

Progress Update and Presentation of the Renovation Plan



11/25/13
DRAFT

Making CCHS a Better Place to Play

December 2, 2013



- **Update you on progress since March**
- Introduce the Renovation Plan
- Address operational and policy issues
- Explain authorization being requested
- Answer questions and capture feedback

Update: Expanded Team



CC at Play

- Jen Callen Beveridge
- John Boynton
- Dan Bowen
- Roberto Braceras
- Amy Carlton
- Russ Dion
- Dave Fisher
- Phil Gibson
- Tina Labadini
- Matthew Magee
- Drew McMorrow
- Ralph Verrilli

Gale Assoc.

- Established 1964
- 100-person firm based in Weymouth, MA
- Engineers, architects, and planners
- Specialize in planning and design of public secondary school and university complexes
- 200+ projects like ours in last 15 years



Make the CCHS campus an even better place to play

- Build new tennis courts
- Renovate playing fields
- Add an amphitheater

Update: Guiding Principles



- Enhance recreational opportunities for our schools, our children, and our community
- Be collaborative and listen carefully to all interested stakeholders
- Be pragmatic in design and cost effective in budgeting
- Understand and comply with the many requirements of a public/private partnership
- Do what we can to help the environment
- Create something of which our community can be proud

Update: Meetings and Communications

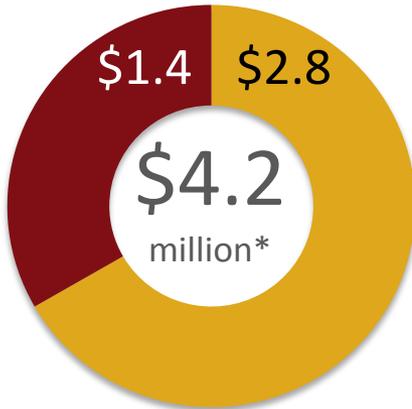


- Meetings with CCHS coaches (Bruno, Dalicandro, Fischelis, Kelly, Lane, McCaffrey, McCabe, McGloin, Morrison, Pavlik, and Robichaud)
- Meetings with school officials (Badalament, Flaherty, Haley, and Rigby)
- Meetings with school committee observer (Gannon)
- Meetings with town officials (Whelan, Destephano, Logalbo, and Reine)
- Presentations to youth sports boards (Baseball, Football, Lacrosse, Soccer, and Softball)
- 2 Regional School Committee presentations (February, March)
- 1 Finance Committee presentation (May)
- 1 Board of Selectmen presentation (June)
- 1 Recreation Commission presentation (June)
- 1 Community Preservation Committee presentation and site visit (October)
- 8,000+ mailers sent to publicize open meetings (April)
- 3 Public Meetings and 2 Public Site Visits (May, October, November)
- 1 *Concord Journal* commentary (April)
- www.CCatPlay.org and Facebook page

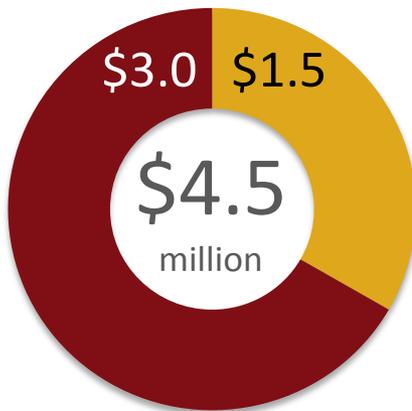
Update: Projected Funding



Concord Carlisle at Play



Friends of CC Playing Fields Ripley, DLW



● Public

● Private

- Fundraising will be targeted and broad-based
- Leaders will be critical for reaching the target
- We have applied for and expect to receive 501(c)3 approval in first half of 2014
- We are seeking leadership pledges to be paid in three installments
- We are off to a fast start

* Excludes non-essential options that may be considered based on the results of fundraising efforts

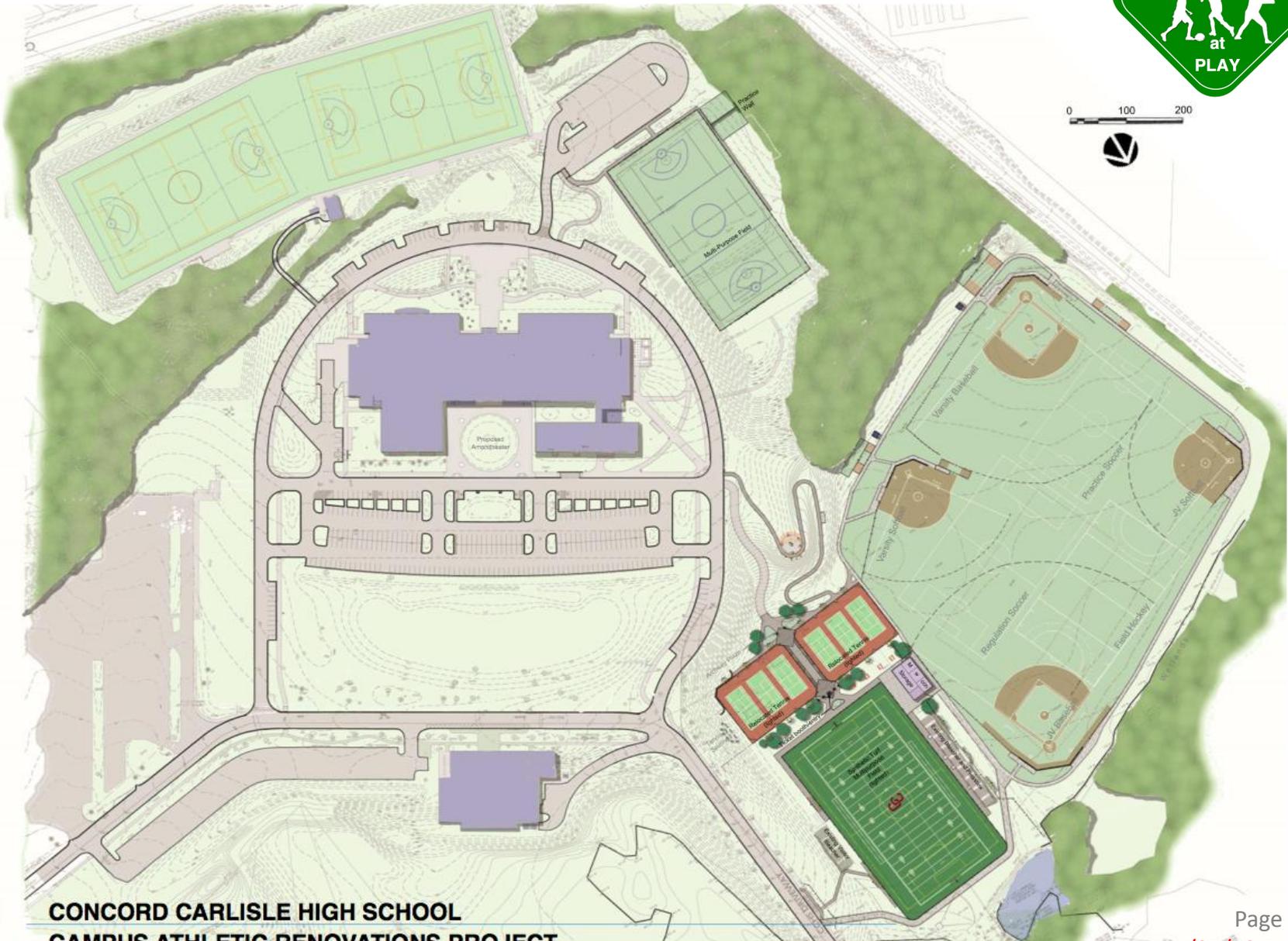


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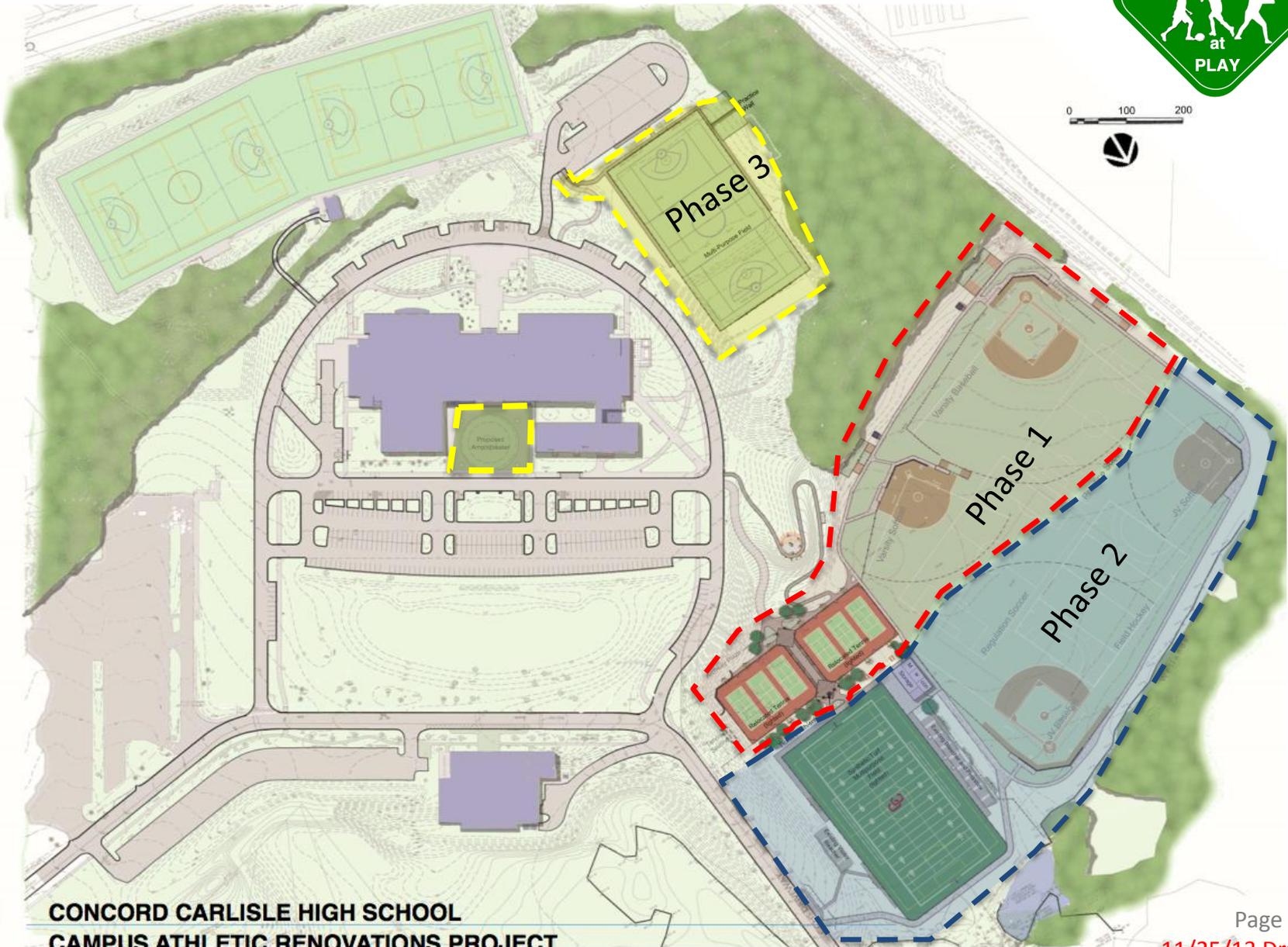


- More tennis courts for teams and public
- Bring CCHS programs back to campus
- Increase field capacity for all programs
- Facilitate new CCHS and community uses
- Introduce long-overdue infrastructure
- Make the entire facility truly accessible

Schematic Design



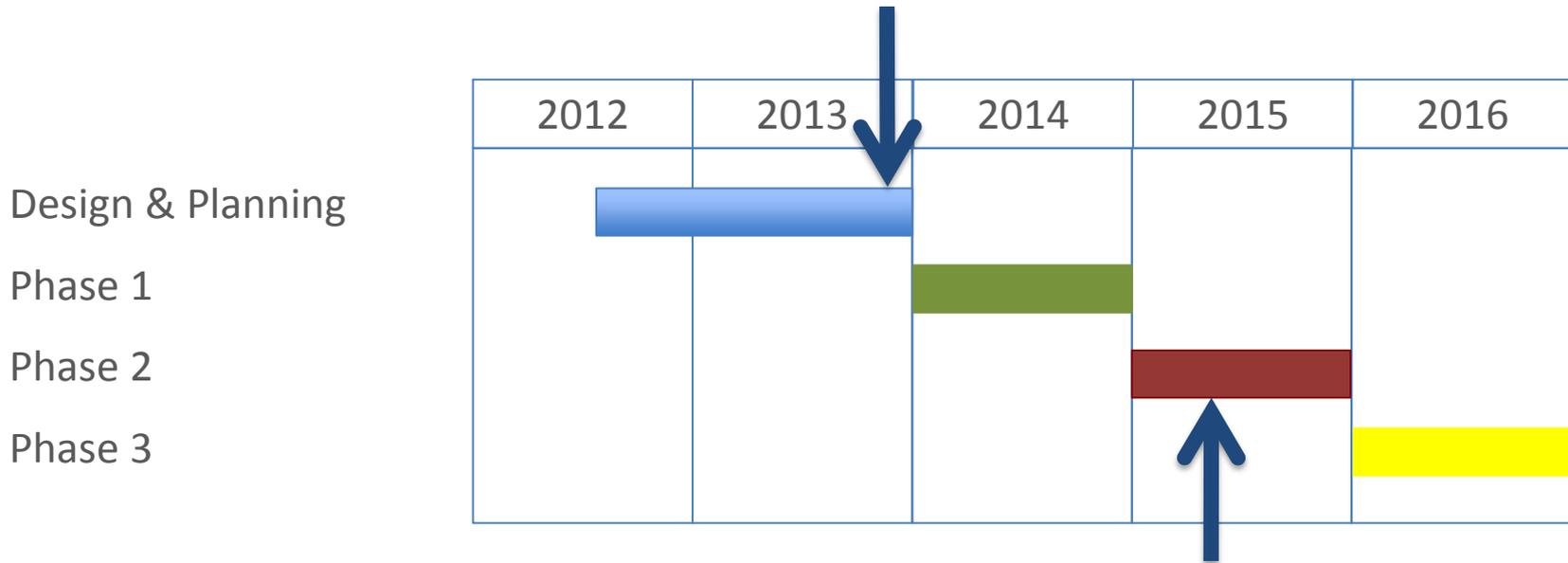
Schematic Design (with Phasing)



Timing – Overall

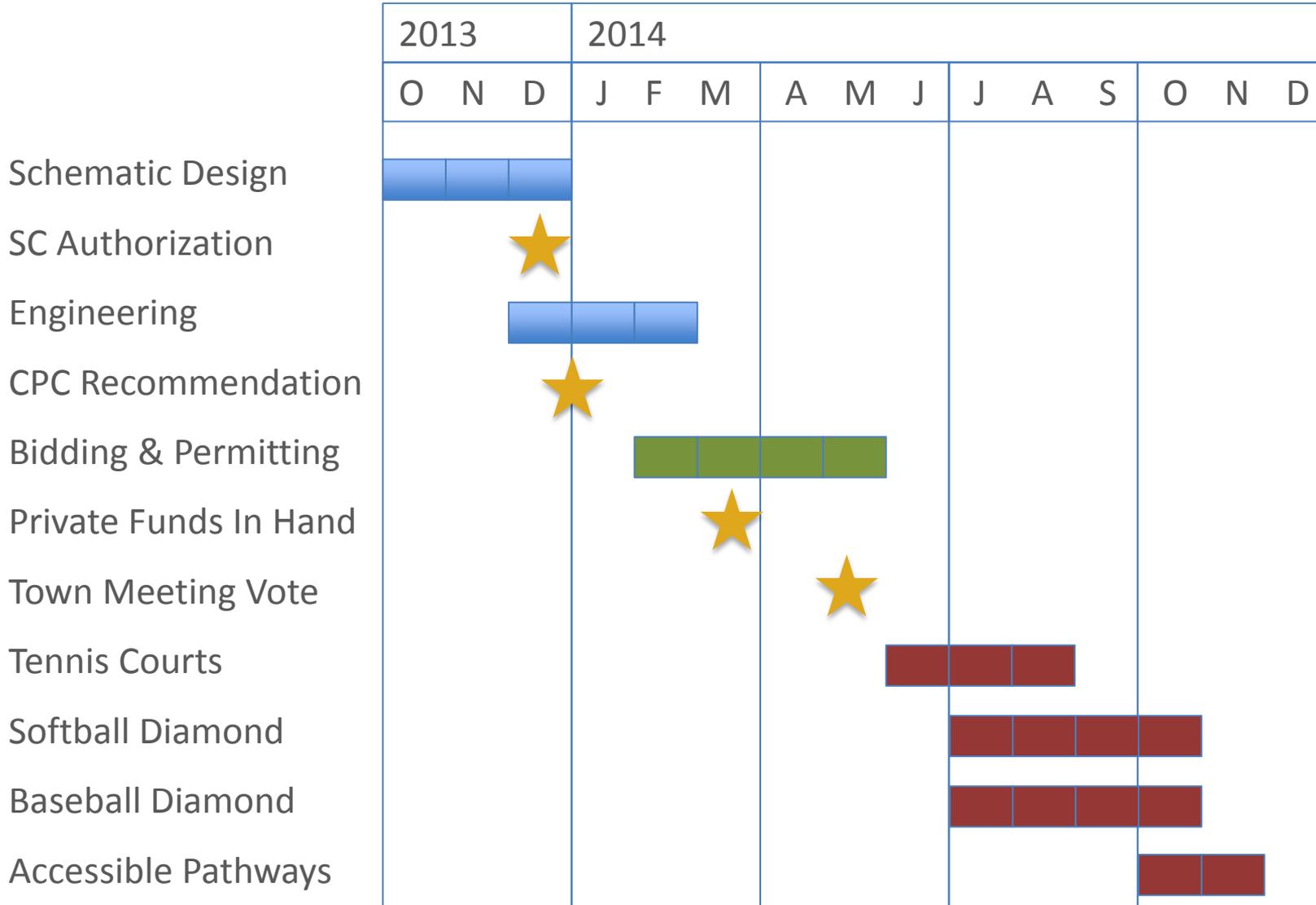


Tonight



New School Complete

Timing – Phase 1



Tonight's Objectives



- Update you on progress since March
- Introduce the Renovation Plan
- **Address operational and policy issues**
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Permitting, Policies, and Bidding



