

July 09, 2013

Introduction

As I have been away I wanted to proffer one analysis growing out of Lincoln values, as I see them, as applied to our school. While this must seem at first a singular view, our group I trust will seek out many variations about what can and needs to be secured in the school building, so as to better the educational program.

This analysis of a campus, may allow, as proposed at the end of this too brief effort, that if a realistic, ambitious but credible overall master plan may be agreed upon, then it may also be possible to identify two or three subsets or phases of such a plan which might reflect different scope and budget burdens. The existing buildings are less than perfect. Certain elements, I have termed "Nodes" have relative merits, so this effort seeks to observe the existing in a manner which might clarify different pathways to its betterment.

A View of Principles to Build-Re-build Upon

These brief remarks are outlined from the conviction that while there are a number of options the SBAC may be able to define for the Lincoln school renovation project it is actually highly disciplined and constrained by the ecology of the site. The school has evolved over sixty years. Parts of the complex are of historic architectural merit. So what is best to be preserved, knowing that more than a majority of the building merits restoration invites a careful analysis of the existing which may best be renewed and adapted to the new educational program clarified by the superintendant Becky McFall? So then the need to meet new educational directions may inform a project well focused on preserving the best, and altering or replacing the least valued, and aligning areas of physical change best with needed program educational elements. In accommodating these school focused efforts there is ALWAYS, ALSO strong merit to assessing the additional value of many multiple town uses of the facility. A core and nexus of our educational and civic actions is the school site. So that the goal for a small New England town with a rural tradition...is that this campus is and remains at the center of our civic strength. May it be fitting, good and enriching.

At this time, in this early site assessment the adjacent Hartwell campus which may support (about 80,000sf of building) and Codman field (perhaps 10 ac) are not included. The focus is on the central campus. This analysis suggest that while there is a 54 Acres site the principal campus is 25 acres of which there is a conservation "fringe" of 6 acres. Major fields are only more precious as they are central to the identity of the site.

The site: 4 ELEMENTS

Lincoln's school campus is central to the creative life of Lincoln; it has an Ecology of Place. In recent clarifications of the towns very active support of the school (which in aggregate accounts for nearly 60% of the Town's budget) certain principles govern design.

So the school is a magnet both for learning and the social interactions, and friendships essential to making a small Town, an active engaged community. Making the school building whole seems a clear challenge to better unify the community. The primacy of good architectural design, with central prominent fields, and a boundary of buildings are true to the town's character.

1. Lincoln's school civic campus reflects the placing of buildings within a field landscape. The site was first a gift of a Ballfield to the Town. The primary school site is (1200 x 850 = about 25 acres). It places at its center fields, places where children play and acquire physical discipline, the strength of teamwork, and the joys and constraints of sport. The buildings cover 145,000sf (3.625 ac.). The landscape areas of the school boundary "lawn" (adjacent to buildings) is (4ac), the fields are (5.44ac (+ tennis = 1 ac) = 6.44ac. A gift granted by 60 years of school occupancy is that parts of the site have mature plantings and a well landscaped aspect. Here is a resolved design which places buildings in the context of nature.

2. The buildings have evolved over time. As we will observe the growth of the campus established morphology of distinct nodes. These nodes vary in architectural merit, some are more aged, but a first realization is that the size of a classroom has remained about 1000sf/20-22 students....BUT the needs of the educational program invite adjacent OTHER types of spaces to support collaborative learning. Most evidently three NEW environments seem needed: small areas attached to the principal classroom and a place adequate for grade level meetings (3 sections = 1800 sf, and a cafeteria. May these two last program elements be one very vital, most attractive space(s)?
If more than 50% of the school is to be retained, so also certain features of the complex such as the Smith Gym and the Brooks Auditorium are irreplaceable....as handsome well designed and maintained spaces...built in excess to the state standard. They were when constructed built with state assistance and as such are a gift to the Town which is irreplaceable. Such spaces are the keystones to a respectful, ecology of the acquired history and fabric of the site.
3. As the school GREW from a lower and an upper school a NEW challenge is to make BOTH better linkage, and an evolution/matriculation as students. An earlier scheme seemed to imply that physical adjacency aided collaboration. The morphology of precincts which reflect the campuses evolution posit another option, allied with an analysis of nodes (each about 24,000 sf), which is that an ideal of collaboration MAY be to design NEW elements so placed as to be easily reached, flexible in use, along hallways (expanding out into halls) where media, playback of lectures, group learning may be magnets for interactive learning.
4. Support elements are at the margin. Parking is (1.65 ac + roads 1.75 ac) = 3.4 ac. The boundary wetland "fringe" is almost 5.25ac/6 ac. A maturation of the campus suggests that under new mandates additional parking may accommodate ground water discharge, and be better designed with landscaping so as to reinforce the viability of a pedestrian campus, while fully attaining in the ring road requirements of universal accessible design.

