer for the Hospital's benefit, which doesn't really fulfill the obligation for an effective trail head. Looking at your proposed plans almost any of the 'end of road' locations that would seem a logical spot for a trail head within Zone 3 in plan, is a location with a 45-degree grade drop. Your best bet may be to offer some funds for establishing a trailhead and trail on Olmsted Drive somewhere between Waverly Woods and the new Lower Road. (for the record this is not my issue and Jolanta has told me to keep quiet on this going forward.)

Best, I'm following up on a few other items as I get caught up on my reading file with some of your updates.

Thx,

Rob E.

-----Original Message-----

From: Jack Dawley <jdawley@northlandresidential.com>

Sent: Monday, January 10, 2022 2:47 PM

To: Robert Eckert <robe@pmrllc1.com>

Subject: RE: Zone 2 -3 Buffer Planting Proposal

That is next on the drafting list - working on snow management presently - send along if easy, otherwise hold onto. Access to the open space lands is hard as there is no formal access rights through Z4 presently and there will not be in the future - though people use such nonetheless.

John C. Dawley  
President & CEO  
Northland Residential Corporation

O – 781-229-4704

C - 617-797-6704

-----Original Message-----

From: Robert Eckert [mailto:robe@pmrllc1.com]

Sent: Monday, January 10, 2022 2:36 PM

To: Jack Dawley <jdawley@northlandresidential.com>

Cc: Hummel, Robert <rhummel@belmont-ma.gov>; stan\_rome@yahoo.com; mark gouker <gouker.mark@gmail.com>;

SANDRA Chen <leigo1@gmail.com>

Subject: Re: Zone 2 -3 Buffer Planting Proposal

Jack,



Thanks for sending and Happy New Year, we'll definitely review ASAP.

On an unrelated note I received a handful of neighbor comments related to the Construction Management Plan. As I recall you had asked that I hold off on responding to the earlier plan until an updated plan was advanced. I don't know if an updated plan had been distributed and in the last meeting it seemed like there may be newer information out there?

The comments that I received were relatively straight forward, but it seems some may be addressed by an updated plan.

How would suggest I proceed?

Thx

Rob E.

> On Jan 10, 2022, at 10:46 AM, Jack Dawley <jdawley@northlandresidential.com> wrote:

>

> Robert(s), Jolanta, Stan, Janet, Sandra, Bill and Mark,

>

> See attached proposal for the interface between Zone 2 and 3 at Olmsted Drive, which I will ask that the Board review on January 18th.

>

> Jack

>

>

> John C. Dawley

> President & CEO

> Northland Residential Corporation

>

> O – 781-229-4704

> C - 617-797-6704

>

>

> From: Jack Dawley

> Sent: Tuesday, December 07, 2021 3:05 PM

> To: Hummel, Robert <rhummel@belmont-ma.gov>; Robert Eckert <robe@pmrllc1.com>; stan\_rome@yahoo.com

> Cc: mark gouker <gouker.mark@gmail.com>; John C. Dawley (Jack) (jdawley@northlandresidential.com)

<jdawley@northlandresidential.com>

> Subject: Zone 2 -3 Buffer Planting Proposal

>

> Robert(s), Stan and Mark,

>

> See attached proposal the interface between Zone 2 and 3 at Olmsted Drive, which I will ask that the Board review on December 21st.

>

>

> Jack Dawley

>

> John C. Dawley

> President & CEO

> Northland Residential Corporation

>

> O – 781-229-4704

> C - 617-797-6704

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>

## Hummel, Robert

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**From:** Joseph Newberg <Joseph.Newberg@outlook.com>  
**Sent:** Monday, January 17, 2022 2:43 PM  
**To:** S. Pinkerton (s.pinkerton@verizon.net); Hummel, Robert  
**Cc:** jdawley@northlandresidential.com  
**Subject:** [EXTERNAL]For Jan 18 McLean Zone 3 Hearing: Comments on CMP draft dated 1.14.22: Noise and Light Buffering and Mitigation; and Representation  
**Attachments:** Comments on CMP draft dated 1.14.22.docx

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Messrs. Pinkerton, Hummel and Dawley,

Attached are some brief comments and suggestions on the Construction Management Plan (*draft dated 1.14.22*), which I saw only last night.

While I speak for myself alone, at 16 S. Cottage Rd., I believe my comments are in the interest of all 16 Town Homes and the 5 units in the Upham House, which abut the Upham Bowl.

I continue to appreciate your consideration and diligence in welcoming, considering and addressing constructive comments, and Mr Dawley's efforts throughout.

Respectfully,

Joe Newberg  
16 S. Cottage Rd  
Belmont, Ma 02478  
617-512-1528 (Mobile)  
Joseph.Newberg@outlook.com



1/17/22

Comments and Suggestions on CMP

(draft dated 1.14.22)

1. **Project Description:** Should not refer to “emergency access is available via.....South Cottage and Meadows Lane of the Woodlands at Belmont Condominium community.”
2. **Project Description:** Should also state that project abuts the open space at Upham Bowl (which itself abuts 16 townhomes plus the Upham House).
3. **Pre Construction Site Coordination:** While “The Woodlands at Belmont Hill Condominium” is listed as a party for these meetings, the text should specifically (i) refer to Woodlands II, and (ii) require representation for the 16 townhomes and Upham House which border the Upham Bowl bowl. (Note that none of the present 5 members of the Board are resident along the Bowl or in Upham House, and may not be aware of or completely sensitive to the concerns of these directly affected unit owners). A specific Liaison should be added for this segment ( “the Bowl Abutters”) of our Woodlands II community (and not just for the direct abutters and the community at large)
4. **Work Hours (and Matters related thereto):**
  - (i) NOISE ABATEMENT SCREENING/BUFFERING: It should be noted that the Upham Bowl is a noise funnel from the proposed construction sites, and thus the 16 Bowl-abutting townhomes and the Upham House have a special interest in noise abatement steps and protocols. In particular, there should be provision for required noise abatement buffering or screening of the gap- to- Bowl area alongside Olmstead Drive during construction---noting that construction appears scheduled to last a minimum of 48 months (4 years). No such noise buffering requirement seems currently in place. It should be mandated before construction commences.
  - (ii) Similar Buffering and Screening of unsightly construction activity and parking areas should also be provided, from the Bowl.
  - (iii) Night Lighting and light spill off should be minimized and regulated; many bedrooms abut the Bowl, and light pollution is a real concern.
  - (iv) Noisy construction activity abutting the Bowl commencing at 7 am is also a potential concern ---all the more so without adequate steps for noise buffering.

**5. Project Construction Site Controls:**

- (i) Provisions should be added for sound- buffering Noise Mitigation fencing or screening along the Bowl side (especially at and above the curve of Olmstead Drive) and areas otherwise funneling into the Bowl.
- (ii) Provision should be made for site screening of the Bowl from construction activity and parking in the areas along (and above) Olmstead Drive.

**6. Temporary Utilities Setups:**

- (i) Specific mention should be made of Woodlands II.

**7. Site Clearing:**

- (i) Given the provisions for chipping and stump grinding on site, specific noise mitigation requirements should be addressed, and specific efforts identified to avoid or minimize funneling such noise into the Bowl. This could for example include imposing limitations on the geographic location of any such chipping and grinding activities? And this certainly is something that should not be permitted in the early morning hours (say before 10 am).

**8. Noise:** See all the comments on noise above.

**9. Residential Construction Phasing:**

- (i) The abutters and Bowl residents should be concerned that construction is permitted to start, pause, and resume on and off over at 4 years (48 months), or longer, contingent on “market conditions” as determined by the Developer. This is what happened in Woodlands II, which resulted in at least 6 years of on and off construction, all out of control of the folks who by increments became residents and then continued to experience the activity in close proximity to it. This will be even more concerning for Zone 3, since extended construction will also impact an existing Woodlands II community of 62 units right next door. It would thus be desirable to ask that construction, once commenced, be continued diligently and without interruption, to completion to all of the zone B, Zone A and Chapel projects. Permitting on and off pauses and resumptions (gaps could be many months or even years) prolongs the pain for existing abutters, and for *the presently unrepresented* future occupants of the earlier phases of Zone 3. The flexibility is obviously advantageous to the Developer, but is detrimental to the present abutters and future occupants. A balance must probably be struck, but to leave this completely up to the Developer may not be the best answer.
  - a. As a minimum approach, completion of the entire permitted development could be required within 48 months of shovel in the ground, absent act of god type interruptions. Perhaps some bonding for completion could be required. In any case, I urge the

Planning Board to focus on this, provide requirements, and provide the Office of Community Development appropriate powers and practical means to enforce as well.

- b. To further minimize disruption to affected abutters and Neighbors in the Bowl and elsewhere, once construction has commenced in a particular area within Zone 3 (e.g., Buildings 1-2 and the Chapel), it should diligently proceed without interruption until the work in that area is completed. It would for example be more disruptive if the work in that area (e.g., on the Chapel) were to begin only years after Buildings 1 and 2, or vice versa; and the same throughout the other areas where abutters or neighbors will be most affected. The Developer has sought to maintain its complete flexibility on this, which is understandable, but that may not be in the best interests of the present Neighbors and future Zone 3 occupants, so some reasonable balancing/mitigation seems desirable. One possible approach for the Board to consider might be some Phase type approval process, requiring completion of various identified Phases before others commence? I would note that this becomes less of a concern for the existing Neighbors as the areas under development move away from Olmstead Drive and the Bowl. Perhaps more flexibility could thus be given in some areas, not so much in others?

Respectfully submitted,

Joe Newberg

16 S. Cottage Rd

Belmont, Ma 02478

617-512-1528 (Mobile)

[Joseph.Newberg@outlook.com](mailto:Joseph.Newberg@outlook.com)



## Hummel, Robert

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**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Monday, January 17, 2022 10:53 PM  
**To:** Paolillo, Mark  
**Cc:** Select Board Mailbox; Stephen Pinkerton; mlowrie@foley.com; Hummel, Robert  
**Subject:** [EXTERNAL]FW: Sewer Flows - I&I Fees  
**Attachments:** Zone 3 Title 5.pdf

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark and Selectboard,

I reaching out to you relative to the establishment and method that was recently utilized in determining the I & I fees to be assessed for the upcoming McLean Zone 3 Development. I know everyone is busy after returning from the Holidays and managing through the current Covid uptick but the Planning Board is marching towards closing the public hearings for the project and frankly there are a few open questions that I can't seem to resolve in my mind. I been a real estate development consultant for over 30 years and am an abutter to the Zone 3 project.

This e-mail is related to the recent information presented by the Planning Board in their meeting of January 04, 2021 (the discussion commenced at approximately 51 minutes into the recorded meeting) and is related to the I & I Fees. While the Town seems to have conducted a relatively through process to determine what the dollar rate being charged per gallon should be (\$4.55/Gallon) and the applicable multiplier of 4, I have not seen any regulation establishing how the "gallons of flow" are to be calculated. The majority of Town's across the eastern part of the state utilize the State's mandated Title 5 regulation. In the Planning Board meeting Mr. Lowrie stated that on matters such as this the Planning Board defers these issues to the "OCD" (Office of Community Development), so I am following up with the Selectboard as I have been unable to reach Mr. Clancy trying to find out a) if the Town has regulations on how the flow rate is to calculated, b) if in the absence of approved regulation does Mr. Clancy have the authority to accept a flow calculation methodology unilaterally, or in concert with the Developer or Peer Reviewer, c) if he does that authority have a dollar limit?

Based on the quantities in the e-mail below (28,140 gallons x 18.20 gallons)= \$512,148 would be the payment amount if utilizing the Title 5 flow calculation method.

Based on the reduced flow rate proposed by the developer (11,750 gallons x 18.20 gallons) = \$213,886 payment proposed

This represents an 'allowed reduction' of approximately \$300,000. Which seems like a very significant amount of authority if this is not in a published and/or approved regulation somewhere.

I would appreciate a return call and the opportunity to review any regulations and/or recent similar project approvals the Town has recently reviewed/approved which would substantiate an established rate.

Regards,

Robert Eckert  
(508)934-9556

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**From:** Robert Eckert  
**Sent:** Tuesday, December 21, 2021 8:15 PM  
**To:** Stephen Pinkerton <s.pinkerton@verizon.net>; rhummel@belmont-ma.gov  
**Cc:** Glenn Clancy <gclancy@belmont-ma.gov>; Mark Paolillo (mpaolillo@belmont-ma.gov) <mpaolillo@belmont-ma.gov>  
**Subject:** Sewer Flows - I&I Fees

Mr. Pinkerton and Mr. Clancy,

I've recently read the newly posted information on the Town's website related to the determination of adequate sewer capacity and the appropriate I&I fees and Mr. Dawley's proposed apportionment.

While I'm uncertain how the Sewage was calculated for the prior Zone 3 approval, probably the only irrelevant data is the limit which was established by the REA not to exceed 72,000 gallons per day which the Town accepted.

For the current application:

Massachusetts title 5, 310 CMR 15.203 establishes the Design Flow rate for Single Family Dwelling, Townhouses and Apartments at 110 gallons/day/bedroom. (see attached 310 CMR 15.002 "Design Flow" and Table rev. 2016)

Bedrooms are defined specifically under 310 CMR 15.002, this definition varies from the Town's Zoning By-Law, the Board should consider the proposed Dens qualifying as bedrooms under Title 5. (See attached 310CMR section 15.002 pages 5 & 6 rev 2016)

"Housing for the Elderly" was incorporated into 310 CMR 15.203 by amendment in 2014 to allow the reduction to 150 gallons/day for a two bedroom unit that is actually 'age-restricted', the amendment prohibits the extension of this flow-rate to one bedroom units and units of "more than two bedrooms", which specifically requires those flows to be based on 110 gallons/day/bedroom. See attached 310 CMR 15.203 highlighted note at bottom (\*\*\*\*) VHB and Mr. Dawley seem to have taken this reduction on all units, which does not seem correct.

I found no basis in Title 5 supporting VHB's statement 3 "This was based on expected wastewater generation of 55 GPD per bedroom." To the contrary Title 5 limits opportunities for taking reductions, does the Town have a Statute or Regulation that is applicable? The Board may effectively be setting a precedent that shall erode the calculation of future I & I fees from the basis of 110 gal/bedroom/day to 38 gal/bedroom/day, across the Town, this should not be considered lightly and without a firm basis. Ultimately when the Town requires sewer repairs this short-fall cannot be recovered.

For Subdistrict A assuming the 1 & 3 bedroom units are all age-restricted and there are 73 bedrooms @ 110 gal/bedroom/day and there are 15 Housing for the Elderly Units, 2 bedroom units @150 gal/unit/day; Subdistrict A would have a calculated Design Flow Rate of 10,280 gallons/day before reduction would be taken.

For Subdistrict B it's a bit more complicated, with the dens meeting the definition of a bedroom and the age-restricted 2 bedroom locations not being specified (assumed all were reduced while only about 50% actually qualify), the flow rate is conservatively 17,860 gallons/day before further reductions.

In net it appears that an overall reduction just over 40% has been presumed in the presented calculations that should require some substantiation.

Regards,

Rob Eckert  
(508)934-9556



310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

15.002: continued

Acre - a unit of land measure equal to 40,000 square feet which is considered a building acre in accordance with standard real estate practices.

Agency - an agency, department, board, commission or authority of the Commonwealth or of the federal government and any authority of any political subdivision, which is specifically created as an authority under special or general law. The term shall not include housing authorities permitted pursuant to M.G.L. c. 40A.

Alternative Systems - Systems designed to provide or enhance on site sewage disposal which either do not contain all of the components of an on site disposal system constructed in accordance with 310 CMR 15.100 through 15.255 or which contain components in addition to those specified in 310 CMR 15.100 through 15.255 and which are proposed to the Local Approving Authority and/or the Department, or an agent authorized by the Department, for remedial, pilot, provisional, or general use approval pursuant to 310 CMR 15.280 through 15.289.

Approved Capacity - The capacity of a 1978 Code system reflected by the sewage flow as shown on the Disposal Works Construction Permit Application or as shown on the Certificate of Compliance, whichever is less for that system and not the calculated capacity based on 1978 Code loading rates which may account for overdesign or safety factors. For a system designed in accordance with 310 CMR 15.000, the approved calculated capacity is based on the loading rates found at 310 CMR 15.242.

Approving Authority - A Local Approving Authority as defined in 310 CMR 15.002; or the Department, with regard to systems owned or operated by an agency of the Commonwealth or of the federal government, systems serving a facility with a design flow of 10,000 gallons per day or greater, systems subject to a variance granted under 310 CMR 15.416, or on a case by case basis as determined by the Department to be necessary to carry out the purposes of 310 CMR 15.000; or the Department with regard to alternative systems proposed in compliance with 310 CMR 15.280 through 15.289.

ASTM - The American Society of Testing and Materials.

Authorized Agent - A person or entity authorized in writing by the Department to act on its behalf in the implementation and oversight of responsibilities, as identified in 310 CMR 15.000.

Bank (Coastal) - Any land or surface area so defined by the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40 and 310 CMR 10.30(2). Generally, the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland.

Bank (Inland) - Any land or surface area so defined by the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40 and 310 CMR 10.54(2). Generally, a portion of the land surface which normally abuts and confines a water body.

Barrier Beach - Any land or surface area so defined by the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40 and 310 CMR 10.29(2). Generally, a narrow low-lying strip of land generally consisting of coastal beaches and coastal dunes extending roughly parallel to the trend of the coast, separated from the mainland by a narrow body of fresh, brackish, or saline water or a marsh system.

Bedrock - Solid rock exposed at the surface or overlain by unconsolidated gravel, sand, silt and/or clay. Bedrock includes weathered or saprolitic components thereof. Bedrock types are defined and most of their areal extent are described in the "Bedrock Geologic Map of Massachusetts" published by the Massachusetts Department of Public Works (1983).

Bedroom - A room providing privacy, intended primarily for sleeping and consisting of all of the following:

- (a) floor space of no less than 70 square feet;
- (b) for new construction, a ceiling height of no less than seven feet three inches;

15.002: continued

(c) for existing houses and for mobile homes, a ceiling height of no less than seven feet zero inches;

(d) an electrical service and ventilation; and

(e) at least one window.

Living rooms, dining rooms, kitchens, halls, bathrooms, unfinished cellars and unheated storage areas over garages are not considered bedrooms. Single family dwellings shall be presumed to have at least three bedrooms. Where the total number of rooms for single family dwellings exceeds eight, not including bathrooms, hallways, unfinished cellars and unheated storage areas, the number of bedrooms presumed shall be calculated by dividing the total number of rooms by two then rounding down to the next lowest whole number. The applicant may design a system using design flows for a smaller number of bedrooms than are presumed in this definition by granting to the Approving Authority a deed restriction limiting the number of bedrooms to the smaller number.

Biological Mat - A layer composed of microorganisms and organic material located below a soil absorption system which forms on the infiltrative surface of soil and which provides biological treatment of septic tank effluent.

Blackwater - Wastewater from toilets, urinals, and any drains equipped with garbage grinders.

Bordering Vegetated Wetland - Any land or surface area so defined by the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40 and 310 CMR 10.55(2).

Building - A structure enclosed within exterior walls or firewalls, built, erected, or framed of any materials, whether portable or fixed, having a roof, to form a structure for the shelter of persons, animals or property.

Building Sewer - A pipe which begins outside the inner face of a building wall and extends to an on-site system or municipal or private sewer.

Campground - A facility regulated pursuant to 105 CMR 430.00: *Minimum Standards for Recreational Camps for Children (State Sanitary Code: Chapter IV)* or 105 CMR 440.00: *Minimum Standards for Developed Family Type Campgrounds (State Sanitary Code: Chapter VI)* and any campground operated by the Department of Conservation and Recreation in a State Park.

Cellar Wall - That portion of the outside surface of the foundation wall enclosing a full basement which is above the cellar floor and below the ground surface.

Certificate of Compliance or Certificate - A certificate issued by the Approving Authority to the owner or operator of a system in accordance with 310 CMR 15.021 indicating that an on-site system has been constructed or upgraded, and inspected, as necessary in compliance with 310 CMR 15.000.

Certified System - An alternative system which has been approved by the Department for specified uses or site conditions pursuant to 310 CMR 15.288. Systems which have been certified may be approved for use by approving authorities without further Departmental review but subject to any limitations on their use imposed by the Department pursuant to 310 CMR 15.000.

Certified Vernal Pool - A surface water body that has been certified by the Massachusetts Division of Fisheries and Wildlife as a vernal pool in accordance with the "Vernal Pool Certification Guidelines" pursuant to the Massachusetts Natural Heritage and Endangered Species Program administered by the Massachusetts Department of Fish and Game at the time a permit application is submitted to the Approving Authority.

Cesspool - A pit with open-jointed linings or holes in the bottom and/or sidewalls into which raw sewage is discharged, the liquid portion of the sewage being disposed of by seeping or leaching into the surrounding soils, and the solids or sludge being retained in the pit. Cesspools are nonconforming systems.



310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

15.002: continued

High Groundwater Elevation - As determined in accordance with 310 CMR 15.101, 15.102 and 15.103.

Housing for the Elderly - A facility restricted to use by adults over 55 years of age (in accordance with 42 USC 3601 *et seq.* as referenced in M.G.L. c. 151B, § 4, paragraph 7.).

H-10 Loading - Standard H-10 truck loading as specified by the American Association of State Highway and Transportation Officials.

H-20 Loading - Standard H-20 truck loading as specified by the American Association of State Highway and Transportation Officials.

Humus/Composting Toilet - A self-contained system consisting of a composter with a separate toilet fixture from which no liquid or solid waste materials are discharged to the surface or subsurface environment and from which a humus/compost-like end product is produced. Such systems may be used in accordance with the provisions of 310 CMR 15.289.

Impervious Material - Soils with a percolation rate greater than 60 minutes per inch. (*See*, also, the definition of unsuitable material.)

Individual - A single or specific person (*See* definition of Person)

Industrial Waste - Any water-carried or liquid waste resulting from any process or industry, manufacture, trade, business, or activity listed in 310 CMR 15.004.

Interim Wellhead Protection Area (IWPA) - An interim well-head protection area, as defined in Massachusetts drinking water regulations, 310 CMR 22.02. Generally, this is a ½-mile radius for sources whose approved pumping rate is 100,000 gallons per day or greater. For smaller sources, the radius in feet is determined by multiplying the approved pumping rate in gallons per minute by 32, and adding 400.

Invert - The lowest portion of the internal cross section of a pipe or fitting.

Irrigation Well - Any on-site source of groundwater not certified as a potable water supply by the local Board of Health or the Department in accordance with M.G.L. c.111, § 122A and 160 or 310 CMR 22.00.

Local Approving Authority - The board of health or its authorized agent or an agent of a health district constituted pursuant to M.G.L. c. 111, § 27 acting on behalf of the applicable board of health.

Local Upgrade Approval - An approval granted by the Approving Authority allowing the owner or operator of a nonconforming system to perform an upgrade of the nonconforming system to the maximum feasible extent, all in accordance with the provisions of 310 CMR 15.401 through 15.405.

Long-term Acceptance Rate (LTAR) - The stable rate of effluent acceptance through the biological mat of a soil absorption system measured in gallons per day per square foot (gpd/sf) or centimeters per day (cm/d).

Maintenance - All activities required to assure the effective and continuous operation and performance of an on-site system including, but not limited to, solids and scum removal from the septic tank, grease trap, dosing chamber or pump chamber and, re-leveling the distribution box, but not including a system upgrade.

Mobile Home - A single transportable structure on a chassis designed to be used, with or without a permanent foundation, as a dwelling. The support system of a mobile home is constructed so that the mobile home may be moved from time to time.

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

15.203: continued

TYPE OF ESTABLISHMENT	UNIT	GALLONS PER DAY	MINIMUM ALLOWABLE GPD FOR SYSTEM DESIGN
(2) RESIDENTIAL			
Bed & Breakfast	per bedroom	110	440
Bed & Breakfast	per bedroom	110	
with restaurant open to public add	per seat	35	1000
Camp, resident, mess hall, washroom and toilets	per person*	35	
Camp, day, washroom and toilets	per person	10	
Camp, day, mess hall, washroom and toilets	per person	13	
Campground, showers and toilets	per site	90	
Family Dwelling, Single	per bedroom	110	330**
including, but not limited to, single family condominiums & cooperatives			
Family Dwelling, Multiple	per bedroom	110	***
Family Mobile Home Park	per mobile home	300	
Motel, Hotel, Boarding House	per bedroom	110	
Retirement Mobile Home Park	per site	150	
Housing for the Elderly	per two bedroom unit	150****	
Work or Construction Camp	per person	50	
* Person in the context of 310 CMR 15.203 means an individual.			
** A system may be designed for flows of not less than 220 gpd, if a deed restriction essentially identical to the model Grant of Title 5 Bedroom Count Deed Restriction developed by the Department, is provided that limits the dwelling to two bed rooms as the term "bedroom" is defined in 310 CMR 15.002. A home office or home retail business whose only employees reside in the home, where no additional wastewater is generated other than toilet and hand washing waste, is not considered a change in the type of establishment and does not require the addition of flow for the purpose of designing the system.			
*** The number of bedrooms in a condominium shall be as specified in the Master Deed. Establishment of bedrooms in excess of the specified number shall be considered an increase in design flow. A home office or home retail business whose only employees reside in the home, where no additional wastewater is generated other than toilet and hand washing waste, is not considered a change in the type of establishment and does not require the addition of flow for the purpose of designing the system.			
**** One bedroom unit Housing for the Elderly, and units with more than two bedrooms shall be designed based on 110 gallons per day per bedroom.			
(3) COMMERCIAL			
Airport	per passenger	5	150
Barber Shop/Beauty Salon	per chair	100	
Bowling Alley	per alley	100	
Country Club, dining room	per seat	10	
Country Club, snack bar or lunch room	per seat	10	
Country Club, lockers and showers	per locker	20	
Doctor Office	per doctor	250	
Dentist Office	per dentist	200	



## **TITLE 5 CHANGES – EFFECTIVE JANUARY 3, 2014**

### Duplicative Approvals Eliminated

Unless the facility is a large system, or is owned or operated by the state or federal government, Mass DEP will no longer be approving:

- Installation of recirculating sand filters or equivalent alternative technology in nitrogen sensitive areas;
- Nitrogen aggregation plans;
- Tight tanks;
- Shared systems; and
- Variances.

