

Report of the Long-Range Planning Committee – August 5, 2017

Members: Jim Shuman (Chair), Dennis Wootan, Beth Kinne, Dave Hackleman, Ron Pearson (*ex officio*), Andy Blackwood (*ex officio*)

Meetings since December 2016: March 16, 2017 and July 25, 2017

Report:

In its March 16, 2017 meeting, the LRP Committee reviewed the proposed Annual Operations Schedule for the NYSCenter. The LRP Committee voted to recommend the proposal to the Executive Committee for approval. (The Annual Operations Schedule was subsequently approved by the Executive Committee on March 30, 2017.)

In its July 25, 2017 meeting, the LRP Committee reviewed the report of the Ad Hoc Committee on Re-Visioning of the 2010 NYSCenter Master Plan. The LRP Committee voted to recommend the entire report to the Board for approval. The report is attached below. In its deliberations, the LRP Committee also approved a motion to add a fourth possible “location” for the re-visioned NYSCenter Master Plan. For the purposes of clarity, the language of the motion approved by the LRP Committee is found in italics in the Executive Summary on page 3 of the Ad Hoc Committee Report below.

The Long-Range Planning Committee will make the following motion in its report to the Board of Trustees on August 5, 2017:

Motion to accept the report of the Ad Hoc Committee on Re-Visioning of the 2010 NYSCenter Master Plan including the LRP Committee addition and the recommendations contained within the report.

Please review the report of the Ad Hoc Committee below.

**Report of the Ad Hoc Committee on
Re-visioning of the 2010 NYSCenter Master Plan**

August 5, 2017

Executive Summary

The purpose of the ad hoc committee was to re-vision the 2010 Master Plan for the National Youth Science Center (NYSCenter) to incorporate the acquisition of the property and facilities formerly operated by the Canaan Valley Institute (CVI). That new property, acquired in 2015, includes two LEED-certified buildings on additional acreage located on the opposite side of the Blackwater River from the original property covered by the 2010 Master Plan. The committee's central goal was to envision a reasonably rapid transition of the National Youth Science Camp (NYSCamp) to the NYSCenter in Davis, WV (hopefully within 3-4 years), while also recommending concomitant plans to accommodate the NYSF's other current and envisioned programs at the new location.

Through a series of 11 video meetings, the committee considered the following issues related to re-visioning the expanded NYSCenter:

- 1) optimum ways to enhance the facility for transitioning the NYSCamp,
- 2) potential stages for incremental development of the facility,
- 3) specific components of the facility that will need expansion or improvement (e.g., enlarging the kitchen to handle food services for the full NYSCamp, or expanding the facility's wastewater/sewage capacity accordingly),
- 4) new scenarios for development of the facility on the north side of the river, and
- 5) cost estimates for phased development of the NYSCenter.

The committee determined that the assumptions guiding the original 2010 Master Plan should be maintained, namely that *the facility should be designed to accommodate one (1) National Youth Science Camp (expanded to as many as 250 people – 150 delegates, 50 staff, and 50 guests including presenters and companions) as the NYSF's flagship program, while preserving sufficient flexibility to accommodate the needs of other NYSF programs or activities and programs operated by third-parties. The committee also assumed that *all of the NYSCamp's current programming will be maintained when the NYSCamp moves to the NYSCenter, although names of program areas where various activities occur might change to reflect the evolution of STEM fields and processes, as well as to maximize utilization of the NYSCenter's existing Research and Education Center (REC) facilities.**

Given the NYSF's current needs, the ad hoc committee considered how the revised Master Plan must incorporate three required stages of NYSCenter development:

Stage 1 – Pre-transition: Hosting currently planned programs (2017 – 2020) at the NYSCenter *before transition of the NYSCamp from Camp Pocahontas to the NYSCenter.*

Stage 2 – Initial Transition: Hosting the NYSCamp and all other NYSF programs (2021 – 2025) at the NYSCenter *with manageable but incomplete facilities.*

Stage 3 – Full Transition: Hosting all programs at the NYSCenter *upon full completion of the revised Master Plan (2026 on) incorporating synergies identified arising from the availability of newly acquired buildings and land.*

In addition, the committee considered three possible locations for consideration by the full NYSF Board of Trustees:

Location 1 – Acreage As Is: Development of the three above-mentioned stages consistent with the site plan established by the 2010 Master Plan by incorporating the NYSF properties on both sides of the Blackwater River.

Location 2 – Land Swap: Completing a land-swap with the West Virginia Division of Natural Resources (WV DNR) for at least 111 acres on the north side of the Blackwater River adjacent to the NYSF's current holdings in exchange for the current NYSF's 111 acres on the south side of the river, and subsequently developing the entire facility on the north side of the river with an expanded footprint. This scenario could avoid the lengthy separation of the residential component of the NYSCenter on the south side of the river and many of the instructional components of the facility on the north side. (See appended aerial maps for details.)

Location 3 – Partial Land Swap: Constructing the elements of the campus envisioned in the 2010 Master Plan within the 39 acres surrounding the REC and Research Support Building (RSB) on the north side of the Blackwater River while retaining some of the 111 acres of wildland south of the Blackwater River. The property to be acquired in the partial land swap would only extend the NYSF's 39-acre property holdings from the REC Building to the center of the Blackwater River to provide access for water-based recreation and aquatic studies.

[Added by the LRP Committee] Location 4 – No Land Swap; Acquire Additional Acreage: *Constructing the major elements of the campus envisioned in the 2010 Master Plan within the 39 acres surrounding the Research and Education Center (REC) and Research Support Building (RSB) on the north side of the Blackwater River, retaining all of the 111 acres of wildland south of the Blackwater River, and acquiring sufficient additional property through purchase or long-term lease to extend the NYSF's 39-acre property holdings from the REC Building to the center of the Blackwater River to provide access for water-based recreation and aquatic studies, and suitable similar extensions for delegate housing and program facilities.*

Finally, the ad hoc committee investigated two Annual Operation Options for the NYSCenter

Seasonal Option 1 - Year-round Operation: Hosting programs of up to 250 persons (participants, staff, and guests) throughout all four seasons at the NYSCenter, or

Seasonal Option 2 – Partial Year-round Operation: Hosting programs of up to 250 persons only during the warm months of the year, but closing down most residential components and hosting only programs no more than 50 persons (participants, staff, and guests) during the colder months of the year.