If Buildings Could Talk: OUR (6) Six Node campus. Its strength and dilemmas

So...it appears for the architect(s) who drew what a group of design professionals (Fireside Seven) presented to the Town as the L-shaped scheme that there is a wisdom to sixty years of site occupancy which has graced us citizens of the Town of Lincoln with a well landscaped site, a variety of buildings, some better than others, and many LARGER than a typical MSBA school footprint...for they are reflection that this CAMPUS is central to the creative life of Lincoln. It is our one school.

Interestingly, the school speaks to a conviction that as one matures you MOVE to another precinct. As our campus has six nodes, we benefit from both assessing them, and working to create new magnet elements to support the educational mission, our school leadership has outlined.

This is a place where one enters at a very young age, experiences a huge gust of maturation to depart to face a larger world, with ALL the certainties and vulnerabilities of a youth of fourteen.

So can a campus grown from an upper and lower school be strengthened by a design which DRAWS teachers and students better together? May physical separation encourage collaboration? May correctly placed NEW program elements reinforce the benefits SO very small younger children have a domain secure to their abilities, to which then are introduced communal, collaborative attractions? Some physical remove is both a strength/and poses issues design may improve and even solve.the attraction of paradox.

An awkward aspect of an analysis of the campus plan is that each "better" node is separate from the next "better" node. So an initial analysis:

Six Nodes: the state of the campus/an evaluation

1. **Smith Gym and 4 -K classrooms and a tech classroom.** (About 18,000sf/of 25,000sf east classrooms). This gym serves wide community use. It is the most handsome gym on campus, and is provided with a stage and is almost (2x larger) than what would be sanctioned by the MSBA.

The five new classrooms attached in 1994 require MINIMAL work, mainly system upgrades. There are 6 east facing classrooms (c.1950/'94) which need major work

2. **The West Wing. Grade 2& Grade3.Offices.** (c.1954, 21,000sf) This original building has the aged boiler system at risk. Also ALL older systems. A possible area of major new work, further influenced by new program and the role of linkage to Media Center.
3. **Media Center. Grade 4 &5** (c.1994) (26,000 sf). This is a recent building, in very good repair. Tellingly in this most recent building MAY qualify for the most CREATIVE reprogramming....as it is spacious and library services have been strongly affected by technology
4. **North Central Wing Grade 6, 7, 8** (21,600 sf). The south rooms are "strong" expressed beam structure. All "envelope" requires attention as well as systems. The "weakest" classrooms architecturally are on the north side.
5. **Music, Art, Science, Smith auditorium.** (about 28,000sf). Well designed. Needs envelope work. One of the strong nodes. Can re-roof monitors introduce south vertical glazing?
6. **Reed Gym.** (15,600 sf). This is the smallest node. A compact functional two court gym. With a new roof it has exterior wall deterioration, and is an energy hog as a standalone building disconnected in a campus which is seeking better accessibility. Both the Reed Gym and Smith Gym have major site implications for their long walls suggest hard court exterior play yards well receiving solar gain for critical swing season sports.