- We plan to permit all project phases together over the next six months
- Work will not commence until we have entered into a lease (or similar agreement) with the school committee that allows CC at Play to make improvements on the District's property and gift those improvements to the District upon completion
- We will abide by all relevant policies, including those in Section K of the school's Policy Manual including:
 - Policy KCD (Public Gifts to the Schools)
 - Policy KF (Community Use of Public School Facilities)
- We will abide by applicable bidding and prevailing wage regulations

Maintenance



- We are committed to providing for proper long-term maintenance of the renovated facility
- We aspire to perform this maintenance on a basis that is cost neutral to the district
- We are currently exploring possible models and cost/quality ramifications
 - District – currently spends \$60-75,000 per year
 - Town – currently maintains the upper turf fields
 - Private Contractor – soliciting bids to understand costs
- Any cost increases would have to be funded from user fees or other sources
- Maintenance will be addressed in appropriate legal documents that will be negotiated with the District

Replacement of Synthetic Turf



- We are committed to funding the long-term replacement of the synthetic turf playing surface in the stadium
- Friends of CC Fields, Inc. (“FCCF”) is contractually responsible for replacement of the synthetic turf on the upper turf fields
- FCCF contributes \$100,000 per year (derived from user fees) to a fund so that 100% of required replacement funds will be available when the synthetic fields are ready for replacement
- FCCF believes that its fund can cover replacement of an additional synthetic playing surface because 1) playing surfaces are lasting longer than forecast and 2) replacement costs are falling
- Replacement funding will be addressed in appropriate legal documents that will be negotiated with the District

Community Use



- We are working to develop a set of community use guidelines similar to those that were developed for the upper turf fields
- We believe the entire campus should be managed in an integrated way to ensure efficiency and avoid conflicts
- We expect to fine tune the community use policies adopted for the upper turf fields
 - CCHS has exclusive rights until 6:00 PM during the week
 - Community use after 6:00 PM and on weekends is managed by the Recreation Commission
- We will return to the school committee with suggested policies
- Community use policies will be addressed in appropriate legal documents that will be negotiated with the District and will be consistent with Policy KF from the policy manual

Donor Recognition



- We expect to raise approximately \$3 million or more to fully implement the Renovation Plan
- We expect the IRS to grant 501(c)3 status to CC at Play so that contributions will be tax deductible
- We believe it is appropriate to recognize leadership donors – those contributing \$25,000 or more – for their generosity
- We expect to place plaques thanking leadership donors at one or more locations upon completion of the project
- We do not intend to offer “naming rights” to any donor
- Donor recognition will be addressed in appropriate legal documents that will be negotiated with the District

Tonight's Objectives



- Update you on progress since March
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Requested Authorization



- Authorization to negotiate agreements between Concord Carlisle at Play, Inc. (“CC at Play”), the District, and other parties allowing CC at Play to implement the Renovation Plan as presented.

These agreement(s) will address maintenance arrangements, synthetic turf replacement, community use policies, and donor recognition among other topics.

- Authorization for CC at Play and its agents to continue engineering, design development, to apply for permits in order to meet a summer 2014 construction schedule for the first phase of the project, and to pursue fundraising to ensure successful implementation of the Renovation Plan.



Questions and Feedback

Thank You!



www.CCatPlay.org



Concord-Carlisle High School

500 Walden Street, Concord, Massachusetts 01742-3699

Phone: (978) 341-2490 x7100

Fax: (978) 318-1435

November 21, 2013

Chris Toomey, Chairman
Community Preservation Committee
100 Keyes Road
Concord, MA 01742

Re: Letter of Support for the CCHS Renovation Plan and CC at Play

Dear Mr. Toomey:

I want to express my support and gratitude for the efforts CC at Play is making to improve the athletic facilities at CCHS.

We have been working with representatives of CC at Play since last year, providing input and helping establish priorities for their project. I know they have had multiple meetings with many of our coaches – individually and in small groups – to ensure that the schematic design meets their needs. We met two weeks ago and I was impressed with the progress on the design. Among the elements that appeal to me:

- The commitment to ADA accessibility. This has been a serious concern for a long time and I am glad that it is being addressed in a comprehensive manner.
- The effort to address competing needs. Our campus is a major center of community activity and there are many “stakeholders” with a vested interest in this project. We talked through some of the tradeoffs that were required and I am pleased that most of our programs will see a significant improvement in playing conditions and field availability.
- The effort to plan for proper maintenance. It is one thing to build a nice facility, and another to maintain it. We are working with CC at Play to develop a maintenance model that will keep the facility in top condition.

The Beede Center and upper turf fields are two instances where public/private partnerships resulted in tremendous benefit to the community. Neither the town nor the schools could have, or would have, undertaken those projects without private initiative. This program is another fine example of the tradition of public/private partnership in our town and I hope your committee can provide the funding so that Phase One of the project can move forward.

Truly yours,

A handwritten signature in black ink that reads "P. Badalament".

Peter Badalament
Principal



Concord-Carlisle High School

500 Walden Street, Concord, Massachusetts 01742-3699

Phone: (978) 341-2490 x7100

Fax: (978) 318-1435

Mr. Chris Toomey, Chair
Community Preservation Committee
100 Keyes Road
Concord, MA 01742

Dear Mr. Toomey:

I am writing to express my strongest support for the project being undertaken by Concord Carlisle at Play, Inc.

I have had several opportunities to provide input and feedback on the evolving design. The plan has been thoughtfully prepared and will enhance our athletic programs in a number of ways. I also believe it will provide new ways for the broader community - including seniors - to take advantage of the CCHS campus and connection between the school district and recreational community at large. Beyond the numerous infrastructure improvements - accessibility, safety, and public bathrooms being the most visible - additions like a walking track, improved viewing for all activities, and an amphitheater will benefit many people.

The committee has done a tremendous job communicating with Superintendent Rigby, Principal Badalament, and our athletic staff and coaches so that the final plan reflects our needs and priorities. I believe the schedule they have laid out for Phase One is reasonable and will not conflict with the ongoing building project or our athletic program needs.

We all consider ourselves lucky to have such a dedicated group of citizens working for the benefit of our students, school and the entire community.

Sincerely,

A handwritten signature in cursive script that reads "Barry Haley".

Barry Haley
Athletic Director

CONCORD-CARLISLE REGIONAL HIGH SCHOOL ATHLETIC COMPLEX RENOVATION PLAN

Section 1.0 - Introduction, Background and Purpose

During the summer of 2013, Gale Associates, Inc. (Gale) was engaged by Concord Carlisle At Play, Inc. (CCAP) to assist with the development of an outdoor athletic facilities needs assessment and Athletic Complex Renovation Plan for Concord-Carlisle Regional High School (CCRHS), which is located in Concord, MA. The CCRHS athletic campus is the cornerstone facility for not only school sports, but also for community youth sports for Concord and Carlisle.



The school athletic parcel is composed of approximately 17 acres, located within the Town of Concord, and is bounded by the Route 2 Concord Turnpike to the south, the Boston and Maine Rail to the west, wetlands and residential development to the north, and the Thoreau Street/Bristers Hill Road residential areas to the east (see Enclosure 1 – Aerial Photo). CCRHS' athletic fields are located on the southern and northwestern portions of the school campus. On-site constraints include a significant Bordering Vegetated Wetland (BVW) area that bounds the northern edge of the athletic campus and steep topography to the south.

The campus property is owned by the Concord Carlisle Regional School district and is cooperatively managed by the Concord Carlisle Regional school

committee. The entire campus is approximately 95 acres and contains the school building, athletic fields, and the town of Concord Beede Swim and Fitness center.

The site is currently undergoing major reconstruction related to the multi-year construction of a new high school building on the site and the abandonment/demolition of the existing school building. Current construction will realign almost all of the on-site parking and driveways, and has displaced the existing tennis courts and practice field. Current construction is due to be completed by the summer of 2015.

The existing athletic field facilities generally consist of two multi-purpose synthetic turf fields, a main natural turf game (stadium) field, two 60-foot softball diamonds (Varsity and J.V.) and two 90-foot baseball diamonds (Varsity and J.V.). The shared outfields of the four ball fields can be configured into 2-3 rectangular fields, depending on the season. The athletic campus currently lacks a track and field facility, as well as a tennis facility (displaced by on-going construction).

Despite the addition of two (2) synthetic turf, multi-purpose, rectangular fields in 2009, the current CCRHS athletic campus, as configured, does not have the capacity to accommodate all of the demands associated with the community, school and recreational sports programs. Additionally, an ongoing project to construct a new high school, slated for completion in 2015 has impacted several key athletic facilities, including the tennis courts. As a result of chronic overuse and, in part, due to the nature of the original construction, a number of the existing field facilities exhibit chronic drainage and turf deficiencies. Several fields lack amenities (storage, fencing, scoring, seating, etc.) and several have poor solar orientation.

The scope of this needs assessment and renovation planning effort is to evaluate the existing lower fields, and upper field for possible expansion and renovation. The general goals of the renovation work being to: bring off campus athletic programs back on campus, renovate the existing baseball /softball diamonds, conversion of the stadium field to synthetic turf, reconstruction and expansion of the tennis courts and the addition of another natural turf rectangular field. By accomplishing these goals the fields committee hopes to renovate outdated fields infrastructure, increase fields capacity for both the school and the community, facilitate the operations of the new school as well as provide truly accessible facilities for the entire community.

The goals of the athletic campus needs assessment and Renovation Plan include:

- Determine the inventory and condition of the existing field/court facilities
- Determine the current and projected uses/demands placed on the fields

- Determine the short-term and capital/long-term improvements required to better meet the community's athletic program needs
- Determine the best phasing strategy for accomplishing the required improvements
- Determine the costs associated with each implementation phase
- Determine the permitting requirements
- Determine the maintenance requirements associated with an enhanced athletic campus

Section 2.0 Field Assessments – Methodology

A total of five (5) individual athletic fields (baseball, softball and multi-purpose rectangular fields) at the CCRHS were evaluated and a map depicting the location of each of the fields can be found in Enclosure 4. All five fields were visited by Gale staff and a standard field evaluation form was completed for each (Enclosure 2). Gale evaluations included photo documentation and measurements, as well as assessments of the facilities for compliance with applicable standards of geometry, accessibility and safety.

The assessments were performed using accepted industry standards and guidelines. The National Federation of State High School Associations (NFHS) and Massachusetts Interscholastic Athletic Association (MIAA) guidelines were followed in the evaluation of the high school field layouts and equipment. Similarly, Architectural Access Board Guidelines were used to determine Americans with Disabilities Act (ADA) compliance, along with the American Sports Builders Association (ASBA) guidelines for the general assessment of athletic facility standards.

The individual fields were evaluated for general condition, serviceability (are systems and equipment in good repair and meeting the intended purposes), geometry, safety and accessibility. The findings within each functional area are documented as they relate to the safety, serviceability and accessibility of the components.

Field geometry was checked against the MIAA and NFHS field dimensional standards listed below:

<u>Field</u>	<u>Width (min-max.)</u>	<u>Length (min.-max.)</u>
High School Soccer	165'-240'	300'-360' *
High School Men's Lacrosse	180'-216'	330'-360'
High School Women's Lacrosse	180'-210'	330'-420'
Football	170'	360'
Field Hockey	180'	300'

* (Recommended 330'x 195')

<u>Field</u>	<u>First Base</u>	<u>Backstop (Recommended)</u>	<u>Outfield</u>
High School Softball	60'	25'	185'-235'
High School Baseball	90'	60'	300'-380'

Gale prepared a list of our findings and conclusions for each facility. As part of these efforts, Gale identified conditions and/or deficiencies that were most notable and should be considered priorities for short-term maintenance, repair or renovation. The deficiencies identified and the recommended actions to be taken form the basis for the next step in the process, the development of recommendations for both short-term projects and capital improvements as part of the CCRHS Athletic Complex Renovation Plan. The full evaluation for each field can be found within Enclosure 2, while short term recommendations are provided within Section 3.0 of this report.

Section 3.0 – Field Assessments – General Conditions

One of the stated goals of this report is to identify existing facility deficiencies in so that those deficiencies can be addressed in the proposed renovation. Deficiencies include those items that affect the playability of the field and field amenities, as well as items relating to safety of players and spectators, handicap access, ease of maintenance and title IX gender equity issues.

Overall, the lower fields are in good to poor condition. The multipurpose fields are well used and the topsoil shows signs of over-compaction and poor grass cover. Northern areas of the turf show signs, and have a history of poor drainage. All the baseball/softball infields show signs of a 'lip' at the outer perimeter of the infields, and the JV infields and backstops are in poor condition. The lower fields do not have any form of paved path for handicap access for spectators or players. A path from the elevation of the school to the elevation of the fields is proposed under the building construction project. Currently the only handicap access is over lawn areas (not to code) and is located near the north east corner of the stadium. The stadium field is in good condition but is worn and shows typical heavy wear and poor grass cover at the centerline for this time in the season. The stadium field the current bleachers appear

to be to current building code, however the visitor bleachers do not have any handicap access.

The Varsity softball field does not have any amenities (e.g. bullpen, batters cage) where the Varsity baseball does. The stadium field, as natural turf, is limited in use by its effective width, as well as scheduling. Both these items present potential title IX, gender equity issues with sports programming at the school.



Accessible walkway at stadium

The upper field area of the former tennis courts/practice field is currently being utilized as a stockpile area for ongoing construction at the school. The tennis courts were removed prior to this area being used for staging. This area is to remain as a stockpile/staging area until 2015. No improvements to the upper field area are proposed under the current building construction project.

Irrigation: Currently the lower fields are irrigated in various ways. The stadium field has a fully automatic irrigation system which is supplied from the pond to the south of the field. This system is older and is frequently undersupplied due to the pond source. The other lower fields are partially irrigated. This irrigation is supplied by an existing well. The irrigation is operated manually from a number of valve boxes located around the perimeter of the fields.

While some fields are in generally good condition (e.g., Stadium Football Field), others are in failing condition (e.g., Junior Varsity Baseball Field). The synthetic turf fields currently existing at CCRHS are relatively new and were considered to be in excellent condition and not in need of any short or long term improvements.

Section 4.0 - Base Plan Development

An essential task of the planning effort is the creation of a suitable base plan for each facility, using AutoCAD, to serve as the basis for the schematic planning effort to follow. Gale contacted CCRHS and Town officials to obtain record information and GIS data (assessor's maps, construction drawings, utility maps, topographic maps and wetland maps), as available. Additionally, we consulted FEMA maps, USDA soil maps and aerial mapping available on the MassGIS web site. From this information, Gale compiled a base plan for the project site for

planning purposes. This base plan reflects the property line, topographic data, wetland data and floodplain data, as available, and is more than sufficient for the renovation planning effort.

This base plan utilizes survey data performed by Nitsch Engineering for use on the school building project. This existing survey (circa 2011) is of sufficient scope and quality to be utilized for any construction of proposed fields on the property. Topography, utilities and location data are all available from these plans in sufficient detail and scope. However, regulatory boards may require these surveys (especially wetland flagging data) to be updated if over three years old. In addition, for construction purposes, areas effected by recent construction may need some minor confirming topographic survey to confirm elevations and locations on what was constructed vs. what was designed for the school construction project.

Section 5.0 – Environmental Constraints & Permitting Considerations:

Massachusetts Global Information System (MassGIS) and a recent wetland report by Mason & Associates, dated December 19, 2011, were utilized to obtain environmental constraints information for the parcel. The wetland report is current and it is unlikely that it would need to be updated for the athletic improvements projects.