The ad hoc committee leaves the final decision to the full Board of Trustees as to which of the three Location Options and which of the two Seasonal Options to pursue. However, given the NYSF's current needs, the Board really has no choice regarding the three Stages of development unless the NYSF receives a rapid infusion of funds, in which case these phases may be achieved in rapid succession. Whichever Construction Scenario and whichever Annual Operation Option is adopted, additional details regarding the development of specific components of the facility must also be considered by the full Board prior to adoption of a fully revised Master Plan for the NYSCenter. These additional details include:

1. Investigation of the possibilities involved with a land-swap with WV DNR, including analysis of potential sites adjacent to the Research and Education Center (REC) on the north side of the Blackwater River.
2. Construction of an overnight accommodation for as many as 50 persons with easy access to the REC on the north side of the river (rather than continuing to accommodate groups at local hotels, lodges, and private rental properties) in Stages 1, 2, and 3.
3. Associated construction of enhanced wastewater and sewage capacity to manage Stages 1, 2, and 3.
4. Expansion of kitchen facilities to support food preparation for as many as 250 persons to manage Stages 2 and 3.
5. Estimates for the overall cost(s) of construction for each above-mentioned stage of development.
6. An overall estimate for an entirely revised NYSCenter Master Plan.
7. Potential naming opportunities for components of the revised NYSCenter Master Plan.

Report of the Ad Hoc Committee on Re-visioning the NYSCenter Master Plan

The Ad Hoc Committee is a temporary sub-committee of the NYSF's Long Range Planning Committee. The committee's report contains the following sections:

- I. The Ad Hoc Committee and its Work

- II. Fundamental Issues to be Resolved
 - III. Findings
 - IV. Recommendations
 - V. Conclusion
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I. The Ad Hoc Committee and its Work

An ad hoc committee of the NYSF Board was established to reconcile the 2010 Master Plan and the current state of the NYSCenter facilities and properties held by the NYSF near Davis, Tucker County, WV. Realizing that the discrepancies created issues for the Board and staff not only for operation of its current programs, but also for fundraising and long-range planning for the migration of the National Youth Science Camp from Camp Pocahontas, the committee considered three charges:

1. The Ad Hoc Committee on NYSCenter Development will conduct fact-finding discussion and recommend its findings to the NYSF Board regarding development of the NYSCenter to host the NYSCamp as soon as feasible, while also assuring concomitant facilities for the other programs to be operated by the NYSF. Because there are issues that the ad hoc committee will not be able to resolve without further input from the full Board, the findings will likely include more than one option for development of the NYSCenter.
2. To the extent possible, the committee will attach generalized estimates for the cost of phases of the planned development, with a focus on costs for the initial phases to address the facility needs of currently planned programming at the NYSCenter.
3. Through video meetings and electronic communications, the ad hoc committee will develop its recommendations with an eye toward reporting to the full NYSF Board of Trustees at its August 5, 2017 meeting.

The Ad Hoc Committee was co-chaired by Dennis Wootan (NYSF Board of Trustees Vice Chair) and Jim Shuman (Chair, NYSF Long Range Planning Committee). Members included a total of six Board members (Todd Stolzberg, Beth Kinne, Dave Hackleman, and Jill Cochran in addition to Wootan and Shuman) as well as two *ex officio* NYSF staff members (Andy Blackwood and John Giroir) and Don Smith (former NYSCamp Director). In all, four NYSCamp directors served on the committee (Giroir, Blackwood, Smith, and Shuman). In addition, the committee surveyed all other living former NYSCamp directors.

With no additional cost to the NYSF, the committee held eleven 2-hour video meetings in 2017 between June 19 and July 25. The meetings followed carefully-designed agendas for full consideration of all the issues to be resolved between the existing 2010 Master Plan and the current facility conditions and properties:

1. Purpose and charges for the ad hoc committee
2. Requirements needed to transition NYSCamp from Camp Pocahontas to the NYSCenter
3. Requirements needed for operation of non-NYSCamp programs at the NYSCenter
4. Assessment of existing NYSCenter condition and resources
5. Gap analysis: future requirements vs. existing resources
6. Community matters
7. Available partner resources
8. Site policy options – Land Swap vs. no Land Swap
9. Financial review – phased, incremental development to hasten transition from Pocahontas
10. Redesign specifics and recommendations

Each video meeting was recorded and minutes were kept. The recordings and minutes are saved electronically for future reference. Committee members made extraordinary effort to attend and contribute to the meetings, at times even calling in while driving or from other locations while on vacation.

II. Fundamental Issues to be Resolved

The committee discussed the following fundamental issues regarding the NYSCenter facility and properties, each of which is discussed in a separate section of this report:

- a. The need to move the NYSCamp from Camp Pocahontas
- b. Incorporation of the Canaan Valley Institute (CVI) properties into a revised Master Plan
- c. Expansion of the NYSCenter facilities to accommodate up to 250 people
- d. The need for phases of construction to finalize a revised Master Plan while maintaining existing/future programming at the NYSCenter
- e. Distances between the original Master Plan site and the NYSF properties on the north side of the Blackwater River

Each of these issues is discussed below.

IIa. The Need to Move the NYSCamp from Camp Pocahontas. The National Youth Science Camp should be moved from Camp Pocahontas in the most expeditious time frame. Each year, the conditions of the Camp Pocahontas property deteriorate further, creating ever-increasing concerns for safety, sanitation, camper satisfaction, and the potential threat of negative publicity. In addition, calendar conflicts with other users at Camp Pocahontas result in suboptimal scheduling of programming for the NYSCamp as well as delegate and staff recruitment. Finally, every program the NYSF operates at a rented facility requires resources that do not support the maintenance and development of the NYSCenter. Given all these factors, the Committee notes that transitioning the NYSCamp to the NYSCenter, even before the Center is fully developed, may be desirable. This could be achieved through the use of temporary facilities (housing, site development, sanitation, etc.) while the NYSCenter is developed in accordance with a revised Master Plan.

IIb. Incorporation of the former CVI properties into a new Master Plan. The 2010 Master Plan was designed only for the acreage on the south side of the Blackwater River, before the CVI properties were acquired on the north side of the river. The main CVI building, currently called the Research and Education Center (REC), contains instructional spaces including a large “lecture hall” and three modern “program area” laboratories. In addition, the REC contains an entire wing of office spaces on two levels that was not anticipated in the original Master Plan. The other CVI building, currently called the Research Support Building (RSB), contains large additional spaces for equipment storage and for use as the “Art Shack” program area. The CVI properties were acquired with the intent of moving the NYSCamp to a new site, and the acquisition obligates the NYSF to re-vision the 2010 Master Plan with the goal of transitioning the NYSCamp to the new site.