### Other Changes

- Authorizes MassDEP to allow wastewater containing wastes from activities listed under the Standard Industrial Classification Codes set forth at 310 CMR 15.004(4) to be discharged to a Title 5 system, *if* MassDEP determines that constituents of the waste are the same as sanitary sewage. This change will allow wastewater from industries such as breweries and wineries to be discharged to a Title 5 system, provided MassDEP determines the wastewater has the same characteristics as sanitary sewage. [310 CMR 15.004(4)]
- Includes additional eligibility criteria to qualify as a soil evaluator, based on sufficient education in soil science. [310 CMR 15.017(2)(i)]
- Includes new violations for failure to submit soil evaluation and inspection forms to the approving authority, failure to provide information required by the approving authority, and making false, inaccurate or misleading statements in documents submitted to the approving authority, in order to clarify these obligations and reflect additional statutory authority to issue penalties for false and misleading submissions. [310 CMR 15.024 (11) through (15)]
- Reduces the design flow for one-bedroom elderly-housing units from 150 gpd to 110 gpd. The current 150-gpd design flow will continue to apply only to two-bedroom elderly-housing units. Elderly housing with units that have more than two bedrooms will continue to use the 110-gpd flow per bedroom. [310 CMR 15.203(2)].
- No longer requires local approving authorities to consult MassDEP before determining whether facilities asserted to be in separate ownership are in fact a single facility. [310 CMR 15.011(1)]
- Allows local boards of health to approve holding tanks for seasonal use at publicly owned/operated facilities. [310 CMR 15.260(1)(c)]
- Clarifies that pumping records are required to be submitted within 14 day from pumping. [310 CMR 15.351(1) and 15.502(7)]

MassDEP will continue to review and approve the following types of systems:



To: Mr. Glenn Clancy, P.E.

Date: December 6, 2021  
Project #: 13335.04

## Memorandum

From: Curtis Quitzau, P.E.

Re: The Residences at Belmont (McLean Zone 3) Inflow and Infiltration  
Wastewater Calculation

The purpose of this memo is to document our rationale for the wastewater generation estimate used for the attached I/I mitigation calculation. To that end, please consider the following:

1. The Town does not have nor did not legislate within the McLean District Zone 3 Overlay Bylaw a stated policy for the application of sewer infiltration and inflow fees for wastewater generation from the proposed project or from other various land uses allowed in town.
2. 310 CMR 15.00 ("Title V") tends to be the default standard of reference for wastewater generation rates throughout the Commonwealth. However, the flow rates contained within Title V are factored values to be used for the design of in-ground septic disposal systems and are not directly equivalent to wastewater generation rates. These "design flows" enumerated and explained in 310 CMR 15.203 carry a safety factor of 2.0 to account for flow variations appropriate for septic system design purposes. In other words, actual wastewater generation rates for any given use in Title V are effectively one-half of the design flow rate DEP requires be used for safe and reliable septic system design and operation.
3. For residential projects, Title V requires design flows of 110 gallons per day (GPD) per bedroom. This was based on expected wastewater generation of 55 GPD per bedroom.
4. Title V was promulgated in 1995 prior to a societal shift toward conservation and sustainability that manifested in policy changes at all levels of government and practice that led to, for examples, the Stretch Energy Code, changes in the plumbing code, and Leadership in Energy and Environmental Design (LEED). It is now common practice to incorporate (and in many municipalities mandate) use of low-flow plumbing fixtures and high efficiency appliances in new construction. These initiatives have been adopted by Belmont's Stretch Energy Building Code compliance requirements and within the McLean District Zone 3 Zoning Bylaw, which mandates a LEED Silver standard for the proposed project. It is widely understood that these adaptations in construction and lifestyle significantly reduce water use (and corresponding wastewater generation) by at least 30%.
5. Consequently, a more realistic estimate of wastewater generation per residential bedroom (for new construction in the year 2021) is on the order of 38 or 44 GPD per bedroom using 30% and 20% reduction, respectively.
6. Again, looking at Title V, DEP acknowledges that elderly housing (defined as age >55) consumes less water per 2-bedroom housing unit than an equivalent unit that is not age restricted. Rather than 110 GPD per bedroom (or 220 GPD per housing unit), Title V allows 150 GPD per unit. This means design flows of 75 GPD per bedroom, equivalent to wastewater generation of  $75 \times 0.5 = 37.5$  GPD per bedroom.

1 Cedar Street  
Suite 400  
Providence, RI 02903-1023  
P 401.272.8100

## Hummel, Robert

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**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Tuesday, January 18, 2022 1:10 AM  
**To:** Stephen Pinkerton  
**Cc:** Matt Lowrie; Hummel, Robert; Select Board Mailbox; Paolillo, Mark  
**Subject:** [EXTERNAL]RE: McLean - Zone 3  
**Attachments:** A Letter ExA.pdf; A Letter ExB.pdf; A Letter ExC.pdf; A Letter ExD.pdf

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Pinkerton,

As the Planning Board is preparing to close out the open meeting and public input period on the McLean Zone 3 Site Plan Review I am preparing a few e-mails in response to Mr. Lowrie's prior comment that my e-mails were in such volume that it may be beneficial for me to provide somewhat of a summary of issues I feel are open. To facilitate the Planning Board I am writing this e-mail to once again to try to express my concern and to layout what I believe are a series of mis-steps by the McLean Hospital and the Town of Belmont related to what I will describe as the Olmsted Drive Drainage Corridor. The area in question is comprised of all of the up-gradient contributors that contribute storm water to the Drainage System installed in Olmsted Drive from Zone 5 and Upham Bowl through drainage structure 11 adjacent to Trapelo Road. In support of this summary I am attaching the following documents:

- 1) Exhibit A: Memorandum dated September 04, 2001 from Sharon T. Raymond P.E. of Fay Spofford & Thorndike the Town's Peer Reviewer of the ARC- Belmont Campus, addressed to Ken Buckland (former Selectman) which is included in the Belmont Planning Board Site Plan Approval dated December 03, 2001. (2 pages)
- 2) Exhibit B: Letter from Ropes & Gray dated March 08, 2001 Ropes & Gray represented American Retirement Corporation in their application for Site Plan Approval. (3 pages)
- 3) Exhibit C: Letter Dated October 07, 2005 from VHB to Glen Clancy, Director, Town of Belmont, Office of Community Development with accompanying drainage calculations (11 pages)
- 4) Exhibit D: VHB Olmsted Drive Construction – Contract 1, Title Sheet and Sheet C-4 Issued January 18, 2006

Prior to the Approval of Zoning Section 6B McLean District Zone 3 Overlay District, a prior Belmont Planning Board granted Design & Site Plan Approval for the American Retirement Corporation's (ARC) proposed project for Zone 3 on December 03, 2001. Although this is commonly considered to be Approval of the retirement facility on the Zone 3 portion of the McLean Site, the submitted plan and Approval included several components in the actual "Approval", and this approval is still in force and applicable. The components included in the Approval are the design of Upham Bowl Detention Improvements (including portions of Zone 5), the Olmsted Drive Contract 1 work(including sidewalks), removal of the portions of Central Avenue, the abandonment of the Pleasant Street Lodge road access, and all of the Storm Water Management Systems associated with any of the aforementioned project components.

The Town in conducting its review of the proposed site plan employed Fay Spofford & Thorndike (FS&T) to conduct a peer review of the site work and proposed Storm Water Management System and Controls. Attached as Exhibit A is the concluding memorandum from Sharon T. Raymond from FS&T, her third paragraph stresses the necessity for the Upham Bowl detention basin to be constructed "concurrent or prior to the access road" (later named Olmsted Drive).

Exhibit B is a letter from Ropes & Gray, legal counsel, dated March 08, 2001, the majority of the letter is focused on presenting an argument and justification for allowing two proposed storm water structures (Structures 11 & 22) to be constructed in the Open Space portions of the campus in lieu of being constructed within the actual development Zones



they satisfy conditions in the REA and Zoning By-law. The last paragraph on page 2, identifies infiltration Tank 22 proposed to be located in the Open Space as the serving Upham Bowl and portions of Zone 5. The attorney goes on to say that Tank 22 is not legally required because it is not being responsive to “drainage from new developed areas.” This argument is completely baseless, in the context of the overall redevelopment of the McLean Campus and Structure 22 is required by the subsequent Site Plan Approval, dated December 03, 2001 as reinforced by FS&Ts statement in the Approval package of materials.

Exhibit C, VHB’s letter to Glen Clancy dated October 07, 2005, approximately 5-1/2 years later makes the statement, “It was determined that since Contract 1 only involves the construction of the roadway, it would not be necessary to construct the entire Site drainage system at this time.” Determined by whom?? Why would this be addressed to the Office of Community Development when this is a major change to the Site Plan Approval and in direct contradiction to the Town’s peer review recommendations. Moreover it appears that the letter brings no attention or reference to the Upham Bowl Detention Improvements and the submitted design proposed as a Temporary Condition did not provide for the future connection of Structure 22. The the 10 pages of calculations address a net added area of pavement of .57 acres. They neglect to address the 5 acres of Upham Bowl or the 11 Acres of upgradient drainage area in Zone 5. However they do indicate the installation of a drainage pipe and connection from Upham Bowl to the Olmsted Drive drainage piping as indicated on Exhibit D.

So in summary the Olmsted Drive Contract 1 work that was conducted under the auspices of the ARC Site Plan Approval dated December 03, 2001 by McLean Hospital appears to be out of conformance with the original Site Plan Approval and order of conditions. The Upham Bowl detention improvements required by the Site Plan approval and REA were not installed due to what appears to be an approval by the Office of Community Development for a temporary condition after receiving some inaccurate or misleading information and took us down this path.

During this entire process it has been impossible to get McLean Hospital to any of the meetings or to engage in addressing any questions either directly or indirectly, they are the Owners of the Land, this seems totally at odds with common sense. It is particularly disturbing that as a resident of Woodlands II I am in the awkward position of being financially liable for repairs to the storm water system we are talking about. I once again request that you pursue this issue more rigorously.

Robert Eckert  
(508)934-9556

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**From:** Stephen Pinkerton <pinkerton@alum.mit.edu>  
**Sent:** Friday, September 10, 2021 10:41 AM  
**To:** Robert Eckert <robe@pmrllc1.com>  
**Cc:** Matt Lowrie <mlowrie@foley.com>; Robert Hummel <rhummel@belmont-ma.gov>; Select Board Mailbox <selectboard@belmont-ma.gov>; Mark Paolillo <mpaolillo@belmont-ma.gov>  
**Subject:** Re: McLean - Zone 3

Dear Mr. Eckert,

As I have written to you in the past and would like to reiterate here, the Planning Board and the Planning Department are all grateful for your extensive research and reporting on many aspects of the McLean Zone 3 project. We also appreciate the leadership you and Jolanta have provided as representatives of the McLean Zone 2 community.

Mr. Lowrie’s is one member of a six person panel, but I think his comments voiced a general concern that your key points may be getting lost in the volume of material coming from you. As a reminder, please continue to send all documents and commentary directly to Mr. Hummel for review and distribution to Board members, peer reviewers and the applicant.



More important, Mr. Lowrie's remarks were made in the context of a broader discussion encouraging the applicant's stormwater consultant and our stormwater peer reviewer to look beyond the physical boundaries of the project at hand, and the episodic rain events that you had documented, to seek a more global understanding of drainage issues on the south side of the McLean campus. Both professional experts have clearly taken your earlier comments seriously and have found answers to many of the questions you have raised. At last night's meeting, the Board tasked them with looking further into the issue of Upham Bowl drainage, and we instructed Mr. Hummel to invite a representative from McLean Hospital to our next discussion of stormwater issues on October 5th.

Very best regards,

Stephen Pinkerton  
Chair, Belmont Planning Board

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**Stephen Pinkerton**  
[pinkerton@alum.mit.edu](mailto:pinkerton@alum.mit.edu)  
617-484-2732 land  
617-818-6018 cell/text

On Sep 9, 2021, at 9:42 PM, Robert Eckert <[robe@pmrllc1.com](mailto:robe@pmrllc1.com)> wrote:

Mr. Pinkerton,

I was really offended by Mr. Lowrie's comments about my input being somewhat "episodic", your collective group is the planning board and its within your purview to determine the scope and extent of the peer reviewer's work. It is common practice to review systems to which new projects are attaching etc. I am spending a lot of time catching up on issues and circumstances this and prior boards have overlooked. This board and you specifically promised that global issues like these would be reviewed as part of the site plan review, on this basis we declined appealing the prior decision.

Mr. Lowrie's comments regarding Zone 2 residents being responsible for storm water issues from Upham Bowl relating to a prior board approving a temporary plan, then failing to address the underlying engineering when subsequent projects are approved clearly indicates a lack of understanding of the REA and the concept of the interdependencies of a multi-phased development project.

I have done all the leg work and sent or hand delivered you all the relevant information to allow you to consider these issues carefully. My wife and I would like a good outcome, however we are losing confidence in the board's ability to ferret through the complexities of the development structure of this project.

Robert Eckert  
68 S. Cottage Road

## MEMORANDUM

To: Ken Buckland

From: Sharon T. Raymond, P.E. *STR*  
Fay, Spofford & Thorndike

Date: September 4, 2001

Subject: ARC Senior Living Housing at McLean Hospital  
Final Report

---

With respect to wastewater and stormwater issues, we have reviewed all supplemental information submitted by Vanasse Hangen Brustlin (VHB), Inc. for American Retirement Corporation (ARC) regarding the proposed Continuing Care Retirement Community facility in Zone 3 of the McLean Hospital campus. The information provided in these submissions has sufficiently addressed most of the issues and concerns raised during the course of our review. The following outlines the outstanding issues:

*Wastewater:*

- As previously recommended a plan for abandonment of existing utilities needs to be developed. This plan should identify which utilities will be abandoned and how they will be abandoned. As a portion of the Hospital's sanitary sewer is to be relocated and assumed to be discharging into the sanitary sewer that is proposed to be constructed by ARC (also accepting flows from Belmont Technology Park) the plan should also provide information of the proposed discharge from the relocated Hospital sewer.

*Stormwater:*

- The stormwater management system for the ARC site and access driveway incorporates a proposed modification of the Upham Bowl area by the Hospital to provide detention of stormwater runoff from Hospital property. The proposed use of the Upham Bowl for detention will help to alleviate an existing problem caused by uncontrolled runoff from the Hospital property at the intersection of Trapelo Road and Pleasant Street. Although not part of Zone 3, the Upham Bowl detention area is an integral part of the overall stormwater management system and the construction of these facilities need to be implemented concurrent or prior to the access road. The design of Upham Bowl detention basin is complete with the exception of a detailed final design drawing that should be provided prior to construction.

***Inspection and Maintenance of Stormwater Facilities:***

- Since the Upham Bowl detention area will discharge into the stormwater management facilities operated and maintained by ARC, a formal operation and maintenance plan for Upham Bowl, comparable to ARC's, needs to be provided prior to construction.

If you should have any questions regarding the above issues, please feel free to contact us.

JB-167

B

ROPES & GRAY  
ONE INTERNATIONAL PLACE  
BOSTON, MASSACHUSETTS 02110-2624

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PROVIDENCE, RI 02903-2328  
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1301 K STREET, N. W.  
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(202) 626-3900  
FAX: (202) 626-3961

WRITER'S DIRECT DIAL NUMBER: (617) 951-7906

March 8, 2001

MEMORANDUM

TO: Thomas Gatzunis  
FROM: Peter A. Alpert  
SUBJECT: Conformance of American Retirement Corporation Drainage Plans to Belmont Zoning By-law

COPY TO: Timothy Higgins  
Frank Herold  
David Hofmeister

In connection with the Planning Board's evaluation of American Retirement Corporation's application for Design and Site Plan Approval, we have been asked to document that ARC's proposed drainage systems comply with the McLean District provisions of the Belmont Zoning By-law and with the ancillary agreements that implement the zoning.

A. Background

Sheet C-6 ("Grading, Drainage, and Erosion Control") of the ARC site plan shows a drainage system consisting of a series of catch basins, water quality units, manholes, drain pipes, and underground detention tanks that ultimately discharge to existing town storm drains located in Pleasant Street and Trapelo Road. Much of this infrastructure is located within the boundaries of Zone 3, the Senior Living Subdistrict. The Zoning By-law and the agreements implementing the zoning require development of the shared Zone 3/Zone 4 access driveway through the Vehicular Access Easement portion of the neighboring Open Space Subdistrict. Accordingly, some of the proposed drainage infrastructure is located in the Open Space Subdistrict.

A question has been raised as to whether the portion of the drainage system proposed to be built within the Vehicular Access portion of the Open Space Subdistrict complies with the Zoning By-law and the implementing agreements. The focus seems to be on the detention tanks.



B. Discussion

The simplest and most practical answer to the question of whether it is permissible to locate storm water management facilities in the Open Space Subdistrict is "of course." Both the Zoning By-law and the implementing ancillary agreements (principally the Conservation Restriction attached to the Memorandum of Agreement) contemplate and even require that the common driveway serving Zones 3 and 4 be constructed through the narrow swath of the Open Space Subdistrict designated as the Vehicular Access Easement area. At the same time, the Zoning By-law requires all drainage from newly developed or re-developed portions of the McLean District to be controlled in accordance with strict performance and design standards, including a requirement that detention be accomplished primarily in underground structures. It follows as a practical matter that some of the storm water controls, including subsurface detention tanks, are to be installed within the Vehicular Access Easement area.

ARC's drainage plan shows two underground detention tanks within the Vehicular Access Easement area. These tanks are labeled Tank 11 (just west of Pleasant Street Lodge) and Tank 22 (near the Zone 2/Zone 6 boundary). Conceptually, the two tanks are no different from the other drainage system components (catch basins, drains, manholes, etc.) shown within the Vehicular Access Easement area. With the Zoning By-law imposing such strict rules on storm water control and detention, and with the By-law's requirement that a significant new roadway be built in this area, it stands to reason that some of the detention tanks are located there. Indeed, in recognition of this necessity, the Zoning By-law explicitly permits the "installation and maintenance of underground utilities" *anywhere* within the Open Space Subdistrict.

No one has clearly articulated the legal or even aesthetic concern about Tanks 11 and 22, but it appears that the following two provisions of the Zoning By-law and Conservation Restriction may be at issue:

*Zoning By-law Section 6A.5(d)*. This requires storm water management "solutions" to be "local to each zone," thus "minimiz[ing] accumulation and the need for larger structures." With one possible exception discussed below, each of the subsurface detention tanks shown on Sheet C-6 are "local to" the zone they serve. As explained in the attached memorandum from VHB, each of Tanks 23 and 24 detain runoff emanating from Zone 3, which is where these tanks are located. As explained in the VHB memo, Tank 11, located in the Open Space Subdistrict, detains runoff from the segment of the common driveway located in the Open Space Subdistrict.

The possible exception to this rule is Tank 22, which is designed to handle runoff overflowing from the Upham Bowl area and portions of Zone 5 in the 100-year storm event. The source of runoff detained in Tank 22 is admittedly not "local" to the Open Space Subdistrict where the tank is located, but rather is from areas outside that zone that are *not* undergoing any development.<sup>1</sup> Because the drainage basin served by Tank 22 is not undergoing development, there is no legal requirement for the tank to be built. Rather, as the VHB memo explains, Tank

<sup>1</sup> As the VHB memo explains, a trivial amount of the runoff detained in Tank 22 has its source in newly impervious areas located in Zone 3. This drainage could be re-routed to Tanks 23 and 24, but this would be nonsensical from an engineering perspective and would not affect the size or location of Tank 22.



22 is designed to address an existing problem that reportedly appears on Trapelo Road during extreme storm events. Through your office, the Town specifically has requested that this problem be addressed. Because there is no legal requirement for Tank 22 to exist and because Tank 22 is not a "solution" to drainage from newly developed areas, this tank simply is not subject to Section 6A.5(d), which governs only drainage facilities that are required to serve areas undergoing development.

*Conservation Restriction Section III.B.10.* This section of the proposed Conservation Restriction allows new "public utilities" that serve any of the development zones or the McLean Institutional District to be installed with the Open Space Subdistrict "in a manner which minimizes the impact on the conservation values" of the Open Space. There appears to be some question as to whether Tanks 11 and 22 qualify as "public utilities." This question overlooks that the Conservation Restriction specifically allows roadway construction through the Vehicular Access Easement portion of the Open Space. Whether or not storm water detention systems constitute "public utilities," they are explicitly authorized in this area as necessary appurtenances to the roadway.

Moreover, the detention tanks are "public utilities" within the meaning of the Conservation Restriction. The term "public utility" is not defined. Generically, drainage facilities accessory to roadways are "public" if the road itself is public. The new access drive is not to be accepted as a public way, but the storm water systems accessory to the road are still in the nature of public infrastructure. It is highly questionable in any event whether the word "public" as used on the Conservation Restriction has any meaning. The word "public" does not appear in the Zoning By-law. Rather, Zoning By-law Section 6A.1.5 simply allows "underground utilities" in the Open Space, without qualification as to ownership. Because the Conservation Restriction is part of the MOA, which in turn is an agreement for the implementation of the Zoning By-law, any possible conflict between the zoning and the restriction must be resolved in favor of the zoning.

It is possible that the other concern under Conservation Restriction Section III.B.10 is that Tanks 11 and 22 be installed "in a manner which minimizes the impact on conservation values" in the Open Space Subdistrict. We doubt that there was any expectation that the "conservation values" of the Open Space Subdistrict would be fully preserved within the Vehicular Access Easement area. In any event, consistent with good practice and with the aesthetic interests of the Zone 3 and 4 developers, the locations of the two tanks will be backfilled to grade and planted with appropriate cover after their installation. Plus, the tanks will be *underground* and will be invisible to users of the Open Space, especially those who, in order to maximize their safety and enjoyment, focus their activities outside the easement area.

#### C. Conclusion

This memorandum demonstrates that ARC's drainage systems are prudently designed in full compliance with the Zoning By-law and the implementing agreements, including the Conservation Restriction. Indeed, without these systems, the Town's strong interest in Open Space protection and prudent storm water management would be poorly served. We would appreciate if you could confirm your agreement with this conclusion in writing to the Planning Board.

Transportation  
Land Development  
Environmental  
Services



*Vanasse Hangen Brustlin, Inc.*

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**Memorandum**

To: Glenn Clancy  
Director, Office of Community  
Development  
Belmont, Massachusetts

Date: October 7, 2005

Project No.: 08145.01

From: Weston Ruthven, EIT

Re: McLean Hospital - Olmsted Drive  
Construction (Contract I)  
Interim Drainage Design

The following memorandum describes the design for the drainage system that is to be constructed as part of Olmsted Drive (Contract I). Portions of the proposed drainage system, as shown on the Olmsted Drive Construction - Contract I, Site Plans, are provided for the interim, until the full build out of the ARC site (the Site).

Previously shown on the plans was a large subsurface detention structure, which received runoff from a small portion of the Olmsted Drive roadway, and the entire roof and parking areas associated with the ARC development. It was determined that since Contract I only involves construction of the roadway, it would not be necessary to construct the entire Site drainage system at this time. The majority of the Site area will remain undeveloped at this time. Surface basins and grading are shown on the plans to receive and mitigate runoff during the interim condition.

It was assumed that the area to be analyzed for the interim condition is the additional impervious area created by the construction of the roadway. The existing "Office Building Parking Lot" is to be removed under this contract, creating additional impervious area. This paved area was subtracted from the additional paved area to balance overall onsite impervious surfaces and maintain existing runoff conditions. As a result, 0.57 acres of good grass cover under present conditions will be paved under this Contract. This area of increased pavement will be mitigated through the creation of a new, onsite detention basin.

The detention basin, approximately 20 feet x 30 feet, 5 feet deep with 1 to 1 side slopes and a 6-inch outlet is required to mitigate peak discharge. Runoff from paved areas which are collected by catch basins, but do not discharge to the detention basin is conveyed to riprap swales, which will act as level spreader type spillways to dissipate the flow overland. This basin will remain in place throughout the interim build condition.

A HydroCAD model, using TR-20 methodology, was developed to evaluate the existing and proposed drainage conditions. The results of the analyses indicate that there is no increase in peak discharge rates between the pre- and post-development conditions. See table below.



**Peak Discharge Rates (cfs\*)**

	1-year	2-year	10-year	100-year
Existing	0.08	0.21	0.77	1.91
Proposed	0.05	0.21	0.66	0.91

\* expressed in cubic feet per second

Future contracts will remove the interim structures installed under Contract I and a complete closed pipe drainage system and a subsurface detention tank will be constructed, as previously approved.