A bordering vegetated wetland (BVW) was located on the CCRHS parcel and is in close proximity to the athletic fields. The wetland area of concern is located at the western side of the site, beyond the current athletic fields, in the wooded area between the fields and the abutting residential properties. While the fields are not located within the wetland delineation, three (3) of the five (5) fields are within the 100' buffer zone. It is Gale's understanding that CCRHS has already discussed this with the Natural Resource Commission (NRC) and was advised to proceed directly to filing a Notice of Intent. An Abbreviated Notice of Resource Area Delineation (ANRAD) or a Request for Determination of Applicability (RDA) was not deemed necessary.



POND AND IRRIGATION INTAKE
NORTH OF STADIUM

According to MassGIS, the CCRHS site is completely located within a Zone II well head protection area. Development within an aquifer protection area typically regulates the amount of impervious area proposed, mandates recharge to groundwater and superior water quality treatment, and may limit certain activities (e.g., fertilizing natural grass). The aquifer protection area also represents a zoning overlay for the Groundwater

Conservancy District (GCD).

The Town of Concord's Zoning By-Laws govern the permitted uses within a GCD. These rules state that a special permit is required if the sum of all paved areas on the lot are greater than 15% of the total lot area. The impervious area calculations done for the recent school project applications indicate that on-site impervious coverage is an existing non-conforming condition. As such any application for site plan review will require a special permit application because coverage will still exceed the maximum 15% limit. It is a standard recommendation that CCRHS schedule a meeting with the Town Planner early in the design process to ensure the correct steps are taken regarding the permitting process.

According to MassGIS, there are no Natural Heritage Endangered Species Program (NHESP) Priority Habitats or Estimated Habitats at the CCRHS site. Refer to additional permitting considerations in section 16 of this report.

Section 6.0 - Geotechnical Conditions

According to the United States Department of Agriculture (USDA) Web Soil Survey, the CCRHS site consists mainly of Loamy Udorthents. Udorthents soil is considered to be a [man-made] fill material which has not been deposited glacially. This soil is listed as a moderate to slow draining, which is due to the fine particle characteristics of a loamy soil. Please note that this does not agree with what was found in the field during soils testing.

The existing site has been extensively re-worked topographically as well as extensively tested since a school was first opened on the site in 1960. Original earthwork on site included cuts as deep as 35 feet to enable terracing the site for buildings, parking and fields. Recent Geotechnical reports for the school construction (Nobis Engineering, Inc. Geotechnical report, dated Feb, 21, 2012) included 25 test borings (up to 75' in depth), testpits and an analysis of historical construction borings. This report generally documents that the site is generally underlain with a layer of fine to medium sand between 45 and 65 deep, (from the floor of the building) and ground water between 30 and 47 feet below the floor elevation of the new school building. It should be noted however the few borings done in the area of the lower fields showed a depth of fine to medium sand between 15 and 25 feet with groundwater at approximately 36" depth. The Nobis Geotechnical report also identifies a regulated landfill area on the east side of the site, well away from any proposed athletic field work.

Gale Associates performed confirming testpits in the area of the fields on November 2013 and found that the area of the fields is consistent with previous soil borings and other heavily re-worked areas of the site. The area of the lower fields generally consists of sandy fill with buried layers of topsoil. The logs and evaluation of these testpits are pending and will be included as an addenda to

this report. Formal Geotechnical testing and evaluation is recommended in the area to determine the suitability for synthetic turf. Based on the apparent stability of the existing bleachers and field in this area, issues with differential settling that would limit field development are not anticipated.

Section 7.0 - Scheduled Field Demand – Team Uses

An essential task in the fields study was to determine the extent to which the fields are used. During the assessment phase, Gale spoke with various constituents within the town and asked the representatives of each group to complete a study related questionnaire. This included all CCHS athletic programs as well as all youth and community athletic programs that use the school campus. The results helped in identifying the amount of usage that the existing fields, and any off-site facilities are currently receiving. Establishing current usage is necessary in order to document over-used fields (that are difficult to maintain in playable condition) as well as establish any deficits in field type that may affect athletics programming. This usage data is used in order to identify any needs for additional fields as well as determine the level of use renovated fields will be designed for.

Based on the results received from the questionnaire, Gale determined the total number of team uses (a team use being 10-20 persons using a field for a 2 hour event) for each playing field. Practices were also taken into account as team uses, as their repetitive nature over the same area can result in considerable damage to the turf. Gale has provided the resultant field use matrix for the sport programs (Enclosure 6, Table 1). The totals from this matrix provide an inventory of all of the scheduled field uses for each field within in a given year. It should be noted that this matrix does not capture potential uses by teams/organizations that would like to practice more, but are unable to do so due to a lack of available field space/time.

CCRHS currently supports approximately 2,609 scheduled team events per year, with a population of seven (7) fields. Two (2) of the seven (7) fields that currently exist on the athletic campus are synthetic turf and can carry more of the uses than the natural turf fields. On average, the two (2) synthetic turf fields each experience about 770 uses per year. The five remaining natural turf fields, (the stadium field, and varsity softball, varsity baseball, JV softball and JV baseball) on average, each experience about 214 uses per year (this includes the multipurpose fields in the baseball outfields).

Due to scheduling issues, the poor condition of some of the fields and the closing of the J.V. Baseball Diamond, some of the CCRHS athletics have been outsourced to other community fields. The main off site location being used by CCRHS athletic programs is the Emerson Playground/Park Facility. It is currently estimated that CCRHS is outsourcing nearly 230 uses per year to the Emerson Facility. Tennis, boys & girls JV & Freshmen Soccer, JV & Freshman

Baseball, Track and Field and Cross Country programs all currently use the Emerson Facility for both practice and games. That equates to 230 athletic field uses that CCRHS would like to bring back to the High School property. Track and field also uses the Emerson facility. Continued use of the Emerson track facility was seen as a preferable alternative to constructing a track at the high school (see schematic alternatives section). At CCRHS, coaches would be able to work with more of the athletes, a trainer would always be available and the process of transporting athletes to and from other locations would not be an issue. These 230 uses have been added to the existing demand on the fields and this can be seen in Enclosure 6, Table 2.

The next step in quantifying the amount of use on the fields is to apply a use multiplier to each individual sport at CCRHS. While the number of scheduled team uses is important to gain an understanding of field space, adequacy and turf quality, it can be misleading, as scheduled uses do not always correlate to damage to the turf condition. Obviously, high school football play is more deleterious to turf condition than youth baseball, as more aggressive sports inflict higher stress loads on the playing surface. Also, different sports cause damage to turf in different areas. For example, football causes turf to wear between the hash marks, while soccer and lacrosse cause wear at the goals, center field and along the sidelines. As a result, we must account not only for the number of uses, but for the type of use and age of the participants. We do this by applying a use factor to the raw scheduled use data, based on the type of sport.

We have assigned a multiplier of 1.0 to women's soccer, as the average activity in terms of field impact and deterioration. Similarly, softball will have less impact on turf condition and is assigned a use multiplier of 0.75. We estimate that adult men's soccer is more damaging to the turf and assign it a 1.75 use multiplier, while football is assigned the highest use multiplier of 2.0. Other multipliers for various sports were assigned accordingly and multiplied by the number of scheduled uses for each type of activity to yield the equivalent team uses in terms of turf damage and impact. This information is provided in Enclosure 6, Table 3.

The application of multipliers to distinguish between the effects of various sports on field conditions is a definite improvement over the consideration of raw scheduled use data alone, as it does account for differences in the impact on turf condition by the various sports on CCRHS' fields. Accordingly, the equivalent scheduled team use data for fields that routinely sustain use for adult sports, such as football, tend to be higher than actual scheduled uses, while those for fields routinely used for youth sports tend to be less.

After applying the multiplier factors to each sport, the total annual uses increased from 2,835 to 3,078. The use factor was applied to the Table 2 demands statistics, which assumed that almost all CCRHS athletics would be

playing back at the CCRHS. This result is indicative of the large amount of uses throughout the CCRHS campus coming from adult sports. **As a result, we can predict the proposed redevelopment plan needs to accommodate between 2,835 and 3,078 annual uses.** A related summary of the progression of demand is provided in **Enclosure 6, Table 4.**

Section 8.0 – Field Use Practices (Rest and Inclement Use)

How a field is scheduled is an important consideration in its ability to sustain heavy use with an acceptable decrement in turf condition. Obviously, a field with 200 scheduled uses, stretched out over the year (May through October), behaves differently than if this use was broken up with rest period(s) provided. The heavier the use on a field, the greater the maintenance required, and the less opportunity for rest (for turf re-establishment) is available in order to maintain a safe and playable natural turf surface. Heavily used fields usually exhibit un-even surfaces, poor grass cover and over compaction of the soil, all of which contribute to inconsistent ball play and increased player injuries. Over use can also lead to pressures on field managers to schedule games in less than ideal conditions. A single soccer game on a wet field can cause extensive damage to and require costly repair to field.



As a rule of thumb, an aggressively maintained and irrigated field that is rested for up to one-third of the spring or fall growing season can, theoretically, sustain up to 250 team uses per year and maintain high quality and safe athletic turf. Gale's preliminary findings are that, given optimal maintenance efforts and growing conditions, the demands on the playing fields currently in use exceed the level at which it is possible to sustain safe, high quality athletic facilities.

Typical blue grass blends of turf used for athletic fields propagate by means of rhizome action or root extensions to create more plantlets. In this way, the turf gets denser and knits itself into more durable turf mat. Rhizome action also facilitates filling in divots and other damage resulting from athletic use. As a result, a rest period is crucial for such fields, to allow turf to re-establish.

Ideally, a natural turf field should have a 30-45 day rest period during the active growing season (spring or fall), during which it can repair the root zone damage it has sustained, while propagating new crown growth. Alternatively, this rest period can be in the summertime. However, this is much less effective as the turf grass is somewhat dormant.

It should be noted, however, that it only takes playing once on a very wet field with a saturated root zone to destroy the turf root zone for that season. An effort must be made not to play games or even practice on fields that are wet. The articulation and enforcement of a restrictive inclement weather policy by field managers is the singular best management practice available.

The current CCRHS Renovation Plan proposes a new rectangular upper field and a new lighted synthetic turf game field. The goal of these two inventory additions is to take scheduling pressure off of the renovated fields and allow CCRHS to periodically take a field offline and rest it, allowing the field to restore and re-establish.

With intensive in-place renovation of the outfield areas the baseball and softball fields will become more free draining and more durable. They will also enable play earlier in the spring. While not nearly as “all-weather” as the proposed infilled turf field in the stadium, they will not pond water or remain saturated for more than a day after the cessation of rain. In wet weather, the proposed infilled synthetic turf field will facilitate the implementation of this inclement weather policy, as events can be moved to the field, as available resulting in far fewer cancellations.

Section 9.0 – Resulting Field Demand Requirements

The outdoor sports program within CCRHS, in addition to community users, is surprisingly robust and consists of approximately 7,000 team athletes, arrayed in 300 competitive teams, participating in nearly 2,835 scheduled team events. This results in three (3) of the six (6) natural turf playing fields seeing over 300 uses per year, while the football stadium field, at 70 uses, is artificially constrained to protect it. This level of use will eventually become unsustainable, regardless of the maintenance effort expended.

Gale’s preliminary findings are that, given optimal maintenance efforts and growing conditions, the demands on the natural turf playing fields currently in use exceed the level at which it is possible to sustain safe, high quality athletic facilities. It is apparent, in review of the usage data (**Enclosure 6**), that a few of the school’s fields are overused and in declining condition. On average, with a use demand factor applied to each group, the natural grass fields are seeing approximately 308 uses per field annually. In particular, the natural turf fields are seeing roughly 1,100 multi-purpose rectangular uses throughout the year, which is driving the decline in the overall condition of the fields. Because of the scheduling pressure on these fields, additional damage results from the pressure to use of the fields in less than ideal conditions.

If CCRHS implements a plan of field improvements, field inventory expansions, an effective inclement weather policy, provides field rest periods and sustains good integrated turf management practices, it is reasonable to assume that a

typical natural turf field can sustain approximately 250 scheduled uses per year. Additionally, a lighted synthetic turf field is capable of withstanding as many uses as can be scheduled. This is typically around 750 uses per year.

The current demand within the town is 2,835 to 3,078 scheduled uses across the inventory of seven (7) fields. However, due to synthetic turf's ability to sustain a higher load, Gale considers the two (2) synthetic turf fields to be equivalent to four (4) natural turf fields (conservatively), which brings the total existing inventory to nine (9). To support the current demand of approximately 2,835 to 3,078 scheduled uses and provide a safe sustainable stand of natural turf, CCRHS requires eleven to twelve (11-12) fields. This will result in an increase of two (2) fields and, more specifically, two multi-purpose rectangular fields, as rectangular sports are driving the user demand at CCRHS.

Gale analyzed the use data and met with recreation officials. Based on our analysis of field deficits by type of field, and considering existing facilities, we have come to the conclusion that the mix of facilities that best meets CCRHS' current and projected needs would include:

- 2 Baseball Fields (90 ft. diamond)
- 2 Softball Fields (60 ft. diamond)
- The *Equivalent of Seven (7) Multi-Purpose Rectangular Fields* (3 Synthetic, 1 Natural Turf)

Based on this inventory of fields, it represents an increase of two (2) multi-purpose rectangular fields.

These Six (6) rectangular field venues would enable CCRHS to meet its current needs for field space in a sustainable manner.

Field Usage:

<u>Field</u>	<u>Existing Uses Per Year</u>	<u>Proposed Uses Per Year</u>
Existing Synthetic Field	750	750
Existing Synthetic Field	750	750
Synthetic Field Conversion	200	750
New Natural Field	0	200
Renovated Lower Field #1	200	200
Renovated Lower Field #2	200	200
Total Uses	2100	2850

In summation, the current CCHS facilities have insufficient capacity to accommodate several of the sports programs and to host tournament events for football, soccer and

lacrosse. The school would like to bring more of the CCHS sports activities back to its campus and qualify to host more post-season tournaments. The school would also like to set the condition to not only host additional youth sports now, but create a facility which lends itself to expansion of the various programs utilizing the fields today. The results of the field demand study show that, to support the current demand and provide a facility that allows the community athletic programs to grow, CCRHS will require the inventory of fields listed above. Gale has provided a redevelopment strategy, which sets the conditions for CCRHS to reach this inventory, in Section 10.0.

Section 10.0 – Redevelopment Potential and Preliminary Strategy

The disturbance to the fields on the school campus due to on-going building construction, along with the usage data defined above, have identified the need for field renovations at CCRHS. Gale has evaluated the campus for its potential for renovation, reorganization or expansion of the existing athletic facilities. Gale looked at the entire CCRHS property for locations that could offer potential areas for development to meet the school’s athletic program.

Development may consist of the construction of new fields, re-orientation of existing fields, complete field renovation of existing fields, strategic placement of synthetic turf at the fields with the heaviest use, new athletic lighting, as well as new walkways and site improvements. The goal is to address current athletic facility needs, as identified within the earlier sections of this report, while phasing the renovations to avoid taking all of the athletic facilities off-line at one time.

Section 11.0 - Renovation Plan Layout Alternatives

Based on the defined planning program of needs and our assessment of the development potential of each existing and proposed recreation venue on campus, Gale prepared several schematic level layout alternatives for the athletic campus facilities. The of these alternatives the committee has chosen Alternative #2 but considered all alternatives as detailed below. The following is a brief discussion of the primary alternative athletic facility layouts, their advantages and their constraints. In general all the layout alternatives include the demolition of the existing maintenance building at the south end of the stadium field. This building is outdated and occupies a key piece of land that is required for field programming in every one of the following alternate layouts.

Alternative Cost Estimates. Within this section, which describes various strategies to renovate and or expand the athletic facilities, we have provided a rough estimate of the constructed costs (see Enclosure 10). These costs are based on the cost to construct comparable public facilities, with typical site conditions, and at prevailing wage rates. They are intended to illustrate the order-of-

magnitude cost differences between the various options. They are not, however, based on detailed design documents and, as such, are not suitable for establishing actual project budgets. For the selected Renovation Plan option, Gale has provided a detailed schematic level construction cost estimate intended to be used for establishment of the project budget and advocacy of the project going forward.

In the determination of what project budget amounts should be sought for funding or reimbursement, certain multipliers are typically carried on top of the estimated construction costs to account for indirect or typically unforeseen costs. Two typical multipliers are 'soft costs' and 'construction contingency'. Soft costs include costs to the Owner for engineering, survey, geotechnical investigations, permitting, materials testing and construction administration. These soft costs are typically shown as 7% of the total estimated construction cost. Soft costs are usually carried in the estimates as a multiplier until funding has been secured and consultants hired.

The construction contingency multiplier is used to account for unforeseen site conditions that may present themselves during construction and future phases of design. As such, they should be included in construction estimate costs and budgets, when they are established, up to the pre-bidding portion of the project. Project contingencies for this type of project are typically taken as 10-15% of the estimated cost of construction, depending on the project size and complexity.

CCRHS – Layout Options (Enclosure 7)

Overall Planning Strategy. There are a number of items that all the renovation planning options are intended to address. These items are detailed below.

First to be addressed are the 'Upper Fields', which are located adjacent to the driveway on the southwest portion of the site. These fields are terraced into grade and the area was most recently used as tennis courts and a small practice field. Building construction contractors have been using these fields as a construction staging area for the new high school project and they will have to be reconstructed. The existing tennis courts in this location are remote from parking and a more central location is desired.