The lecture and research facilities at the NYSCenter are significantly more sophisticated compared to those at Camp Pocahontas, but the NYSCenter does not include a sufficient kitchen, dedicated dining facility, or lodging to accommodate the NYSCamp, and lacks recreational fields and facilities and gathering areas that are used regularly at NYSCamp. The Committee made a careful assessment of what program areas are used at Camp Pocahontas and discussed the options for general locations for developing these components as envisioned in the 2010 Master Plan.

IIc. Expansion of the NYSCenter facilities to accommodate up to 250 people. Currently, the NYSCenter (specifically, the REC) can host programs of up to 50 people, so long as meals are prepared off-site and brought to the current “warming kitchen” at the REC and so long as participants are housed off-site overnight (in state park lodges, hotels, and/or rental homes). The cost of providing meals and overnight lodging as currently construed can be reduced significantly once those functions are available on-site. On-site lodging and food service would

also eliminate the need to transport participants to other locations. The NYSCenter as currently constructed can also provide space for lectures and most program area directed studies for a full NYSCamp, but cannot provide the dining and overnight accommodations for the 250-person NYSCamp occupancy. Accommodating the full NYSCamp will require construction of a larger kitchen, dining facilities, overnight lodging, and all associated water/plumbing/sewage, electrical, and other site development.

Additional outdoor spaces to be constructed in a fully-developed Master Plan include:

- Open, level playing field for soccer, Frisbee, volleyball, etc.
- Campfire Circle to seat up to 250 people
- “Flagstones” equivalent outside gathering area near dining facility (including a flagpole)
- Covered basketball court that might serve as the pavilion as described in the 2010 Master Plan. (A curb around the court would allow flooding in winter for skating)
- An amphitheater (Hutchison Amphitheater)

Minor additional upgrades/additions of equipment to existing program spaces will also be necessary/desirable to accommodate the full NYSCamp, but these needs are minor in comparison to the dining and lodging facilities.

IId. The Need for Phases of Construction for the new Master Plan. Because the NYSCenter is already operating with programs being offered both during the summer and during the school year, modifications to the current facility are already needed. Not only can the facility be operated more efficiently, but addition of at least temporary sleeping and dining accommodations will avoid current potential conflicts with respect to housing students in off-site lodging and also end up saving money over the coming years. Finally, the sooner we use the new site for additional NYSF programming, the earlier we build connections between program participants and the new site, creating a larger number of alumni and their families who are emotionally connected to the new site and willing to invest in its development. The most likely phasing would be to acquire temporary housing for student groups while also using temporary lodging for overnight guests. An important consideration is the capacity of the kitchen facilities and the wastewater/sewage infrastructure to host larger numbers of guests during programs of longer duration. While the current wastewater system at the NYSCenter was constructed to handle up to 50 people year-round and occasional conferences of up to 300 people, it will be important to consult with engineers regarding whether expanded on-site wastewater treatment or connection to the municipal system in Davis will be required.

IIE. Distances between the original Master Plan site and the CVI properties. The 2010 Master Plan envisions a campus within a diameter that can be traversed in 10-minutes on foot. Constructing part of the campus on the

NYSF land on the south side of the river while maintaining program areas on the north side in the existing buildings could have a significant impact on timing of the camp day. In addition, the publicly accessible and traversed Camp Road 70 currently bisects the two properties, potentially increasing the difficulty of maintaining a secure campus. The committee discussed a variety of options to address these challenges, including development of the elements of the 2010 Master Plan on the north side of the Blackwater River in closer proximity to the REC. The committee has presented three possible scenarios for the NYSF Board to consider: one which does not require a land-swap and two which do. The first is developing all the remaining elements of the 2010 Master Plan on the NYSF land on the south side of the River as called for in the plan. The second option the committee discussed entails a “land-swap” between the NYSF and the WV DNR wherein the entire site of the NYSCenter would be moved to the north side of the Blackwater River and the elements of the 2010 Master Plan not covered by the former CVI buildings could be built within a larger parcel. The third option foresees construction of the elements not provided by the former CVI buildings in the 39 Acre parcel acquired from CVI with the REC and RSB but with only the acreage between the REC and the Blackwater River included in the land swap with the WV DNR. *[Note: The Long-Range Planning Committee voted to add a fourth option, as described as “location 4” on page 3 of this report.]*

III. Findings

The Ad Hoc Committee reports the following findings:

1. Camp Pocahontas is able at this time to accommodate the NYSCamp except as noted:
 - a. The physical plant continues to deteriorate and will eventually become a health and safety risk to delegates, staff, presenters, and guests. Of particular concern is the reliability of the water system, the absence of an uninterruptable power supply, inadequate on-site surface drainage, uneven walkways (flagstones), and the poor condition of the lower bathhouse.
 - b. Camp Pocahontas is physically removed¹ from the property acquired for development in accordance with the 2010 Master Plan. It is inconvenient for joint programming sited at the adjacent NYSCenter in the REC or RSB facilities acquired separately from CVI/NOAA.
 - c. Summer-only use rather than year-round use precludes establishing and protecting educational tools and equipment consistent with desired programming.
 - d. As a 4-H property, the 4-H annual calendar of programs often does not allow the NYSF flexibility to schedule the NYSCamp optimally.
 - e. Security and noise are potential concerns as the forest road bisects the Camp Pocahontas campus and is regularly used by logging trucks and other private vehicles.

¹ The drive between Camp Pocahontas and the NYSCenter is no less than 90 minutes.