EXISTING  
CONDITIONS



PROPOSED  
CONDITIONS



Detention Basin  
(Contract I)



Drainage Diagram for 08145PHASE I  
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CONTRACT I Detention Basin Sizing  
Type III 24-hr 1-YEAR Rainfall=2.70"

Page 2

10/7/2005

**Subcatchment EX: EXISTING CONDITIONS**

Runoff = 0.08 cfs @ 12.06 hrs, Volume= 0.011 af, Depth&gt; 0.22"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 1-YEAR Rainfall=2.70"

Area (ac)	CN	Description			
0.570	61	>75% Grass cover, Good, HSG B			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 5

**Subcatchment PR: PROPOSED CONDITIONS**

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.038 af, Depth&gt; 0.79"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 1-YEAR Rainfall=2.70"

Area (ac)	CN	Description
0.240	98	Paved parking & roofs
0.330	61	>75% Grass cover, Good, HSG B
0.570	77	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Pond DET: Detention Basin (Contract I)**

Inflow Area = 0.570 ac, Inflow Depth > 0.79" for 1-YEAR event  
 Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.038 af  
 Outflow = 0.05 cfs @ 13.48 hrs, Volume= 0.017 af, Atten= 90%, Lag= 83.6 min  
 Primary = 0.05 cfs @ 13.48 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 179.38' @ 13.48 hrs Surf.Area= 0.017 ac Storage= 0.021 af  
 Plug-Flow detention time= 206.7 min calculated for 0.017 af (46% of inflow)  
 Center-of-Mass det. time= 114.3 min ( 932.2 - 817.9 )

Volume	Invert	Avail. Storage	Storage Description
#1	178.00'	0.101 af	20.00'W x 30.00'L x 5.00'H Prismatic Z=1.0

Device	Routing	Invert	Outlet Devices
#1	Primary	179.25'	6.0" x 100.0' long Culvert RCP, groove end projecting, Ke= 0.200 Outlet Invert= 178.00' S= 0.0125' /' Cc= 0.900 n= 0.013

**08145PHASEI**

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CONTRACT I Detention Basin Sizing  
Type III 24-hr 1-YEAR Rainfall=2.70"

Page 3

10/7/2005

Primary OutFlow Max=0.05 cfs @ 13.48 hrs HW=179.38' (Free Discharge)  
↑1=Culvert (Barrel Controls 0.05 cfs @ 1.9 fps)

**08145PHASE I**

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CONTRACT I Detention Basin Sizing

Type III 24-hr 2-YEAR Rainfall=3.20"

Page 4

10/7/2005

**Subcatchment EX: EXISTING CONDITIONS**

Runoff = 0.21 cfs @ 12.04 hrs, Volume= 0.019 af, Depth&gt; 0.39"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-YEAR Rainfall=3.20"

Area (ac)	CN	Description			
0.570	61	>75% Grass cover, Good, HSG B			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 5

**Subcatchment PR: PROPOSED CONDITIONS**

Runoff = 0.79 cfs @ 12.08 hrs, Volume= 0.053 af, Depth&gt; 1.11"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-YEAR Rainfall=3.20"

Area (ac)	CN	Description
0.240	98	Paved parking & roofs
0.330	61	>75% Grass cover, Good, HSG B
0.570	77	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Pond DET: Detention Basin (Contract I)**

Inflow Area = 0.570 ac, Inflow Depth > 1.11" for 2-YEAR event  
 Inflow = 0.79 cfs @ 12.08 hrs, Volume= 0.053 af  
 Outflow = 0.21 cfs @ 12.49 hrs, Volume= 0.033 af, Atten= 73%, Lag= 24.4 min  
 Primary = 0.21 cfs @ 12.49 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 179.52' @ 12.49 hrs Surf.Area= 0.017 ac Storage= 0.024 af  
 Plug-Flow detention time= 149.0 min calculated for 0.033 af (62% of inflow)  
 Center-of-Mass det. time= 69.7 min ( 880.0 - 810.3 )

Volume	Invert	Avail.Storage	Storage	Description
#1	178.00'	0.101 af	20.00'W x 30.00'L x 5.00'H	Prismatoid Z=1.0

Device	Routing	Invert	Outlet Devices
#1	Primary	179.25'	6.0" x 100.0' long Culvert RCP, groove end projecting, K <sub>e</sub> = 0.200 Outlet Invert= 178.00' S= 0.0125 ' Cc= 0.900 n= 0.013

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CONTRACT I Detention Basin Sizing  
*Type III 24-hr 2-YEAR Rainfall=3.20"*

Page 5

10/7/2005

**Primary OutFlow** Max=0.21 cfs @ 12.49 hrs HW=179.52' (Free Discharge)

└─1=Culvert (Barrel Controls 0.21 cfs @ 2.8 fps)

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**CONTRACT I Detention Basin Sizing****Type III 24-hr 10-YEAR Rainfall=4.60"**

Page 6

10/7/2005

**Subcatchment EX: EXISTING CONDITIONS**

Runoff = 0.77 cfs @ 12.01 hrs, Volume= 0.049 af, Depth&gt; 1.03"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-YEAR Rainfall=4.60"

Area (ac)	CN	Description			
0.570	61	>75% Grass cover, Good, HSG B			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 5

**Subcatchment PR: PROPOSED CONDITIONS**

Runoff = 1.53 cfs @ 12.08 hrs, Volume= 0.101 af, Depth&gt; 2.13"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-YEAR Rainfall=4.60"

Area (ac)	CN	Description
0.240	98	Paved parking & roofs
0.330	61	>75% Grass cover, Good, HSG B
0.570	77	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry.

**Pond DET: Detention Basin (Contract I)**

Inflow Area = 0.570 ac, Inflow Depth > 2.13" for 10-YEAR event  
 Inflow = 1.53 cfs @ 12.08 hrs, Volume= 0.101 af  
 Outflow = 0.66 cfs @ 12.30 hrs, Volume= 0.080 af, Atten= 57%, Lag= 13.2 min  
 Primary = 0.66 cfs @ 12.30 hrs, Volume= 0.080 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 180.11' @ 12.30 hrs Surf.Area= 0.019 ac Storage= 0.034 af  
 Plug-Flow detention time= 91.4 min calculated for 0.080 af (79% of inflow)  
 Center-of-Mass det. time= 38.0 min ( 833.7 - 795.7 )

Volume	Invert	Avail.Storage	Storage Description
#1	178.00'	0.101 af	20.00'W x 30.00'L x 5.00'H Prismatic Z=1.0

Device	Routing	Invert	Outlet Devices
#1	Primary	179.25'	6.0" x 100.0' long Culvert RCP, groove end projecting, Ke= 0.200 Outlet Invert= 178.00' S= 0.0125 ' Cc= 0.900 n= 0.013

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CONTRACT I Detention Basin Sizing  
Type III 24-hr 10-YEAR Rainfall=4.60"

Page 7

10/7/2005

**Primary OutFlow** Max=0.66 cfs @ 12.30 hrs HW=180.11' (Free Discharge)

1=Culvert (Barrel Controls 0.66 cfs @ 3.4 fps)



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**CONTRACT I Detention Basin Sizing****Type III 24-hr 100-YEAR Rainfall=6.80"**

Page 8

10/7/2005

**Subcatchment EX: EXISTING CONDITIONS**

Runoff = 1.91 cfs @ 12.01 hrs, Volume= 0.112 af, Depth&gt; 2.35"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-YEAR Rainfall=6.80"

Area (ac)	CN	Description			
0.570	61	>75% Grass cover, Good, HSG B			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 5

**Subcatchment PR: PROPOSED CONDITIONS**

Runoff = 2.79 cfs @ 12.08 hrs, Volume= 0.186 af, Depth&gt; 3.92"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-YEAR Rainfall=6.80"

Area (ac)	CN	Description
0.240	98	Paved parking & roofs
0.330	61	>75% Grass cover, Good, HSG B
0.570	77	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

**Pond DET: Detention Basin (Contract I)**

Inflow Area = 0.570 ac, Inflow Depth > 3.92" for 100-YEAR event  
 Inflow = 2.79 cfs @ 12.08 hrs, Volume= 0.186 af  
 Outflow = 0.91 cfs @ 12.39 hrs, Volume= 0.165 af, Atten= 68%, Lag= 18.7 min  
 Primary = 0.91 cfs @ 12.39 hrs, Volume= 0.165 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 181.51' @ 12.39 hrs Surf.Area= 0.023 ac Storage= 0.064 af  
 Plug-Flow detention time= 72.5 min calculated for 0.165 af (88% of inflow)  
 Center-of-Mass det. time= 37.5 min ( 819.2 - 781.7 )

Volume	Invert	Avail. Storage	Storage Description
#1	178.00'	0.101 af	20.00'W x 30.00'L x 5.00'H Prismatic Z=1.0

Device	Routing	Invert	Outlet Devices
#1	Primary	179.25'	6.0" x 100.0' long Culvert RCP, groove end projecting, Ke= 0.200 Outlet Invert= 178.00' S= 0.0125' /' Cc= 0.900 n= 0.013



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CONTRACT I Detention Basin Sizing  
Type III 24-hr 100-YEAR Rainfall=6.80"

Page 9

10/7/2005

**Primary OutFlow** Max=0.91 cfs @ 12.39 hrs HW=181.51' (Free Discharge)

↑1=Culvert (Barrel Controls 0.91 cfs @ 4.6 fps)

# Site Plans

Issued for: **Construction**

Date Issued: September 23, 2005

Latest Issue: January 18, 2006

## Index

No.	Drawing Title	Latest Issue
	Title Sheet	1/18/06
C-1	Legend and General Notes	11/23/05
C-2	Overall Existing Site Plan	9/23/2005
C-3	Layout and Materials Plan	1/18/06
C-4	Grading, Drainage and Erosion Control Plan	1/18/06
C-5	Utility Plan	1/18/06
C-6	Driveway Profile (Sta 0+00 to 12+00)	11/23/05
C-7	Driveway Profile (Sta 12+00 to Sta 24+82)	11/23/05
C-8	Details	11/23/05
C-9	Details	1/9/06
C-10	Details	11/23/05

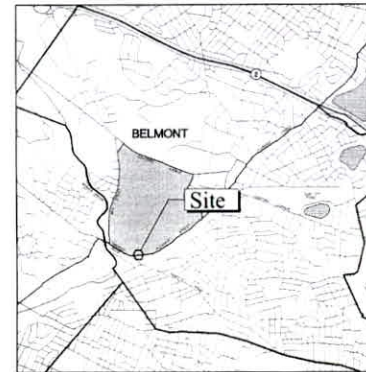
## Reference Drawings

Sv-1	Existing Conditions Plan of Land	5/22/2000
TI-1	Tree Inventory Plan	11/23/05

D  
CONTRACT I

# Olmsted Drive Construction

McLean Hospital  
Belmont, Massachusetts



Site Location Map

## Property Information

Owner:  
**McLean Hospital Corporation**  
115 Mill Street  
Belmont, Massachusetts 02178



*Vanasse Hangen Brustlin, Inc.*  
Transportation  
Land Development  
Environmental Services

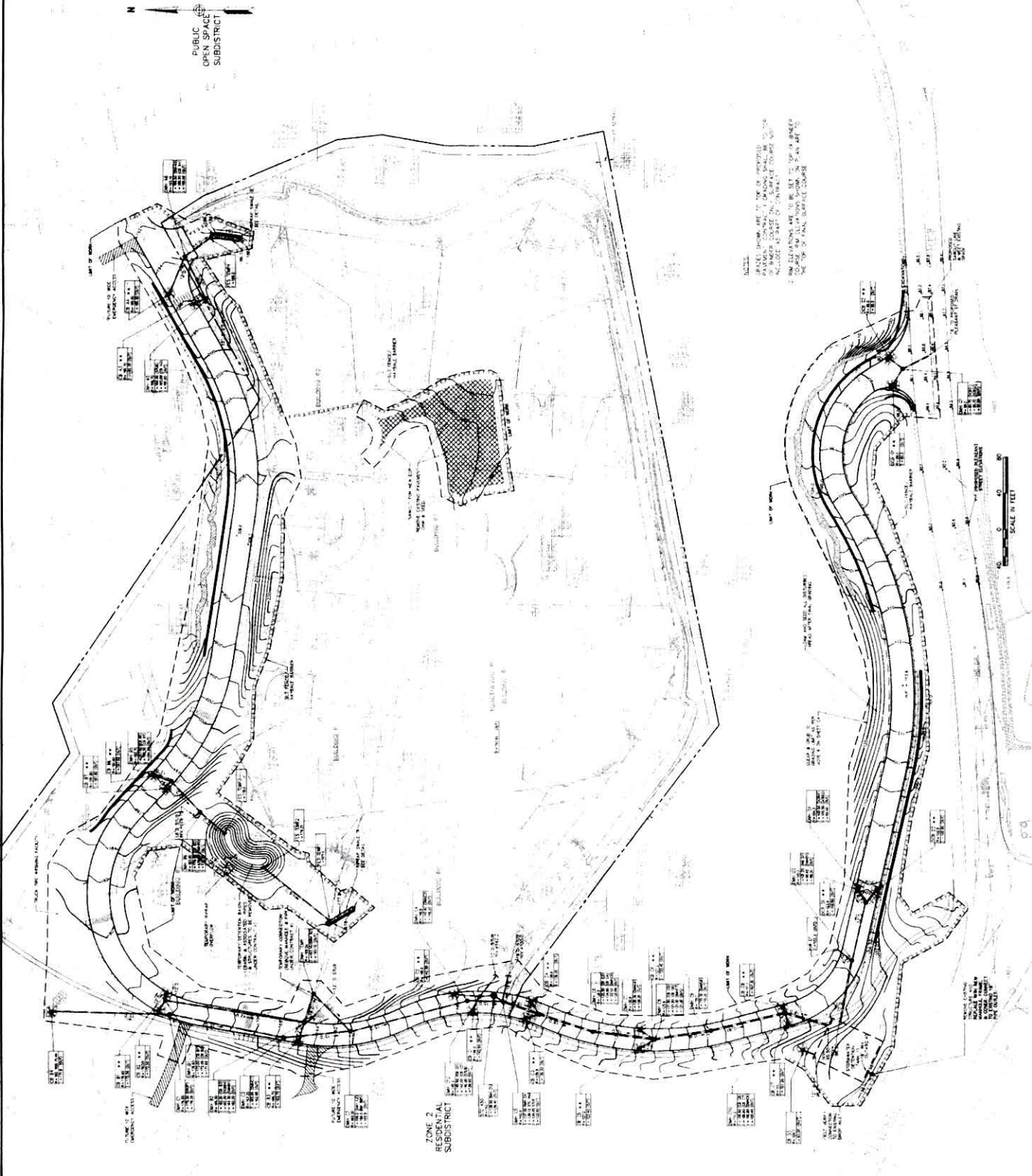
101 Walnut Street  
Watertown, Massachusetts 02471  
617 924 1770 • 617 924 2286



VHB Project No. 00145.01  
Olmsted Drive - McLean Hospital  
Issued for: Construction - CONTRACT I

## DESIGN CONTROL NOTES

1. ALL WORK SHALL BE CONDUCTED IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL AFFAIRS (DEA) REGULATIONS.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF PUBLIC SAFETY (DPS) REGULATIONS.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF REVENUE (DOR) REGULATIONS.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF SOCIAL SERVICES (DSS) REGULATIONS.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF EDUCATION (DE) REGULATIONS.
8. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF HEALTH (DH) REGULATIONS.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF LABOR (DL) REGULATIONS.
10. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF CORRECTIONS (DC) REGULATIONS.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF TERRORISM PREVENTION (DTP) REGULATIONS.
12. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF ENERGY (DE) REGULATIONS.
13. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF CLIMATE CONTROL (DCC) REGULATIONS.
14. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF NATURE RESOURCES (DNR) REGULATIONS.
15. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF CULTURAL AFFAIRS (DCA) REGULATIONS.
16. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF SENIOR SERVICES (DSSS) REGULATIONS.
17. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF CHILDREN AND YOUTH SERVICES (DCYS) REGULATIONS.
18. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF COMMUNITY DEVELOPMENT (DCD) REGULATIONS.
19. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF ECONOMIC DEVELOPMENT (DED) REGULATIONS.
20. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT (DHCD) REGULATIONS.
21. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF RECREATION AND LEISURE (DRL) REGULATIONS.
22. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF TOURISM (DT) REGULATIONS.
23. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF VISITATION (DV) REGULATIONS.
24. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF WILDLIFE (DW) REGULATIONS.
25. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF FISHERIES (DF) REGULATIONS.
26. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF MARINE FISHERIES (DMF) REGULATIONS.
27. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF AQUACULTURE (DA) REGULATIONS.
28. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF FORESTRY (DF) REGULATIONS.
29. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF AGRICULTURE (DA) REGULATIONS.
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NOTES:  
1. GRADES SHOWN ARE TO TOP OF PROPOSED  
2. DRAINAGE CONVEYANCE SHALL BE  
3. ALL DRAINAGE ARE TO BE SET TO TOP OF DRAINAGE  
4. THE TOP OF FINAL SURFACE COURSE

1. Project Name	McLean Hospital Olmsted Drive Construction
2. Project Location	Belmont, Massachusetts
3. Project Owner	McLean Hospital
4. Project Manager	John J. McLean
5. Project Engineer	John J. McLean
6. Project Date	1/1/2000
7. Project Status	Final
8. Project Notes	See Notes

McLean Hospital  
Olmsted Drive Construction

Belmont, Massachusetts  
Construction Documents  
CONTRACT 1

Grading, Drainage and  
Erosion Control Plan

## Hummel, Robert

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**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Tuesday, January 18, 2022 12:51 PM  
**To:** Stephen Pinkerton  
**Cc:** Hummel, Robert; mlowrie@foley.com  
**Subject:** [EXTERNAL]ARC - Approved CMP O&M & SWPPP.pdf  
**Attachments:** ARC - Approved CMP O&M & SWPPP.pdf

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Stephen,

Attached are copies of the current CMP, SWPPP and O & M for the McLean Zone 3 site (prior approval of ARC Campus), these documents submitted and reviewed by BSC that became part of the current Zoning Approval. All three were part of the Site Plan Approval and all three were Peer Reviewed. I think these serve as an example for what the Current Planning Board should be expecting as a product.

They also submitted a stand-alone Site Fence Program, but it appears Northland has combined that into the CMP, which seems fine from my stand-point.

Rob E.

Transportation  
Land Development  
Environmental  
Services



*Vanasse Hangen Brustlin, Inc.*

101 Walnut Street  
P. O. Box 9151  
Watertown, MA 02471-9151  
617 924 1770  
FAX 617 924 2286

**Memorandum**

To: Tim Higgins

Date: July 6, 2001  
Revised July 24, 2001

Project No.: 06935

From: Frank DiPietro, P.E.  
Joseph Hanlon P.E.

Re: Construction Management Plan  
Revised per Review Comments

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## ***ARC Belmont Campus – Senior Housing Development***

### **Construction Management Plan**

#### **Introduction:**

The American Retirement Corporation (ARC) proposes to develop a 482 unit Senior Living Facility located in Zone 3 of the McLean Zoning District. The project is located on approximately 12.8 acres of land near the southern portion of the existing McLean Hospital. Access to this project and Zone 4 (Research and Development zone to be constructed by others) will be from a new driveway (named Olmstead Drive) off of Pleasant Street.

Construction of this project will be implemented so as to minimize impacts to the community, hospital, and local resource areas. As part of the construction process, ARC, with input from VHB and Suffolk Construction Company, Inc (ARC's pre-construction services manager), has developed a Construction Management Plan as a guideline for all aspects of the development of this project.

This Construction Management Plan will provide guidance to all contractors working on the project. It will be the responsibility of the contractors to become familiar with these guidelines as well as the guidelines set forth in the ARC Site Plan Review Approval letter and the Storm Water Pollution Prevention Plan (SWPPP). In addition, the ARC owner's representative and the general contractor will be responsible for overseeing all work on the project to control and mitigate impacts to the surrounding community from the construction activities. Once the ARC project management team is in place, it will inform the Town of the responsible individuals for this project and provide phone numbers etc. in order for them to be contacted.

As soon as all permits required to develop this project are complete, owners representative and general contractor will finalize the bid process and begin site preparation work for the project. This Construction Management Plan is intended to create guidelines and be a flexible document. As necessary, it will be reviewed and updated, based upon the applicable requirements of these permits and a detailed review of the onsite conditions by all members of the ARC construction team, with input from appropriate Town officials and agencies. It is estimated that site work will begin after the final permits are in place, with a projected commencement date of fall, 2002

**Pre-Construction Site Coordination:**

All issues that relate to the site scope of work will be addressed during the bidding phase of the project and there will be site visits as well to review the specific existing conditions and control measures dealing with tree protection, storm water management, and environmental considerations. Pre-construction meetings will be held with all parties involved with this project including the Town Engineering, Fire Department, Police, and local utility companies as well as adjacent developers and McLean hospital. It is at these meetings that responsible parties for all construction activities will be identified and the information forwarded to the appropriate Town authorities and the CCIA Committee.

Prior to site mobilization, an on site meeting will be held with the successful site subcontractor, the architect, the arborist, appropriate municipal officials and VHB consulting engineers to review the scope of work as well as the Tree Protection Plan.

After the project team is familiarized with the site and the construction program, the Tree Preservation Plan and Storm Water Pollution Prevention Plan will be implemented. These documents provide guidelines to protect trees to be saved during site construction and establish erosion controls and temporary drainage structures for sedimentation and storm water runoff controls.

## **Initial Construction Activities**

**Project Access:**

The primary access route for construction vehicles to the site will be off Route 2 onto Winter Street onto Mill St to Trapelo Road to Pleasant St. Direct site access will be gained over the new access drive, Olmstead Drive. Secondary access will be made from I-95(Rte 128) onto Trapelo Road to Pleasant Street. Efforts will be made to minimize trips during peak traffic times. Truck routes and timing will be selected to avoid conflicts with school bus transportation including bus stops and major bus routes as identified by the school department. During periods when school is in session, the timing for truck trips hauling excess materials offsite will be limited to between 9 AM and 2 PM on weekdays (after and before school bus trips).

Access to the project site will be through the new driveway entrance, not through the existing drive adjacent to the Pleasant Street Lodge. This construction entrance will be established at least two months ahead of the main construction effort. All construction activities will use the main access drive along Pleasant Street. Hours of operation will conform to all town requirements and bylaws. In accordance with project approvals, the hours of operation will be 7 AM to 6 PM daily, Monday through Saturday, except for Saturdays between June 1st and September 30<sup>th</sup>, when hours of operation will be from 7 AM to 3 PM for outside construction activities. Wherever possible, deliveries will be made after the morning commuting hours and before the afternoon commuting hours.



### **Employee Parking:**

Construction parking will be on site under the control of owners representative and general contractor, who will provide an onsite employee parking area. No employees of general contractor or the subcontractors will be permitted to park on public roadways or hospital driveways surrounding the project. All construction workers will be onsite prior to 7 am and most will leave the site prior to peak afternoon traffic periods. An orientation will take place with all employees to review safety, routes to and from the site, hours of operations etc. During the initial phases of the construction of Olmstead Drive, when there is limited site access from Pleasant Street, while numbers of construction staff will be minimized to those necessary for putting in the drive. Special arrangements will be made by the driveway contractor to bring their workers onsite from an offsite staging area in accordance with the applicable traffic mitigation requirements.

### **Project Construction Controls**

ARC will also have an onsite representative (the owners representative) present during construction. The owners representative maintains control over the general contractor, who, in turn oversees construction during the entire time of the project, from the initial pre-construction meeting to the final walk through with the owner. The owners representative is also the liaison to the Town and the hospital and is on the CCIA committee. In accordance with the project approvals, the owners representative will provide to the CCIA committee, and the appropriate Town agencies and officials written reports on the progress of construction on a monthly basis.

Communication between the design team, consisting of the project architects, project site/civil engineers, project structural/geotechnical engineers, arborist, etc., the construction team, including the general contractor's staff, site contractor, sub-contractors, trades, etc., representatives of the Town of Belmont, and ARC, is established early in the project timetable. As the project develops in pre-construction, the owners representative and the general contractor are involved on a weekly basis along with the entire project team. The documents and plans are developed with input from the project team and, as approvals are obtained, the Bid process is initiated with approved work packages. This involves communications with the subcontractor market to identify all project specific issues as well as the scope of work. Just prior to the start of construction, a partnering meeting is conducted involving all members of the total project team. A pre-construction meeting with the Town is also required. The project is reviewed in its entirety and goals are set by the team and monitored throughout construction.

### **Tree Protection**

Protective fencing will be placed around existing trees to remain as shown in the Tree Protection Plan pursuant to the "Temporary Construction Fencing Agreement.". It is our plan to initiate the requirements of Tree Protection Plan prior to mobilizing on the site. This includes pruning of branches and roots as necessary, fertilization, and clearing of adjacent trees not to be preserved in order to erect protective chain link fence and flagging, all of which will be performed under the supervision of the licensed arborist. A meeting will take place at the site with the arborist, retained by ARC, VHB consulting engineers, Town officials and the contractors to review and approve that the plan is being implemented per the construction documents and the Site Plan Approval.

### **Erosion Control**

After the Tree Protection plan is implemented and applicable approvals are received, the owners representative, the general contractor and the site contractor will review and finalize the Storm Water Pollution Prevention Plan (SWPPP) and prepare the NPDES permit application for submission to EPA. It is critical that appropriate and functioning erosion control measures be maintain on the site during construction at all times. The contractor is responsible for insuring erosion controls remain effective, including implementing measures beyond those contained within the SWPPP as deemed necessary due to unforeseen or special site circumstances.

Prior to the beginning of any construction activities, silt fences and staked haybale barriers will be installed, as shown on the plans and in accordance with the SWPPP. The erosion control barriers will be inspected on a daily basis and after periods of heavy rains of one half inch or more. During excavation and rough grading, siltation basins and temporary drainage swales will be constructed to direct runoff from disturbed areas and reduce the amount of runoff from the construction areas. Where water flow is concentrated, crushed stone check dams will be installed as well as haybale check dams as required. Stockpiled materials will be properly stabilized as required in the SWPPP.

#### **Construction Staging**

Once the Tree Protection Plan and SWPPP are in place, temporary construction staging areas will be established within the Zone 3 site. Site clearing and the installation of temporary construction entrances as shown on the plans will be undertaken, with care given to maintain the requirements of the Tree Protection plan and SWPPP. Demolition of the Office Building structure will occur, in accordance with the applicable local and state regulations.

Olmstead Drive will be constructed to the degree necessary during the initial construction period to serve as a construction access before other construction commences on the site. Road construction will be staged from the western portion of the Zone 3 site. During construction, Olmstead Drive will be paved with a base course type asphalt material.

Concurrently with the work on Olmstead Drive, construction of the 12-inch diameter water system loop through Zone 3 will be undertaken. The portion of this water main between Zone 2 and 4 will be installed prior to receiving a building permit for work in Zone 3. The water main connection from the loop to Pleasant Street will likely be installed during the construction of Olmstead Drive. During work on the new water system, adequate water service from the existing McLean system will be maintained to the construction area at all times, in consultation with appropriate Town agencies and officials. Where appropriate (e.g. to consolidate ledge removal activities or to enhance drainage or erosion controls), other underground utilities may be installed at the same time as the 12-inch diameter water main.

#### **Temporary Utility Setups**

Any temporary utility connections that are required will be installed to insure that there is no interruption of service to the hospital and safe services are available for construction. The owners representative and general contractor will coordinate these efforts as required to insure uninterrupted service.

### **Construction Phase:**

#### **Site Development Phase:**

As previously mentioned, temporary construction access will be established at the beginning of construction. Rough grading and tree removal will be conducted in accordance with the SWPPP and the Tree Protection Plan. Protective fencing will be placed around trees to remain. This fencing will be inspected on a daily basis in order to insure maximum tree protection.



**Blasting:**

A pre-blast survey will be done to determine ledge location and help to determine the amount of ledge to be removed. All ledge removal will be performed in accordance with the Blasting Plan for the Project (to be developed within the guidelines of the State regulations and the local Fire Chief's requirements). The Blasting Plan will be developed after conferring with VHB, Weidlinger, the project structural/geotechnical engineers, the local Fire Department and the appropriate State authorities. This blasting plan will include a definite schedule of operations and protocol that will be communicated to the local Building Inspector and nearby residents including the Hospital. Suffolk Construction is aware of the sensitive receptors in the area of the project and will work with the blasting contractor to minimize disturbance to the hospital and the adjacent community. Blasting will be conducted under the direct supervision of the Belmont Fire Department per its requirements.