Second to be addressed is the Game 'Stadium' Field. As a game field venue, with lighting and bleachers, there is a demand from all sports programs to be able to use this field for night games, enabling working parents and families to attend. This demand could be better accommodated if the field were converted to synthetic turf and if the field width were widened to provide true multi-purpose use. The increased width will allow additional sports to be played at the field, such as soccer and girls' lacrosse. This will provide more gender equality in the

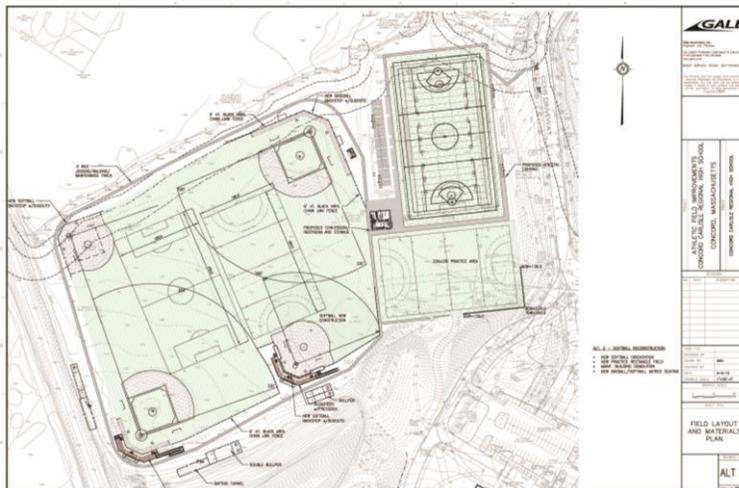
field's use and scheduling, as well as allow all sports programs to take advantage of the existing stadium infrastructure (lights, seating, concessions, etc.).

There is also a desire to improve the image of CCRHS and to provide truly accessible pedestrian circulation. These desired improvements will include improved pedestrian access, spectator access, concessions and code updates required by law, such as handicap accessibility and adjacent sanitary facilities.

Third to be addressed is the layout of the Varsity Girls' Softball Field at the Lower Fields. The existing Varsity Softball Field is in the least preferable field orientation, with the batter facing the setting sun. There is a desire to rotate the field, as well as provide updated field amenities (dugouts, bullpens, spectator seating areas) to help provide gender equality between men's and women's sports on campus.

Plan Option 1

Plan Option 1. Option 1 proposes to construct hard courts (6 tennis courts and 2 basketball courts) in the area of the Upper Fields. At the Lower Fields, the stadium field improvements are proposed, along with a regulation field hockey field to the south of the stadium field. The lower ball fields are proposed to be reconstructed to improve drainage and playability, in roughly the same layout they are in today, with the exception of the Varsity Softball Field, which is rotated to provide the most desired field orientation.



Discussion: Plan Option 1 was not selected. The multipurpose field south of the stadium field cannot be constructed in this location without significant excavation into the existing slope, as well as the addition of large and costly retaining walls. This option also affects the constructability of

paths down the slope from the school that comply with handicap accessibility requirements. It was also noted that the proposed tennis court location at the Upper Fields was remote and difficult to police, and there was a desire to have the tennis facility more 'central' to the campus enable more community access and visibility. The lower ball field layout in this option was generally acceptable,

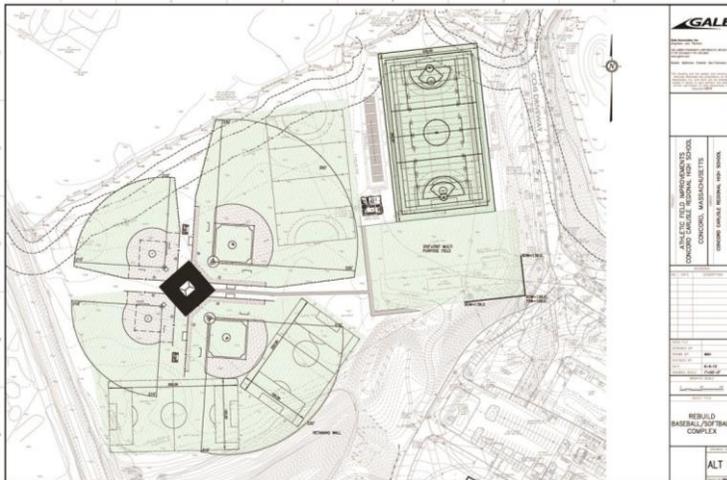
though bleachers and press boxes at the varsity ball fields were deemed to be too expensive.

Cost Estimates. Upon analysis we concluded that Option 1, as detailed above, is estimated to cost \$4.9M. This schematic level estimate is an approximation and more detailed construction cost estimates would have to be prepared with the detailed design of the facility.

Plan Option 1A

Plan Option 1A. Option 1A is the same as Option 1 for the Upper Fields and the stadium/field hockey layout. The difference is that the lower baseball/softball fields are re-arranged into a 'cloverleaf' configuration. The clover-leaf configuration puts all the baseball/softball spectator and infrastructure in one central location, and is laid-out to allow rectangular fields to be laid-out in the outfields for fall sports.

Discussion: Plan Option 1A was not selected. The clover-leaf field configuration cannot be accomplished without significant and costly re-working the site grades and earthwork. It would also require significant and expensive



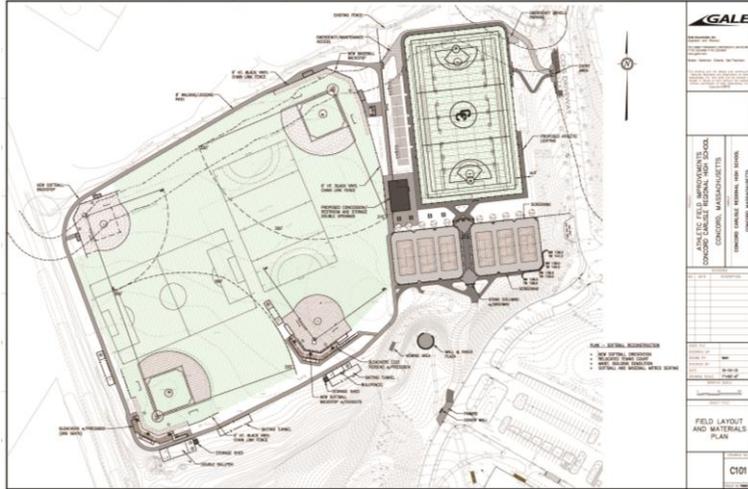
clearing, excavation and retaining walls along the slope to the south. The major advantages of this option are that it pulls the backstop/spectator areas of J.V. Baseball and Softball away from the wetland/wet areas to the north and provides the opportunity to eliminate redundant spectator seating and site access by using a central

location for the backstops. This option is also not preferable as it would necessitate all of the lower fields to be taken off-line at one time for construction.

Cost Estimates. Upon analysis we concluded that Option 1A, as detailed above, is estimated to cost \$5.3M. This schematic level estimate is an approximation and more detailed construction cost estimates would have to be prepared with the detailed design of the facility.

Plan Option 2 – (Preferred Option)

Plan Option 2. Option 2 proposes to construct six (6) lighted tennis courts at the Lower Fields south of the proposed Stadium Field. The Upper Fields will be converted to a full-size, natural turf, multi-purpose field and a practice ‘kick wall’. The lower ball fields are proposed to be reconstructed to improve drainage, irrigation and playability, in roughly the layout they are in today, with the exception of the Varsity Softball Field. The Varsity Softball Field would be rotated to provide the most desired field orientation.



Discussion: Plan Option 2 is the option that is being further promoted and designed. Placing the tennis courts south of the stadium facility provides a location that is central to campus activity and will require relatively little excavation and fewer retaining walls. This configuration also allows the tennis facility to take advantage of the proposed sanitary and concession facilities. Basketball courts cannot fit in this location and were eliminated from the plan (public input did not indicate a need for outdoor basketball courts). The lower elevation of the courts will also be less visible from off-campus, should the courts be provided with lights for night play. The upper multi-purpose field will be relatively easy to police, adjacent to other similar fields in this location, and require relatively little excavation and earthwork in this location.

Concessions Building: As part of Option 2 a new concessions/restroom/storage building is proposed at the stadium field, just to the south of the Home Bleachers in roughly the location of the existing concessions building. Current Massachusetts plumbing code (248 CMR 10.0) requires that bathroom facilities be provided for all outdoor bleacher/assembly uses. The amount of mens and womens fixtures required is based on the amount of fixed seating within the bleachers. Remote or portable restroom facilities cannot be counted toward this requirement. Currently the home and visitor bleachers have a capacity of roughly 1877 seats. Per code this would require 31 female fixtures and 15 male fixtures, however the state plumbing board recognizes that this amount of fixtures is unreasonable and typically grants a 50% variance for this type of facility. This variance would allow a building that would accommodate 16

female toilet fixtures and 8 male fixtures. Currently the facility does not have any permanent bathroom fixtures, other than those in the school building.

Another important consideration with the concession building is that as a building it falls under section M.G.L. c149 of Massachusetts laws on public bidding. This law requires filed sub-bids and other bidding requirements that usually result in the building being bid and constructed as a separate contract. This is because experienced athletic contractors do not want the liability of a building in their contract (and vice-versa).

The concessions building program, materials and level of finish have not been established as part of this renovation plan, however a typical level of finish, materials and layout has been assumed in order to provide pricing for this item. An important design consideration for this building is providing for use for high capacity ticketed events, as well as providing for use on everyday events with less capacity and resulting maintenance.

Cost Estimates. At Enclosure 10, you will find a detailed cost estimate for Layout Option 2. As reflected therein, we concluded that the base configuration (no ornamental features or optional amenities) of Layout Option 2, as detailed above, is estimated to cost \$4,191,000, including soft and contingency costs. This schematic level estimate has been established to a higher standard than the other options and is suitable for use in project budget formation and project advocacy.

Plan Option 3 – (Track and Field Option)

Plan Option 3. Currently, CCRHS does not have a track and field program able to be accommodated on the school campus. Option 3 proposes to address the need for track and field facilities at the proposed Stadium Field. The ideal location for the track and field would be at the existing stadium facility, where existing infrastructure of lights, spectator seating, concessions and other amenities can be utilized.



Because of the size of the track, a practice field would have to be eliminated and the tennis courts would remain in the upper field area, similar to Option 1. The lower ball fields are proposed to be reconstructed to improve drainage, irrigation and

playability, in roughly the layout they are in today, with the exception of the

Varsity Softball Field. The Varsity Softball Field would be rotated to provide the most desired field orientation, as in Option 2.

Discussion: Plan Option 3 was not selected. Placing the track and field in this location will require reconstruction of the visitors bleachers, significant earthwork and retaining walls on the east side of the track to build within the existing slope. In addition, the north end of the track is within the ‘no-build’ setback to the adjacent wetlands and would likely not be able to be permitted. The track will also cause the loss of a rectangular field, compared to Option 2, because there is no room at the south end of the track to locate tennis. The concerns with the tennis court locations noted in Option 1 also apply to Option 3.

Cost Estimates. Upon Analysis we concluded that Layout Option 3, as detailed above, is estimated to cost \$5.9M. This schematic level estimate is an approximation and more detailed construction cost estimates would have to be prepared with the detailed design of the facility.

Section 12.0 - Comparison of Layout Options

Layout Option 1

Advantages:

- Provides a lighted synthetic turf field for all current sports
- Provides ideal Varsity Softball Field orientation
- Provides six (6) tennis courts and two (2) basketball courts
- Provides shared outfield space for fall sports/rectangular fields
- Relatively less permitting /plan review concerns
- Can be phased to limit impacts on sports programming

Disadvantages:

- Costly wall/excavation at field hockey
- Reduced pedestrian circulation space/access at south end of stadium
- ‘Remote’ tennis courts and basketball
- If lighted, tennis at the higher elevation will be visible off-site
- Does not provide track and field facilities on campus

Layout Option 1A

Advantages:

- Provides a lighted synthetic turf field for all current sports
- Provides ideal Varsity Softball Field orientation.
- Provides six (6) tennis courts and two (2) basketball courts
- Provides shared outfield space for fall sports/rectangular fields
- Locates J.V. infields away from wet areas
- Provides centralized backstop/spectator/team areas

Disadvantages:

- Costly wall/excavation at field hockey
- Costly re-grading and redevelopment of all baseball/softball fields
- Costly walls and excavation at slope south of lower fields
- Relatively more permitting /plan review concerns
- Reduced pedestrian circulation space/access at south end of stadium
- 'Remote' tennis courts and basketball
- If lighted, tennis at the higher elevation will be visible off-site
- Does not provide track and field facilities on campus
- Would take multiple fields off-line at one time

Layout Option 2

Advantages:

- Provides a lighted synthetic turf field for all current sports
- Provides ideal Varsity Softball Field orientation
- Provides six (6) tennis courts at a lower, visible location
- Provides shared outfield space for fall sports/rectangular fields
- Relatively little excavation/retaining wall construction
- If lighted, tennis courts will not be visible off-site at lower elevation
- Additional pedestrian circulation opportunities south of Stadium Field
- Upper practice field is adjacent to similar fields
- Can be phased to limit program disturbance

Disadvantages:

- Does not provide basketball courts
- Reduced pedestrian circulation space/access at south end of stadium
- Relatively less permitting/plan review concerns
- J.V. field spectator/team areas stay near adjacent wetlands
- Does not provide track and field facilities on campus

Layout Option 3

Advantages:

- Provides a lighted synthetic turf field for all current sports.
- Provides track and field facilities on campus
- Provide new, up-to-date visitor bleachers
- Provides six (6) tennis courts and two (2) basketball courts
- Provides ideal Varsity Softball Field orientation
- Provides shared outfield space for fall sports/rectangular fields
- Can be phased to limit disturbance to athletic programs

Disadvantages:

- Greater excavation/earthwork/walls for track construction
- Multi-purpose field is lost in comparison to Option 2
- Relatively the most permitting/plan review concerns
- Potentially unbuildable due to permitting concerns/wetland proximity of track
- If lighted, tennis at the higher elevation will be visible off-site
- 'Remote' tennis courts and basketball
- Relatively the most costly option

Layout Option Conclusions. Based on the above mentioned advantages and disadvantages, Layout Option 2 was chosen as the preferred option. The improvements to the Stadium Field will allow true multi-purpose use and dramatically increase the use of the stadium. Allowing the stadium to become the primary competition venue for all levels of Football, Soccer, and Lacrosse. The proposed synthetic turf field, with athletic lighting, would have the capacity for well over 750 uses per year. The location of the tennis courts at the lower fields will provide the required tennis facilities in a location that highly visible, and central to other athletic facilities, as well as allow for the development of a full-size, multi-purpose field at the upper area. The reconstruction of the baseball/softball fields will provide improved drainage characteristics and provide improved surfaces for both spring and fall sports. These improvements, along with the proposed synthetic turf Stadium Field, will relieve pressure on the existing natural turf fields and provide a premier facility that can be used in all weather conditions.

Section 13.0 - Renovation Plan Summary



Option 2 was chosen as the best option, as it makes the most programmatic and budgetary sense. The loss of basketball courts is not seen as a major deterrent, as there are courts inside the building and elsewhere in town. The conversion of the stadium facility to synthetic turf will allow all sports programs to use this

lighted facility for night games and have the infrastructure available to accommodate spectators. This option requires the least amount of grading and

site disturbance in relation to other options, reducing permitting impacts, as well as costs. The following table summarizes the Athletic Complex Renovation Plan elements described under Option 2 above:

<u>Location</u>	<u>Redevelopment Strategy</u>	<u>Field Change</u>
Stadium Field	Convert to Synthetic Turf True Multi-Purpose Width	+1 Synthetic
6 New Tennis Courts	At Lower Fields	+1 Court
Upper Multi-Purpose Field	Replace/expand (natural turf) existing practice field	+1 natural
Varsity Softball Field	Re-orient/reconstruct (nat. turf) (spring)	+0
Lower Fields	Reconstruct & Enhance Varsity Baseball (spring) J.V. Baseball (spring) J.V. Softball (spring) Field Hockey (fall) Soccer (fall) Practice (fall)	Unchanged

SUMMARY (Net Change over Existing): +1 Tennis Court, +1 Synthetic Turf Multi-Purpose Field, +1 Multi-Purpose Natural Turf Rect. Field

Section 14.0 - Renovation Plan Implementation – Phasing Plan

It is apparent that the implementation of the entire CCRHS Athletic Complex Renovation Plan is not feasible in a single project. This is due to fiscal constraints and the impacts on users, who must have field space during the redevelopment process to sustain an on-going athletic program. The Renovation Plan is, therefore, broken into discrete projects, based on reasonable annual budget expenditures, priority of need and minimization of user impact.