2. The 111 acres acquired for development of the new NYSCamp facility are adjacent to but not contiguous with the 39 acres acquired more recently from CVI.
 - a. Building a campus on the 111 acres in accordance with the 2010 Master Plan will raise transportation issues, require significant utility and road construction, and may create security concerns related to WV DNR property and the Camp 70 Road that lie between the two NYSF parcels.
 - b. Year-round non-camp programming as well as summer season NYSCamp programming suggest that guest/student/chaperone/staph lodging requirements would be best located adjacent to the Research and Education Center (REC).
 - c. Subject to a land search and feasibility study of suitable property north of the Blackwater River adjacent to the NYSCenter buildings, these problems could be alleviated by building necessary additional infrastructure on the 39 acres currently included with the REC and RSB or by completing a land swap in exchange of NYSF's acres south of the river for comparable acreage north of the river and constructing on that acreage.
3. Financial support for the NYSCamp and for NYSCenter programming and facility maintenance in accordance with the terms of the NOAA agreement must now be interconnected, regardless of costs related to implementing the 2010 Master Plan. Such financial support must include construction costs as well as appropriate endowments for facility and program operation. The acquisition of the REC and RSB significantly increases our ability to diversify sources of support for the NYSF, and to increase access to our program model by more students, in particular students in West Virginia and regional states. It is important to capitalize on this opportunity to the greatest extent possible.
4. Overall, the estimated cost of fully completing a modified Master Plan to include the 39-acre property north of the Blackwater River, including use of the REC and RSB facilities, is in the range of \$25M as compared to the \$35.5M estimated by architects for the 2010 Master Plan.² The committee agreed that the same \$15M endowment to operate the NYSCamp annually and the same \$15M to fund ongoing maintenance of the NYSCenter facility should be incorporated into an overall fundraising goal of \$55M

² The committee relied on the estimates for the costs of different facilities and for site development provided by the architects for the 2010 Master Plan. Even those estimates are relatively rough; however, the committee was willing to work with those estimates for general planning purposes. For current facility construction cost estimates, the committee elevated the architect's 2010 estimated construction costs by 10% (i.e., ~1.4% annual growth rate). For current site development and related sustainability estimates, the committee first reduced the architects' 2010 estimate of \$7.4M by 33% to \$5M to account for the existence of utilities services already available on the north side of the Blackwater River; the committee then divided the estimates into the three phases as follows: Phase 1 Site Development - \$1M; Phase 2 Site Development - \$2M; Phase 3 Site Development - \$2M. Details regarding estimates for specific facility construction estimates can be found in *Appendix V - Spreadsheet of Estimated Costs for NYSCenter Facilities in Phases 1, 2, and 3*.

(rather than \$65.5M for the 2010 version of the Master Plan). Thus, a reasonable new estimate is on the order of \$10.5 million less than the \$65.5M originally projected to fund the 2010 Master Plan. Because site development and construction of a fully realized NYSCenter must be phased as described in this report, projected costs for each phase can provide more attainable intermediate funding goals, as described in the recommendations below.

IV. Recommendations

The Ad Hoc Committee makes the following recommendations to the NYSF Board for action:

1. NYSF should proceed with a definitive plan to migrate NYSCamp operations from Camp Pocahontas to the NYSCenter near Davis, Tucker County, WV, as soon as possible.
 - a. Name an action team for planning and execution of the plan
 - b. Set goals and time objectives to prepare facilities at a minimum standard of occupancy and to commence NYSCamp operations
 - c. Engage with the NYSCamp Alumni Association as appropriate
 - d. Develop a suitable announcement to alumni, donors, and other stakeholders
2. NYSF should engage with WV DNR to negotiate [*acquisition of additional acreage or*] an exchange of some or all of the 111 acres south of the Blackwater River for the WV DNR property north of the river adjacent to the NYSCenter 39 acres, with property title running from the REC building to the middle of the Blackwater River to guarantee access for water-related activities.
 - a. Authorize the Executive Director to approach and begin negotiations with the WV DNR
 - b. Engage appropriate land usage experts to advise on adapting the layout of the Master Plan to and on the new site
3. Assuming that construction of adequate facilities on the north side of the river is feasible and appropriate, the NYSF should engage in developing a revised Master Plan for the NYSCenter on the intended properties on the north side of the Blackwater River. Such Master Plan should designate appropriately planned locations for constructed facilities both for buildings and outdoor uses.
 - a. Siting of each major element should be consistent with our long-term plan, even if we use a temporary structure in the short-term
 - b. Architectural elements of permanent structures should be consistent (and match) the existing REC design elements and perhaps exterior materials selection

- c. In keeping with the 2010 Master Plan, the site and its facilities should utilize and model strategies for sustainability and conservation education
 - d. Development of the NYSCenter should occur in the following three phases:
 - i. Pre-transition of the NYSCamp: Construction of an all-season 50-person lodge, to be used to house STEM program participants and their chaperones (along with required site development and other relatively inexpensive improvements). Projected costs for Phase 1 would be in the range of \$5.0M.³
 - ii. Initial transition of the NYSCamp: Construction of an all-season 250-person dining hall and kitchen building and construction of six (6) temporary 30-person bunkhouse-style housing for participants and staff (along with site development and other relatively inexpensive improvements). Projected costs for Phase 2 would be in the range of an additional \$10M.
 - iii. Full transition to the revised Master Plan: Construction of permanent participant housing along with the remainder of the components comparable to the original 2010 Master Plan. Projected costs for Phase 3 would be in the range of \$10M.
4. NYSF should build a multipurpose, multi-use Lodge as soon as possible adjacent to the NYSCenter buildings for guest/student/chaperone/staph utilization. The Lodge will support NYSF STEM program usage throughout the year, and it will subsequently support use during NYSCamp as well, regardless of whether the NYSCamp is offered in a facility north or south of the river.
 5. Continue to develop and conduct STEM related educational programs at NYSCenter, when those programs are suitably financially supported to defray operations costs and overheads.
 6. Continue to develop and sustain the Annual Operations Schedule adopted by the Executive Committee on March 30, 2017.
 - a. Operate the NYSCenter office wing for rentals to STEM-based organizations
 - b. Operate the NYSCenter Maker Spaces for use by NYSF as well as community-based rentals
 - c. Operate the NYSCenter Conference Hall for use by NYSF as well as community-based rentals
 - d. Develop proposals to fund use of some of the NYSCenter office wing as an incubator for STEM-based business startups
 7. Charge the Development Committee with creating donation strategies that support
 - a. Ongoing operations
 - b. Lodging construction (see 3 above)

³ See *Appendix V - Spreadsheet of Estimated Costs for NYSCenter Facilities in Phases 1, 2, and 3* for details regarding all three phases of building construction and site development (including related energy efficiencies).