**Earth/Ledge Removal:**

Due to the topography of the site, the provision of underground structured parking and storm water detention, as required under the McLean Rezoning, significant earth and ledge removal will be required during project construction. Wherever practical, earth and ledge materials will be re-utilized on the site. It is estimated that approximately 60,000 cy of material (including 12,000 cy of ledge) will be transported offsite. Removal of this material will require 3,000 trips by trailer trucks having a capacity of 20 cy. This operation will likely extend over a period of months, as onsite excavation continues, with peak truck trips of approximately 8 to 12 trucks an hour, 5 hours a day. The removal of this material will primarily occur between 9 AM and 2 PM to avoid impacting traffic during the morning and afternoon peak times. Operating times and routes for school buses will be avoided during the early morning and mid-afternoon bus travel periods.

**Site Clearing:**

Clearing and grubbing will proceed along the proposed access roads and building footprints. Silt fencing, temporary drainage swales, haybale check dams and staked haybales etc. will be installed as shown on the plans to prevent sediment runoff. All will be inspected on a daily basis. All stockpiled soil shall be stabilized. Permanent slopes with gradients in excess of three-foot horizontal to one-foot vertical will be stabilized with erosion control fabric.

All vegetative debris will be chipped on site except for the logs hauled off as marketable lumber. Stumps will be removed or ground up on site. Wood chip material will be used for erosion controls on exposed slopes prior to their stabilization by revegetation. The loam will be stripped, screened and stockpiled as the site construction progresses. At the designated areas containing trees to be preserved, where foundation cuts are in close proximity to the root structure of the trees, an earth retention system will be used to minimize any movement of the root structure, this will depend on the depth of the cut and the proximity of the base of the tree. Typically if a 45 degree angle can be achieved from the drip edge of the tree to the bottom of footing, earth retention will not be required, however, erosion of the slope will be prevented as previously mentioned and as directed by the arborist.

**Foundations:**

Once building permits are obtained, foundations will be started in accordance with the construction schedule as soon as the access roads are in place, blasting and rough grading complete in and around the building footprint.

**Storm Water:**

Storm water runoff will be controlled using a combination of temporary drainage structures and best management practices prior to the installation of the proposed systems in accordance with the SWPPP. Such measures will be reviewed prior to implementation by the ARC project construction team and Town representatives, as appropriate. Existing and proposed catchbasins inlets shall be protected using sediment traps, silt sacks, and staked haybales. Once the underground detention tanks have been installed, these structures will be utilized for storm water and erosion control during the remainder of the construction period. All storm water control systems will be inspected daily and maintained as necessary to ensure that the system is functioning correctly throughout the construction process. Upon completion of the project, the drainage system will be cleaned of all accumulated sediment and debris.

**Utilities:**

Site utilities including any temporary service connections will be constructed in a coordinated fashion so as not to impede or interrupt services including the storm drainage and sewer supporting those areas. The owners representative and general contractor will coordinate the installation of all drainage, water and sewer installation as well as all private utility services (gas, telephone, cable, electric, etc.). Site Utilities including Storm Drainage, Sewer and Water will be constructed as the site development progresses.

**Site Walls:**

Site walls will be constructed after a building permit is obtained concurrently with foundations and rough grading. This will minimize potential erosion in those areas needing to be retained. Once walls are in place, these will serve to limit access to the exterior portions of the Zone 3 site. Walls will be designed by structural engineers and constructed in accordance with the permit approvals for the project. As the utilities continue to be constructed, the site becomes stabilized as foundations are completed.

**Building Construction Phase:**

The progress of construction will be in accordance with the anticipated Construction Schedule. This schedule will be refined and updated for submission with the Building Permit application. Generally, the structural systems are constructed as the foundations are completed. The exterior wall systems and roof follow, making the building weather tight. Rough Plumbing, Fire Protection, HVAC, and Electrical are concurrent with the enveloping of the building. Interior partitions framing and ceilings are constructed as the rough in proceeds and as the framing completes, the finishes are started including finish carpentry, appliances and fixtures. Safety and job cleanliness are a priority. Generated construction debris is hauled off daily. Units will be turned over to the Owner as they are completed. The balance of the project is completed and occupied by new residents as well as certain employees wrapping up the construction.

# Operation and Maintenance Procedures

The following inspection and maintenance procedures and practices shall be implemented during construction.

## Inspection and Maintenance

### Sediment and Erosion Controls

1. The contractor shall identify an individual who shall be responsible for conducting each inspection. The contractor shall also designate a person who will fill in for the inspector during his/her absence. This individual shall be trained in all maintenance and inspection practices necessary for keeping the sediment and erosion control practices in proper working order.
2. All sediment and erosion control measures shall be inspected (and cleaned out if required) at least once each week and following rain events.
3. All sediment and erosion control measures shall be maintained in good working order; if a repair is necessary, it shall be initiated as soon as possible and within 24 hours.
4. Sediment buildup shall be removed from areas up-gradient of the haybales and silt fence. If sediment reaches one-third the height of the haybales or silt fence it shall be removed.
5. Sediment shall be removed from temporary sedimentation basins before the volume is reduced by half the original volume or as necessary to maintain a minimum of 2 feet below the outlet elevation.
6. Silt fencing shall be inspected for depth of sediment accumulation and fabric tears, and to determine if the fabric is firmly secured to the wooden stakes, and the wooden stakes are firmly driven into the ground. If necessary, repairs will be made immediately.
7. Temporary and permanent seeding shall be inspected to ensure no exposed soil remains. Eroded areas shall be restored to the grades shown on the plans and reseeded. If an area continues to erode it shall be stabilized using erosion control matting, or other suitable product, in addition to vegetation.

## **Waste Management**

1. The locking shed or trailer furnished by the contractor for storage of chemicals and hazardous materials shall be inspected daily for security and leakage.
2. All waste products generated on the site, whether from normal use and operations, spillage and clean-up, or any unanticipated source will be disposed of within 48 hours in accordance with all applicable local, state, and/or federal regulations.

## **Housekeeping**

The following housekeeping practices will be followed onsite during the construction.

1. The contractor will minimize the amount of material stored on the site.
2. All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers in a covered area.
3. Products will be kept in their original containers with the original manufacturer's label affixed to each container.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. Whenever possible, all of a product will be used prior to disposal of the container. Manufacturer's recommendations for proper use and disposal will be followed.
6. The site superintendent will inspect the site daily to ensure proper use and disposal of materials onsite.
7. Any excavated earth that will not be used for fill material will be hauled off-site immediately and will be disposed of properly.
8. Trash pick-up will occur as necessary to maintain a clean site.
9. The contractor shall install an on-site portable sanitary waste facility for use during construction, and shall routinely remove any sanitary wastes so that the facility is maintained in proper working conditions. Porta-john waste will be removed in accordance with all applicable local, state, or federal regulations.

## Spill Control and Response Practices

A spill prevention and response team will be designated by the owner or the site superintendent. The general contractor, through its designated representative or subcontractor, will be responsible for all spill prevention and response actions. In addition, at a minimum, the following practices will be followed for spill cleanup:

1. Manufacturer's recommended methods for spill cleanup will be clearly posted, and site personnel will be made aware of the procedures and location of the information and cleanup supplies.
2. Materials and equipment necessary for spill cleanup will be present on the site at all times. Equipment and materials will include but not limited to brooms, shovels, rags, gloves, goggles, absorbent materials, and plastic or metal trash containers specifically designed for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on site.
3. The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.
4. All spills will be cleaned up immediately upon discovery. Spills of toxic substances (if present onsite) will be reported to the appropriate state or local government agency, regardless of the spill size.
5. The spill prevention plan will be modified to include measures to prevent this type of spill from recurring as well as improved methods for cleaning up any future spills. A description of each spill, what caused it, and the cleanup measures used will be kept with the plan.
6. A Spill Prevention control and Countermeasure (SPCC) Plan, including the required notification measures identified above, will be prepared by the facility operator and will be posted at all times in the supervisory trailer.

## Inspection and Maintenance-Post Construction

The owner or owner's representative shall inspect all drainage structures monthly during the first 12 month period following the completion of construction and quarterly thereafter. Outlined below is a review of the drainage maintenance program for the project.

- Inspect and remove accumulated sediments, as required, from the sumps of all catchbasins, underground detention structures, and the onsite water quality units at least four times annually. Two of these cleanings/maintenance efforts should occur in the Spring (March/April) and Fall (October/November). The other two cleanings should occur between these periods. All drainage structures shall be thoroughly



cleaned immediately after any chemical release involving 5 gallons or more. All removed sediments shall be disposed of in a proper manner and in compliance with state and local regulations.

- Cleaning and maintenance of the Water Quality units will be undertaken at least four times per year. As noted above, the water quality units will be cleaned at the same intervals and during the same time frames as the drainage structures.
- Stabilize and maintain the grassed areas, especially along vegetated side slopes, to control erosion. Problem areas must be reseeded immediately or protected with erosion control matting as necessary to stabilize exposed soils.
- Keep all drainage inlets and outlets, free from leaves, silt and debris that would prevent the free flow of surface water into, through, and out of them as designed and/ or cause the drainage area to accumulate surface water in excess of its design.
- All paved surfaces shall be swept and cleaned at least four times annually and immediately after any chemical release of 5 gallons or more. Two of these cleanings/maintenance efforts should occur in the Spring(March/ April) and Fall (October/November). The other two cleanings should occur between these periods.
- The underground detention structures are to be inspected/maintained at least four times annually during the same time frame as the previously mentioned drainage structures.
- The inspection/maintenance of the detention structures include the inspection of the structures, removal of accumulated debris and sediment in order to maintain the system in good working order.
- Work within the detention structure shall be regulated by the latest OSHA regulations for entry into confined spaces and should only be undertaken by those individuals with the appropriate OSHA certification.
- In the interest of protecting the environment and the adjacent Public and Private open space areas, ARC, its successors and assigns, has agreed to minimize the use of pesticides and fertilizers on the property. Prior to the application of any pesticide/fertilizers, ARC shall be required to develop an integrated pest management program. Such a program shall guide the type, quantity and frequency of pesticide and fertilizer use. Only slow release, organic, low nitrogen type fertilizers shall be permitted. Microbial and mycorrhizal soil inoculations (beneficial organisms) will be used to enhance root health. Horticultural oil and

other ecologically sound methods will be used to treat pests and vegetation. If absolutely necessary, Merit (trademark) or an equivalent product may be applied once per year for grub control in lawn areas. The use of Diaznan or Dylox is prohibited.

The maintenance program as outlined above in combination with the proposed source control program (regular pavement sweeping and catch basin clean-out) will provide for the continued function of the stormwater management system as designed.

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Stormwater Pollution Prevention Plan

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# *Proposed ARC Belmont Campus*

Belmont,  
Massachusetts

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Prepared for    **American Retirement Corporation**  
1401 Manatee Avenue – Suite 800  
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Prepared by    ☐ **Vanasse Hangen Brustlin, Inc.**  
Watertown, Massachusetts

UPDATED

# CONTENTS

<b>Stormwater Pollution Prevention Plan .....</b>	<b>2</b>
Project Description .....	2
Description of Resource Area .....	3
Regulations .....	3
Stormwater Management Standards and Guidelines .....	4
Site Preparation .....	6
Sequence of Construction .....	7
Site Maps .....	8
<b>Sediment and Erosion Controls .....</b>	<b>9</b>
Sequencing of Control Measures .....	9
Erosion and Sediment Control Practices .....	11
Solid Waste / Hazardous Waste Disposal Practices During Construction .....	14
<b>Operation and Maintenance Procedures .....</b>	<b>16</b>
Inspection and Maintenance .....	16
Housekeeping .....	17
Spill Control and Response Practices .....	18
Inspection and Maintenance-Post Construction .....	18

# Stormwater Pollution Prevention Plan

As part of the redevelopment of the McLean Hospital site, the American Retirement Corporation (ARC) is proposing to construct a Senior Living Facility on a 12.83-acre site that has been designated as Zone 3 of the redevelopment project.

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## Project Description

The 482 unit Senior Living Facility will be constructed in two phases. The first phase will include 382 units with associated driveways and parking (a combination of surface and underground structure spaces) to be located in a four wing building in the central portion of the site. The second phase will require the construction of the remaining 100 units to be located in two buildings, and will be located to the west of the first phase. In addition to the Zone 3 development, the access driveway from Pleasant Street will be constructed as part of this project.

The project site is located on the southern end of the McLean Hospital property. The parcel is situated parallel to Pleasant St. just east of the intersection of Pleasant St. and Trapelo Road. The proposed new 24-foot-wide driveway will be constructed primarily along the existing driveway that runs from the intersection of Pleasant Street and Trapelo Road, northerly into the McLean Hospital site. The existing driveway is currently closed off at the Pleasant Street intersection. The proposed driveway will extend beyond the limits of the existing driveway about 750', parallel to Pleasant Street to a new entrance location approximately 500 feet east of the intersection of Pleasant and Trapelo. It will separate from the existing driveway again, at about Station 16+00, as shown on Exhibit A, running approximately 890' easterly to provide access to Zone 4. The primary purpose of the driveway is to provide access to both the ARC Senior Living Facility and the adjacent R&D facility.

Two buildings currently exist on the property. One of the buildings, the office building and parking area, will be demolished. The second building, known as the Chapel, will remain.



The existing vegetation in the area is a mix of shrubs, trees, and open fields. The existing ground slopes from a central high point in a southerly direction towards Pleasant Street. Ledge outcroppings are located throughout the property.

Existing utilities running both in and along the driveway include storm drains, sanitary sewer, electricity and gas. ( See Sheet C-4 of the ARC Belmont Campus Site Plan). Given the age of existing utilities and scope of the McLean redevelopment, the current plans call for the abandonment of all existing utilities in this area. New utilities will be constructed within the proposed driveway as shown on Sheet C-7 of the ARC Belmont Campus Site Plan

## Description of Resource Area

No wetlands resource areas under Federal State or local regulations have been identified on or adjacent to the ARC Zone 3 project site. This Stormwater Pollution Prevention Plan (SWPPP) is being prepared in order to minimize any potential impacts during project construction and to the water quality at the two design points for the proposed drainage system. At the first of these points, which is the major discharge point for the site storm system, the detained water exits through a controlled outlet structure into the existing closed drainage system within Trapelo Road. Water reaching this system eventually flows into Beaver Brook. The second discharge point includes a portion of the proposed access drive and discharges into the municipal system at an intermittent stream crossing under Pleasant Street.

## Regulations

The following related regulations and guidelines apply to the proposed site development:

**Massachusetts State Stormwater Management Performance Standards and Guidelines**, Department of Environmental Protection and Office of Coastal Zone Management (DEP/CZM, March 1997).

**Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Stormwater Permit for Construction** Activities disturbing greater than five acres (EPA, Federal Register, December 8, 1999). The proposed project will result in the disturbance of more than five acres of land and, therefore, will require the preparation and implementation of a Pollution Prevention Plan by the site contractor and owner. This permit will be submitted in accordance with the Environmental Protection Agency's (EPA's) National Pollutant Discharge Elimination System (NPDES) General Permit Program for Stormwater Discharges from

Construction Sites. The site contractor will employ standard components of the Stormwater Pollution Prevention Plan during the construction phases of the development.

## Stormwater Management Standards and Guidelines

The "Performance Standards" and "Guidelines for Stormwater Management" issued by the DEP/CZM were used as the foundation for the development of the site plan and the selection of non-structural and structural Best Management Practices (BMPs) on the site. This Stormwater Management Plan (the Plan) includes numerous water quality and quantity controls designed to protect surface and groundwater resources, and adjacent properties from potential impacts due to the proposed ARC redevelopment project. The Plan addresses full-build conditions and construction activities.

The methods for compliance with the nine stormwater performance standards developed by the DEP are summarized below:

1. *No new stormwater conveyances may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*

New discharges are not proposed and the development will provide onsite treatment for suspended solids removal.

2. *Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.*

Post-development discharge rates are less than or equal to pre-development rates.

3. *Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to the maximum extent practicable. The annual recharge from the post-development site should approximate the annual recharge from the pre-development site conditions based on soil types.*

Extensive soils investigations have been conducted across the ARC Zone 3 site. In most locations, these found shallow cover soil over bedrock or very large boulders that will prevent the safe use of recharge in the soils described on the site. Where depth to ledge was found to be more significant, high groundwater tables were encountered. Shallow depth to bedrock or high groundwater levels will preclude the use of recharge.

4. *For new development, stormwater management systems must be designed to remove 80-percent of the average annual load (post development conditions) of Total Suspended Solids (TSS). It is presumed that this standard is met when: Suitable non-structural practices for source control and pollution prevention are implemented; Stormwater management best management practices (BMPs) are sized to capture the prescribed runoff volume; and Stormwater management BMPs are maintained as designed.*

Stormwater quality management will be provided by sweeping, deep sump catchbasins with hoods and the installation of water quality treatment units, such as Stormceptor units within the proposed storm drainage system.

5. *Stormwater discharges to areas with higher potential pollutant loads require the use of specific stormwater management BMPs (listed in guidelines). The use of infiltration practices without pretreatment is prohibited.*

Not applicable for this site.

6. *Stormwater discharges to critical areas must utilize certain stormwater management BMP's approved for critical areas (listed in guidelines). Critical areas are Outstanding Resource Waters (ORWs), shellfish beds, swimming beaches, cold water fisheries and recharge areas for public drinking water supplies.*

Not applicable to this site.

7. *Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable. However, if it is not practicable to meet all the Standards, new (retrofitted or expanded) stormwater management systems must be designed to improve existing conditions.*

The redevelopment of the site will improve the stormwater quality to meet Stormwater Management Standards.

8. *Erosion and sediment controls must be implemented to prevent impacts during construction and land disturbance activities.*

Erosion and Sediment controls are included on the plans.

9. *All stormwater management systems must have an operation and maintenance plan to ensure that systems function as designed.*

The operation and maintenance procedures ("Plan") for the project are included in the Operation and Maintenance Procedures section of this Report.

The Stormwater Management Policy issued by the DEP/CZM states that the "use of the standards should prevent or minimize adverse environmental impacts due to unmanaged stormwater while limiting undue costs and recognizing site constraints."

## Site Preparation

All work in this zone has been designed and can be conditioned to prevent impacts to down-gradient receiving waters. An erosion and sedimentation control plan (see ARC Belmont Campus Site Plan C-6. Grading, Drainage and Erosion Control Plan) will be implemented to avoid short-term construction related impacts.

The system will include a series of catchbasins equipped with oil-water separation hoods and four foot sumps. This system was designed to attenuate the increased flows due to the development to pre-development levels, and to provide water quality treatment for runoff from impervious areas. The stormwater management features together with proposed non-structural site management practices provide both water quantity and water quality control.

Work proposed consists of the construction of 482 living units , parking spaces and associated drive aisles in two phases. Additional work includes the construction of site walls, underground utilites and a stormwater management system. The stormwater management system will include piping, catchbasins, manholes, water quality units and underground detention structures as shown on the plan C-6 of the ARC Belmont Campus Site Plans.

Site preparation activities include the placement of sediment and erosion controls, vegetation clearing, excavation, and grading as needed. Site preparation and building construction activities will occur on site. Filling and excavation will be required to achieve proposed site grades. Associated foundation construction and earthwork activities include excavation and backfilling for footings, foundation walls, floor slabs and utilities, construction dewatering(as necessary), and controlled rock blasting.

## Sequence of Construction

Disturbed areas will be kept to a minimum. Erosion and sediment control measures will be implemented to protect down gradient receiving waters during construction. These measures are shown on ARC Belmont Campus Site Plans C-11, Specimen Trees and Demolition Plan and C-12, Construction Staging and Phasing Plan. The following construction sequence will be observed:

- Prior to the beginning of construction establish construction staging area and construction entrances as shown on the plan.
- Prior to the beginning of construction, the contractor shall install protective fencing around existing trees to be preserved as shown on the Specimen Trees and Demolition Plan.
- Prior to the beginning of any construction activities, silt fence and staked haybale barriers will be installed, as shown on the plans. Silt fencing and straw haybale barriers will be entrenched into side slope areas to eliminate sediment underflow. The erosion control barriers will be inspected on a regular basis and after periods of heavy rains.
- Clear and grub along the extent of the proposed driveway. Excavate and rough grade areas that were not previously part of the existing driveway.
- Construct siltation basins as required to reduce the amount of sediment in the runoff from the construction area.
- Construct temporary drainage swales to direct runoff from disturbed areas as required and install haybale check dams along the swale.
- Install temporary utility connections along the main driveway, as necessary for the continued operation of McLean Hospital.
- Abandon and remove existing utilities as required. Install proposed utilities prior to final site grading.
- Prior to completing the final grading of the site subsurface drainage structures will be installed. Catchbasin inlets will be protected using sediment traps, silt sacks, staked haybales, as shown on the site plans. All catchbasins will be equipped with 4 foot sumps and oil water separating hoods. Catchbasins shall be inspected and cleaned out after periods of rain until the site is stabilized in order to keep the drainage system functioning properly.



- Completed final grading in the driveway and parking areas will be paved with a bituminous concrete base course as soon as possible to minimize exposed areas susceptible to erosion.
- Landscaped areas will be final graded and landscaping plantings will be completed. Planted areas and areas to be grassed will be seeded with a specified permanent seed mix.
- Stockpiled materials shall be properly stabilized. Stabilization would include placing haybales down gradient of the materials, covering the materials with an impervious tarp, or seeding the stockpiled materials (assuming the stockpile material can sustain the growth of the seed).
- As soon as permanent stabilization of exposed areas is completed, all temporary erosion control measures will be removed.
- Upon the completion of the detention structure installation, the area around the structure will be protected from heavy traffic prior to the establishment of the final grades by clearly marking the area in the field.

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## Site Maps

This report has been prepared to supplement information previously submitted to the Planning Board. The site plan entitled ARC Belmont Campus is incorporated here by reference.

# Sediment and Erosion Controls

## Sequencing of Control Measures

The following stabilization practices will be used for temporary controls. The contractor will be responsible for making sure that erosion and sediment control is implemented in compliance with the performance standards previously mentioned. Outlined below are Best Management Practices (BMP) that will accompany each sequence of construction.

1. Establish construction staging area and vehicle access point as shown on the Construction Staging and Phasing Plan:
  - Install protective fencing around existing trees to be preserved as shown on Specimen Tree and Demolition Plan.
  - Install stabilized construction entrances directing all runoff to on-site areas.
  - Install perimeter hay bales and silt fence.
  - Install haybale check dams in areas subject to concentrated flow.
  - Install erosion control at existing catch basins within close proximity to anticipated construction activities.
  - Stockpile topsoil and stabilize. Install haybale barrier around the base of stock pile to reduce sedimentation.
2. While clearing and rough grading:
  - Construct a system of berms and/or sedimentation basins to collect site runoff. This system will be continually maintained and change as the site evolves.
3. While constructing the driveway surface and associated backfill:
  - Grade backfill to sheet runoff away from the driveway surface to sedimentation ponds and stabilized channels.
  - Where water flow is concentrated place crushed stone checkdams and increase channel width to slow water velocity.
  - Place haybale checkdams where water flow is concentrated.
4. Rough Grading side slopes:
  - Stabilize all permanent slopes with gradients in excess of three-foot horizontal to one-foot vertical with erosion control fabric.

5. Import and placement of fill material:
  - Maintain practices of creating sheet flow to sedimentation ponds or stabilized channels to minimize erosion.
  - Place crushed stone checkdams and increase channel width to slow water velocity where water flow is concentrated.
  - Place haybale checkdams where water flow is concentrated.
6. While installing Utilities: Water, drainage, sewer, electric and telephone.
  - Install the closed drainage system providing inlet protection for all new catch basins. Drainage may be directed to the new drainage structures when all down stream drainage components and associated erosion control features are complete.
  - Inspect and clean out all drainage structures weekly and after periods of rain, during construction in order to insure that the system is functioning properly.
7. Constructing retaining walls:
  - Stabilize fill-material by compaction.
  - Continue to maintain the system of berms and sedimentation ponds.
8. Paving:
  - The stabilized construction entrances shall be removed immediately prior to the placement of paving when all upstream areas have been stabilized and sedimentation areas have been cleaned and brought to final grades.
9. Landscaping:
  - Topsoil and seed landscape areas. Topsoil shall be applied for a minimum depth of six inches in all areas to be seeded. All seeding shall be done from May 1 to October 1. Areas unable to be seeded within this time shall be mulched with hay mulch at a rate of 2 tons per acre as temporary protection with dormant permanent seeding applied at 1.5 times the specified rate.
10. While installing surface treatments:
  - Perimeter erosion control shall remain in place until permanent vegetative slope stabilization has been achieved.

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## Erosion and Sediment Control Practices

A number of erosion control measures will be implemented during the construction of this project. The following is more detailed information on stabilization practices that will be used for temporary and permanent controls:

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### Site Clearing

During the site clearing stage, existing vegetation within the overall limits of the work area will be cleared and removed.

- Prior to any site clearing activities, silt fence(see detail) and haybale barriers (see detail) will be placed around the down-gradient outer work perimeter.
- Trees to be preserved on site will be clearly protected with appropriate fencing as indicated within the Tree Preservation Plan narrative and as shown on the Specimen Tree and Demolition Plan and their locations reviewed with the contractor.
- Clearing will be limited to those areas necessary to complete the proposed work. Disturbed areas will be kept to a minimum.

Erosion control barriers will be inspected daily and maintained routinely by the contractor throughout the duration of the project.

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### Haybales /Silt Fence

Haybales and siltfence shall be installed where shown on the attached Grading, Drainage and Erosion Control Plan and as necessary to control runoff from the site. They shall be installed according to the Site Specifications and Details Plan and must remain in place until permanent stabilization measures are completed. The perimeter haybales shown on the Grading, Drainage and Erosion Control Plan and/or the temporary construction fencing installed shall be considered the limit of disturbance.

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### Stabilized Construction Entrance

A stabilized construction entrance will be installed where shown on the attached Construction Staging and Phasing Plan and according to the Site Specifications. This construction entrance will include a stone apron of 6" or 20 pound stones at least 30 feet wide and 50 feet long. All vehicles accessing or leaving the site must do so through the construction entrance. The

entrances reduce the amount of sediment tracked off site by cleaning packed mud and dirt from the tires of construction vehicles.