In general, the principles behind the formulation of the Renovation Plan Phasing are:

- Accomplish the projects which result in the biggest benefit to use first, to set the conditions for future phases of the project
- Attempt to accomplish all elements of the Renovation Plan within 4 years, including the current year

- Coordinate phasing with on-going school construction

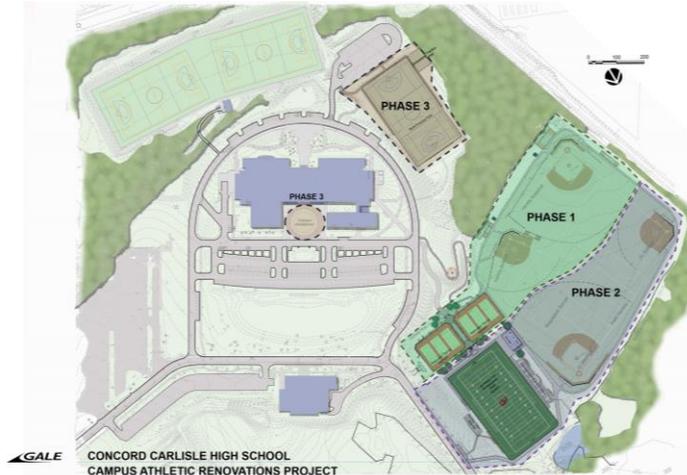
Based on the methodology above, the CCRHS Renovation Plan would be implemented in three distinct phases:

- Phase 1 – Tennis, Varsity Baseball, Varsity Softball.
- Phase 2 – Synthetic Turf Game Field, J.V. Softball, J.V. Baseball, Accessible Path. Phase 2 A – Concessions/Restroom Building
- Phase 3 – Upper Natural Turf Field and Rebound Wall

The complete Renovation Phasing Plan graphic is provided at Enclosure 8. The constructed cost estimate, by phase, is provided as Enclosure 9.

Phase 1, Fiscal Year 2014

Phase 1 will include the reconstruction and intensive rehabilitation of the Varsity Baseball and Varsity Softball Fields as well as the construction of 6 new lighted tennis courts. The field facilities will be renovated and partially sodded



and be “off line” for 9 -12 months, depending on the intensity of the rehabilitation of the turf, but should be playable by the spring of 2015. Baseball and softball infields will be reconstructed and realigned and outfield turf areas will be intensively rehabilitated without stripping the turf. In the interim the J.V. fields will

be used more heavily during this phase of construction and the grow-in period. Completion of the Varsity Ball Fields and Tennis courts as part of the first implementation phase addresses the highest priority need at the athletic campus and sets the conditions for the Phase 2 renovation of the J.V. facilities. The pre-design base budget for this project phase is approximately \$1M, including soft costs and contingencies. For purposes of the Renovation Plan, we have assumed that this initial project will be completed during Summer 2014 and the resultant fields will potentially be in service by Fall 2015.

Phase 2, Fiscal Year 2015

Phase 2 will include the construction of a new synthetic turf game field at the CCRHS stadium. Additionally, it includes a significant renovation to the J.V. baseball and softball fields. JV Baseball and softball infields will be reconstructed and realigned and outfield turf areas will be intensively rehabilitated without stripping the turf. The lower ball field complex will be circumscribed by a half mile path for handicap accessibility and maintenance access. The path will be constructed with porous asphalt pavement. This phase also includes the development of an athletic campus amenities building, which will include concessions, restrooms and athletic storage. The building will be separated as a subphase 2A. The pre-design base budget for the combined phase 2 and 2A is approximately \$2.9M, including soft costs and contingencies. For purposes of the Renovation Plan, we have assumed that both phases 2 and 2A will be completed concurrently during Summer 2015 and the resultant fields will potentially be in service by Spring 2016.

Phase 3, Fiscal Year 2016

Phase 3 will include the development of a full-sized, multi-purpose, natural grass, rectangular field, which will be located adjacent to the upper parking lots. The field will include a rebound wall for lacrosse practice. Placing this facility late in the Phasing Plan is required so that all restoration associated with the new high school construction will be completed in this area. The pre-design base budget for this project phase is approximately \$334K, including soft costs and contingencies. For purposes of the Renovation Plan, we have assumed that this final implementation project will be completed during Summer 2016 and the resultant fields will potentially be in service by Fall 2017.

Phasing Plan Summary

LOCATION	FY 2014	FY 2015	FY 2016	FY 2017
PHASE 1				
V. Baseball				
V. Softball				
Tennis				
	\$1.00M			
PHASE 2				
J.V. Baseball				
J.V. Softball				
Jogging Track				
Syn. Turf Field				
		\$2.15M		
PHASE 2A				
Amenities Bldg.		\$0.75M		
PHASE 3				
Upper Rect. Field				
Rebound Wall				
			\$334K	
TOTAL				\$4.2M

Section 15.0 – Constructed Cost Estimates by Phase

As part of the planning process, Gale has provided cost estimates for the proposed project, as discussed above (Enclosure 10). These estimates are an approximation and more detailed construction cost estimates will be prepared with the detailed design of the facility. As such, quantities of materials may change as further investigation clarifies existing conditions and design drawings are matured. For budgetary planning purposes, these cost estimates provide a 10% contingency and a 7% for soft costs.

The unit prices of materials listed are based on recent bids of similar projects and reflect up-to-date industry costs. As the project progresses and the school reaches Phase 2 and Phase 3, in Fiscal Years 2015 and 2016 of the Renovation Plan, industry costs of unit prices should be expected to increase. For the purposes of this report, the unit prices provided are based on Fiscal Year 2014; cost escalation over time is not accounted for in these estimates.

Section 16.0 – Permitting Requirements Summary/Strategy

Permitting Requirements. All the options proposed will involve some level of local permitting and site plan review by the Concord Natural Resource Commission (NRC), as well as the Planning Department. There is an area of adjacent wetlands, located to the north of the lower fields, which will impact the proposed development of the Junior Varsity Baseball and Softball Fields, as well as any improvements to the stadium facility. Because of this, we are proposing that all the perimeter walks and paving in at the Stadium and Lower Fields be of a ‘pervious pavement’ construction.

Generally all proposed phases of construction should be permitted at the same time. This will require that the engineering and design of all the improvements be made prior to application to local review boards

In addition to the Natural Resource Commission Permitting, a Site Plan Review/ Building Permit will be required for the proposed improvements, proposed concessions building and any renovations to the existing bleachers.

16.1 Locally Issued Permits

16.1.1 - Wetlands Protection Act/Concord Natural Resource Commission

The lower athletic complex redevelopment will clearly involve work within 100 ft. of a jurisdictional wetland resource area. Therefore, it will be subject to permitting under the Wetlands Protection Act and the Concord Wetlands Bylaw. The project, as planned, does not alter any existing wetland and encroaches no further into the jurisdictional buffers.

Formal delineation / update of the wetland area (if required), will be needed prior to a Notice of Intent filing with the Concord Natural Resource Commission (NRC). In preliminary conversations with the Commission it was suggested that preliminary filings for an ANRAD or RDA are not required. The wetlands filing will include a noticed public hearing. Following the closing of the public hearing, the NRC will have 30 days to issue an Order of Conditions, which will stipulate how the project is to be accomplished with respect to the wetland concerns. This Order is subject to appeal to the Massachusetts Department of Environmental Protection (MassDEP). Scheduling should allow sixty (60) days for this process.

As noted in more detail in Section 5 (Environmental Constraints) of this report, there are no perennial streams triggering the Rivers Protection Act, no Mass Natural Heritage critical habitat, no known vernal pools, and no 100 year flood plains requiring compensatory storage impacting the site.

16.1.2 - Site Plan Approval/Concord Planning Board

There are several aspects of the proposed redevelopment that will trigger a requirement for Site Plan and Special Permit Approval with the Concord Planning Board, such as changes in impervious area (pavement) seating, amenities building, lighting and parking. The approval will require an application to the Planning Board and a noticed public hearing as well as at least one (1) continued hearing. The Planning Board will issue a record of decision after closing the public hearing. Scheduling should allow ninety (90) days (concurrent with ConCom) for this process.

16.1.3 - Curb Alteration Permit

The Renovation Plan potentially calls for changes in curb cuts, along the access drive off of Thoreau Street, and may require a curb modification permit. This drive is under local jurisdiction and the curb alteration is anticipated to require approval by either the Town Engineer or the Department of Public Works

16.2 State Permits

At this point, it does **not** appear that the project will result in any state level permitting requirements. Possible exceptions are:

- **A DEP Superseding Order of Conditions.** This may apply if the local Order of Conditions from the Natural Resource Commission are appealed.
- **A DEP Water Withdrawal Permit.** This may apply if a local irrigation well is intended and the withdrawal is more than 100,000 gallons per day (unlikely).
- **State Plumbing Board.** A variance will need to be applied for from the state plumbing board to allow a (typically) 50% reduction in required bathroom fixtures in the proposed amenities building from what is required by state code based on fixed bleacher seating.

- **MEPA.** It is important to note that the implementation of the Renovation Plan is not likely to trigger an Environmental Notification Form (ENF) to MEPA. The MEPA ENF thresholds that the Town will need to consider during design, among others, include:
 1. Alteration of more than 5,000 s.f. of wetland resource area
 2. Disturbance of more than 50 acres
 3. Creation of more than 300 new parking spaces
 4. Creation of more than 5 acres of new impervious area

It does not appear, at this point, that any of these ENF thresholds will be triggered by the proposed redevelopments. Additionally, there is likely to be a current MEPA Certificate for the on-going school construction that may anticipate/include come of the athletic campus redevelopment.

16.3 Federal Permits

The project will require a typical permit application under the National Pollution Discharge Elimination System (NPDES) requirement and the Corps of Engineers Water Quality Certification. For these filings, the designer will need to prepare a Stormwater Pollution Prevention Plan (SWPPP). These permits will likely be issued under the general programmatic permit and not require public hearings or site meetings.

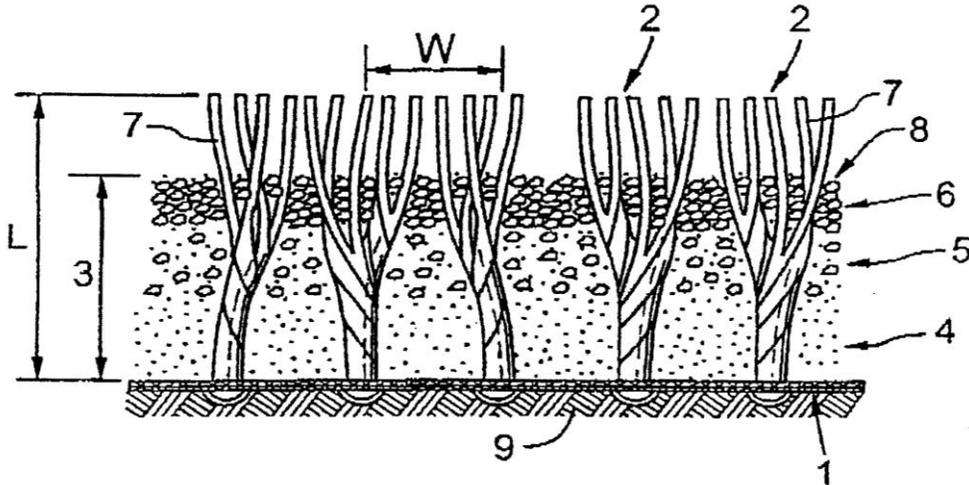
16.4 Permitting Conclusions

The wetlands permitting under the Wetlands Protection Act and the Concord Wetlands Bylaw will be a significant permitting effort, given the work anticipated within the jurisdictional buffers. This work may include paved drives and accessible paths, as well as the introduction of synthetic turf. Effective stormwater management, erosion and sediment control, and methods to minimize buffer alteration and increase in impervious area will be essential to permitting success.

Section 17.0 – Summary of Synthetic Turf Considerations

Background. The Renovation plan for the stadium field calls for the installation of an infilled synthetic turf field. Infilled synthetic turf was introduced by FieldTurf in the mid 1990's as an alternative to AstroTurf knitted nylon fields. While AstroTurf was an abrasive, knitted nylon carpet over a pad, filled turf was constructed by tufting long fibers of polyethylene through a carpet backing, placed on a free draining stone base, with sand and rubber placed on top. The sand and rubber infill materials surround the sides of the softer

polyethylene fibers and keep them vertically oriented and grass-like. See Enclosure 12 for additional information related to synthetic turf considerations.



Cost Implications. While far less expensive than traditional AstroTurf, the infilled fields are about 2.5 times more expensive than a newly constructed, high-quality grass field. The typical 90,000 SF soccer/football field grass to infilled turf conversion costs approximately \$850,000. Within Enclosure 12, we have provided a life cycle cost comparison of natural grass versus infilled turf installation strategies. It reflects the maintenance costs discussed below in further detail. As reflected therein, over a 30-year comparison, in terms of net present worth, the two cost streams are essentially equivalent at an assumed interest rate of 3%. This analysis does not include the increased availability of infilled turf or its ability to sustain up to three times the use of a natural turf field. These considerations are also discussed below.

Advantages. The infilled synthetic turf's initial procurement costs are, in theory, offset by the distinct advantages it has demonstrated over the past 15 years. These advantages are summarized in Enclosure 12 and include all weather availability, increased durability, higher use rates, decreased maintenance requirements, enhanced player safety, image and branding opportunities, as well as environmental sustainability (in some aspects).

Use. The current natural turf game field at CCRHS sustains approximately 70 scheduled events per year. This level of use is artificially limited in order to keep the premier game field in top condition. This rate of use does not, however, meet the school's needs and does not take full advantage of the available lighting system. A full multipurpose use of the existing field is also limited by surface drainage structures and the available width, which limit the use of the field for Soccer and Girls lacrosse events. A synthetic turf field would have a greater available width due to its drainage characteristics, allowing a greater field width and full multipurpose use. A well-constructed, natural turf game field should be able to accommodate about 200 scheduled events per year (games and practices),

assuming it is well maintained, has a sound inclement weather use policy and is rested periodically. In comparison, the scheduled uses made of the UMASS Lowell Cushing Field, the oldest infilled turf field in New England, were carefully documented over an 11 year period. It was concluded that this field sustained approximately 772 scheduled two-hour events annually over its useful life. Even at an assumed 600 scheduled uses, the infilled field represents a threefold increase in capacity over a well built and maintained natural grass field.

Availability. The current style synthetic turf fields are free draining and drain vertically (as opposed to surface runoff) at an assumed rate of 16 inches of rain per hour. As a result, they are near all-weather fields. The owner no longer has to implement an inclement weather policy to avoid the breakdown of a natural field saturated root zone. Infilled fields are available year-round, as they are routinely plowed. This allows New England teams to take the field earlier in the spring and to remain on the fields later in the fall.

Safety. A number of leading sports medicine researchers have studied injury rates on all types of natural and synthetic surfaces, as have the NCAA and NFL. In general, most studies conclude that infilled turf fields are much safer than their predecessor (AstroTurf), and are as safe as a high quality stand of natural turf, and safer than a natural grass field in fair to poor condition with a damaged root zone. There are many studies of synthetic turf qualities as they relate to player safety, the environment, sanitation and lifecycle. The amount of studies and conflicting results from different materials and methods sometimes lead to confusion and concerns about synthetic turf from the general public. The best source of information that includes only the most current studies, materials and conclusions can be found from Pennsylvania State University at <http://plantscience.psu.edu/research/centers/ssrc/research/synthetic-turf-health>.

Maintenance. The maintenance of natural turf playing surfaces is a labor intensive endeavor. Fields are mowed, lined and watered weekly (or more frequently). Fields are periodically fertilized, aerated, top dressed, overseeded, and limed. A well-researched estimate suggests that the maintenance of a grass field costs approximately \$30,000 per year in terms of direct labor, materials and equipment costs. A synthetic turf field comes with a groomer tool than can be pulled by a small tractor or Gator. The field is drag broomed three to four (3-4) times in the spring and fall to level out infill and “fluff” up the fibers. Each such operation takes about 2 hours. We estimate that the annual cost of maintenance is approximately \$5,000. There are some who suggest that synthetic turf fields require annual sanitization. However, studies by Pennsylvania State University and others conclude that outdoor fields are “cleaned” by UV exposure and do not harbor or propagate pathogens any more than natural grass. As such, they do not required any special sanitation maintenance.

Image and Branding. Distinctive markings available on infilled turf fields offer the school and/or community an opportunity to “brand” their field. The field logo, end zone markings, sideline markings, colored borders, etc. allow for field naming, donor recognitions and the development of a community based image. In fact, many student athletes making decisions on where to attend school are often influenced by the image of such facilities.

Procurement Implications. The specification of infilled synthetic turf fields has several implications for the public procurement process. First, there are currently about 45 different manufacturers of infilled turf and Massachusetts procurement law precludes the use of proprietary specifications. This presents challenges for the specifier. Secondly, by law, the use of Community Preservation Act (CPA) monies may not be spent on the procurement of infilled synthetic turf fields. For CPA funded recreation projects, this often results in a split public/private procurement when the use of infilled turf is intended. Should private money be used to fund the project, these restrictions will not apply.

Environmental Considerations. As part of the proposed renovations, work will occur within the 100-foot buffer zone of the abutting BVW (Bordering Vegetated Wetlands), and possibly within the outer riparian zones of a perennial stream, both of which fall under the jurisdiction of the MWPA.