- c. Transition and temporary costs related to migration of the NYSCamp from Camp Pocahontas on an incremental basis
 - d. Ongoing support for the non-programming uses of the NYSCenter specified in the NYSCenter Annual Operations Schedule (facility rentals, etc.)
 - e. Capital giving to support full and final buildout of the 2010 Master Plan as designed less synergy opportunities from use of the adjacent NYSCenter facilities, including final construction, camp facility expense endowment, and camp annual operations endowment
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V. Conclusion

The members of the Ad Hoc Committee for Master Plan Re-Visioning all volunteered to spend several hours each week in videoconference attendance and off line studying the challenging issues, complicated calculations, and operational implications arising from the unexpected but time critical interaction of two key situations: the need to move NYSCamp operations from Camp Pocahontas before the facility deterioration causes unacceptable risks for the NYSF; and the need for proper and optimal utilization of the NYSCenter not only in support of NYSCamp but of key local STEM educational programs that provide community support and essential incremental revenue. We believe this study will provide a pathway to accomplishing those key goals as well as serving as a road map for growth and for development of grant proposals that can provide support for NYSF programs and can satisfy the philanthropy and community giving goals of alumni, individuals, corporations, and charitable foundations.

Respectfully submitted,

James Shuman, co-chair

Dennis Wootan, co-chair

Jill Cochran

David Hackleman

Beth Kinne

Don Smith

Todd Stolzberg

Andrew Blackwood (ex officio)

John Giroir (ex officio)

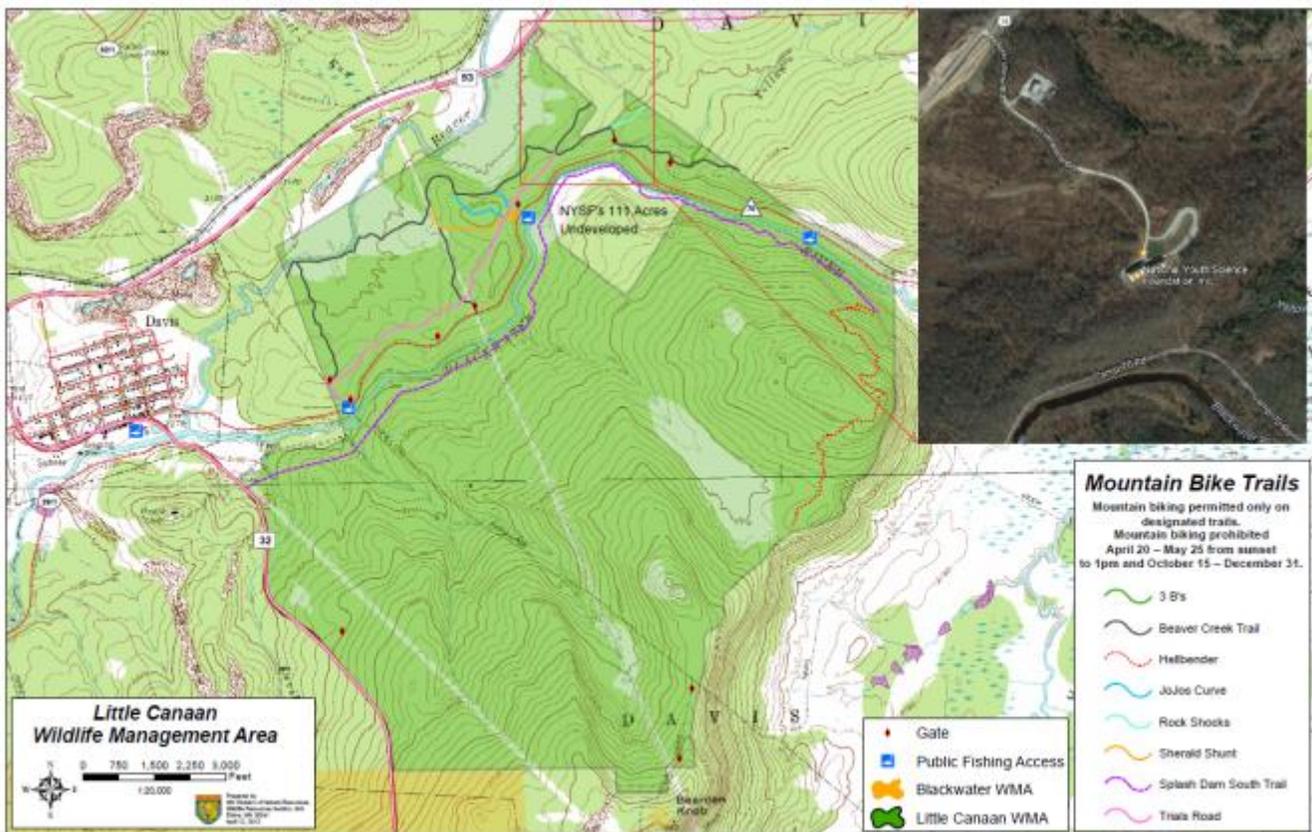
Melanie Kitzan

Appendices

- I. Topo Map of Little Canaan Wildlife Management Area
- II. Aerial of Camp Pocahontas with 10 acres noted
- III. Aerial of current NYSCenter with 13 acres noted for comparison
- IV. Aerial Photo of NYSF properties on both sides of the Blackwater River
- V. Spreadsheet of Estimated Facility Costs for Phases 1, 2, and 3