The contractor shall also be responsible for watering on-site construction roads to minimize dust dispersal and sediment loss. No petroleum products shall be used for dust-control purposes. All measures taken to reduce off-site vehicle tracking shall be continued by the contractor until all work areas have been properly stabilized.

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#### **Temporary Perimeter Berms / Swales**

During earthwork operations temporary berms and swales shall be constructed as necessary to direct runoff to the temporary sedimentation basins. Berms and swales shall be constructed in the upland drainage-ways around the perimeter of the site and stabilized with loam and seed. The contractor shall be responsible for the construction and maintenance of the berm until the site is stabilized.

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#### **Temporary Sediment Basins**

Temporary sedimentation basins equipped with temporary outlet control structures may be constructed within the upland drainage as needed. The slopes of the basins will be stabilized with loam and seed following rough grading. Stormwater will be directed to the basins by a system of temporary berms and swales.

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#### **Crushed Stone Check Dams**

Crushed stone check dams shall be used intermittently to reduce runoff velocities in drainage swales, along berms and other places where runoff is concentrated.

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#### **Street Cleaning**

The paved streets adjacent to the site will be swept or scraped as necessary to remove mud, dirt, or rock material tracked from the construction area. The contractor shall also be responsible for watering on-site construction roads to minimize dust dispersal and sediment loss. As previously mentioned, no petroleum products shall be used for dust-control purposes.

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## Vegetative Slope Stabilization

Stabilization of open soil surfaces will be implemented within 14 days after grading or construction activities have temporarily or permanently ceased, unless there is sufficient snow cover to prohibit implementation. Vegetative slope stabilization will be used to minimize erosion of slopes of 3:1 or flatter. Annual grasses, such as annual ryegrass, will be used to ensure rapid germination and production of root masses. Permanent stabilization will be completed with the planting of perennial grasses. Establishment of temporary and permanent vegetative cover may be established by hydroseeding or sodding. A suitable topsoil, good seedbed preparation, and adequate lime, fertilizer and water will be provided for effective establishment of these vegetative stabilization methods. Mulch will also be used after permanent seeding to protect soil from the impact of falling rain and to increase the capacity for the soil to absorb water.

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## Temporary Seeding and Mulching

Temporary seeding will be used in areas that will be paved or landscaped but have not been graded to final grades or are not part of on-going construction activities and will not be re-disturbed for two weeks or more. Temporary seeding shall include one or more of the following species based on the anticipated seeding date.

<u>Species</u>	<u>lbs/acre</u>	<u>Seeding Dates</u>
Annual Ryegrass	40	3/1-6/15
Sudangrass	40	8/15-9/15
Millet	30	5/15-8/15
Winter Rye	120	8/15-10/15

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## Permanent Seeding and Mulching

Permanent seeding will be used in areas that have been graded to final grade and will not be protected from erosion with pavement. Seed shall include the following mixture:

<u>Species</u>	<u>lbs/acre</u>	<u>Seeding Date</u>
Tall and Red Fescue	40	4/15-9/15
Redtop	2	4/15-9/15

For permanent seeding sites, a minimum of six inches of topsoil will be spread evenly across the area and raked smooth. Fertilizer (10-20-20) will be applied at a rate of 500 pounds/acre. Fertilizer will be worked into the soils, and permanent seeding.



Stockpiled and disturbed portions of the site where construction will temporarily cease for at least 21 days shall be stabilized with a temporary seed and mulch no later than 14 days from the last construction activity in that area.

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### Winter Stabilization

Any areas disturbed at any phase of activity on-site conducted during winter conditions will be temporarily stabilized with hand laid straw mulch, hydro-seeding, mulching, or erosion control blankets as necessary to control erosion during winter storm events.

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### Solid Waste / Hazardous Waste Disposal Practices During Construction

The following practices and procedures shall be applied during construction:

- Effort shall be made to store only enough materials or substances on site as required to complete the project. Bulk storage of fuels, oils, lubricants and solvents on the construction site is prohibited.
- All hazardous building materials stored on site shall be stored neatly in their containers and identified by the manufacturer's label. These materials shall be stored at a single on site location, and preferably in a locked shed facility accessible only to the contractor.
- Whenever possible, all substances shall be used up before properly disposing of the container.
- Materials that may leach unsuitable products such as pressure treated wood shall be covered until used.
- Any spillage or other release of materials or chemicals at the construction site shall be cleaned up immediately and containerized for disposal in accordance with the manufacturer's or local and state recommended methods and procedures for proper disposal. Spill material shall not be washed off into the surface drainage system.
- Any hazardous materials used on site shall have a secondary containment such as drum overpacks or impermeable dikes with a volume capacity at least 10 percent greater than the hazardous material volume. All hazardous materials shall be locked in a covered storage

area accessible only to designated properly trained staff. A spill containment kit will be kept on site and subject to verification by the Owner. The Massachusetts Department of Environmental Protection will be notified of releases or threats of release of oil and/or hazardous material that require modification under the Massachusetts Contingency Plan (310 CMR40.0300). Any hazardous material spills shall be cleaned up immediately, and if the spill amount is equal to or exceeds the EPA Reportable Quantity (RQ) for that substance in accordance with 40 CFR parts 110,117,or 302, the contractor shall immediately contact the National Response center a 1-800-424-8802. The contractor is also responsible for submitting, in writing, a description of the release to the EPA Regional Office, providing the data and circumstances of the release and steps to be taken to prevent another release.

- Any fertilizers applied to the site shall be in accordance with the minimum amount recommended by the manufacturers and shall be spread in a uniform manner.

# Operation and Maintenance Procedures

The following inspection and maintenance procedures and practices shall be implemented during construction.

## Inspection and Maintenance

### Sediment and Erosion Controls

1. The contractor shall identify an individual who shall be responsible for conducting each inspection. The contractor shall also designate a person who will fill in for the inspector during his/her absence. This individual shall be trained in all maintenance and inspection practices necessary for keeping the sediment and erosion control practices in proper working order.
2. All sediment and erosion control measures shall be inspected (and cleaned out if required) at least once each week and following rain events.
3. All sediment and erosion control measures shall be maintained in good working order; if a repair is necessary, it shall be initiated as soon as possible and within 24 hours.
4. Sediment buildup shall be removed from areas up-gradient of the haybales and silt fence. If sediment reaches one-third the height of the haybales or siltfence it shall be removed.
5. Sediment shall be removed from temporary sedimentation basins before the volume is reduced by half the original volume or as necessary to maintain a minimum of 2 feet below the outlet elevation.
6. Silt fencing shall be inspected for depth of sediment accumulation and fabric tears, and to determine if the fabric is firmly secured to the wooden stakes, and the wooden stakes are firmly driven into the ground. If necessary, repairs will be made immediately.
7. Temporary and permanent seeding shall be inspected to ensure no exposed soil remains. Eroded areas shall be restored to the grades shown on the plans and reseeded. If an area continues to erode it shall be stabilized using erosion control matting, or other suitable product, in addition to vegetation.

## Waste Management

1. The locking shed or trailer furnished by the contractor for storage of chemicals and hazardous materials shall be inspected daily for security and leakage.
2. All waste products generated on the site, whether from normal use and operations, spillage and clean-up, or any unanticipated source will be disposed of within 48 hours in accordance with all applicable local, state, and/or federal regulations.

## Housekeeping

The following housekeeping practices will be followed onsite during the construction.

1. The contractor will minimize the amount of material stored on the site.
2. All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers in a covered area.
3. Products will be kept in their original containers with the original manufacturer's label affixed to each container.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. Whenever possible, all of a product will be used prior to disposal of the container. Manufacturer's recommendations for proper use and disposal will be followed.
6. The site superintendent will inspect the site daily to ensure proper use and disposal of materials onsite.
7. Any excavated earth that will not be used for fill material will be hauled off-site immediately and will be disposed of properly.
8. Trash pick-up will occur as necessary to maintain a clean site.
9. The contractor shall install an on-site portable sanitary waste facility for use during construction, and shall routinely remove any sanitary wastes so that the facility is maintained in proper working conditions. Porta-john waste will be removed in accordance with all applicable local, state, or federal regulations.

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## Spill Control and Response Practices

A spill prevention and response team will be designated by the owner or the site superintendent. The general contractor, through its designated representative or subcontractor, will be responsible for all spill prevention and response actions. In addition, at a minimum, the following practices will be followed for spill cleanup:

1. Manufacturer's recommended methods for spill cleanup will be clearly posted, and site personnel will be made aware of the procedures and location of the information and cleanup supplies.
2. Materials and equipment necessary for spill cleanup will be present on the site at all times. Equipment and materials will include but not limited to brooms, shovels, rags, gloves, goggles, absorbent materials, and plastic or metal trash containers specifically designed for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on site.
3. The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.
4. All spills will be cleaned up immediately upon discovery. Spills of toxic substances (if present onsite) will be reported to the appropriate state or local government agency, regardless of the spill size.
5. The spill prevention plan will be modified to include measures to prevent this type of spill from recurring as well as improved methods for cleaning up any future spills. A description of each spill, what caused it, and the cleanup measures used will be kept with the plan.
6. A Spill Prevention control and Countermeasure (SPCC) Plan, including the required notification measures identified above, will be prepared by the facility operator and will be posted at all times in the supervisory trailer.

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## Inspection and Maintenance-Post Construction

The owner or owner's representative shall inspect all drainage structures monthly during the first 12 month period following the completion of construction and quarterly thereafter. Outlined below is a review of the drainage maintenance program for the project.

- Inspect and remove accumulated sediments, as required, from the sumps of all catchbasins, underground detention structures, and the onsite water quality units at least four times annually. Two of these cleanings/maintenance efforts should occur in the Spring (March/April) and Fall (October/November). The other two cleanings should occur between these periods. All drainage structures shall be thoroughly cleaned immediately after any chemical release involving 5 gallons or

more. All removed sediments shall be disposed of in a proper manner and in compliance with state and local regulations.

- Cleaning and maintenance of the Water Quality units will be undertaken at least four times per year. As noted above, the water quality units will be cleaned at the same intervals and during the same time frames as the drainage structures.
- Stabilize and maintain the grassed areas, especially along vegetated side slopes, to control erosion. Problem areas must be reseeded immediately or protected with erosion control matting as necessary to stabilize exposed soils.
- Keep all drainage inlets and outlets, free from leaves, silt and debris that would prevent the free flow of surface water into, through, and out of them as designed and/ or cause the drainage area to accumulate surface water in excess of its design.
- All paved surfaces shall be swept and cleaned at least four times annually and immediately after any chemical release of 5 gallons or more. Two of these cleanings/maintenance efforts should occur in the Spring(March/April) and Fall (October/November). The other two cleanings should occur between these periods.
- The underground detention structures are to be inspected/maintained at least four times annually during the same time frame as the previously mentioned drainage structures.
- The inspection/maintenance of the detention structures include the inspection of the structures, removal of accumulated debris and sediment in order to maintain the system in good working order.
- Work within the detention structure shall be regulated by the latest OSHA regulations for entry into confined spaces and should only be undertaken by those individuals with the appropriate OSHA certification.

The maintenance program as outlined above in combination with the proposed source control program (regular pavement sweeping and catch basin clean-out) will provide for the continued function of the stormwater management system as designed.





LT. ANGUS DAVISON  
FIRE PREVENTION/  
PLAN REVIEW OFFICER

**BELMONT FIRE DEPARTMENT**  
FIRE PREVENTION BUREAU  
P.O. Box 421  
54 LEONARD STREET  
BELMONT, MASSACHUSETTS 02478

**EXHIBIT J**  
Belmont Fire Department, MSDS Correspondence

TELEPHONE  
617-489-4848  
FAX 617-484-5996

March 29, 2001

Mr. Tim Higgins  
Senior Planner  
Town of Belmont  
19 Moore St.  
Belmont MA 02478

RE: Development Hazardous Materials Guidelines

Dear Tim:

In response to our conversation today, the Fire Department will require MSDA sheets on all potentially hazardous materials and substances present on the 3 development sites; Northland, ARC and Value Realty. These Material Safety Data Sheets shall be forwarded to the Fire Department and also stored on site at a central site; construction office, supervisor's shed, etc.

Once the construction is completed, all MSDS sheets for products stored or used on each site shall be forwarded to the Fire Department as well as stored on site in a location to be determined by the Belmont Fire Department.

Please don't hesitate to call me with any questions or concerns.

Sincerely,

Lt. Angus Davison  
Certified Fire Inspector II  
Fire Prevention Officer

## Hummel, Robert

---

**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Tuesday, January 18, 2022 4:10 PM  
**To:** Stephen Pinkerton  
**Cc:** jdawley@northlandresidential.com; Hummel, Robert; mlowrie@foley.com  
**Subject:** [EXTERNAL]McLean Zone 3 Trucking - School Bussing  
**Attachments:** Truck & School Busses.pdf

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Pinkerton,

I would like to respond to recent materials posted onto the website related to trucking and school bus trips within the proposed development.

In reading the e-mails back and forth between Mr. Dawley (the developer) and Ms. Gioia Rizzo the Manager – Business Operations & Transportation for the Belmont Public Schools, it seems the conversation was not substantive or conclusive in any way or manner. I think some relative issues related to school age children in the neighborhood should include the following:

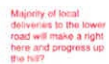
- As the roads within the development are private roads, effectively driveways, will the Town provide bus service locally within the development or will children be required to walk to a public way?
- Do the roads meet the turning radius requirements for School Busses. (see figure 1)
- Where is a safe location for a Bus Stop and shall the developer provide a safe location and cover in a location or locations for accessible bus stops for children.
- If there are no limitations for school age children were these trips reflected in the traffic study counts?

We want to be assured that a bus stop serving Zone 3 is prohibited from being located along the Zone 2/Zone 3 frontage.

Aside from the school bus trips, Figure 1 posted to the web site does not seem to demonstrate all of the critical turns required for the development, of particular concern is if the Town will consider posting restrictions for Trucks in excess of the SU-40 at the Olmsted and Pleasant Street entrance? This would at least attempt limit trucks bigger than those used in the study from entering the site. Also if the roadway behind Building 200 is as described in the narrative as a Fire and Maintenance limited access road with a narrower than standard width, is there adequate room for a SU-40 truck effect a U-turn or two-point turn at the end of Driveway 2 east of building #14.

Regards,

Rob Eckert  
(508)934-9556



### Turns to be to the Left

What is the status of the "panhandle" at the end of the new construction, the attached does not clearly indicate the final condition.

Dead End until future phases?

This was described in the narrative and here as a Fire-Lane-Emergency road, this should mean limited access, how will local deliveries turn around at this location?



No.	Revision	Date	Page 2
1	Revised/Updated From Release Candidates	September 10, 2021	

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Downloaded by [Your Name] on [Date] at [Time] from [Source]

Local Approvals

**Not Approved for Construction**

## SU-40 Truck Turns

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Drawing Number

Fig 1

fig 1

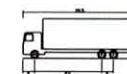
\_\_\_\_\_ of \_\_\_\_\_

1 1

Project Number  
**13166-01**

13555.04

School Bus Turn Study should be performed based on memo from School District dated 12.10.2021



SU-40 - Single Unit Truck
Overall Length
Overall Width
Overall Body Height
On Body Ground Clearance
Track Width
Lock-to-lock time
Max Steering Angle (Virtual)

79.500 ft  
6.000 ft  
1.500 ft  
8.000 ft  
5.000 ft  
51.000

Fig 1



## **Hummel, Robert**

---

**From:** busing <busing@belmont.k12.ma.us>  
**Sent:** Friday, December 10, 2021 1:46 PM  
**To:** 'Jack Dawley'  
**Cc:** Hummel, Robert; DiCologero, Anthony; Phelan, John; Tingos, Artemis  
**Subject:** RE: McLean District Zone 3

Hello Jack,

I appreciate your patience as I am now able to respond to your inquiry. With regard to busing any students from the new community, please note the following:

- Any students residing on the property in grades K through 6 who live more than 2.0 miles from the property will be bused to school per M.G.L;
- The current busing configuration may change based on the opening of the 7<sup>th</sup> and 8<sup>th</sup> grade building of the new high school, which we won't know until closer to the completion date; this may affect the methodology by which we currently bus students.

Once there is a completion date for your project, we will review our current transportation program and protocols which will guide us in busing any students living in the new community.

Respectfully,

*Gioia*

**Gioia Rizzo (she/her)**  
**Manager - Business Operations & Transportation**  
Belmont Public Schools  
617-993-5430  
[grizzo@belmont.k12.ma.us](mailto:grizzo@belmont.k12.ma.us)

---

**From:** Jack Dawley <jdawley@northlandresidential.com>  
**Sent:** Wednesday, October 27, 2021 10:47 AM  
**To:** busing <busing@belmont.k12.ma.us>  
**Cc:** Hummel, Robert <rhummel@belmont-ma.gov>; Jack Dawley <jdawley@northlandresidential.com>  
**Subject:** McLean District Zone 3

Gioia,

Following our conversation of last week, I am submitting this email as requested.

I am presently pursuing Site Plan and Design Approval for the development of 152 units of housing on Zone 3 of the McLean Hospital Campus, located off of Pleasant Street, via Olmsted Drive – see attached site map. The full application for the project is accessible via the Town website, under Planning Board/Pending Applications.

While most of the housing will be age targeted for seniors it is anticipated that some population of school age children will reside in the community. The Planning Board has asked me to inquire into the provision of school bus service for the

community – ie how will it be managed, provided for and what provisions l/they should request/plan for to accommodate the transportation of children to/from the site.

Jack

John C. Dawley  
President & CEO  
Northland Residential Corporation

O – 781-229-4704

C - 617-797-6704

## Hummel, Robert

---

**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Sunday, January 23, 2022 8:19 AM  
**To:** Stephen Pinkerton; Hummel, Robert  
**Cc:** Jack Dawley  
**Subject:** [EXTERNAL]Zone 3 Construction Management Plan

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Stephen & Robert,

A few additional comments related to the CMP plan updated recently, for clarity should it mention compliance with the Town of Belmont Article 23 Noise By-Law?

Also in the By-Law sections related to affordable housing (6B.4.3.e) there is a schedule compliance piece, this requires the schedule be managed in a manner to deliver the affordable units timely. It seems this requirement conveys that buildings 7, 8 & 9 be subject to schedule note in the CMP. My sense is that the abutters would prefer buildings 7 & 8 be constructed early so the buffer on the east side of Olmsted Drive could be established as early as possible consistent with section 6B.5.4.i.

Thank you for your consideration.

Rob E.



## Hummel, Robert

---

**From:** Joseph Newberg <Joseph.Newberg@outlook.com>  
**Sent:** Saturday, January 29, 2022 5:48 PM  
**To:** S. Pinkerton (s.pinkerton@verizon.net); Hummel, Robert  
**Subject:** [EXTERNAL]McLean Zone 3, Design and Site Plan Review: Comments for 2/1/2022 Planning Board Hearing

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Messrs. Pinkerton and Hummel, and for the Planning Board,

I have just noticed that posted publicly on the PB website is a response by Mr Dawley to some of my buffering comments submitted in writing for the 1/18/22 Hearing. His comments, some disparaging, were not sent to me, so I apologize for this late follow up.

Clarification is needed:

1. **My Concerns, and Limited Requests.** I have never objected to Buildings One and Two (two townhomes), nor to the pedestrian path. The two Townhomes are well sited and decrease the “gap” area. I am puzzled why Mr Dawley says I have objected to them, or the path. My stated concerns have been explicitly focused on noise, and light spillover, into the Bowl via the gap. Indeed, I have not proposed anything that would impair or obscure views from Buildings 1 or 2, or impair the path: I have merely asked that the trees along- side the two town homes as presently proposed and sited there by the Developer be made a little larger (consistent with what has been proposed for the Chapel by the Board and readily accepted by the Developer); and that a few evergreen trees be added in the same area, to bolster screening of the gap—exactly as the Developer has itself proposed (and the abutters have accepted) for the area alongside 12 Meadows Lane—which is just below the “gap”. I am really puzzled why any of this would be viewed as controversial or inappropriate. The astonishing thing is that all the attention so far has been given to (successfully) addressing the concerns of the “direct abutters”, and little if any to the potential impact on the 21 “neighbors” who abut the Open Space District which also abuts Zone 3 at the “gap.” I speak only for myself, and no group. But I do think that all the neighbors, especially the many with bedrooms abutting the Bowl, will be grateful if my concerns are addressed in the modest way suggested.
2. **Why I Was Not Concerned in 2011 (But am now).** When we purchased our home at 16 S. Cottage Rd in 2011, there were at least 7 large trees between our home and the “gap” which are no longer there: Three (3) large screening trees were removed (by Northland Residential) when it renovated the Upham House in 2014-15; Two (2) more along the south side of our unit were removed when they fell on the unit in a hurricane, around 2013; another directly screening tree along the south side of the Upham House was removed (by the condo association) around 2017, because it was dying after a combination of construction distress and old age (and has been replaced by a small, slow growing Copper Beach in a non-screening location). And, and most significantly, a very large historic tree in the Bowl, roughly behind and in line with 6 Meadows Lane, which alone had largely screened the “gap”, was removed by the Hospital in 2017 or 2018, due to disease and decay, and not replaced. Thus, the conditions on the ground have changed very materially since 2011, and what was fully screened then is no longer.

The possibility of major development of Zone 3 did exist in 2011. But, so did the Section 6A. McLean District Bylaw’s requirement for Design and Site Plan Review . We purchased with these rights in mind. We cannot have waived an opportunity to comment in 2011, when there was no active Zone 3

development. Moreover, the requirement of Design and Site Plan review, largely identical, has been preserved in the 6B McLean District Zone 3 Overlay Bylaw applicable to the current development. Since now is when there is development, and the screening conditions on the ground are very materially different than when we purchased our unit, this seems the right –and only–time to be asking questions. The DSR procedure is designed to welcome this.

3. **Our Geographic Location:** We look to be at about the same height as the mid-point of the Zone 3 development. As far as I know, the impact of sound and light via the “gap” area should not be reduced by gravity. Respectfully, I do not believe the fact that we are less than 2 football fields away from the gap, and in direct sight line with it from our dining room, kitchen and study detracts from our reasonable concerns about noise, and potential light-spillover, impacts. Noise from constant chipping and grinding activities over a minimum 48 month period, funneling into the Bowl through the gap area, will be an annoying nuisance, and this foreseeable nuisance can be mitigated now (i) by minor improvements in the buffering as requested in 1 above, (ii) by limiting such noise generation before say 10 am or the like, and/or (iii) by any other reasonable steps the Planning Board determines would not impair, inconvenience or obstruct the developer in any way. I have no desire to either delay or impede approval or completion of the development, which is overall a very good one for many reasons. But I believe my comments, if accepted, can make it much easier to live with next door.

I hope this clarifies the limited consideration I have respectfully requested.

Some relevant excerpts from the McLean Zone 3 Overlay Bylaw are attached, as Exhibit A, .

Respectfully,

Joseph H. Newberg  
Neighbor abutting the Open Space District which abuts Zone 3.  
16 S. Cottage Rd  
Belmont, Ma  
617-512-1528

#### **Exhibit A**

#### **Some Applicable DSR Requirements (excerpted from the McLean Zone 3 Overlay Bylaws):**

##### **6B.5 Design Guidelines:**

\*\*\*\*\*

“The following objectives and criteria shall be considered in reviewing development projects in the MD#3OD:

f) Adequacy of landscaping/site improvements, and

g) Impact on abutting properties within Zones 2 and 4, and the Institutional and Open Space Subdistricts of the McLean District.” {Ed. Note: The Upham Bowl is part of the Open Space Subdistricts of the McLean District; The concern is not limited to direct abutters; it includes those of us bordering/affected by the Open Space, as well}

##### **6B.5.4 Landscaping and Site Improvements:**

“i) Landscape buffer should be provided between Olmstead Drive as it passes through Zone 3 and the townhouses located in Zone 2 of the McLean District. Buffering should also be provided prior to construction. “

#### 6B.5.6 Lighting:

“The lighting requirements.....Lighting should be arranged and designed to minimize visibility of lights and structures from outside MDZ3OD and minimize light spillover beyond each Subdistrict boundary.”

#### 6B.6 Design and Site Plan Review:

##### “6B.6.1 Objectives:

b) Determine the adequacy of measures proposed to mitigate construction period impacts on natural historic features of the site, on neighboring premises, and on the town roadway system “ {Ed Note: neighbors, even if not direct abutters}

g) Determine that the adjoining premises within and outside of MDZ3OD will be protected against the detrimental uses by provision for surface water drainage, sound and light buffers, prevention of undue solar glare, and preservation of views, light and air

j) Determine the adequacy of ...landscape planting, including adequate buffers along Subdistrict boundaries.....”

## Hummel, Robert

---

**From:** Joseph Newberg <Joseph.Newberg@outlook.com>  
**Sent:** Monday, January 31, 2022 12:04 AM  
**To:** S. Pinkerton (s.pinkerton@verizon.net); Hummel, Robert  
**Subject:** [EXTERNAL]For 2/1/22 Planning Board Hearing: Refined Summary of My Outstanding Comments on McLean Zone 3

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Messrs. Pinkerton, Hummel and Planning Board Members,

I have reviewed the updated CMP from the Developer, dated 1.24.22.