The 100’ buffer zone of the BVW in the east portion of the site, as well as the inner and outer riparian zones, will be impacted by the replacement of the existing natural turf field with a multi-purpose synthetic turf field. The reconstruction will include stripping the existing top-soil and sub-soil to an approximate depth of 12”, installing filter fabric over the compacted subgrade, installing approximately nine (9”) inches of an open graded, free draining, crushed stone, followed by the synthetic turf fabric and approximately one and three-quarter inches (1.75”) of sand and rubber crumb infill. The work will result in some alteration of the resource buffers. However, the limits of the field will not be closer to the existing resource areas than its current configuration. A mitigation plan will be proposed to address the aforementioned impacts.

The existing site contains managed natural turf athletic fields within the wetland buffer area. These fields are naturally broken down with over-use, resulting in potential sedimentation in stormwater runoff. Additionally, it is subject to the application of phosphorous, nitrogen, and lime pesticides and herbicides to maintain a playable stand of turf. Although managed natural turf does not fall within the definition of degraded area, it is Gale’s professional opinion that managed natural turf can be detrimental to resource areas.

The existing field is used daily and, as such, is aggressively managed to maintain a safe stand of turf with sufficient integrity to limit routine breakdown, erosion and sedimentation. Managed natural turf has long been recognized to

have significant adverse environmental impacts. Specific potential impacts include:

- The field is fertilized two (2) times per year, with varying application rates for turf growth and weed prevention. Despite the use of low soluble, slow release materials, there is still potential for the runoff or infiltration of phosphorous and nitrogen.
- In order to properly buffer the fields and enhance the growing conditions for natural turf, lime is applied annually for pH adjustment. Additionally, there are as-needed applications of weed and pest control to treat identified infestations.
- Despite efforts to maintain a field in a safe and playable manner, by the end of each playing season, it is broken down and the root-zone is essentially destroyed. Additionally, it becomes compacted and poorly draining. As a result, the majority of the stormwater flow is surface runoff, carrying a significant sediment burden and limiting the amount of groundwater recharge taking place. The restricted infiltration not only limits recharge, but restricts fall season flood storage.
- Managed athletic turf requires frequent mowing (1-2 times per week) and striping (1 per week). It also requires topdressing and aeration (2 times per year). All of these activities require motorized equipment, and as a result, the typical field has 2-3 mechanical efforts per week of some sort. These activities (particularly the weekly mowing) preclude the establishment of wildlife in the area of managed turf. The equipment burns fossil fuels and releases significant Polyaromatic Hydrocarbons (PAHs) into the air. The heavy soils in the field, coupled with heavy foot and vehicular traffic, result in a densely compacted surface that allows for very little aquifer recharge. The current managed turf is 90,000 SF and receives ½" of water per week over a 16 week irrigation period. This represents a groundwater and or surface water withdrawal of approximately 350,000 gallons per year.

The proposed redevelopment of a synthetic turf field replacement does not alter the existing use of the parcel, nor does it expand upon it. The footprint of the proposed field is the same as that of the existing field and it will serve the same functions. It will, however, result in significant benefits to the interests of the Wetlands Protection Act. These include:

- All fertilization, pH adjustment and applications of pesticides are eliminated.
- The withdrawal and application of up to 350,000 gallons of irrigation water annually is eliminated

- The requirements to mow weekly, stripe weekly, aerate, top dress, and over-seed are eliminated. There is a requirement to use a towed groomer three to four (3-4) times per season on the synthetic field.
- The potential for sedimentation runoff due to root zone breakdown is eliminated.
- Synthetic turf fields are designed to drain vertically, as opposed to via surface runoff. The vertically draining, open graded stone base allows for tremendous increases in stormwater recharge of the groundwater. This assertion will be well documented/substantiated in the submitted plans, details and stormwater management calculations.
- The synthetic turf field will be installed at approximately the same elevation as the natural turf field it replaces. The highly pervious carpet and stone base have a voids ratio of approximately 35%, which could potentially increase if the volume of the robust under-drainage perforated piping is considered. This results in additional flood storage of up to 30,000 CF.
- While not directly contributing to the identified wetland interests, the synthetic turf installation does result in the recycling of over 20,000 tires, and the polyethylene carpet itself is recyclable at the end of its useful life.

In summary, the proposed replacement field results in numerous tangible and quantifiable improvements over existing environmental conditions.

Disadvantages. Apart from initial acquisition costs, there are primarily two disadvantages associated with synthetic turf. These are heat and managing end of life disposal of the turf.

Heat. Infilled synthetic turf plays significantly hotter than natural grass. In direct sunlight, it can play 40 degrees hotter at the surface of the field. Research at Penn State has demonstrated that this temperature mitigates quickly with height above the turf. Most studies have concluded that the heat is a function of the polymer fibers, which amplify and hold the heat.

To mitigate the heat issue, the CCRHS field will include water connection points in the four corners. These connections will allow for the field to be wet down before events taking place in hot weather. The evaporative cooling that results will be effective in reducing the surface temperature to near ambient levels for a 2 ½ hour event.

Gale conducted a survey of forty field managers in Massachusetts to discuss the heat issue. 100% of the respondents stated that the heat issue was either a non-issue or a minor and manageable issue. All of them stated they had never sustained a heat injury attributable to the turf, and all of them opined that they would still install an infilled turf field knowing what they now know about the heat issue. Several also noted that it is the heat that allows them to play on the field earlier in the spring and remain on it later in the fall.

End of Life Disposal. The infilled field is constructed of polyethylene fibers and a urethane backing, which are non-renewable resources. Most fields that are removed are taken to a conventional landfill or incinerator. Although each of the main turf suppliers have developed methods for “harvesting”, shredding and pelletizing the plastics for reuse, it is not presently cost effective and is rarely done.

Section 18.0 - Field Demand/Impacts and Rest Following Renovation Plan Implementation

The main objective of the Renovation Plan is to reconstruct existing fields or develop sufficient new fields to better meet the demands placed on them by CCRHS’ existing athletic programs. The goal is to provide sufficient fields, by type, such that the demand on any individual natural turf field does not exceed 250 scheduled team uses. As previously noted, 250 team uses is the maximum number that a properly irrigated and maintained field, with a thirty to forty-five (30-45) day rest period during the active growth season, can sustain and still retain a stand of good quality athletic turf.

Renovation Plan Influence on Demand for Fields. Once the final number and type of fields were established, the next task was to reallocate each user group and associated uses (i.e., # of practices, # of games) to the expanded population of fields. The goal was to minimize the number of total uses per natural turf field to less than 250. In addition, we also wanted to integrate a rest period for each field during one of the seasonal growing periods. While our redistribution (as shown in Enclosure 9) is subject to CCRHS scheduling, it gives a sense of resultant improvement on field demand. The redistribution of uses places the maximum amount of uses on the three (3) synthetic turf fields, while keeping the number of uses on the natural turf fields to 250 or less.

The implementation of the Renovation Plan will result in the natural turf fields experiencing a reduction in uses per year, and allow enough rest between seasons for re-growth and maintenance of the turf. This reduction is based on the assumption that the proposed synthetic turf field would see its uses maximized and become an important component of the overall Plan.

Section 19.0 – Recommended Maintenance Regimen

The implementation of the CCRHS Renovation Plan to expand/enhance its sports facilities is only effective if the work completed is properly maintained. This section of the report summarizes those activities that are routinely accomplished as part of the maintenance of high quality athletic fields and provides recommendations in regards to maintenance activities, resources and budget for the proper maintenance of the athletic fields at CCRHS.

Specific turfgrass management practices vary throughout an athletic complex, according to the type of play occurring in each locale and the stage of development of the athletic fields. Soccer, softball and baseball each dictate a different set of conditions, requiring unique management approaches. Additionally, specific areas within soccer fields are particularly subject to different stresses (e.g., goal mouths versus midfield and side line areas). Athletic complexes cycle through various stages of development, including construction, grow-in and maturity, each requiring a different approach to management. Finally, the maintenance requirements for the various areas of the complex may differ due to changes in the micro climate (sun, drainage, exposure to salt, traffic, etc.). Any maintenance program needs to be tailored to the specific needs of the campus.

A general description of a typical (mature) athletic complex turfgrass maintenance program is as follows:

Testing: As an integral part of the Integrated Management plan for the natural turf, each field should have its topsoil tested for plant nutrient levels annually. Samples can normally be taken by on-site staff and sent to the UMASS agricultural extension service for testing and results. These tests will determine the amounts of fertilizer and lime and sand topdressing that need to be applied as part of regular maintenance. Knowing these results prevents unnecessary fertilizer and lime applications and can save on cost and materials directly.

Mowing. Turfgrass in areas of play is mowed at least weekly to provide a suitable playing surface. Regular mowing practices enhance turf density, color, texture, root development, wear tolerance and other key aspects of turf quality. Mowing heights are adjusted from 2.5 inches during the growing season until mid-July, to 3.5 inches from mid-July to mid-September, and then gradually brought back down to 2.5 inches. Clippings are either mulched and left behind, or collected and disposed of, depending on the height of the cut and thatch density.

Aeration. Aeration alleviates compaction and develops deep-rooted turf. It is accomplished by creating spaces in the turf, thus allowing moisture, nutrients and oxygen to penetrate to the root zone. Aeration also breaks up thatch, which helps contribute to the organic content of the soil and breaks the mat on the soil

surface. High-use fields should be aerated two to three (2-3) times per year. We recommend six to seven inch (6"-7") hollow tine aeration equipment. If the intent is long-term modification of the root zone, we recommend removing the plugs and top dressing the field with coarse sand.

Topdressing. Topdressing is applied periodically, as a soil amendment, to maintain a smooth playing surface and to vary the root zone particle size distribution. Top dressing adds soil, sand or other beneficial organic material and soil amendments (as determined by turf needs based on agronomic testing) to the surface of the turf. It should always follow core aerating.

Irrigation. The irrigation season typically runs from June through August. During that period, each field footprint should receive one-half (1/2) inch of irrigation per week and be adjusted in accordance with weather patterns. For a typical 90,000 SF soccer field, this equates to 400,000 – 500,000 gallons per year. We recommend the use of intelligent controllers with moisture sensors. The maintenance budget needs to account for winterization and spring repair of the system.

Fertilizing. Fertilizing is done to provide micronutrients to the soil and acts as a “food” for the turfgrass plant. Fertilization should generally be done in the early spring and summer, and supplemented on selected fields in the early fall, as needed. This ensures that sufficient nutrients are available to develop healthy root zones during the peak growth period, which includes May and June. Fertilization should be directly related to soil tests performed on an individual field and as part of an overall Integrated Turf Management Program (ITMP). This is particularly true in cases like CCRHS, which border on wetland receptors. Once soil sample data has been obtained, fertilizer with the proper nitrogen/phosphorus/potassium ratio should be obtained and applied at the recommended rates. Low solubility fertilizers, applied only at rates which ensure uptake, should be used to minimize groundwater or surface water impacts.

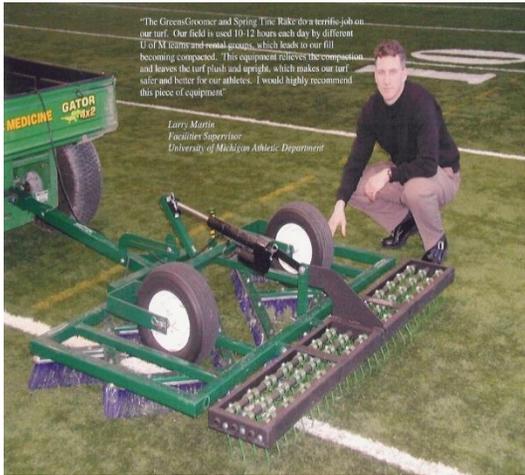
Lime Application. Lime application is generally performed in late November, as it typically takes up to six (6) months to breakdown. Lime should only be applied to soil based on the results of the annual soil testing recommendations.

Over-Seeding. Over-seeding is recommended for athletic fields that are used in both the fall and spring seasons. Over-seeding is the spreading of seed over bare areas or areas that are stressed in order to enhance (fill in) the stressed/bare areas, to establish new turf or to improve the conditions of the turf.

Pesticide and Herbicide Applications. Pesticides should be used sparingly and only by licensed applicators. In addition the use of Pesticides and Herbicides on public school properties is severely limited by Massachusetts Law. Chemicals used must be of recent manufacture and have quick, effective results.

Chemicals that may present health hazards should not be used. Approved pesticides can be found on the state university system website and change periodically. Pesticides should not be applied as a prophylactic, but rather in response to an observed pest or disease, and then tailored accordingly. Again, pesticides should be applied only as part of an overall Integrated Turf Management Program (ITMP) and consistent with School District policy. This is particularly true in cases like CCRHS, which border on wetland receptors.

Maintenance Costs. Current maintenance costs on the lower fields (as verified with maintenance staff) is estimated between \$60 and \$70,000 per year.



Projected maintenance costs are currently being analyzed and will be provided in itemized form as an addenda to this report.

Maintenance needs of the athletic fields upon implementation of the Renovation Plan will be decreased temporarily during the first phase while the new fields grow in. In the subsequent phase, with the installation of the synthetic turf game field, the overall campus maintenance requirements should decrease. The infilled turf field

will come with an groomer and will be maintained much like the two exiting synthetic fields. More importantly, as the game field also becomes an everyday, multi-purpose use, practice and game field, demands on adjacent rectangular fields should drop significantly, along with their maintenance requirements. The ability to balance the maintenance activities of athletic fields and provide a consistent turfgrass management program will be the key to sustaining the heavy usage of the CCRHS athletic fields.

Section 20.0 – Conclusions

As detailed herein, the existing athletic facilities and overall conditions of the CCRHS athletic campus are over-used, non-accessible and require extensive maintenance to keep them in playable condition. Selected facilities have also been displaced by the on-going high school construction project. More importantly, the facilities, as configured, cannot meet the usage demands of the CCRHS athletic programs, and do not provide for gender equity required under Title IX of federal regulations.

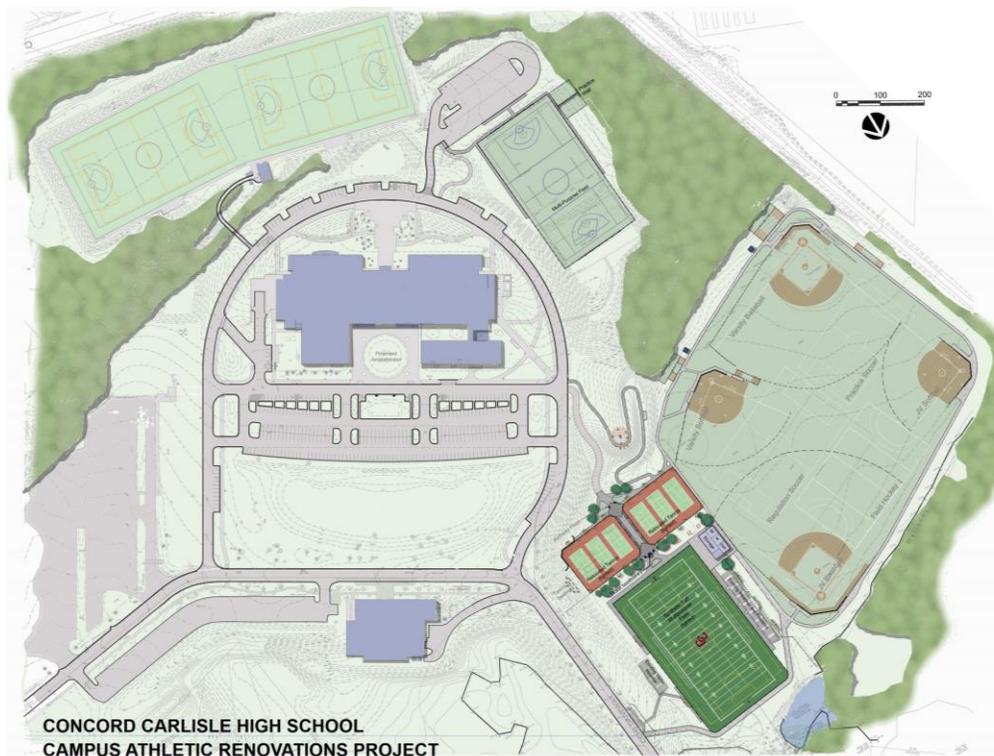
The complex requires general redevelopment to gain compliance and better meet the needs of CCRHS, the School District and the local community. The renovations proposed by Gale address these issues. The full reconstruction of the Varsity Baseball and Varsity Softball Venues and the construction of a new

tennis facility at the lower field complex early in the Renovation Plan implementation addresses these priority needs during Phase 1.

The synthetic turf development at the game field/stadium location during Phase 2 provides a high-use, all-weather, practice and game facility for all rectangular sports at an optimal geometry. This field will provide an all-weather surface that will allow for additional use and will take the burden off other fields within the CCRHS campus. It will drain freely and require little maintenance.

The substantial renovation of the JV Baseball and Softball Facilities, also during Phase 2, will improve their geometry, provide needed amenities and generally enhance infield surfaces, turf growth and drainage. The required, paved handicapped access path will as double as a, half-mile jogging trail and will provide a valuable recreational opportunity for all members of the community.