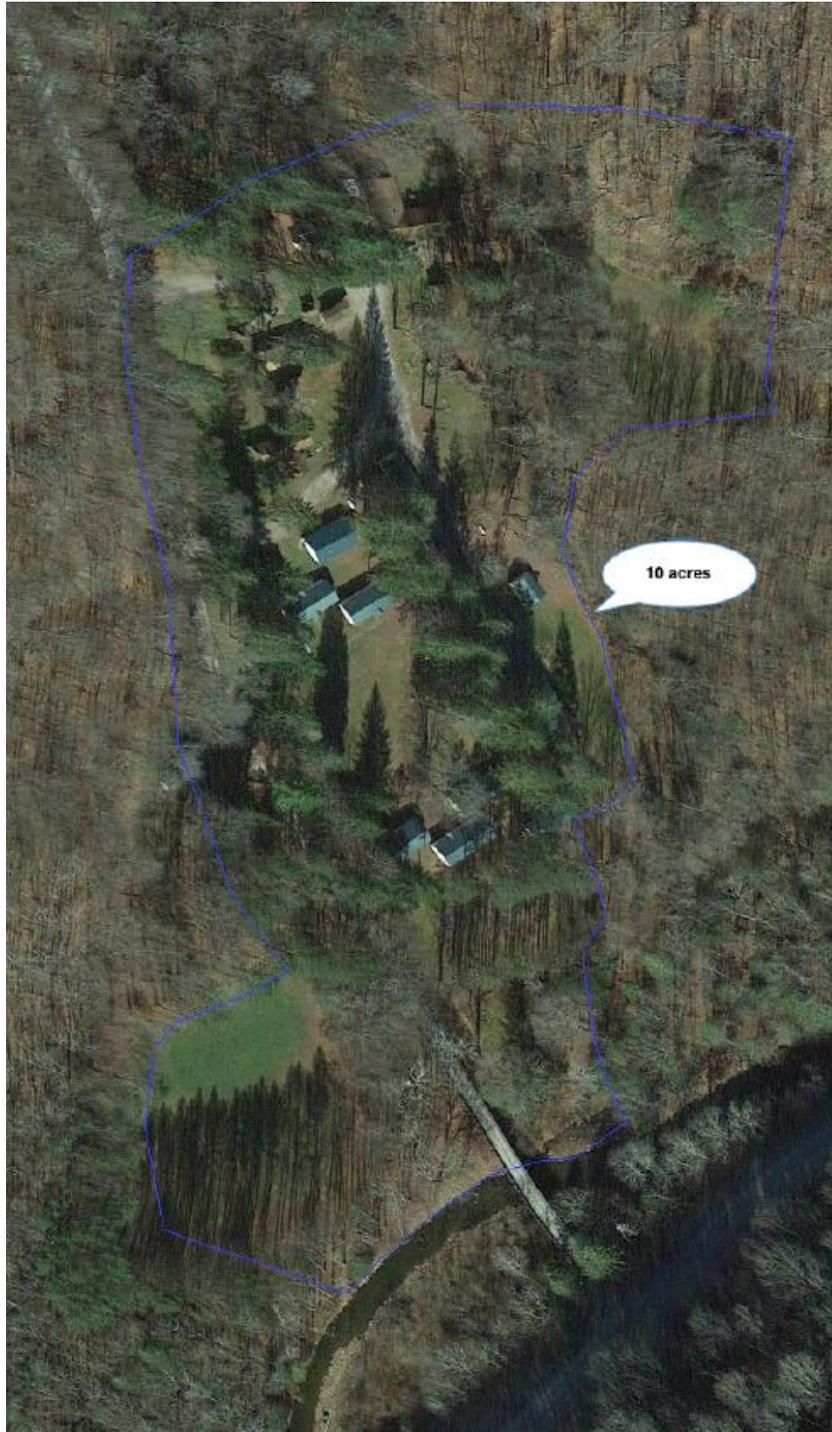
Appendix I – Topo Map of Little Canaan Wildlife Management Area

This topo map shows the NYSF's 111-acre property (lighter green) within the WV DNR's Little Canaan Wildlife Management Area (darker green). A red rectangle near the top of the map denotes the location of the current NYSCenter, the 39-acre "boot-shaped" area (lighter green) cut out of the corner of the WV DNR property. The rectangular Google Earth photo fits into the red rectangle, showing the NYSF's current NYSCenter on the north side of the river. The photo shows the NYSCenter buildings, road, and parking area. The colored lines on the topo map are bike trails throughout the north side of the WV DNR property.



Appendix II – Aerial Photo of Camp Pocahontas with acreage noted

This Google Earth photo shows Camp Pocahontas. The blue line shows the 10-acre area utilized by the NYSCamp including the main buildings and green, the lower field, and archery field, and the campfire circle.



Appendix III – Aerial Photo of current NYSCenter with 13 acres noted for comparison

This Google Earth photo shows the current 39-acre NYSCenter area bounded by a yellow line. A blue line denotes approximately 13 acres for comparison with the Camp Pocahontas 10-acre area. The photo also shows the Research and Support Building (RSB) and the Research and Education Center (REC), and the location of the utility stubs is noted. The gravel road leading downhill from the REC to Camp 70 Road along the Blackwater River traverses property currently held by the WV DNR.



Appendix IV – Aerial Photo of NYSF properties on both sides of the Blackwater River

This Google Earth photo shows the NYSF's holdings on both sides of the Blackwater River. The current NYSCenter is the 39-acre "boot-shaped" property outlined in yellow. The blue lines represent a possible full land-swap with the WV DNR of 111 acres on the north side of the Blackwater River for the NYSF's 111 acres on the south side of the river. A red line between the RSB and the REC denotes a distance of approximately 0.4 miles, and the other red line denotes 190 yards for comparison purposes. The white line represents the 0.8 mile walking distance downhill from the REC through DNR property to Camp 70 Road, across the bridge, and uphill to the center of the NYSF's 111 acre property on the south side of the river.



Appendix V – Spreadsheet of Estimated Costs for NYSCenter Facilities in Phases 1, 2, and 3ⁱ

Camp Pocahontas Component (Red = Inadequate)	Equivalent NYSCenter Component	Current Equipment at NYSCenter	<u>Phase 1: Additional Equipment or Upgrades Needed to make YSDE/STEAM Institute More Effective through 2020</u>	Est. Cost	<u>Phase 2: Minimal Facility for Transition of NYSCamp to NYSCenter in 2021 (Capacity 250; summer only)</u>	Est. Cost	<u>Phase 3: Fully-realized and modified NYSCenter Master Plan (2025 or later?)</u>	Est. Cost
Lecture Hall	REC - Conference Hall	AV equipment; adequate 8' rectangular tables, 6' diameter round tables, and stackable chairs	Current REC Conference Hall replaces the assembly hall cited in the 2010 Master Plan.	\$0	Current REC Conference Hall replaces the assembly hall cited in the 2010 Master Plan.	\$0	Fully-equipped Conference Hall in REC replaces the assembly hall in the modified NYSCenter Master Plan.	\$0
Lecture Hall Restrooms	REC - Restrooms	4 stalls & 3 wash stands in each restroom. Men's room includes 4 urinals.	OK as is.	\$0	OK as is.	\$0	Current bathrooms in REC are OK for modified NYSCenter Master Plan	\$0
Computer Science (Comp Sci)	REC - MakerSpace ^{IT} (Tiered-Information Technology-Equipped Presentation Hall)	19 workstations installed, purchased circa 2009.	Need to bring the total to 30 workstations. Upgrade podium PC. Add TechSoup.	\$30,000	40 - 50 new laptop computers would be ideal.	\$30,000	Fully-equipped MakerSpace ^{IT} in REC	\$30,000
Physical Sciences (Phys Sci)	REC - MakerSpace ^{LAB} (Laboratory)	Color solid ink printer; Stratasys Mojo 3D printer; Arduino microcontrollers and accessories; stream table	None. Only expendable supplies needed	\$5,000	2D cutter. 3d scanner. Glowforge. Visit other makerspaces/fablabs for ideas. Pursue state-of-the-art capabilities. Partner with tech-oriented orgs. (Additional expendable supplies will be needed for ongoing operations.	\$50,000	Fully-equipped MakerSpace ^{LAB} in REC	\$30,000
Natural Science (Nat Sci)	REC - Research Lab (2nd Floor)	Hood, water purification, gas outlets, glassware, benches, ...	None. Ok as is.	\$0	Autoclave. Professional consult needed.	\$50,000	Fully-equipped Research Lab in REC	\$50,000