**To lighten your load, let me focus you on my outstanding active comments, as follows:**

I urge you to focus on and address the *when, what* and *where* of buffering designed to mitigate noise and other spillover into the Bowl via the “gap” (i.e., the bend in Olmstead Drive). (See 4-16-21 Landscaping Plan slide L-1.4). Please consider that:

1. **When Buildings 1 and 2 are completed (35 ft. high) and the trees are planted (14-16 ft. high),** you could conclude that there will be reasonable buffering of noise and lighting, at the gap’s level of elevation. I would love to see one or two evergreens added, if that is possible, to provide all -season buffering.
2. **But before Buildings 1 and 2 are completed, which may not be for at least 48 months, there will be a very wide unbuffered “gap” area into the Bowl.** That area will extend from the North- Western edge of Zone 3 down to the top of 12 Meadows Lane, just as it does presently. Much of the construction noise, and any night lighting, on the Zone 3 hill, starting with the multifamily construction, will funnel into the Bowl, unobstructed. The only requirements in the CMP to provide buffering and screening are (i) directly around building pods then under active construction, **and (ii) only at a height of 6 ft (or even 4 ft in some places), with wire mesh fencing.** That is not going to buffer anything via the gap area, at least until completion of construction of Buildings 1 and 2 and final landscaping. From our somewhat higher elevation, we are going to hear and see almost everything, as the construction moves down the hill towards the gap.
3. **Accordingly, we ask you to consider:**
  - a. **Revising the CMP to require buffering that is much taller than 6 feet, and with sound- deadening and light screening capacity, around all North and North/West facing construction areas, and around areas undergoing active chipping or grinding activities.** This should include higher buffer fencing (perhaps 8-10 ft.) and more adequate sound deadening materials than wire mesh at active locations, beginning with the multi-family buildings high up the hill, and continuing with construction down the North/West facing hill (e.g., Buildings 3 and 4 among others) to and through Buildings 1 and 2. These steps should help mitigate some spill- over of noise and night light into the Bowl via the wide gap.

b. **Imposing a reasonable time limit on the daily chipping and grinding activities.** I have suggested “not before 10 a.m.”

c. **Requiring that residents along the Bowl, or at least a representative to be specified by them, be given access to and contact info for the Owner’s Representative for issues (hopefully none) that might arise for the Bowl during the construction period.** While such info and access is granted in the CMP to The Woodlands at Belmont Hill II Condominium Trust (the “Trustees”), that alone is not enough: The Trustees are subject to legal constraints which may prevent them from being effective advocates for, and communicators with, Bowl abutters with respect to this project. The Developer, who originated all of the Woodlands II Condominium documents, is well aware of these particular constraints. Also, the Bowl abutters are only a third of the Woodlands II community, and the Trustees may not necessarily reflect or be able to reflect their concerns. Addressing this issue would most closely conform to the intent of the CMP, which provides therein as follows:

i. “The purpose of a Construction Management Agreement (“CMP”) is to ..... identify potential impacts resulting from construction activities, to provide solutions that reduce these impacts and establish a chain of contact(s) for a project during its build out.” (p.1, CMP).

\*\*\*\*\*

“Construction of the Project shall be managed so as to minimize impacts to the community, abutting property owners, **and the abutting Open Space land areas**” {Ed. Note: emphasis added; such area clearly includes the Upham Bowl}. (p2. CMP)

ii. **ACTION REQUESTED:** Please consider adding to the CMP a requirement, for the Developer to treat the Woodlands II *Bowl -side neighbors or a representative to be specified by them* as “parties involved with the Project” and to provide to them (or their representative) the contact info of, and access to, the Developer/Owner’s “owner’s representative” during the Project, as well as participation by their representative in the Pre-Construction meetings provided for on p.2 of the CMP. Otherwise, the Bowl-side *neighbors* of this large project may be denied effective input in time of need. That would not seem entirely fair under the circumstances.

With many thanks for your respectful consideration,

Sincerely,

Joseph H. Newberg  
Neighbor, abutting the Upham Bowl  
16 S. Cottage Rd  
Belmont, Ma 02478  
617-512-1528

## Hummel, Robert

---

**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Tuesday, February 1, 2022 3:04 PM  
**To:** Hummel, Robert; Stephen Pinkerton  
**Cc:** jdawley@northlandresidential.com; 1989jke@gmail.com  
**Subject:** [EXTERNAL]Zone 3 - CMP Comments/Notes

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Stephen & Robert;

Here are my additional comments on the Updated CMP by Mr. Dawley;

We don't agree with the concept of the Town approving the Site to be open six days a week, this is a large-scale commercial development taking place in close proximity to a Hospital and a residential neighborhood. We proposed some limitations and a "Saturday work holiday from Thanksgiving to New Year's day". This seems like a reasonable approach. Alternatively maybe once the Rental Buildings are complete and we're just talking the Townhouses this could be lifted?

We don't like to idea of opening the gate an hour before work hours, it's less than a 2 minute drive, Jack is effectively asking for the work hours to start at 6:00 am from a traffic exposure stand-point. We proposed 6:30 which seems more than reasonable and we would like to add "no trucking or deliveries outside of work hours". We were all woken up every 15-20 minutes by the sound of back-up alarms during the recent snow-storm and we really don't want this starting at 6:00 am.

The CMP makes no reference to the Town of Belmont Noise Ordinance, it seems like this should be required and stated.

In reviewing the issues related to Hazardous Materials which seems applicable to both the Office and the Chapel, we would like to receive copy of the inspection reports (which are public information), and have a greater than 30 days' notice for when lead and Asbestos Abatement will occur. As the Chapel will be housing an affordable unit will Federal Guidelines for de-leading the facility be followed?

The CMP makes no reference compliance with the CCIA which is a requirement of the Development Approval.

Thanks,

Rob Eckert  
(508)934-9556



## Hummel, Robert

---

**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Tuesday, February 1, 2022 5:44 PM  
**To:** Hummel, Robert; Stephen Pinkerton  
**Cc:** jdawley@northlandresidential.com; 1989jke@gmail.com  
**Subject:** [EXTERNAL]Buffer at Building 7

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Pinkerton & Mr. Hummel,

Here are a few minor comments relative to the updated Buffer Plan at Building #7 plan submitted by Mr. Dawley:

- 1.) The area adjacent to Olmsted Drive between buildings #7 & #8 with the note "EXISTING VEGETATION TO BE PRESERVED BEYOND LIMITS OF WORK" does the requirement in 6B.5.4.h apply and should the existing planting be "enhanced by additional landscaping"?
- 2.) The Area between Building #7 and Olmsted Drive indicates approximately 100-120 plants that do not appear labeled, what are the species? Highbush- Blueberry, Winterberry, Mountain Laurel?
- 3.) The A/C units do not all appear to be screened with Landscaping, are some screened with fences? Also can the developer confirm that the units are all "ground-mounted" equipment and not wall-mounted as used in Wellesley? Can this be a condition?

One comment related to the buffer Area as well as to the larger plan, The most recent comments from the Land Management Committee dated January 18, 2022 are asking in section 2 "Plant Selection" for a lot of input into the planting, and while I think that is relevant to the land adjacent to the Town's Land we are not in support of their requests to the planting of vast numbers of Oak varieties in the buffer with Zone 2. The reasons for this are two-fold, we already have a lot of late-season raking for the existing Oak Trees adjacent to Olmsted Drive, and the oak and other late dropping leaves clog and exacerbate the drainage problems on Olmsted Drive.

Thank you for your consideration?

Robert Eckert  
(508)934-9556







## Hummel, Robert

---

**From:** Robert Eckert <robe@pmrllc1.com>  
**Sent:** Monday, February 7, 2022 6:26 PM  
**To:** Stephen Pinkerton  
**Cc:** Hummel, Robert; Clancy, Glenn; Select Board Mailbox; william.joyce@mass.gov; jdawley@northlandresidential.com; Mark Gouker (gouker.mark@gmail.com); lerardi, James; mlowrie@foley.com  
**Subject:** [EXTERNAL]McLean Zone 3 - Accessible Route  
**Attachments:** Sidewalk Supplemental Information Packet.pdf

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Pinkerton,

While I understand the frustration you expressed at last week's meeting, it is difficult for me to fathom why you would be frustrated receiving correspondence from residents at the 'last minute' when the time line for resident review is effectively set by the filing deadline you have extended to Mr. Dawley. Frankly having items posted on the Friday before regularly scheduled Tuesday night meetings does not seem like an adequate amount of time for the Board to make a careful review of what has been submitted by the Proponent, let alone time for residents to respond and your team to review those responses. This seems like a procedural mistake, not an issue that residents have caused. As you expressed that another larger scale project is coming before the Board shortly, maybe this would be a good time to try to understand the necessary time lines for proper review by the Board and Residents. I have certainly felt a lot of pressure to constantly monitor the web page for new postings and then dive right into reviewing them with little time to truly reflect on the materials. Clearly this has caused me to make several mistakes over the past months.

I was however encouraged when you expressed an interest into looking into the Sidewalk Accessibility issue raised in the spring and then again in June when I sent the AKF Report . I assume you received the information I am pursuing with Glen, and to give you some further information and help with your review I am including a packet of information.

By way of background the American With Disabilities Act was passed in 1990, and the Massachusetts Architectural Access Board followed developing regulations for compliance within the Commonwealth. These Laws and Regulations were in place for more that 10 years when the McLean Development project was approved.

In the attached information you will see the site grading plan C-4 McLean Hospital – Olmsted Drive Construction – Construction Documents CONTRACT 1. This plan was submitted to the Office of Community Development on or about October 07, 2005 via cover letter from VHB signed Frank DiPietro, P.E. This letter was attached to my prior correspondence. In item 16. There is a statement that the work for Olmsted Drive is consistent with the Site Plan Approval. As my letter to Glen states the sidewalk in question is not in compliance with the Site Plan Approval as it is not compliant with the ADA or MAAB regulations. The sidewalk as indicated on drawing C-4 traverses approximately 240 linear feet while climbing approximately 24 vertical feet, an average grade of 10% while the maximum slope for a sidewalk is 5% (521CMR 20.1 & 20.9 attached) any walk with a slope greater than 5% is defined by MAAB as a ramp, and there are various requirements for ramps in 521CMR section 24. In my opinion the Construction Documents prepared and submitted by VHB appear to be out of compliance regarding this particular section of walkway.

Of further note, the walk was not actually constructed in accordance with the submitted plan in several instances, (a) the plan does not show the Waverly Woods driveway entrance, which slightly shortens the path of the walk adjacent to Storm Water Detention Structure 11, (b) the terminus of the walkway at the Pleasant Street Lodge Parking Area was installed differently (further from Pleasant Street) than indicated on the plan, and (c) lastly the pathway of the installed

ramp varies from the submitted plan. These preceding items shorten the path's route while the vertical distance remains the same, and therefore the walk as installed is steeper than the design allowed. It is unclear what circumstances may have given rise to the work being constructed in a manner that is inconsistent with the Construction Documents, however that is somewhat irrelevant, the Development is required to have an Accessible Route to the Public Way, and since Olmsted Drive is a Private Road, this is really the only opportunity for compliance that is located in one of the Pedestrian and Vehicular Easement Areas.

I hope the attached materials and this explanation along with the KAF Report provided previously gives adequate information for your review.

Regards,

Rob Eckert  
(508)934-9556







## 521 CMR: ARCHITECTURAL ACCESS BOARD

### 521 CMR 20.00: ACCESSIBLE ROUTE

#### 20.1 GENERAL

An *accessible route* shall provide a continuous unobstructed path connecting *accessible spaces* and *elements* inside and outside a *facility*. *Accessible routes* may include but are not limited to *walks*, *halls*, *corridors*, *aisles*, *skywalks*, and *tunnels*. *Accessible routes* may not include stairs, steps, or escalators, even if the stairs and steps are required to be *accessible* under 521 CMR.

#### 20.2 LOCATION

Within the boundary of the *site*, an *accessible route(s)* shall be provided from *accessible parking*, *accessible passenger loading zones*, and public streets or *sidewalks* to the *accessible building entrance* they serve. The *accessible route(s)* shall coincide with the route for the general public.

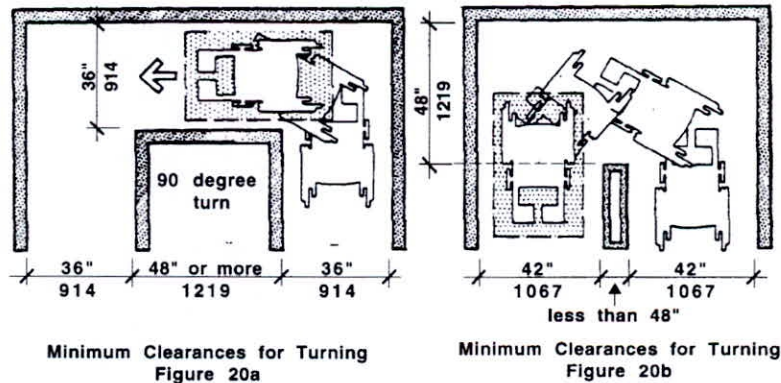
20.2.1 At least one *accessible route* shall connect *accessible buildings, facilities, elements* and *spaces* that are on the same *site*.

#### 20.3 WIDTH

An *accessible route* shall have a minimum *clear width* of 36 inches (36" = 914 mm) except at doors and at openings less than 24 inches (24" = 610mm) deep where it shall comply with 521 CMR 26.00: DOORS AND DOORWAYS.

#### 20.4 TURNS

If a person in a wheelchair must make a turn around an obstruction, the minimum *clear width* of the *accessible route* shall comply with Fig. 20a or 20b.



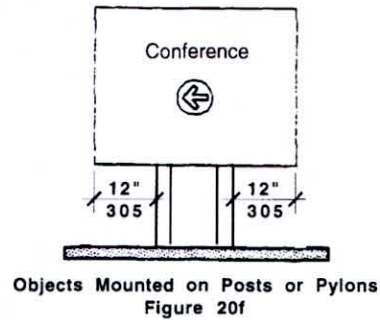
#### 20.5 PASSING SPACE

If an *accessible route* has less than 60 inches (60" = 1524mm) *clear width*, then *passing spaces* at least 60 inches by 60 inches (60" x 60" = 1524mm by 1524mm) shall be located at intervals not to exceed 200 feet (200' = 61m). A T-intersection of two corridors or walks is an acceptable passing place.

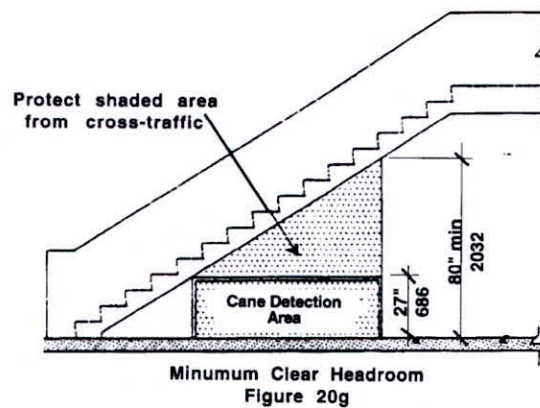
#### 20.6 PROTRUDING OBJECTS

Objects shall not reduce the *clear width* of an *accessible route* or *maneuvering space* (see Fig. 20c) and must comply with 521 CMR 20.6.1.

20.00: continued

**20.7 HEADROOM**

*Walks, halls, corridors, passageways, aisles, or other circulation spaces* shall have a minimum of 80 inches (80" = 2032mm) *clear* headroom. See Fig. 20d. If vertical clearance of an area adjoining an *accessible route* is reduced to less than 80 inches (80" = 2032mm), a barrier shall be provided to warn blind or visually-impaired persons of the reduced headroom. See Fig. 20g.

**20.8 SURFACE TEXTURES**

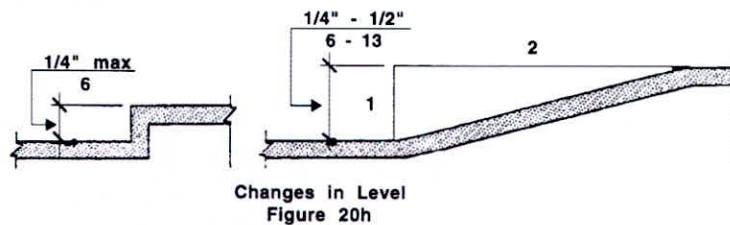
The surface of an *accessible route* shall comply with 521 CMR 29.00: FLOOR SURFACES.

**20.9 SLOPE AND CROSS SLOPE**

An *accessible route* with a *running slope* steeper than 1:20 (5%) is a *ramp* and shall comply with 521 CMR 24.00: RAMPS. Nowhere shall the *cross slope* of an *accessible route* exceed 1:50 (2%). (Refer to 521 CMR 2.4.4d)

**20.10 CHANGES IN LEVELS**

Changes in levels along an *accessible route* shall comply with 521 CMR 29.2, Level Changes. See Fig 20h.



## 521 CMR 24.00: RAMPS

**24.1 GENERAL**

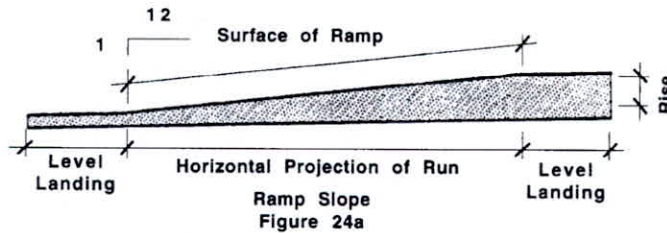
Any part of an *accessible route* with a slope greater than 1:20 (5%) shall be considered a *ramp* and shall comply with the requirements of 521 CMR 24.00

**24.2 SLOPE AND RISE**

*Ramps* shall have the least possible slope.

24.2.1 The least possible slope should be used for any ramp. The maximum slope of a *ramp* shall be 1:12 (8.3%). (There is no tolerance allowed on slope, Refer to 521 CMR 2.4.4d)

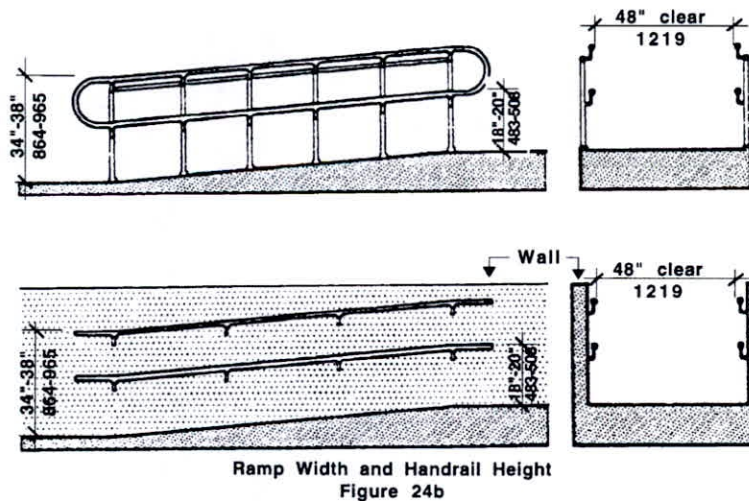
24.2.2 The maximum rise for any run shall be 30 inches (30" = 762mm). See Fig. 24a.



Exceptions: A slope between 1:10 (10%) and 1:12 (8.3%) is allowed for a single rise of a maximum three inches (3" = 76mm).

**24.3 CLEAR WIDTH**

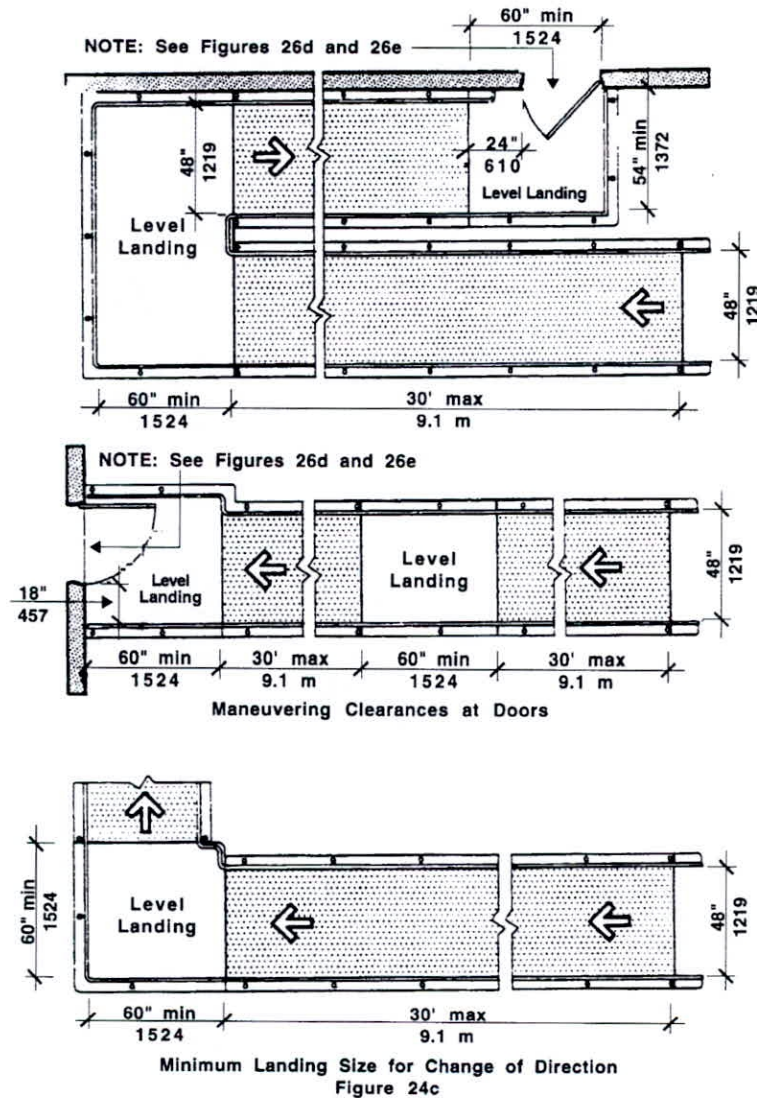
The minimum *clear* width of a *ramp* shall be 48 inches (48" = 1219mm), measured between the railings. See Fig. 24b.

**24.4 LANDINGS**

*Ramps* shall have landings for turning and resting. At a minimum, landings shall be located at the bottom and the top of each *ramp* and each *ramp* run, and whenever a *ramp* changes direction. The maximum length of a *ramp* run between landings shall not exceed 30 feet (30' = 9m). Landings shall have the following features: See Fig. 24c.



24.00: continued



24.4.1 General: Landings shall be *level* and unobstructed by projections and door swings, except as permitted by 521 CMR 24.4.6.

24.4.2 Width: The landing shall be at least as wide as the *ramp* run leading to it.

24.4.3 Length: The landing length shall be a minimum of 60 inches (60" = 1524mm) *clear*.

24.4.5 Dimensions for turning: If *ramps* change direction at landings, the minimum landing size shall be 60 inches by 60 inches (60" by 60" = 1524mm by 1524mm). See Fig. 24c.

24.4.6 Doorways at Landings: If a doorway is located at a landing, then the *level* area in front of the doorway shall also comply with maneuvering clearances in Fig. 26d and 26e.

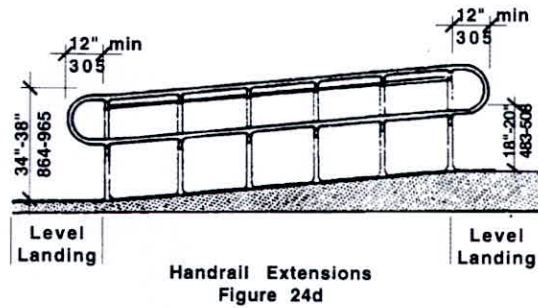
## 24.5 HANDRAILS

Handrails shall be provided at all *ramps*. Handrails shall have the following features:

24.5.1 Location: Handrails shall be provided along both sides of *ramp* segments.

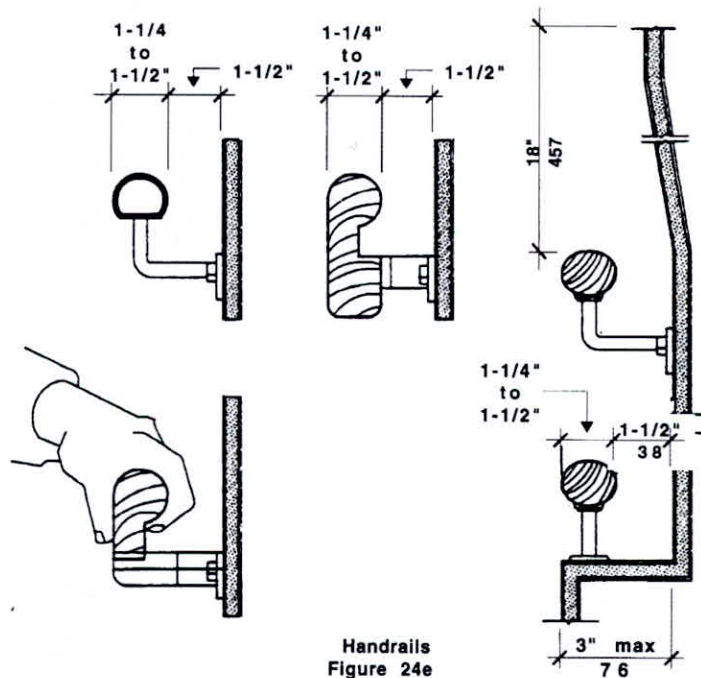
24.00: continued

- 24.5.2 Heights: Handrails shall be provided in pairs, one at a height between 34 inches and 38 inches (34" - 38" = 864mm - 965mm), and a lower one at a height between 18 and 20 inches (18" - 20" = 457mm - 508mm), measured vertically from the surface of the *ramp* to top of handrail.
- 24.5.3 Continuous surface: Handrails shall be continuous without interruption, except by doorways and openings, so that a hand can move from end to end without interruption.
- 24.5.4 Extensions: Handrails shall extend at least 12 inches (12" = 305mm) beyond the top and bottom of the *ramp* and shall be parallel with the floor or ground surface (See Fig. 24d), except where the extension would cause a safety hazard.



- 24.5.5 Size: Handrails shall have a circular cross section with an outside diameter of 1¼ inches (32mm) minimum and two inches (51mm) maximum.
- 24.5.6 Shape: The handgrip portion of the handrail shall be round or oval in cross-section. See Fig. 24e.
- 24.5.7 Surface: The gripping surface shall be free of any sharp or abrasive *elements*.
- 24.5.8 Clearance: When a handrail is mounted adjacent to a wall, the *clear space* between the handrail and the wall shall be 1½ inches (1½" = 38mm). Handrails may be located in a wall recess if the recess is a maximum of three inches (3" = 76mm) deep and extends at least 18 inches (18" = 457mm) above the top of the rail. See Fig. 24e.

24.00: continued



24.5.9 End condition: Ends of handrails shall be either rounded or returned smoothly to floor, wall, or post.

24.5.10 Handrails shall not rotate within their fittings.

#### 24.6 CROSS SLOPE

The *cross slope* of ramp surfaces shall be no greater than 1:50 (2%)

#### 24.7 SURFACES

Ramp surfaces shall be stable, firm, and slip resistant. Ramps may be carpeted only if carpeting is installed in accordance with 521 CMR 29.3, Carpets.

#### 24.8 EDGE PROTECTION

Ramps and landings with drop-offs shall have edge curbs, walls, railings, or projecting surfaces that prevent people from slipping off the ramp. Edge curbs shall be a minimum of two inches (2" = 51 mm) high.