The Program: Lincoln's Best Model for Learning: creative Paradox, A Wonderment of Scale

The new School must in every possible way advance and support the new model for education. Scale is here an issue as superintendant McFall's presentation seeks both:

1. smaller classrooms for individual and small group learning (120/350sf)
2. and class section opportunity/larger than a classroom (2,000sf)

SO/One or Two cafeteria(s). "To be discovered"/ **the Magnet Learning Center(s)**

The previous design process identified distance as a factor in cafeteria access. If the lower middle school is in a west wing...then there may be one/or an added upper school cafeteria to the east linking the Reed gym

It appears that the New Elements of program which may be most aligned would be 1/or 2 cafeteria's which may also function as Grade section meeting spaces if so designed, so the cafeteria perfectly meets a grade section sizing as (12sf/14sf/per person (4 classes) (@ 20) = 80 (14sf) = 1200sf/1400sf.

So an Ecological, Respectful, Conservation Site Immersed "Discovered" Design Logic

So if by focusing on the STRONG/and the "weak" nodes as priorities, then:

1. Restore/build off the Smith precinct (Smith 5 k classrooms/major renovation 6 east classrooms)
2. the west wing may require all new building, with full burden for mechanical, all systems renewal and reconnection, then to be assessed is the location of a Lower/Middle School **cafeteria/Magnet Learning Center**
3. Re-programing of the Media Center, this is a substantially (c.1994)
4. The major refurbishment of the 6th-8th. Roofing revised so ALL renovated classrooms get DIRECT light/major environmental and solar benefit
5. Brooks gym art & science. Add learning spaces on hall or common wall
6. New link to Reed with Upper School **cafeteria/Magnet Learning Center**

Design Strategy: Actualization: Strategies or Phases and Cost(s)

As I initiated these remarks and observation, so I would end by hoping that if we were to focus on how much of the existing is viable, and requires attentive maintenance at least, then how elements of the educational program may be best inserted in the "weakest" parts of the six nodes of the campus building complex.

It would seem that a multitude of building projects and budgets might then be clarified. I have attempted a few. I am sure there are more and they may be improved and matured by others.

So as it seems likely that such a campus plan has multiple avenues to realization: Explorations MIGHT evolve at different scales and scope of work. Such as:

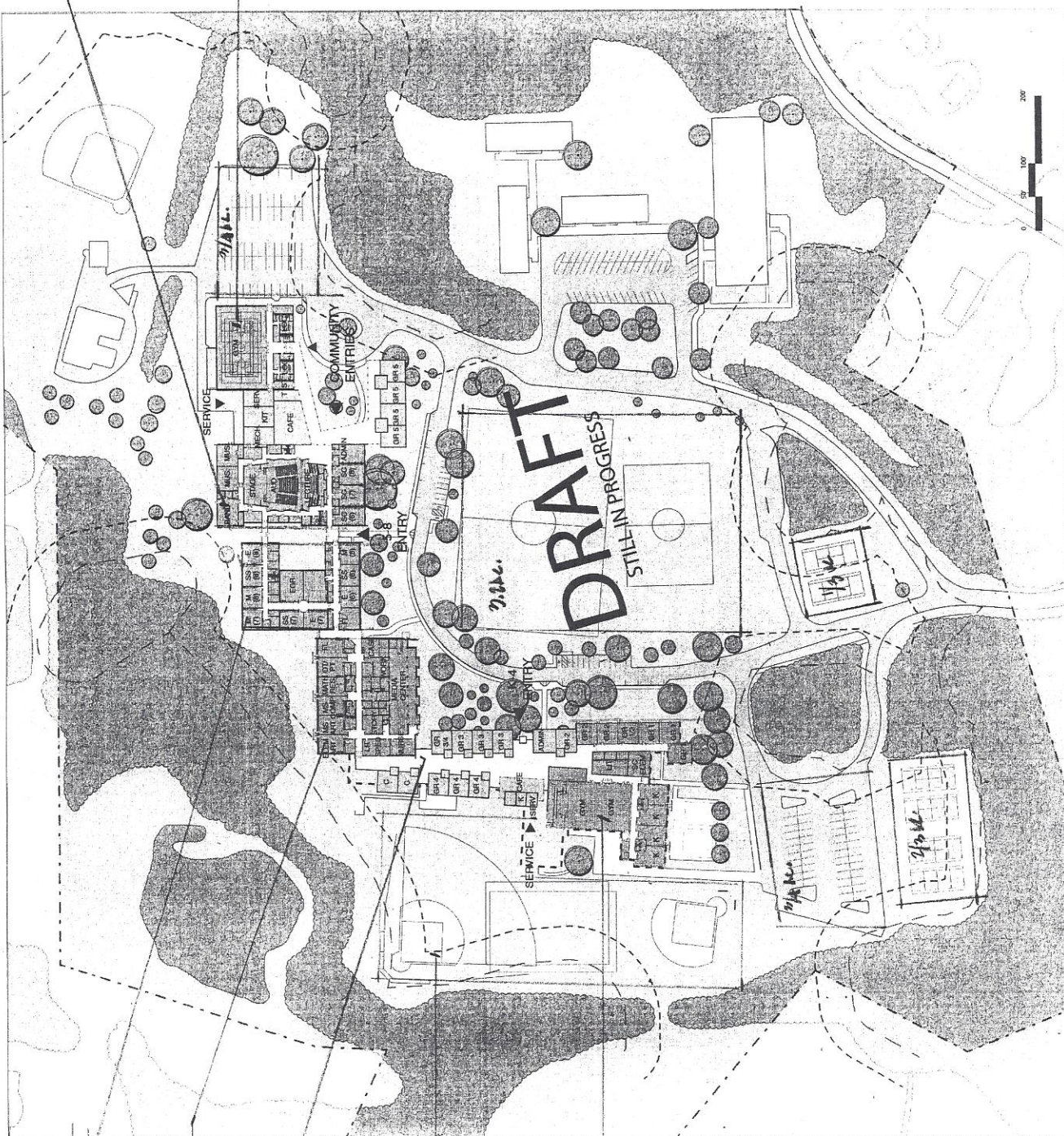
1. Envelope repair. Secure the buildings where they are clearly to be preserved. Assess the envelope for 145,000sf – (work fully to code done in 19994). Compare and cross reference McGuire report and Skanska budget. Agree and analysis of budget subordinations and subsets as a percentage of an agreed rational renovation vs. new construction cost. Ensuing from such agreement would be a scope of facility work we might match to a range of budget cost.
Can the envelope project, as it will interface with structure, ALSO assess if new roof form will allow ALL classrooms to have south facing vertical lighting in roofs if needed (as no south wall glass), SO light may be baffled and brise-soleil (sun shading) may ALWAYS achieve SOLAR BENEFIT? A Town principle appears to be that capitalized investment RETURNS are valid if they achieve energy and cost savings over TIME.
2. New West wing. Focus on cost of west wing, an essential rebuild/or all new at 20,000-sf ($\$325/\text{sf} = \6.5 (1.3) = $\$8.5\text{m}$). Can this strategy ALSO clarify educational program attached small class learning and **cafeteria/Magnet Learning Center (s)** (2,000 sf/each)? Might it be true that a First Phase which focused and achieved major benefits, new construction, new systems, a magnet cafeteria learning center MIGHT clarify and embolden the Town if proposed as a First Phase of a Master Plan?
3. Code and compliance mandate. These are critical thresholds which trigger costs. If the Lincoln School building(s) are assessed @ 50% of value (145,000 sf ($\$150$) = $\$17.5\text{m}$ so any project over 30%/value = $\$6.5\text{m}$ REQUIRES full seismic, sprinkler, as well as full accessibility compliance. So the basis cost and triggers for all code & systems and sprinkler work. If certain systems are MANDATED can we determine and define the threshold(s) which then oblige an additional REGULATORY COST.
4. Is there a singular better Master Plan, some combination of renovation and new work? If so may we agree....even if we think the cost too challenging....so that we may then understand constructive increments to lesser budget projects which none the less will move to improve the campus facility. So a full/50 year project which may be beneficial as an ambitious **Base Line**. The ideal perhaps only realizable with hopes for MSBA shared funding.

This effort is submitted with hopes that if buildings might talk, we as attentive listeners might better understand both our central task and the likely multiple rational pathways to better the Lincoln School.

Respectfully submitted to LSBAC by F. Douglas Adams, AIA

(New)
Hole to Smoke Hub
Main & Service

Hole 10 (New)
Peak Industries



Hole 1, 10-15 (New)
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Hole 3
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Existing Grade Layout