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Art Shack	RSB - MakerSpace^{SHOP} (located in Garage Bay 1 – drive-thru bay)	Ceramics, basic shop equipment (drill press, overhead lift)	Use RSB Garage Bay 1. Print making materials. Easels. Silk screening. Tables. Shelves. Additional electrical. Kiln installation requirements. Supplies and materials needed each year.	\$5,000	Use RSB Garage Bay 1. Additional shop equipment needed. CNC Machining desired. Professional consult needed. Ventilation. (s. Supplies and materials needed each year.)	\$5,000	New MakerSpace ^{SHOP} Building that includes the functionality of the Applied Arts Center (Exploration Building) in the 2010 Master Plan.	\$996,000
Performing Arts Center (PAC)	Music/Performance Space	Electric piano. Soon to receive H. McCallum's donated Baldwin grand piano (July 10).	None	\$0	Additional risers. Miscellaneous musical instruments	\$5,000	New Performing Arts Center equivalent to an Exploration Space in 2010 Master Plan.	\$660,000
Flagstone Gathering Area	Flagstone Gathering Area	NA - small meeting area outside main entry (concrete pad and picnic table).	New Flagstone Gathering Area near REC (with flagpole)	H	Expand Flagstone Gathering Area to capacity 250	\$3,000	None. Already completed	\$0
Outdoor Meeting Areas	Outdoor Meeting Areas	Small meeting area outside main entry (concrete pad and picnic table).	Further develop small outdoor meeting areas near the REC, RSB, and around the site.	\$5,000	None. Already completed	\$0	Further develop outdoor meeting areas to align with the 2010 Master Plan.	C
Campfire Circle	Campfire Circle	NA	Small campfire area in the woods near the REC	\$5,000	Enlarge campfire area near the REC to capacity 175	\$5,000	Hutchison Amphitheater (in new location if full land-swap)	\$50,000
Circus Tent	Circus Tent	NA	New covered basketball court. Install curbs for winter skating rink.	C	None. Already completed	\$0	None. Already completed	\$0
Office - Front	REC - Private Office Spaces	Desks with IT hookups; chairs; bookcases	None. Use REC Offices	\$0	Use REC Offices as needed	\$0	New Admin Building. See 2010 Master Plan.	\$825,000
Office - Back	REC - Cubicle Office Spaces	Cubicles with IT hookups; chairs	None. Use REC Cubicles as needed	\$0	None. Use REC Cubicles as needed	\$0	Use REC Cubicles for office rental. See Admin Building in 2010 Master Plan.	\$0

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Conference Room	REC - Conference Room	Conference Table and Chairs	None. Use REC Conference Room as needed	\$0	Use New Dining Hall area. See 2010 Master Plan.	\$0	Use New Dining Hall area. See 2010 Master Plan.	\$0
Laura Dill Dining Hall	REC - Dining Accommodations	Tables, chairs, place settings, flatware, glassware, stem ware	None. Use section of REC Conference Hall.	\$0	New 4-season Dining Hall/ Kitchen/ with Great Hall. See 2010 Master Plan.	\$6,287,250	New 4-season Dining Hall/ Kitchen/ with Great Hall. See 2010 Master Plan.	\$0
Kitchen	REC - Kitchen	Dishwasher (1), 3-basin sink, food warmer (1), commercial refrigerator (1), hood, icemaker, microwave, coffee maker	Need range, oven, freezer. Dry storage is available, but will need to relocate other supplies. Capacity could likely be increased to 50 in current footprint. (Will need to meet Health Department requirements)	F	New 4-season Dining Hall/ Kitchen/ with Great Hall. See 2010 Master Plan.	\$0	New 4-season Dining Hall/ Kitchen/ with Great Hall. See 2010 Master Plan.	\$0
Overnight Participant Cabins	Overnight Camper Cabins	Lodging provided off site.	Four-season lodge near REC for up to 50 participants. Could support the YSDE/Youth STEAM Institute in the short-term (and then be a guest lodge after transition of NYSCamp from Pocahontas).	\$3,267,000	Six 1-season suitably-sized bunkhouse-style cabins. See 2010 Master Plan. (Summer-only Design)	\$1,000,000	Tear down 1-season bunkhouses. Construct six winterized 30-person bunkhouse-style cabins in their place. See 2010 Master Plan.	\$3,764,000
Staff Lodging	Staff Lodging	Some at RSB	Rooms in the on-site four-season lodge-style housing.	\$0	Included in bunkhouses	\$0	Two 12-person bunkhouse-style cabins. See Staff Cabin plan in 2010 Master Plan. (Four-season design).	\$0