#### 24.9 OUTDOOR CONDITIONS

Outdoor ramps and their approaches shall be designed so that water will not accumulate on walking surfaces. If gratings are used to disperse water, they shall comply with 521 CMR 22.00: WALKWAYS.

#### 24.10 CIRCULAR RAMPS

Circular ramps are not permitted, except with the approval of this Board.



## Hummel, Robert

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**From:** Jolanta Eckert <1989jke@gmail.com>  
**Sent:** Monday, February 7, 2022 8:53 PM  
**To:** Jack Dawley  
**Cc:** Robert Eckert; Hummel, Robert  
**Subject:** [EXTERNAL]Construction Management Plan

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jack,

In reviewing the submitted Construction Management Plan dated 1.24.22, I noticed a few inconsistencies that require your attention and updates.

-

### **Inconsistency in Access Hours**

- Section 2A, 6<sup>th</sup> bullet point indicates that the gate will be opened and closed a 1 hour before and after defined Project Work Hours.
- In section 2C the work hours indicate starting at 7 AM and no construction workers or project team members shall arrive before 6:30 AM.

**Requested correction:** The gate should not be opened until 6:30 am (30 min not 1 hour before defined work hours). As you well know, workers will arrive when they can enter the site, not when they are told.

### **Notice of Water Shut Down**

- Section 3D, second paragraph indicates a 24 hour notice to abutters in the event that the water system will be off to accommodate the work.
- Section 3E indicates that water services will be available without interruption.
- Section 4A Utilities indicates that temporary utilities will not impede or interrupt water service

**Requested modification:** The desired condition is for no interruption to water service to Woodlands II and Waverly Woods. If that cannot be absolutely avoided, a notification should be at least a week in advance and the interruption lasts no longer than 4 hours. Between the two communities, there are a number of elderly and young children where a lack of water could cause significant issues.

Lastly, I would encourage you to set up a website where an upcoming schedule of activities can be posted and updated every few days. It would simplify all the necessary communications that will be required through the 4 years of the project. Currently, everyone relies on the internet for all their information. In addition, it can serve as a good communication to the overall Belmont community on your progress.

Kind Regards,

Jolanta

February 8, 2022

Mr. Stephen Pinkerton, Chairman,  
Belmont Planning Board  
Office of Community Development  
Homer Municipal Building  
Second Floor  
19 Moore Street  
Belmont, MA 02478

RE: McLean Hospital Zone 3 – Site Plan Approval  
Open Issues Summary

Dear Chairman Pinkerton:

As today is the last day for the Planning Board to receive Public Comment I am writing today in response to Mr. Matt Lowrie's e-mail of September 10, 2021, in which Mr. Lowrie expressed his concern that some of the issues I have raised may not be addressed adequately or may get lost in the fray of communication:

"My concern is that the Planning Board is going to fail to address some of your comments before taking a final vote, or think it was addressed when you do not, because we simply lost track of it among the communications."

Here is a summary with explanations of issues that I believe have not been adequately addressed or resolved from my standpoint.

- 1) Accessibility: I believe the overall McLean Site does not meet the zoning requirements for Accessibility established by the December 03, 2001, Zoning Approval.

Mr. Dawley has made a somewhat compelling argument that the area of "non-conformance", is not on the Site (Zone 3) and has provided a response dated June 16, 2021, from an Accessibility Consultant, Deborah A. Ryan & Associates, asserting that the Developer is not required to meet this obligation. The Planning Board was furnished a response from the Director of the MAAB requiring McLean Hospital to bring the Site Access into compliance. As Zone 3 and the location of the non-compliance is currently on land Owned by McLean Hospital and all conditions of approval would run with the land, it seems appropriate that the Planning Board's review should condition such Approval on the initial Zoning Requirement being met.

The Sidewalk that is out of compliance was permitted under the ARC Zone 3 Site Plan Approval, and as such were considered at the time of approval to be part of the Zone 3 development work. The Planning Board has been aware of this non-compliance, since June of 2021 allowing development of an Age-Restricted Community that is taking traffic count credits for being "Transit Oriented"

(Allowing a 5% trip reduction) without the provision of an Accessible Route to Waverly Square should not be supported. It seems simple enough for the Planning Board to Condition approval of Zone 3 upon the provision of an Accessible Route, in which case the Seller and the Buyer would be mutually motivated to resolve the issue. [The Planning Board has been copied on my correspondence of January 31, 2022, to Mr. Clancy and all relevant materials are attached thereto.]

- 2) Subdistrict A- Unit Size: In the hearings that led up to the approval of the proposed Overlay District language there was no discussion about the lower levels of the Townhouse Units being anything other than "Basements", if the language had been crafted as intended and the term "lower level" had been used this would be a very simple discussion and issue. For some reason the Planning Board has let this issue wander all over and all types of calculations and rationalizations be presented without meaningful factual conclusion. The language in 6B.3.1.b is very clear:

"No townhouse dwelling unit shall exceed 3,600 square feet of Gross Floor Area, inclusive of basement area whether or not finished but exclusive of unfinished garage, unfinished attic area and exterior porch or deck areas. No townhouse dwelling unit shall exceed 2,400 square feet of living area, exclusive of any basement area, unfinished garage, unfinished attic area, and exterior porch or deck areas. A total Gross Floor Area of 144,000 square feet is allowed based on 40 dwelling units of new construction, excluding the dwelling units allowed under Subsection 6B.2.4."

Under the current table submitted by Northland Residential dated November 01, 2021, (Attachment A) fifteen of the Townhouse units exceed the 3,600 SF Gross Area threshold and should be reduced in size to comply with the By-Law. If some of these units have cellars in lieu of basements, then the calculations in the table are incorrect for those units, those units may be below the 3,600-sf threshold. Some of the units have cellars as Mr. Pinkerton addressed in his e-mail of October 18, 2021 ("I have also seen evidence that 18 units have cellars" (Attachment B)) those units should easily make the Gross Floor Area threshold, however the units would not be entitled to the basement exclusion language for Living Area in the By-Law and as such it is likely that all units that have cellars will be permanently excluded by the By-Law from having their basements finished at a later date.

The necessary first step in this process is to conclude definitively which units have basements and which have cellars and then reconstitute the calculations and repopulate the table based upon the determinations. Several Units will likely need to be reduced in size to meet the Zoning By-Law.

The conclusion at the bottom of the November 1, 2021, table presented by Northland Residential that the total Gross Floor Area of 120,000 SF is less than an allowable value of 136,800 is irrelevant given the By-Law language, there is no reference to a total area standard as was the case in Zone 2. I am unaware of any Variance being applied for that would allow for either the Gross Floor Area or the Living Area exceeding the prescribed threshold limits. Given the language in the By-Law I don't understand how the Planning Board would be able to make a determination that "all Townhouse Units have a Gross Floor Area of 3,600 square Feet or less", a required finding for compliance.

- 3) Subdistrict B- Multi-family Housing Dwellings: Section 6B.-McLean District Zone 3 Overlay District was approved at Town Meeting and contains the following language, in section 6B.2.2.c:

"Permissible dwellings shall be two apartment buildings with associated underground or surface parking. An apartment building is a multi-story, multi-family building designed or intended or used as the home or residence of three or more households, each in a separate dwelling unit, living independently of each other and which have a common right in halls, stairways, parking, and common area amenities."

Although consistently indicated on the submitted plans as Building 100-A and 100-B as if it were one building, based on the Zoning Definition section 1.4 "Building- A roofed structure enclosing a useful space", Building A is two buildings under two independent roofs that simply have an architectural element that serves as a connector. I am unaware of any request by Mr. Dawley to seek a variance for construction of three buildings in lieu of two.

The impact of this design change by Mr. Dawley is significant; on the plans submitted for the Overlay District Approval the building to the West had its own parking garage and the traffic to and from the west building was from Driveway One, and a significant portion of the traffic to the building would not be travelling up Olmsted Drive past the Abutters in Zone 2. The revised design has three buildings with one combined garage and all associated traffic including deliveries and move-ins will now proceed past Zone 2 to arrive at the newly configured layout of the three buildings. This is a significant amount of additional traffic exposure for the residents abutting Olmsted Drive.

- 4) Chapel Site Lines: We appreciate that based on the expressed concern about sight lines that the speed limit on Olmsted Drive was reduced to 20 mph, however I don't believe the sight line study considered the most critical condition in their review. If you look at the attached perspective drawing provided by TAT (**Attachment C**), I think the Board can get a sense that a vehicle in position to be backing out from the Chapel Unit garage, (where the image shows the pedestrians standing) will in most circumstances have their view up Olmsted Drive obstructed by the grading and their neighbor's vehicle in its assigned parking space. If you also look at page 6 of 7 of the sight study submitted by Mr. Dawley, the photo "View of car exiting from 160-ft up the hill" (**Attachment D**), you can see the grade falls off significantly after the parked car in the view, from this position a car coming down Olmsted Drive would be looking over a car cued up to back onto Olmsted Drive from the lower Chapel Driveway, and would likely not see that car as it would likely be obstructed by a car in the parking space of the adjacent driveway. I would appreciate the Board reviewing this further.
- 5) Stormwater Management: Based on the Memorandum of September 4, 2001, from Fay, Spofford & Thorndike (**Attachment E**), the Town's Stormwater Peer Reviewer for the ARC Zone 3 Campus, we believe construction of a stormwater detention pond in Upham Bowl is required by the current Zone 3 Site Plan Approval. This work was required to be performed by McLean Hospital and the Memorandum clearly states that the work was to be completed prior to Construction of Olmsted Drive. When the Olmsted Drive Construction Documents were submitted to the Office of Community

Development on October 07, 2005, the installation of the Upham Bowl Detention Improvement was intentionally omitted and in its place a catch basin was installed in the Bowl (Attachment F). This is a clear violation of the requirements of the Massachusetts Stormwater Management Standards. The system including Stormwater Detention Structure 11 was designed for the volume of flow for the lower portion of Olmsted Drive only, subsequently a connection was provided to Upham Bowl where a significantly larger volume of unretained, untreated stormwater is expressed through a system that was not designed for the increased amount of flow. This effectively creates a short-circuit in the methodology and calculations and creates a significant increase in the amount of post development discharge rate from the site.

The simple straight-forward solution is to build the Upham Bowl Detention Pond as presented by VHB to Fay, Thorndike & Spofford in 2001. The Bowl as currently graded may have adequate volume in which case it's just a matter of constructing the appropriate outfall structure. If the Bowl does not have adequate volume, then that will need to be addressed. I recommend that the Planning Board condition this Zone 3 Approval similarly to the prior condition d (Attachment G)

- 6) Traffic: I don't think the Board can approve the development with the calculated traffic being above the threshold values in the Zoning By-Law, again I am not aware of the filing for a variance and don't see how the Planning Board could find that the traffic count limitations are not exceeded even when short cutting the ITE trip rate numbers, they still exceed the counts.

The traffic counts presented in the meetings are just not realistic. Attachment H is a traffic count summary that Mr. Dawley did for the Town of Wellesley in conjunction with his project there that is nearing completion, this study indicates that for South Cottage Road the Peak Morning Trips is 43 and the Peak Evening is 46, this is for 68 condo units that at the time were exclusively occupied by residents over the age of 55. VHB has calculated a morning peak trip rate of just over 36 for 40 Townhouse Units and 112 Rental Apartments, its simply not believable when comparing to actual data measured here at Zone 2. Because there is a high likelihood of exceedances, I think it's important the TMMA will work appropriately, I'm attaching the TMMA (Attachment I) with related sections highlighted, I don't see how this approach can hold up in court in the "for-Sale" portion of the project. I'm requesting that the Planning Board and the Select Board conduct joint meetings to discuss the TMMA and alternative approaches.

I appreciate the Planning Board considering all of these issues in their upcoming deliberations.

Regards,

*Robert W. Eckert*

Robert W. Eckert  
68 South Cottage Road



Belmont, MA 02478

cc: Town of Belmont Select Board  
Town of Belmont Planning Board  
Town of Belmont Zoning Board of Appeals  
Mr. Jack Dawley, President, Northland Residential, Inc.  
Mr. Mark Gouker, Chairman, Board of Trustees, Woodlands at Belmont Hill II

## Attachment A

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Building No.	Unit No & Type	Unit Plan Drawing Reference	Cellar Y/N?	Elevation Average Finish Grade	Elevation Highest Point of Roof	Building Height Feet	Building Height Stories <sup>4</sup>	Building Footprint <sup>1</sup> SF	Living Area <sup>3</sup> SF	Gross Floor Area <sup>2</sup> SF
1 (Single)	Unit 1 - 3BR Single	A2.10	Y	180.43	214.1	33.67	2	1,958	2,212	2,466
	Building Sub-Total							1,958	2,212	2,466
2 (Single)	Unit 1 - 3BR Single	A2.10	Y	184.05	217.1	33.05	2	1,958	2,212	2,466
	Building Sub-Total							1,958	2,212	2,466
3 (Duplex)	Unit 1 - 3BR End C - Garage Under	A2.09	Y	186.1	221.6	35.50	2	1,418	2,212	2,458
	Unit 2 - 3BR End C - Garage Under	A2.09	Y	188.1	223.6	35.50	2	1,418	2,212	2,458
	Building Sub-Total							2,836	4,424	4,916
4 (Duplex)	Unit 1 - 3BR End C - Garage Under	A2.09	Y	191.1	226.6	35.50	2	1,418	2,212	2,458
	Unit 2 - 3BR End C - Garage Under	A2.09	Y	193.1	228.6	35.50	2	1,418	2,212	2,458
	Building Sub-Total							2,836	4,424	4,916
5 (Duplex)	Unit 1 - 3BR End C - Garage Under	A2.09	Y	196.1	231.6	35.50	2	1,418	2,212	2,458
	Unit 2 - 3BR End C - Garage Under	A2.09	Y	198.1	233.6	35.50	2	1,418	2,212	2,458
	Building Sub-Total							2,836	4,424	4,916
6 (Triplex)	Unit 1 - 3BR End C - Garage Under	A2.09	Y	201.1	236.6	35.50	2	1,418	2,212	2,458
	Unit 2 - 3BR Inline - Garage Under	A2.09	Y	203.1	238.6	35.50	2	1,418	2,212	2,457
	Unit 3 - 3BR End - Side Garage Under	A2.09	Y	203.1	238.6	35.50	2	1,418	2,212	2,462
	Building Sub-Total							4,254	6,636	7,377
7 (Quadplex)	Unit 1 - 3BR End A - Front Garage	A2.05	N	179.15	209.88	30.73	2.5	2,099	2,338	4,166
	Unit 2 - 2BR Inline	A2.02	N	179.81	211.88	32.07	2.5	2,123	2,309	4,170
	Unit 3 - 2BR Inline - Affordable	A2.01	N	179.66	211.88	32.22	2.5	2,060	2,256	4,056
	Unit 4 - 3BR End B - Front Garage	A2.07	Y	181.60	215.71	34.11	2	2,099	2,390	2,596
	Building Sub-Total							8,381	9,293	14,988
8 (Quadplex)	Unit 1 - 3BR End B - Front Garage	A2.07	Y	183.03	216.21	33.18	2	2,099	2,390	2,596
	Unit 2 - 2BR Inline	A2.02	N	182.14	214.38	32.24	2.5	2,123	2,309	4,170
	Unit 3 - 2BR Inline - Affordable	A2.01	N	181.93	214.38	32.45	2.5	2,060	2,256	4,056
	Unit 4 - 3BR End A - Side Garage	A2.06	N	182.23	212.88	30.65	2.5	2,266	2,338	4,166
	Building Sub-Total							8,548	9,293	14,988
9 (Quadplex)	Unit 1 - 3BR End A - Side Garage	A2.06	N	182.30	212.88	30.58	2.5	2,266	2,338	4,166
	Unit 2 - 2BR Inline	A2.02	N	180.68	212.88	32.20	2.5	2,123	2,309	4,170
	Unit 3 - 2BR Inline - Affordable	A2.01	N	180.37	212.88	32.51	2.5	2,060	2,256	4,056
	Unit 4 - 3BR End B - Front Garage	A2.07	Y	180.00	212.71	32.71	2	2,099	2,390	2,596
	Building Sub-Total							8,548	9,293	14,988
10 (Triplex)	Unit 1 - 2BR End - Side Garage	A2.04	N	166.54	195.38	26.84	2.5	2,335	2,363	4,275
	Unit 2 - 2BR Inline	A2.02	Y	169.85	197.38	27.53	1.5	2,123	2,309	2,490
	Unit 3 - 2BR End - Front Garage - SIM	A2.03	Y	171.63	199.38	27.75	1.5	2,166	2,316	2,502
	Building Sub-Total							6,624	6,988	9,267
11 (Duplex)	Unit 1 - 3BR End B - Front Garage	A2.07	Y	172.19	203.71	31.52	2	2,099	2,390	2,596
	Unit 2 - 2BR End - Front Garage	A2.03	N	170.90	201.88	30.98	2.5	2,164	2,343	4,245
	Building Sub-Total							4,263	4,733	6,841
12 (Duplex)	Unit 1 - 3BR End B - Front Garage	A2.07	Y	175.58	207.71	32.13	2	2,099	2,390	2,596
	Unit 2 - 2BR End - Front Garage - SIM	A2.03	N	175.42	207.88	32.46	2.5	2,166	2,316	4,222
	Building Sub-Total							4,265	4,706	6,818
13 (Quadplex)	Unit 1 - 3BR End B - Front Garage	A2.07	Y	179.65	212.21	32.56	2	2,099	2,390	2,596
	Unit 2 - 2BR Inline	A2.02	N	180.57	212.38	31.81	2.5	2,123	2,309	4,170
	Unit 3 - 2BR Inline - Affordable	A2.01	Y	182.32	212.38	30.06	1.5	2,060	2,256	2,437
	Unit 4 - 3BR End A - Side Garage	A2.06	Y	184.32	213.88	29.56	1.5	2,266	2,338	2,529
	Building Sub-Total							8,548	9,293	11,732
14 (Quadplex)	Unit 1 - 3BR End A - Side Garage	A2.06	Y	184.02	213.88	29.86	1.5	2,266	2,338	2,529
	Unit 2 - 2BR Inline	A2.02	N	180.85	212.38	31.53	2.5	2,123	2,309	4,170
	Unit 3 - 2BR Inline - Affordable	A2.01	N	179.83	212.38	32.75	2.5	2,060	2,256	4,056
	Unit 4 - 3BR End B - Side Garage	A2.08	Y	179.74	212.21	32.47	2	2,266	2,390	2,596
	Building Sub-Total							8,715	9,293	13,351
Project Total									87,224	120,030
Max Total Gross Floor Area Permitted per Zoning (3,600 SF x 38 Units)									136,800	
Proposed Gross Floor Area									120,030	
Proposed Average GFA per Unit									3,159	

## NOTES:

- Building Footprint:** is measured to the exterior face of exterior walls, exclusive of outdoor patios.
- Gross Floor Area:** Gross Floor Area is inclusive of basement areas whether or not finished but exclusive of cellar areas, garages, unfinished attic areas, and exterior porch or deck areas. Gross Floor Area is measured to the outside face of exterior walls.
- Living Area:** Living Area is exclusive of basement and cellar area, garages, unfinished attic areas, and exterior porch or deck areas. Living Area is measured to the inside face of exterior walls.
- Building Height:** Building Height is measured from the average finished grade adjoining the building at all exterior walls to the highest point of the roof. Each townhouse dwelling unit is considered a separate building for the purpose of determining Height. Per the per the McLean District Zone 3 Overlay District Zoning, Subsection 6B.3.1.C, the maximum permitted height is 36 feet.
- Story** - That portion of a building, other than a cellar, included between the upper surface of a floor and upper surface of the floor or roof next above.

## Robert Eckert

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**From:** Stephen Pinkerton <s.pinkerton@verizon.net>  
**Sent:** Tuesday, October 19, 2021 11:00 AM  
**To:** Robert Eckert  
**Subject:** Re: McLean Zone 3 - Zoning By-Law

Just to keep you to date, I completed area calculations for the remaining four building types and got similar results to those provided by DSA. I have also seen evidence that 18 of the units have cellars. It's still a work in progress, but we do seem to be making progress.

---

**Stephen Pinkerton**  
[s.pinkerton@verizon.net](mailto:s.pinkerton@verizon.net)  
617-484-2732 land  
617-818-6018 cell/text

On Oct 15, 2021, at 10:23 AM, Robert Eckert <[robe@pmrllc1.com](mailto:robe@pmrllc1.com)> wrote:

Stephen,

Thanks for your note, yes it seems like your position that,...'it's a Basement until you prove it's a Cellar' makes practical sense. It's really surprising that DSA went down this path addressing "Non-habitable/Unconditioned Unfinished Area", as that concept doesn't live anywhere in the code or By-Law, it's as if they are being influenced by what is shown on the drawings to follow some odd logic in lieu of performing the task of performing the calculations independently based on the zoning by-law definitions.

It's of note that DSA did not verify all the unit areas. Also they did not provide any numbers or specifically state, limited to the By-Law which units specifically exceed the limitation of the By-Law, "If those spaces were to be counted, the gross square footage would exceed 3,600SF", which begs the question of: By how much and how often?

In the fifth paragraph DSA proposes an alternative design idea to resolve the excess area. This seems inappropriate in the context of a Peer Review employed by the Town, on your behalf DSA is effectively indicating a proposed solution. I don't believe they were engaged by the Town to perform design work?

Regarding the height which I'm less concerned about, again they did not check all of the units.

My recommendation/suggestion would be that the fifth paragraph be eliminated from the letter, and that the board request the area calculations that DSA performed to be provided in a tabular format indicating livable and gross square footages comparing the proponent's values against the DSA values. At least then the PB will be able to understand how much the area is over on individual units and how much the total area may exceed what was anticipated for the sample units where the calculations were performed.

Thank You,

Robert Eckert



On Oct 15, 2021, at 9:08 AM, Stephen Pinkerton <[s.pinkerton@verizon.net](mailto:s.pinkerton@verizon.net)> wrote:

Rob,

I agree with your assessment of the DSA report. As for determination of cellar vs. basement, this is a routine calculation that is done by land surveyors with just about every permit application where story counts or subterranean construction are involved.

Absent data from the applicant to make the simple calculation, we will assume that all of the townhouses have basements.

Steve

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**Stephen Pinkerton**  
[s.pinkerton@verizon.net](mailto:s.pinkerton@verizon.net)  
617-484-2732 land  
617-818-6018 cell/text

On Oct 14, 2021, at 3:20 PM, Robert Eckert <[robe@pmrllc1.com](mailto:robe@pmrllc1.com)> wrote:

Robert & Stephen,

I'm reviewing the latest information from DSA in the area calculations for the Townhouse Units.

It still seems very unclear to me and I believe Steve's initial question as to which units have Cellars and which have Basements and are therefore subject to Gross Square Footage limitation remains pretty much unanswered.

It appears that the concept of Cellar vs. Basement was adopted by via Article 18 of the 2005 Town Meeting. I'm wondering if there is additional information available to figure out how 'clear height below grade' was defined? Alternatively the ZBA could be asked to provide clarification of the By-Law?