With the development of a full sized, natural turf, rectangular field at the upper field elevation, following the final close-out of the new high school project, along with the associated lacrosse rebound wall, the CCRHS athletic campus will gain



capacity. This field will, in effect, take the place of the grass practice area between the existing football field and the maintenance shed. Its linkage to the two synthetic turf upper fields and the associated parking provides a more flexible upper field complex.

The layouts envisioned by the CCRHS Athletic Complex Renovation Plan will generally provide safer, ADA compliant, less maintenance-intensive facilities, with the increased capacity to better accommodate the demands inherent in the school and community sports and recreation programs. The Renovation Plan Report provides a summary of estimated project costs, a well-considered phasing plan, a preliminary milestone schedule, a summary of permitting requirements, as well as concept plans which demonstrate the overall feasibility and intent of the campus redevelopment.

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**CONCORD PUBLIC SCHOOLS
 FY2015 BUDGET
 CONCORD SCHOOL COMMITTEE
 December 2, 2013**

ATT B

DESCRIPTION	FY10 Budget	FY11 Budget	FY12 Budget	FY13 Budget	FY14 Budget	FY15 Planning Budget	FY15 FINCOM Guideline
SALARIES	\$ 21,571,349	\$ 22,123,734	\$ 22,949,270	\$ 23,575,871	\$ 24,686,846	\$ 25,628,943	\$ 25,722,098
NON - SALARIES	\$ 6,127,851	5,575,466	5,524,930	6,179,667	6,453,692	6,914,097	6,718,440
TOTALS	<u>\$ 27,699,200</u>	<u>\$ 27,699,200</u>	<u>\$ 28,474,200</u>	<u>\$ 29,755,538</u>	<u>\$ 31,140,538</u>	<u>\$ 32,543,040</u>	<u>\$ 32,440,538</u>
CHANGE 5 Year Operating Average Increase	1.81%	0.00%	2.80%	4.50%	4.65%	4.50%	4.17%
SALARIES	21,571,349	22,123,734	22,949,270	23,575,871	24,686,846	25,722,098	25,722,098
NON-SALARIES	6,127,851	5,575,466	5,524,930	6,179,667	6,453,692	6,718,440	6,718,440
FUNDING IMPACT	\$	-	\$ 775,000	\$ 1,281,338	\$ 1,385,000	\$ 1,402,502	\$ 1,300,000
MAJOR ESCALATION/COST DRIVERS						\$ 1,602,502	\$ 1,695,048
OFFSETTING REDUCTIONS						\$ (200,000)	\$ (395,048)
BALANCE						\$ -	\$ 0

(0)

**CONCORD PUBLIC SCHOOLS
 FY2015 BUDGET
 CONCORD SCHOOL COMMITTEE
 December 2, 2013**

DESCRIPTION	FY15 Planning Budget	FY15 FINCOM Guideline
ESCALATION/COST DRIVERS		
STEPS	\$ 370,237	\$ 370,237
LANES	60,000	60,000
SCALE %	301,941	301,941
CBU SALARY ESCALATION (BSW, Maintenance, Bus Drivers, Secretarial)	110,000	110,000
NON CBU SALARY ESCALATION	35,483	35,483
INCREASE WILLARD TEACHING 1.0 FTE		64,865
CMS STAFFING - .5 School Psychologist	39,078	39,078
INCREASE ELL FROM .7 to 1.0 FTE		24,256
ADD 1.0 IT TECH SUPPORT (60/40) \$45K		27,000
CURRICULUM MATERIALS FOR INCREASED ENROLLMENT	109,830	109,830
PROFESSIONAL DEVELOPMENT	23,575	
TECHNOLOGY - Classroom (CMS & Willard)	365,000	365,000
BUILDING MAINTENANCE	135,000	135,000
UTILITIES	52,358	52,358
TOTAL INCREASES	1,602,502	1,695,048

**CONCORD PUBLIC SCHOOLS
 FY2015 BUDGET
 CONCORD SCHOOL COMMITTEE
 December 2, 2013**

DESCRIPTION	FY15 Planning Budget	FY15 FINCOM Guideline
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OFFSETTING REDUCTIONS

SPECIAL EDUCATION OOD TUITIONS (200,000) (217,681)

Additional Potential Reductions to Meet FINCOM Guideline

- Request voter approval to use \$75,000 of \$75,425.37 Technology Stabilization Fund (75,000)
- Reduce Building Maintenance Budget Increase Request (42,367)
- Reduce Capital Outlay Budget
- Reduce Heating Portion of Utilities Budget Increase Request

Non-Salary Subtotal (117,367)

- Reduce 1.0 Ripley Administrative Assistant (60/40 Position) (35,000)
- Reduce K5 Library Aides (3.0 Positions)
- Reduce 1.0 CMS Secretarial (25,000)
- Salary Subtotal** (60,000)

TOTAL DECREASES (200,000) (395,048)

NET CHANGE \$ 1,402,502 \$ 1,300,000

**CONCORD PUBLIC SCHOOLS
 FY2015 BUDGET
 CONCORD SCHOOL COMMITTEE
 December 2, 2013**

DESCRIPTION	FY10 Budget	FY11 Budget	FY12 Budget	FY13 Budget	FY14 Budget	FY15 Planning Budget	FY15 FINCOM Guideline
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EXTERNAL FUNDS

FEDERAL GRANTS	906,165	1,057,937	628,658	643,566	643,566	643,567	643,568
STATE GRANTS-METCO	493,724	476,855	445,535	460,137	460,137	460,137	460,137
EXTERNAL FUNDS TOTAL	1,399,889	1,534,792	1,074,193	1,103,703	1,103,703	1,103,704	1,103,705
ALL FUNDS TOTAL	<u>29,099,089</u>	<u>29,233,992</u>	<u>29,548,393</u>	<u>30,859,241</u>	<u>32,244,241</u>	<u>33,646,744</u>	<u>33,544,243</u>
EXTERNAL FUNDS AS % OF GRAND TOTAL	4.81%	5.25%	3.64%	3.58%	3.42%	3.28%	3.29%

**CONCORD PUBLIC SCHOOLS
 FY2015 BUDGET
 CONCORD SCHOOL COMMITTEE
 December 2, 2013**

	FY2013 Budget	FY2013 Actuals	FY2013 Balance	FY2014 Adopted Budget	FY2015 Planning Budget	Difference FY15 - FY14
REGULAR EDUCATION	15,647,480	16,355,743	(708,263)	16,554,621	17,773,788	7.36%
SPECIAL EDUCATION	7,795,828	7,117,417	678,411	8,410,279	8,287,906	-1.46%
OPERATIONS	4,213,614	4,108,122	105,492	4,085,535	4,239,644	3.77%
ADMINISTRATION	2,033,670	2,111,267	(77,597)	2,041,803	2,082,092	1.97%
FIXED COSTS	64,946	55,446	9,500	48,300	57,109	18.24%
TOTAL	29,755,538	29,747,995	7,543	31,140,538	32,440,538	4.17%

**CONCORD PUBLIC SCHOOLS
FY2015 BUDGET
CONCORD SCHOOL COMMITTEE
December 2, 2013**

PROGRAM AREA:	FY2013 Budget	FY2013 Actuals	FY2013 Balance	FY2014 Adopted Budget	FY2015 Planning Budget	Difference FY15 - FY14	% Difference FY15 / FY14
PROGRAM AREA 1010: ART	439,063	480,406	(41,343)	499,394	513,675	14,281	2.86%
PROGRAM AREA 1020: COMPUTER INSTRUCTION	611,117	1,143,575	(532,458)	596,684	1,011,372	414,688	69.50%
PROGRAM AREA 1030: CURRICULUM CENTER	226,901	255,532	(29,631)	214,279	239,617	25,338	11.82%
PROGRAM AREA 1041: ALCOTT SCHOOL	1,936,113	2,080,373	(144,260)	2,249,932	2,346,543	96,611	4.29%
PROGRAM AREA 1042: THOREAU SCHOOL	2,271,558	2,336,417	(64,859)	2,405,058	2,508,421	103,363	4.30%
PROGRAM AREA 1043: WILLARD SCHOOL	2,206,000	2,431,838	(225,838)	2,548,832	2,723,317	174,485	6.85%
PROGRAM AREA 1050: ENGLISH	667,870	699,207	(31,337)	732,326	768,392	36,066	4.92%
PROGRAM AREA 1060: EPIC/DIMENSIONS OF LEARNING	2,707	708	1,999	-	708	708	0.00%
PROGRAM AREA 1070: ELL	127,301	117,990	9,311	137,998	154,978	16,980	12.30%
PROGRAM AREA 1080: FOREIGN LANGUAGES	484,894	478,955	5,939	509,876	510,018	142	0.03%
PROGRAM AREA 1090: GUIDANCE	594,547	629,408	(34,861)	640,272	670,848	30,576	4.78%
PROGRAM AREA 1100: HEALTH EDUCATION	4,500	4,774	(274)	4,250	4,774	524	12.34%
PROGRAM AREA 1110: LIBRARY/MEDIA SERVICES	488,803	446,228	42,575	451,425	478,947	27,522	6.10%
PROGRAM AREA 1120: INTERDEPARTMENTAL INSTR.	112,107	90,543	21,564	80,454	93,538	13,084	16.26%
PROGRAM AREA 1130: MATHEMATICS	653,629	683,968	(30,339)	715,424	750,995	35,571	4.97%
PROGRAM AREA 1140: MUSIC	623,257	595,554	27,703	669,049	704,546	35,497	5.31%
PROGRAM AREA 1150: PHYSICAL EDUCATION	608,282	636,501	(28,219)	664,090	701,538	37,448	5.64%
PROGRAM AREA 1160: PROFESSIONAL DEVELOPMENT	339,757	325,014	14,743	306,904	330,019	23,115	7.53%
PROGRAM AREA 1170: READING	313,858	314,459	(601)	315,559	333,995	18,436	5.84%
PROGRAM AREA 1180: SCIENCE	491,877	526,685	(34,808)	597,102	618,313	21,211	3.55%
PROGRAM AREA 1190: SOCIAL STUDIES	490,881	528,663	(37,782)	548,171	577,160	28,989	5.29%
PROGRAM AREA 1200: SPECIAL EDUCATION/ELEMENTARY	4,804,300	4,442,360	380,640	5,173,424	5,241,659	68,235	1.32%
PROGRAM AREA 1201: SPECIAL EDUCATION/MIDDLE SCHOOL	2,558,924	2,279,115	279,809	2,716,855	2,690,421	(26,434)	-0.97%
PROGRAM AREA 1210: SUBSTITUTES	148,255	171,543	(23,288)	196,425	209,130	12,705	6.47%
PROGRAM AREA 1220: TECH. ED./APPLIED TECHNOLOGY	90,791	67,044	23,747	62,000	71,803	9,803	15.81%
PROGRAM AREA 1230: TECH ED./FAMILY/CONSUMER SCI.	61,564	59,563	2,001	61,723	64,252	2,529	4.10%
PROGRAM AREA 1240: CURRICULUM LEADERSHIP	62,211	30,877	31,334	52,717	31,572	(21,145)	-40.11%
PROGRAM AREA 1250: INTEGRATED PRE-SCHOOL	207,955	275,077	(67,092)	234,285	236,299	2,014	0.86%
PROGRAM AREA 2310: ATHLETICS	71,626	91,520	(19,894)	74,249	93,210	18,961	25.54%
PROGRAM AREA 2320: CENTRAL SUPPLY	18,974	(2,329)	21,303	13,974	-	(13,974)	-100.00%
PROGRAM AREA 2330: CO-CURRICULAR	22,757	64,921	(42,164)	39,332	39,333	1	0.00%
PROGRAM AREA 2340: CONTINGENCY	560,645	66,729	493,916	245,729	236,729	(9,000)	-3.66%
PROGRAM AREA 2350: COPY SERVICE	82,999	64,950	18,049	64,447	63,747	(700)	-1.09%
PROGRAM AREA 2360: EQUIPMENT	16,057	34,746	(18,689)	9,030	10,000	970	10.74%
PROGRAM AREA 2370: FIELD TRIPS	18,500	13,111	5,389	18,500	18,500	0	0.00%
PROGRAM AREA 2390: HEALTH SERVICES	481,767	513,130	(31,363)	519,235	561,291	42,056	8.10%
PROGRAM AREA 2400: PARAPROFESSIONALS	100,747	73,018	27,729	69,600	71,166	1,566	2.25%
PROGRAM AREA 2410: SCHOOL DISTRICT TRAVEL	4,967	3,311	1,656	2,296	3,311	1,015	44.22%
PROGRAM AREA 2420: STUDENT ACTIVITY	803	21,731	(20,928)	-	21,731	21,731	0.00%
PROGRAM AREA 2430: TESTING	2,810	-	2,810	4,000	-	(4,000)	-100.00%

**CONCORD P _JIC SCHOOLS
 FY2015 BUDGET
 CONCORD SCHOOL COMMITTEE
 December 2, 2013**

PROGRAM AREA:	FY2013	FY2013	FY2013	FY2014	FY2015	Difference	% Difference
	Budget	Actuals	Balance	Adopted Budget	Planning Budget	FY15 - FY14	FY15 / FY14
PROGRAM AREA 3510: ADMINISTRATION	960,331	1,035,591	(75,260)	944,013	951,259	7,246	0.77%
PROGRAM AREA 3520: PRINCIPALS	1,065,014	1,071,837	(6,823)	1,090,167	1,122,083	31,916	2.93%
PROGRAM AREA 3530: SCHOOL COMMITTEE	8,325	3,839	4,486	7,623	8,750	1,127	14.78%
PROGRAM AREA 4610: CAPITAL OUTLAY	115,000	57,884	57,116	50,000	40,000	(10,000)	-20.00%
PROGRAM AREA 4620: CUSTODIAL SERVICES	901,711	844,582	57,129	857,971	872,259	14,288	1.67%
PROGRAM AREA 4630: INFORMATION TECHNOLOGY SERVICE	576,089	583,936	(7,847)	600,646	600,612	(34)	-0.01%
PROGRAM AREA 4640: MAINTENANCE/BUILDINGS&GROUNDS	523,566	632,635	(109,069)	473,481	588,119	114,638	24.21%
PROGRAM AREA 4650: MAINTENANCE/EQUIPMENT&VEHICLES	33,500	24,724	8,776	26,000	26,000	0	0.00%
PROGRAM AREA 4660: REGULAR TRANSPORTATION	986,293	1,047,705	(61,412)	1,181,897	1,164,755	(17,142)	-1.45%
PROGRAM AREA 4670: SPECIAL EDUCATION TRANSPORTATION	432,604	414,643	17,961	520,000	355,826	(164,174)	-31.57%
PROGRAM AREA 4680: UTILITIES/HEATING	378,606	292,302	86,304	263,460	296,159	32,699	12.41%
PROGRAM AREA 4690: UTILITIES/OTHER	698,849	624,354	74,495	632,080	651,739	19,659	3.11%
PROGRAM AREA 5810: INSURANCE	49,946	46,084	3,862	40,800	47,467	6,667	16.34%
PROGRAM AREA 5830: ASSESSMENTS	-	-	-	-	-	0	0.00%
PROGRAM AREA 5840: OTHER FIXED COSTS	15,000	9,362	5,638	7,500	9,643	2,143	28.57%
GRAND TOTAL	29,755,538	29,747,995	7,543	31,140,538	32,440,538	1,300,000	4.17%

**CONCORD-CARLISLE REGIONAL SCHOOL DISTRICT
 FY2015 BUDGET
 CONCORD-CARLISLE SCHOOL COMMITTEE
 December 2, 2013**

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DESCRIPTION	FY10 SC Budget	FY11 SC Budget	FY12 SC Budget	FY13 SC Adopted Budget	FY13 SC Adopted Budget	FY14 TM Adopted Budget	FY15 SC Preliminary Budget	FY15 Concord FINCOM GL
NET OPERATING BUDGET	\$ 21,318,240	\$ 22,374,192	\$ 23,233,274	\$ 23,647,387	\$ 24,290,423	\$ 23,886,464	\$ 24,662,800	\$ 24,605,506
OPERATING BUDGET % INCREASE <i>5 Year Operating Average Increase</i>		5.53%	4.95%	3.84%	1.78%	2.72%	1.01%	3.01%
							3.42%	2.97%
SALARIES	\$ 13,228,658	\$ 13,844,285	\$ 14,380,781	\$ 15,071,039	\$ 15,071,039	\$ 15,833,348	\$ 16,124,599	\$ 16,124,599
NON - SALARIES	8,089,582	8,529,907	8,852,493	8,576,348	9,219,384	8,053,116	8,538,201	8,480,907
DEBT SERVICE AMOUNTS	1,038,831	1,124,235	747,738	643,036	643,036	2,419,139	2,831,824	2,831,824
TOTAL	<u>\$ 22,357,071</u>	<u>\$ 23,498,427</u>	<u>\$ 23,981,012</u>	<u>\$ 24,290,423</u>	<u>\$ 24,933,459</u>	<u>\$ 26,305,603</u>	<u>\$ 27,494,624</u>	<u>\$ 27,437,330</u>
OPERATING BUDGET FUNDING IMPACT		\$ 1,065,952	\$ 859,082	\$ 414,113	\$ 643,036	\$ 239,077	\$ 776,336	\$ 719,042
BALANCE							\$ 0	\$ 0