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Overnight Guest Cabins	Overnight Guest Cabins	Lodging provided off site.	None (Off-site lodging)	\$0	Use the four-season lodge near REC for up to 50 participants. (Housing for guests, with some rooms for nurse, head cook, etc.)	\$0	Use the four-season lodge near REC for up to 50 participants. (Housing for guests, with some rooms for nurse, head cook, etc.)	\$0
Bathhouses	Overnight Bathhouses	Two showers in REC. Two showers in RSB.	Integrate sufficient bathroom space in the four-season lodge near REC. See 18C above.	\$0	Integrated bathroom facilities in cabins and lodge. See 2010 Master Plan for design.	\$0	Integrated bathroom facilities in cabins and lodge. See 2010 Master Plan for design.	\$0
Camp Wastewater System	REC - Wastewater Treatment/Greenhouse use (Living Machine)	Living Machine with septic system overflow	Capacity is uncertain, but original Living Machine plan calls for 50-person capacity year-round. Adding a 50-person lodge will increase the load.	\$0	Wastewater system	?	None. Already completed	\$0
Medical Unit	Medical Unit	First-aid capability.	Adequate. Will use off site professional care facilities as needed.	\$0	Infirmary. 1-2 rooms in the guest lodge	\$0	Infirmary. 1-2 rooms in the guest lodge	\$0
Nurse's Quarters	Nurse's Quarters	None	None	\$0	1 room in the guest lodge	\$0	1 room in the guest lodge	\$0
Outdoor Shack	RSB - Outdoor Outfitters (located in Garage Bay 2 – pull-through bay)	Shelving	None. Ok as is.	\$0	More shelving. Divider to abate sound and activity from Maker Space ^{SHOP} in Garage Bay 1.	\$5,000	New Backcountry Center. (See 2010 Master Plan.)	\$528,000
Camp Store	Camp Store	Entry Way to REC. Adjacent closets to hold some stock.	Display cases needed	G	Entryway to REC. Extra storage needed.	\$1,000	Camp Store in Great Room in Dining Hall. (See 2010 Master Plan.)	\$0

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Library	Library	Shelving.	Distribute library resources to Maker Spaces by subject area.	\$0	Distribute library resources to Maker Spaces by subject area.	\$0	Distributed to program areas and in Great Room in Dining Hall. (See 2010 Master Plan)	\$0
Laundry	Laundry	None (Off-site)	None (Off-site)	\$0	Laundry in new Dining Hall/ Kitchen Building (See 2010 Master Plan.)	\$0	Laundry in Dining Hall/ Kitchen Building (See 2010 Master Plan.)	\$0
Storage	Storage	REC - loading dock, RSB garage bays, closets throughout REC	OK. None	\$0	Over-winter storage in new spaces.	\$0	Over-winter storage in new spaces. (See 2010 Master Plan.)	\$0
Cook's Quarters	Cook's Quarters	None	None	\$0	1 room in the guest lodge	\$0	1 room in guest lodge	\$0
Maintenance Buildings	Maintenance Buildings	Adequate Maintenance equip.	None. Adequate equipment in place.	\$0	None. Adequate equipment in place.	\$0	RSB is returned to provide a full maintenance facility. Remodeled to include 2 small apartments.	\$20,000
Maintenance Mgr. Quarters	Maintenance Mgr. Quarters	None. Off-site	None. Off-site	\$0	None. Off-site	\$0	1 room in remodeled RSB. See G31.	\$6,000
<u>Recreational Facilities</u>	<u>Recreational Facilities</u>							
Green	Green	None	New Green near REC	A	Already completed	\$0	Already completed	\$0
Ping-Pong Table	Ping-Pong Table	None	Ping-Pong Table and other indoor recreation and games	B	None. Already completed	\$0	None. Already completed	\$0
Athletics Field	Athletics Field	None	None	\$0	Athletics field	\$0	None. Already completed	\$0
Archery Field	Green Space/Drone Field	None	Add'l Green Space/Drone Field	A	None. Already completed	\$0	None. Already completed	\$0

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Basketball Court	Basketball Court	None	New covered basketball court. Install curbs for winter skating rink.	C	None. Already completed	\$0	None. Already completed	\$0
Hiking /Biking /Skiing Trails	Hiking / Biking / Skiing Trails	Excellent trails established throughout area and region.	None. Excellent trails established throughout area and region.	\$0	None. Excellent trails established throughout area and region.	\$0	None. Excellent trails established throughout area and region.	\$0
Water Recreation	Blackwater River	None	Water craft; water access point	D	None. Already completed	\$0	Water craft; water access point. See 2010 Master Plan.	\$0
<u>Not Available</u>	<u>To be made Available</u>							
Disc Golf	Disc Golf	None	Portable disc basket	E	Full disc golf course	E	None. Already completed	\$0
Security Quarters	Security Quarters	None	None	\$0	1 room in Lodge	\$0	Security Building & Quarters	\$150,000
			Phase 1 Totals		Phase 2 Totals		Phase 3 Totals	
			Buildings & Equipment listed above	\$3,317,000	Buildings & Equipment listed above	\$7,441,250	Buildings & Equipment listed above	\$7,109,000
			Site Development (grading & roadways, utilities & sustainability, and specific items highlighted above in yellow)	\$1,000,000	Site Development (grading & roadways, utilities & sustainability, and specific items highlighted above in yellow)	\$2,000,000	Site Development (grading & roadways, utilities & sustainability, and specific items highlighted above in yellow)	\$2,000,000
			Subtotal	\$4,317,000		\$9,441,250		\$9,109,000
			Contingency (10%)	\$431,700	Contingency (10%)	\$944,125	Contingency (10%)	\$910,900
			Total for each Phase	\$4,748,700		\$10,385,375		\$10,019,900
			Overall Total					\$25,153,975

Footnotes	A. Site layout review, grading, seeding, maintenance
	B. Ping Pong table set available for \$160 x 2 = \$320; Additoinal indoor rec. games = \$2000
	C. Site layout review, contractor
	D. Research needed. We may be able to use public access point without developing the river edge with a dock or launch ramp
	E. Frisbee golf set including goal \$70-\$100. Max x 2 = \$200. Requires field, see note A
	F. Capacity 50. Minimal enhancements; no remodel needed.
	G. Minimal space necessary for Camp Store. Additional shelving, security, secure storage. Maximum \$1000.
	H. Site layout review, contractor; minimal hardscaping and flagpole: hardscaping/site prep \$3000, Flagpole \$400

ⁱ The committee relied on the estimates for the costs of different facilities and for site development provided by the architects for the 2010 Master Plan. Even those estimates are relatively rough; however, the committee was willing to work with those estimates for general planning purposes. For current facility construction cost estimates, the committee elevated the architect's 2010 estimated construction costs by 10% (i.e., ~1.4% annual growth rate). For current site development and related sustainability estimates, the committee first reduced the architects' 2010 estimate of \$7.4M by 33% to \$5M to account for the existence of utilities services already available on the north side of the Blackwater River; the committee then divided the estimates into the three phases as follows: Phase 1 Site Development - \$1M; Phase 2 Site Development - \$2M; Phase 3 Site Development - \$2M. The site development estimates include those items highlighted in yellow and footnoted throughout the spreadsheet.