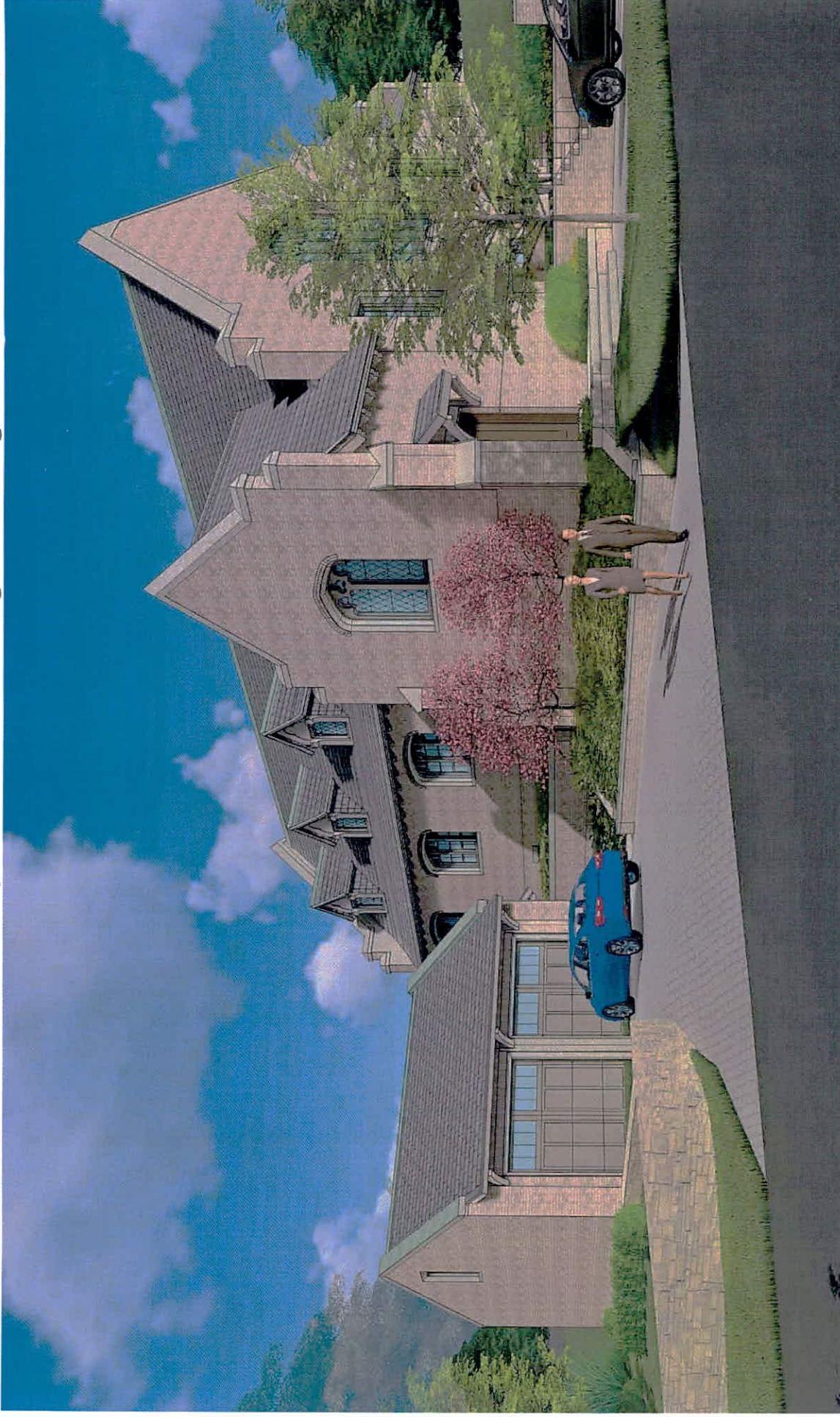
Thx

Rob Eckert  
(508)934-9556

## Attachment C

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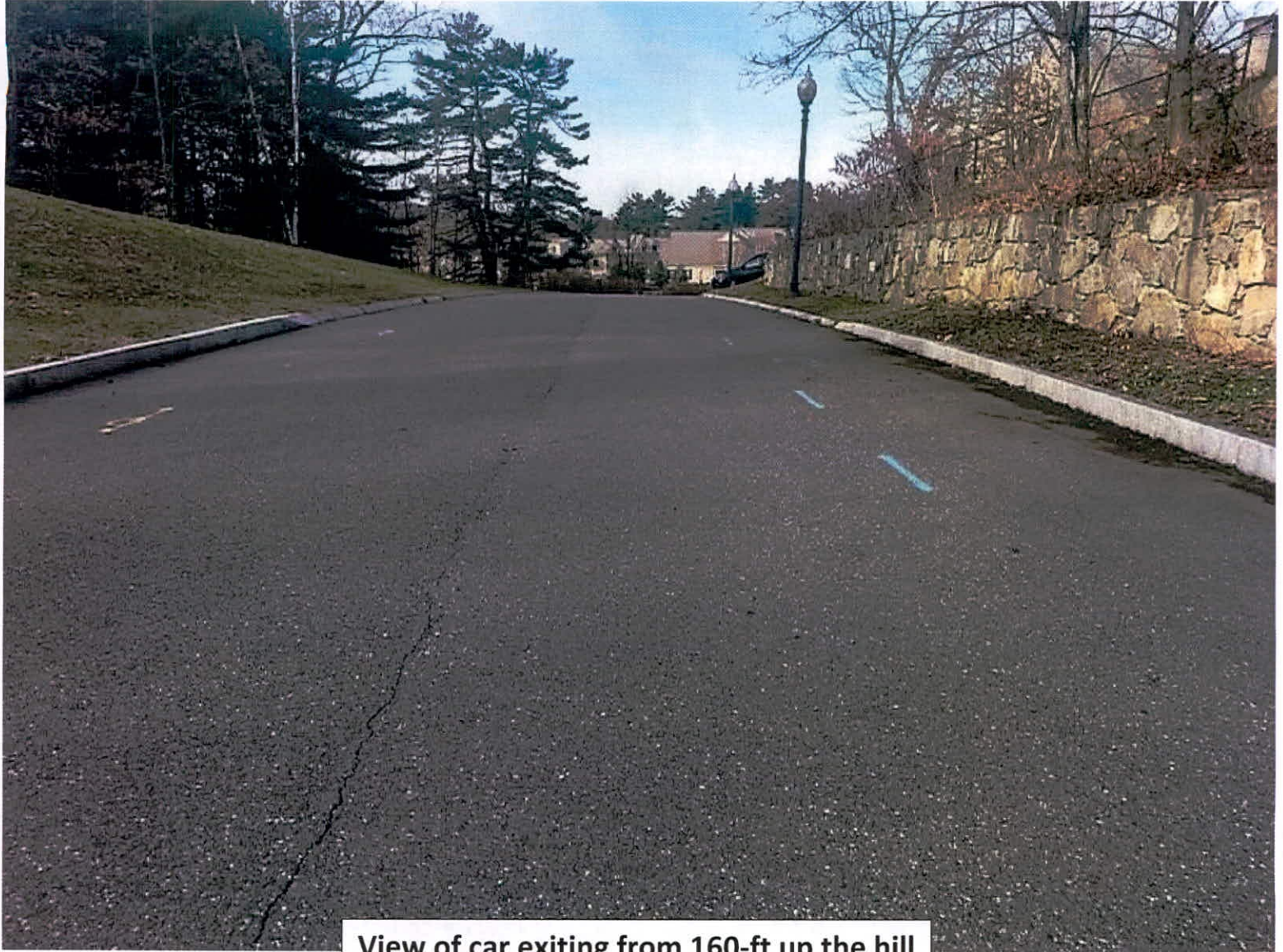




## Attachment D

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View of car exiting from 160-ft up the hill

## Attachment E

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## MEMORANDUM

To: Ken Buckland

From: Sharon T. Raymond, P.E. *STR*  
Fay, Spofford & Thorndike

Date: September 4, 2001

Subject: ARC Senior Living Housing at McLean Hospital  
Final Report

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With respect to wastewater and stormwater issues, we have reviewed all supplemental information submitted by Vanasse Hangen Brustlin (VHB), Inc. for American Retirement Corporation (ARC) regarding the proposed Continuing Care Retirement Community facility in Zone 3 of the McLean Hospital campus. The information provided in these submissions has sufficiently addressed most of the issues and concerns raised during the course of our review. The following outlines the outstanding issues:

### *Wastewater:*

- As previously recommended a plan for abandonment of existing utilities needs to be developed. This plan should identify which utilities will be abandoned and how they will be abandoned. As a portion of the Hospital's sanitary sewer is to be relocated and assumed to be discharging into the sanitary sewer that is proposed to be constructed by ARC (also accepting flows from Belmont Technology Park) the plan should also provide information of the proposed discharge from the relocated Hospital sewer.

### *Stormwater:*

- The stormwater management system for the ARC site and access driveway incorporates a proposed modification of the Upham Bowl area by the Hospital to provide detention of stormwater runoff from Hospital property. The proposed use of the Upham Bowl for detention will help to alleviate an existing problem caused by uncontrolled runoff from the Hospital property at the intersection of Trapelo Road and Pleasant Street. Although not part of Zone 3, the Upham Bowl detention area is an integral part of the overall stormwater management system and the construction of these facilities need to be implement concurrent or prior to the access road. The design of Upham Bowl detention basin is complete with the exception of a detailed final design drawing that should be provided prior to construction.

***Inspection and Maintenance of Stormwater Facilities:***

- Since the Upham Bowl detention area will discharge into the stormwater management facilities operated and maintained by ARC, a formal operation and maintenance plan for Upham Bowl, comparable to ARC's, needs to be provided prior to construction.

If you should have any questions regarding the above issues, please feel free to contact us.

JB-167



## Attachment F

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EXPOSURE CONTROLS NOTES:

- [illegible]

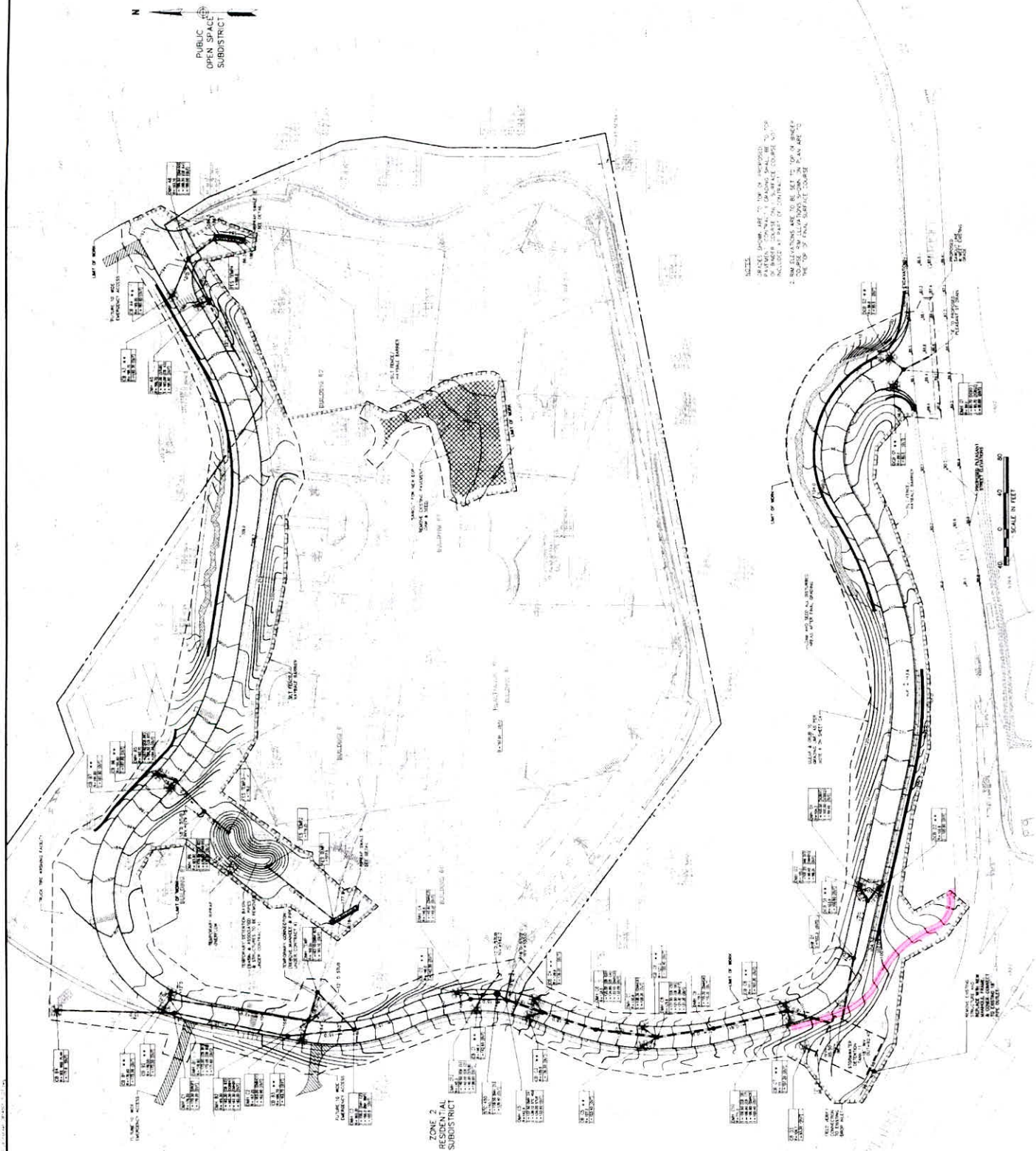
[illegible]

McLean Hospital  
Olmsted Drive Construction

Belmont, Massachusetts  
Construction Documents  
CONTRACT I

Grading, Drainage and Erosion Control Plan


 C-4



## Attachment G

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found that this requirement has been adhered to and recommended approval of the storm water management system (Exhibit "B"). The Board approves the system.

**(d) Stormwater management solutions shall be kept local within each Zone to minimize accumulation and the need for larger structures.** There was coordination in the drainage designs between development Zones to keep storm water in its respective watershed. However, each Zone generally has its own, independent drainage system and large structures were avoided wherever possible and practical. The plans were modified in response to concerns expressed with the proposed drainage from the Upham Bowl area. (The Upham Bowl drainage will be addressed in a separate Agreement between the Town and McLean.) The Board's consulting team stated that this requirement has been adhered to and recommended approval of the storm water management system (Exhibit "B"). The Board approves the system.

7.6.11  
**(e) Stormwater runoff shall be retained by open detention basins or by an underground chamber system similar to Cultec Contractor Chamber Systems, or equal. At least 50% of the required detention in each Zone shall be by underground chambers.** No aboveground structures were employed in the drainage system. "Stormceptor" types of units were employed due to their excellent record and ability to meet DEP water quality standards. The Board's consulting team recommended approval of the plan, which is designed to provide 100% of the detention underground. The Board approves the system.

**(f) Open detention basins shall have a water storage depth of no more than 3 feet at peak in the event of the 100-year storm. All detention basins or chambers shall have a controlled outlet so as not to exceed the capacity of the existing town drainage system. Any exposed concrete retaining wall surfaces (both sides) shall be finished with natural stone to assure a visually attractive structure.** There were no open basins employed in the drainage system. The Board's consulting team recommended approval of the system, which is designed to not exceed the capacity of any municipal drainage system. The Board approves the system.

A condition of this Approval is that where applicable within the drainage system, any exposed concrete retaining wall surfaces (both sides) built in connection with the stormwater management system shall be finished with natural stone to assure a visually attractive structure.

**(g) Underground chambers in all traffic and parking areas shall be heavy duty and structurally capable of withstanding highway H-20 loading or the heaviest fire department vehicle whichever is greater. Chambers shall be aligned parallel to the contours. In so far as possible, underground chambers shall be constructed under proposed roadways and parking areas or within building foundations so as to limit the disturbance of existing natural open space.** The Board's consulting team reviewed the plans and recommended approval. The Board approves the plans.

## Attachment H

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**Fieldstone Way**  
135 Great Plain Avenue  
Wellesley, MA

**Trip Generation Summary - Trip Rates**

Peak Morning Monitored Trip Rates					
Project	# of Units	Total Weekday Morning Peak Hour Trips	Morning Peak Trip Rate (trips/unit)	Total Bedrooms	Trip Rate (trips/BR)
South Cottage Belmont, MA	62	43	0.69	156	0.28
Summit Road Belmont, MA	55	28	0.51	165	0.17
Quisset Brook Road Milton, MA	56	27	0.48	123	0.22
Pine Tree Brook Road Milton, MA	98	50	0.51	182	0.27
<b>TOTAL /AVG</b>	<b>271</b>	<b>148</b>	<b>0.55</b>	<b>626</b>	<b>0.24</b>

Peak Evening Monitored Trip Rates					
Project	# of Units	Total Weekday Evening Peak Hour Trips	Evening Peak Trip Rate (trips/unit)	Total Bedrooms	Trip Rate (trips/BR)
South Cottage Belmont, MA	62	46	0.74	156	0.29
Summit Road Belmont, MA	55	35	0.64	165	0.21
Quisset Brook Road Milton, MA	56	29	0.52	123	0.24
Pine Tree Brook Road Milton, MA	98	49	0.50	182	0.27
<b>TOTAL /AVG</b>	<b>271</b>	<b>159</b>	<b>0.59</b>	<b>626</b>	<b>0.25</b>

Peak Morning Projected Trip Rates						
Project	# of Units	Total Weekday Morning Peak Hour Trips (projected based on trips/Unit)	Morning Peak Trip Rate/Unit (average based on monitored trips)	Total Bedrooms	Total Weekday Morning Peak Hour Trips (projected based on trips/BR)	Trip Rate/BR (average based on monitored trips)
Fieldstone Way Wellesley, MA	44	24	0.55	123	29	0.24

30

AVG. 27

Peak Evening Projected Trip Rates						
Project	# of Units	Total Weekday Evening Peak Hour Trips (projected based on trips/Unit)	Evening Peak Trip Rate/Unit (average based on monitored trips)	Total Bedrooms	Total Evening Morning Peak Hour Trips (projected based on trips/BR)	Trip Rate/BR (average based on monitored trips)
Fieldstone Way Wellesley, MA	44	26	0.59	123	31	0.25

31



## Attachment I

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## ATTACHMENT I

### TRAFFIC MONITORING AND MITIGATION AGREEMENT

This Traffic Monitoring and Mitigation Agreement ("Agreement") is entered into as of November 22, 1999 by and between the Town of Belmont, acting by and through its Board of Selectmen ("Belmont"), and The McLean Hospital Corporation ("McLean"). This Agreement establishes the maximum level of permitted traffic to be generated by uses within the Research & Development, Senior Living and McLean Institutional zoning subdistricts and to set forth the recourse actions to be taken by Belmont in the event that the actual traffic levels exceed such permitted levels. This Agreement also details the traffic mitigation measures for which McLean agrees to provide the funding.

Belmont acknowledges that McLean intends that one or more unrelated parties will actually develop the proposed uses within the Research & Development and Senior Living Subdistricts and that McLean will likely sell the land within such subdistricts to such parties in connection with the development. Performance of the obligations set forth in Section I with respect to any subdistrict shall be the responsibility of (and at the expense of) the owner of the land within such subdistrict (the joint and several liability of the owners of the land, if more than one party owns the land within a given subdistrict). Performance of the obligations set forth in Section II shall be the responsibility (and at the expense of) McLean, except that no building within any subdistrict shall be occupied if McLean has failed to perform any obligation under Section II which was required by the provisions of Section II to have been performed by such time.

#### I. MONITORING PROGRAM

A traffic monitoring program is to be conducted following completion and substantial occupancy of any building within any of the Research & Development; Senior Living; and McLean Institutional Subdistricts. The traffic monitoring program and recourse actions described herein will ensure that these components of the project generate:

1. peak hour traffic flows at a rate that is less than or equal to a rate of 692 peak hour trips during morning peak hours (206 for the Research & Development Subdistrict ; 36 for the Senior Living Subdistrict and 450 for the McLean Institutional Subdistrict) and a rate of 742 peak hour trips during evening peak hours (180 for the Research & Development Subdistrict; 92 for the Senior Living Subdistrict and 470 for the McLean Institutional Subdistrict); and
2. daily traffic flows at a rate that is less than or equal to a rate of 7,692 daily trips (1,784 for the Research & Development Subdistrict; 1,148 for the Senior Living Subdistrict and 4,760 for the McLean Institutional Subdistrict).

Notwithstanding any provision hereof to the contrary, this Agreement shall not be applicable to the McLean Institutional Subdistrict so long as the buildings and improvements within such subdistrict continue to be used exclusively for psychiatric hospital purposes and uses functionally dependent upon and necessary to psychiatric hospital use, except for either (i) up to 75,000 square feet of gross floor area of other uses permitted by zoning (other than medical offices) or (ii) up to 25,000 square feet of gross floor area of medical offices as permitted by zoning. McLean represents that as of the date hereof the entirety of the McLean Institutional Subdistrict is used for psychiatric hospital purposes and uses functionally dependent upon and necessary to psychiatric hospital use. Belmont acknowledging that such representation includes the Arlington School and the existing day care facility (but no expansion thereof) within such definition. McLean agrees to provide Belmont with an annual certification, on a building-by-building basis, of the number of square feet used for other purposes. McLean shall notify Belmont promptly upon any change in use causing the foregoing thresholds to be exceeded. Belmont shall have the right to obtain such further reasonable evidence from McLean as it shall require to confirm the accuracy of such certifications.



A. STUDY DATA

Data collected for the traffic monitoring program will include traffic volumes entering and exiting the Research & Development Subdistrict; Senior Living Subdistrict and McLean Institutional Subdistrict. Monitoring will involve continuous Automatic Traffic Recorder (ATR) counts on a daily basis. (Data will be collected in 15 minute increments.) Data collected shall be retained for at least one year from the date of collection.

A "weekly sampling report" shall mean a data collection report providing monitoring results over five consecutive, non-holiday weekdays, summarized by one hour intervals and by daily totals. The morning and evening peak hour volumes for each weekday will be determined and average morning and evening peak hour volumes will be determined for the week. In addition, the daily trip totals for each weekday will be determined and average daily trip totals will be determined for the week.

B. PROGRAM

1. Within six months after the issuance of a building permit for a structure within a subdistrict governed hereby, the owner of the land within the subdistrict (the "owner") shall file with the Town Engineer a detailed Traffic Demand Management (TDM) plan, describing the measures to be taken by the owner to avoid traffic generation in excess of the levels permitted hereby and describing the further measures to be taken by the owner in the event traffic generation exceeds permitted levels. The owner shall consult with the Town Engineer prior to filing the TDM plan and shall take into account any comments of the Town Engineer with respect thereto. The owner shall file an updated TDM plan annually thereafter.

2. Within thirty days of such structure reaching a 90% occupancy level, or one year after a certificate of occupancy has been issued, whichever is earlier, the owner shall notify the Town Engineer. The Town Engineer shall thereafter have the right (in the McLean Institutional Subdistrict, whenever this Agreement becomes applicable thereto) to require submission of a weekly sampling report for such subdistrict for any week designated by the Town Engineer. A weekly sampling report shall thereupon be submitted to the Town Engineer within seven days of such request (or seven days after the end of the week to be reported upon, if later). Notwithstanding the foregoing, Belmont agrees to observe the guideline that weekly sampling reports should generally not be required more than bi-monthly during development of a subdistrict and more than annually after one year following substantial completion of the build-out and occupancy within the subdistrict, reserving Belmont's right to require more frequent weekly sampling reports upon changes in use, changes in ownership, the occurrence of violations or other reasonable basis for more frequent reporting.

C. RECOURSE ACTIONS

1. There shall be deemed to be a violation of this Agreement whenever a weekly sampling report reveals that:

- (a) either the morning or evening average peak hour trip generation rate exceeds the permitted rate; or
- (b) the average daily trip total exceeds the permitted rate.

2. If a weekly sampling report contains a violation, then the owner shall: (a) prepare and submit to the Town Engineer an updated TDM plan (if one has not been filed within the previous three months); (b) use diligent efforts to implement such plan as soon as possible and (c) provide follow-up weekly sampling reports to the Town Engineer until no further violations exist. If a weekly sampling report (including a follow-up report) contains a violation, then the owner shall pay the Town of Belmont a traffic mitigation payment of \$10,000 (\$2,500 for a follow-up report) for each such weekly sampling report, which shall be applied by the Town against its costs in monitoring and enforcing this Agreement and/or in taking further action to mitigate the effect of traffic generated by the Property upon Town streets.



3. If follow-up weekly sampling reports continue to show violations for two weeks, then Belmont may restrict the number of parking spaces which can be used during the morning and evening peak hours to the extent that the Town Engineer determines is needed to correct the violations. If follow-up weekly sampling reports still continue to show violations thereafter, the Town Engineer may further increase such parking restrictions.

4. If for two consecutive months, follow-up weekly sampling reports evidence that average trip generation is below the permitted rates, the Town will return full control of parking to the owner. The owner shall continue to be obligated to file follow-up weekly sampling reports for one month after full control of parking has been returned.

## II. MITIGATION PROGRAM

McLean agrees to provide the funding for the mitigation measures listed below. The measures proposed will mitigate project related traffic impacts at intersections where:

- the project may have a material impact on traffic operations.
- state funding is not readily available to fund the improvements, or where pursuing or securing state funding will jeopardize, or compete with, the prospects of other eligible projects where funding is being sought. (State funding has been approved for the reconstruction of Pleasant Street, consequently, it is assumed suggested improvements for Pleasant Street can be incorporated into the ongoing Pleasant Street project. McLean shall fund increased design and construction costs associated with changes to the Pleasant Street design, if they are not able to be incorporated in the normal design process).
- there is sufficient public support to ensure timely implementation of proposed improvements.

Based on these criteria, McLean agrees to fund the design and construction of improvements at two intersections in the project vicinity at an estimated cost of \$690,000. McLean agrees it will collaborate with Belmont in developing the actual mitigation to be implemented. In addition, McLean will provide an additional \$310,000 to Belmont to be spent at Belmont's discretion for the design and construction of improvements at other intersections in the site vicinity not listed below.

Location	Proposed Action	Schedule	Estimated Construction Cost
A. Pleasant Street At McLean Driveway	Construct Drive Add Left Turn Lane Signalize	Prior to Occupancy of R&D Building or Senior Housing	\$375,000 ?
B. Pleasant Street at Trapelo Road	Extend Right Turn Lane Extend R.O.W. Install Signal Interconnect Signal	Prior to Occupancy of R&D Building	\$315,000
C. At discretion of Town	Design and/or construct offsite Intersection improvements		\$310,000
		TOTAL	\$1,000,000

The above-identified funding will be provided based on the following conditions:

MILL ST. @ CONCORD  
CONCORD @ WINTER ST.

A. Upon certification by Belmont that Belmont has need for funding with respect to an improvement (identifying the dollar amount required therefor), McLean shall place such funds in escrow.

B. Belmont and McLean shall maintain such funds in an interest bearing account with the full amount of interest earned payable to McLean.

C. Belmont shall cooperate with McLean in seeking PWED and/or CDAG grants available by application filed prior to June 30, 2000 in order to fund any or all of the above improvements at locations A and B.

D. If such grants are obtained to fund such improvements McLean's obligation to fund such improvements shall be reduced by the amount of such state grants and, upon actual receipt by Belmont of such state grants, McLean shall be entitled to withdraw such amount from the escrowed funds; provided, however, that if such grants exceed \$500,000 in the aggregate, then McLean's commitment to fund other improvements shall increase dollar-for-dollar up to a limit of \$190,000 (raising McLean's total commitment to other improvements to \$500,000).

E. Belmont shall be authorized to draw funds from the escrow account in order to pay for the above-identified mitigation projects. Projects under Heading C must pertain to one or more of the following intersections: Mill Street at McLean Driveway; Mill Street at Trapelo Road; Trapelo Road at Waverley Oaks Road; Trapelo Road at Star Market Driveway; Concord Avenue at Winter Street; Concord Avenue at Mill Street; Pleasant Street at Clifton/Leonard Streets; Pleasant Street at Brighton Street; Concord Avenue at Blanchard Road; Concord Avenue at Pleasant Street; Concord Avenue at Common Street; Concord Avenue at Channing/Leonard Streets. Such projects can include transit, shuttle, pedestrian and/or bicycle enhancements associated with such intersections. Draws under Headings A and B shall not exceed \$690,000 (less any grant funds as described above) and McLean shall be responsible for any additional sums needed to complete such projects.

F. Two years from the date of the certificate of occupancy representing 85% or more completion (on a square footage basis) of the permitted development within the Research & Development and Senior Living subdistricts, McLean shall be entitled to withdraw any remaining funds from the escrow account unless and for so long as Belmont is actively pursuing any of the above-identified mitigation projects and such remaining funds are necessary to pay for such project.

### III. LEGAL EFFECT

The foregoing obligations shall run with the land now owned by McLean Hospital Corporation in Belmont, Massachusetts. McLean shall require any successor owner of land governed hereby to acknowledge in writing its obligations hereunder and to provide the same to Belmont prior to or upon transfer. A notice hereof shall, at the request of Belmont, be executed by McLean and recorded with the Registry of Deeds. This Agreement shall not take effect until ratified by a majority vote of Town Meeting of the Town of Belmont. Upon such ratifying vote, this Agreement shall not be amended in any material respect except by a further majority vote of Town Meeting.



Town of Belmont

By: William P. Piroch  
Selectman

By: [Signature]  
Selectman

By: [Signature]  
Selectman

The McLean Hospital Corporation

By: [Signature]

Its Duly Authorized President