CONCORD-CARLISLE REGIONAL SCHOOL DISTRICT
FY2015 BUDGET
CONCORD-CARLISLE SCHOOL COMMITTEE
 December 2, 2013

DESCRIPTION	FY15 SC Preliminary Budget	FY15 Concord FINCOM GL
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SOURCES OF REVENUE		
LOCAL SOURCES		
ASSESSMENTS	\$ 24,291,305	\$ 24,234,011
EXCESS & DEFICIENCY	580,000	580,000
INVESTMENT INCOME	15,000	15,000
MISCELLANEOUS INCOME	5,000	5,000
STATE SOURCES (DOE)		
CHAPTER 70	1,867,899	1,867,899
REGIONAL TRANSPORTATION AID	387,114	387,114
CHARTER TUITION REIMBURSEMENTS	59,356	59,356
OTHER STATE SOURCES (MSBA)		
SBAB REIMBURSEMENT	288,950	288,950
TOTAL	\$ 27,494,624	\$ 27,437,330
PROJECTED USES OF REVENUE		
SALARIES	\$ 16,124,599	\$ 16,124,599
NON-SALARIES	\$ 8,188,201	\$ 8,130,907
DEBT SERVICE	\$ 2,831,824	\$ 2,831,824
OPEB LIABILITY	\$ 350,000	\$ 350,000
TOTAL	\$ 27,494,624	\$ 27,437,330

CONCORD-CARLISLE REGIONAL SCHOOL DISTRICT
FY2015 BUDGET
CONCORD-CARLISLE SCHOOL COMMITTEE
 December 2, 2013

DESCRIPTION	FY15 SC Preliminary Budget	FY15 Concord FINCOM GL
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MAJOR ESCALATION/COST DRIVERS

	<u>INCREASED COSTS</u>	<u>INCREASED COSTS</u>
STEPS	\$ 217,740	\$ 217,740
LANES	\$ 60,000	\$ 60,000
SCALE %	\$ 106,289	\$ 106,289
OPFB (\$350,000 Reserve - \$273,046 Net Increase)	\$ 273,046	\$ 273,046
TUITIONS	\$ 328,152	\$ 328,152
TRANSPORTATION	\$ 61,249	\$ 61,249

MAJOR OFFSETS/REDUCTIONS

	<u>DECREASED COSTS</u>	<u>DECREASED COSTS</u>
COMPUTER HARDWARE	\$ (50,000)	\$ (50,000)
UTILITIES	\$ (27,345)	\$ (27,345)
LEGAL	\$ (50,000)	\$ (50,000)
CAPITAL OUTLAY, MAINTENANCE	\$ (62,500)	\$ (62,500)
INSURANCE (EAP & UE)	\$ (20,500)	\$ (20,500)
OTHER NET REDUCTIONS	\$ (59,795)	\$ (59,795)

ADDITIONAL REDUCTION TO MEET FINCOM GUIDELINE

-- Reduce 1.0 Ripley Administrative Assistant (60/40 Position)	\$ (25,000)
-- Reduce Art New Equipment	\$ (1,500)
-- Reduce Professional Development	\$ (1,500)
-- Reduce Foreign Language Textbooks	\$ (1,500)
-- Reduce Music Supplies & Materials	\$ (1,500)
-- Reduce Science Textbooks & Equipment	\$ (7,794)
-- Reduce Social Studies Textbooks	\$ (1,500)

CONCORD-CARLISLE REGIONAL SCHOOL DISTRICT
FY2015 BUDGET
CONCORD-CARLISLE SCHOOL COMMITTEE
 December 2, 2013

DESCRIPTION	FY15 SC Preliminary Budget	FY15 Concord FINCOM GL
-- Reduce Guidance Contractual Services		\$ (1,500)
-- Reduce English Textbooks		\$ (1,500)
-- Reduce Health & Fitness Supplies & Materials		\$ -
-- Reduce Special Education Supplies & Materials		\$ (1,500)
-- Reduce Athletics Officials & Coaches Salaries Budget		\$ (12,500)
-- Further Reduce Library & Media from Initial \$10.4K cut to \$20K		\$ -
Subtotal FINCOM Reductions		\$ (57,294)
TOTAL	\$ 776,336	\$ 719,042

CONCORD-CARLISLE REGIONAL SCHOOL DISTRICT
FY2015 BUDGET
CONCORD-CARLISLE SCHOOL COMMITTEE
 December 2, 2013

DESCRIPTION	FY10 SC Budget	FY11 SC Budget	FY12 SC Budget	FY13 SC Adopted Budget	FY13 SC Adopted Budget	FY14 TM Adopted Budget	FY15 SC Preliminary Budget	FY15 Concord FINCOM GL
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GENERAL FUNDS

TOTAL GENERAL FUND BUDGET LEVELS	22,357,071	23,498,427	23,981,012	24,290,423	24,933,459	26,305,603	27,494,624	27,437,330
- less debt service	1,038,831	1,124,235	747,738	643,036	643,036	2,419,139	2,831,824	2,831,824
GENERAL FUND OPERATING BUDGET LEVELS	21,318,240	22,374,192	23,233,274	23,647,387	24,290,423	23,886,464	24,662,800	24,605,506

EXTERNAL FUNDS

FEDERAL GRANTS	617,875	754,197	385,366	651,214	651,214	579,210	550,249	550,249
STATE GRANTS-METCO	423,620	380,669	386,933	460,137	460,137	460,137	460,137	460,137
EXTERNAL FUNDS TOTAL	1,041,495	1,134,866	772,299	1,111,351	1,111,351	1,039,347	1,010,386	1,010,386
ALL FUNDS TOTAL	23,398,566	24,633,293	24,753,311	25,401,774	26,044,810	27,344,950	28,505,010	28,447,716
EXTERNAL FUNDS AS % OF GRAND TOTAL	4.5%	4.6%	3.1%	4.4%	4.3%	3.8%	3.5%	3.6%

CONCORD-CARLISLE REGIONAL SCHOOL DISTRICT
FY15 BUDGET
CONCORD-CARLISLE SCHOOL COMMITTEE
 December 2, 2013

	FY13 CCSC TM Adopted Budget	FY14 CCRS FinCom GL Budget	FY14 CCRS Approved Budget	FY15 CCRS Preliminary Budget	FY15 CCRS Guideline Budget	FY15 / FY14 % Change	FY15 / FY14 % Change
Concord-Carlisle Regional High School							
Operations	23,647,387	23,934,508	23,886,464	24,662,800	24,605,506	3.25%	3.01%
Excluded Debt Service	643,036 *	2,419,139	2,419,139	2,831,824	2,831,824	17.06%	17.06%
Total Budget	24,290,423	26,353,647	26,305,603	27,494,624	27,437,330	4.52%	4.30%
Financing Sources							
State Aid - Chapter 70	1,783,206	1,836,274	1,836,274	1,867,899	1,867,899	1.72%	1.72%
State Aid - MSBA (Excluded Debt)	288,950	288,950	288,950	288,950	288,950	0.00%	0.00%
State Aid -							
-- Regional Transportation	256,142	327,264	327,264	387,114	387,114	18.29%	18.29%
-- Charter Tuition Reimbursement	15,673	43,693	43,693	59,356	59,356	35.85%	35.85%
-- Charter Facility Reimbursement	0	0	0	0	0		
District Funds							
-- Excess & Deficiency	580,000	580,000	580,000	580,000	580,000	0.00%	0.00%
-- Investment Income	15,000	15,000	15,000	15,000	15,000	0.00%	0.00%
-- Miscellaneous Income	5,000	5,000	5,000	5,000	5,000	0.00%	0.00%
Assessments to Member Towns	2,943,971	3,096,181	3,096,181	3,203,319	3,203,319		3.46%
Total Financing Sources	21,346,452	23,257,466	23,209,422	24,291,305	24,234,011		
	24,290,423	26,353,647	26,305,603	27,494,624	27,437,330		
Assessments							
Concord							
Within the levy limit	15,066,221	15,391,221	15,356,221	15,898,103	15,856,221	0.34%	0.34%
Excluded debt service	254,128	1,551,843	1,551,843	1,858,841	1,858,841	19.78%	19.78%
	15,320,349	16,943,064	16,908,064	17,756,944	17,715,062	5.02%	4.37%
Carlisle							
Within the levy limit	5,926,145	5,736,056	5,723,012	5,850,328	5,811,916	-0.92%	-0.92%
Excluded debt service	99,958	578,346	578,346	684,033	681,033	2.22%	1.96%
	6,026,103	6,314,402	6,301,358	6,534,361	6,492,949	3.70%	3.45%
Total Assessments	21,346,452	23,257,466	23,209,422	24,291,305	24,234,011	4.66%	4.31%

CONCORD-CARLISLE REG. NAL SCHOOL DISTRICT
FY2015 BUDGET
CONCORD-CARLISLE SCHOOL COMMITTEE
December 2, 2013

ACCOUNT TITLE	FY13 ADOPTED BUDGET	FY2013 EXPENSES	FY2013 BALANCE	FY14 ADOPTED BUDGET	FY15 PLANNING BUDGET	FY15 - FY14 \$ CHANGE	FY 15 / FY 14 BUDGET
REGULAR EDUCATION	\$ 11,067,037	\$ 10,945,024	\$ 122,013	\$ 11,660,210	\$ 11,834,920	\$ 174,710	1.50%
SPECIAL EDUCATION	\$ 5,235,731	\$ 4,763,983	\$ 471,748	\$ 4,836,800	\$ 5,230,340	\$ 393,540	8.14%
ADMINISTRATION	\$ 1,335,891	\$ 1,498,128	\$ (162,237)	\$ 1,434,329	\$ 1,397,631	\$ (36,698)	-2.56%
OPERATIONS	\$ 3,136,861	\$ 3,693,160	\$ (556,299)	\$ 3,374,627	\$ 3,347,947	\$ (26,680)	-0.79%
FIXED COSTS	\$ 3,514,903	\$ 3,382,471	\$ 132,432	\$ 4,999,637	\$ 5,626,492	\$ 626,855	12.54%
TOTAL BUDGET	\$ 24,290,423	\$ 24,282,767	\$ 7,656	\$ 26,305,603	\$ 27,437,330	\$ 1,131,727	4.30%
- - Less Debt Service	\$ 643,036	\$ 636,460	\$	\$ 2,419,139	\$ 2,831,824	\$ 719,042	17.06%
OPERATING BUDGET	\$ 23,647,387	\$ 23,646,307	\$	\$ 23,886,464	\$ 24,605,506	\$ 719,042	3.01%
Increase in OPEB						\$ 273,046	
Operating Budget Increases with & without OPEB						\$ 273,046	
						1.87%	3.01%

CONCORD-CARLISLE REGIONAL SCHOOL DISTRICT
FY2015 BUDGET
CONCORD-CARLISLE SCHOOL COMMITTEE
December 2, 2013

PROGRAM AREA:	ACCOUNT TITLE	FY13 ADOPTED BUDGET	FY2013 EXPENSES	FY2013 BALANCE	FY14 ADOPTED BUDGET	FY15 PLANNING BUDGET	FY15 - FY14 \$ CHANGE	FY 15 / FY 14 BUDGET
PROGRAM AREA 1010:	ART	471,570	525,597	-54,027	542,829	555,727	12,898	2.4%
PROGRAM AREA 1020:	COMPUTER INSTRUCTION	376,415	352,946	23,469	460,540	427,977	(32,563)	-7.1%
PROGRAM AREA 1050:	ENGLISH	1,223,369	1,388,037	-164,668	1,447,406	1,469,204	21,798	1.5%
PROGRAM AREA 1070:	ELL	55,989	29,484	29,505	27,076	26,165	1,089	4.0%
PROGRAM AREA 1080:	FOREIGN LANGUAGES	1,095,295	974,721	120,574	1,009,619	1,031,518	21,899	2.2%
PROGRAM AREA 1090:	GUIDANCE	834,315	857,613	-23,298	879,188	926,105	46,917	5.3%
PROGRAM AREA 1100:	HEALTH EDUCATION	3,000	4,323	-1,323	3,000	4,453	1,453	48.4%
PROGRAM AREA 1110:	HEALTH & FITNESS	513,580	507,032	6,548	532,129	540,256	8,127	1.5%
PROGRAM AREA 1120:	LIBRARY & MEDIA SERVICES	186,967	194,662	-7,695	212,648	204,910	(7,738)	-3.6%
PROGRAM AREA 1130:	INTERDEPARTMENTAL INSTRUCTION	127,712	118,347	9,365	132,878	113,273	(19,605)	-14.8%
PROGRAM AREA 1140:	MATHEMATICS	1,449,461	1,423,509	25,952	1,507,585	1,532,709	25,124	1.7%
PROGRAM AREA 1150:	MUSIC	232,194	236,887	-4,693	245,171	250,597	5,426	2.2%
PROGRAM AREA 1160:	PROFESSIONAL DEVELOPMENT	187,448	179,196	8,252	195,013	208,756	13,743	7.0%
PROGRAM AREA 1180:	SCIENCE	1,415,890	1,540,844	-124,954	1,550,526	1,636,685	86,159	5.6%
PROGRAM AREA 1190:	SOCIAL STUDIES	1,159,979	1,239,354	-79,375	1,217,565	1,239,967	22,402	1.8%
PROGRAM AREA 1200:	SPECIAL EDUCATION	4,777,516	4,309,311	468,205	4,391,166	4,702,338	341,172	7.8%
PROGRAM AREA 1210:	SUBSTITUTES	106,638	76,690	29,948	105,000	85,000	(20,000)	-19.0%
PROGRAM AREA 1220:	TECH ED - APPLIED TECHNOLOGY	8,989	8,869	120	9,304	9,304	-	0.0%
PROGRAM AREA 1240:	CURRICULUM LEADERSHIP	0	0	0	0	0	0	0.0%
PROGRAM AREA 1250:	THEATRE ARTS	52,942	14,399	38,543	56,261	56,261	-	0.0%
PROGRAM AREA 2300:	ADULT & COMMUNITY EDUCATION	4	0	4	4	4	-	0.0%
PROGRAM AREA 2310:	ATHLETICS	631,908	607,763	24,145	633,711	624,446	(9,265)	-1.5%
PROGRAM AREA 2320:	CENTRAL SUPPLY	0	6,237	-6,237	0	0	0	3.0%
PROGRAM AREA 2330:	CO-CURRICULAR	268,705	268,450	255	252,050	259,731	7,681	3.0%
PROGRAM AREA 2340:	CONTINGENCY	307,750	103,393	204,357	274,881	281,853	6,972	2.5%
PROGRAM AREA 2350:	COPY SERVICE	89,572	48,765	40,807	91,363	65,564	(25,799)	-28.2%
PROGRAM AREA 2360:	EQUIPMENT	24,000	1,170	22,830	14,500	11,500	(3,000)	-20.7%
PROGRAM AREA 2370:	FIELD TRIPS	10,000	11,864	-1,864	10,000	12,000	2,000	20.0%
PROGRAM AREA 2390:	HEALTH SERVICES	115,845	123,239	-7,394	125,789	125,447	(342)	-0.3%
PROGRAM AREA 2400:	PARAPROFESSIONALS	110,000	92,301	17,699	116,674	118,508	1,834	1.6%
PROGRAM AREA 2410:	SCHOOL DISTRICT TRAVEL	7,500	12,329	-4,829	7,500	15,000	7,500	100.0%
PROGRAM AREA 3510:	ADMINISTRATION	674,910	787,677	-112,767	756,021	694,229	(61,792)	-8.2%
PROGRAM AREA 3520:	PRINCIPALS	648,968	698,094	-49,126	666,295	691,267	24,972	3.7%
PROGRAM AREA 3530:	SCHOOL COMMITTEE	12,013	12,357	-344	12,013	12,135	122	1.0%
PROGRAM AREA 4610:	CAPITAL OUTLAY	90,000	256,563	-166,563	60,000	37,500	(22,500)	-37.5%
PROGRAM AREA 4620:	CUSTODIAL SERVICES	564,926	501,292	63,634	570,578	577,062	6,484	1.1%
PROGRAM AREA 4630:	INFO. TECH. SERVICES	652,143	1,173,539	-521,396	788,274	804,124	15,850	2.0%
PROGRAM AREA 4640:	MAINTENANCE/BUILDINGS&GROUNDS	402,577	362,166	40,411	394,385	356,605	(37,780)	-9.6%
PROGRAM AREA 4650:	MAINTENANCE/EQUIPMENT&VEHICLES	31,975	47,547	-15,572	23,456	24,874	1,418	6.0%
PROGRAM AREA 4660:	REGULAR TRANSPORTATION	537,576	586,612	-49,036	731,270	748,590	17,320	2.4%
PROGRAM AREA 4670:	SPECIAL EDUCATION TRANSPORTATION	458,215	454,630	3,583	457,634	528,002	70,368	15.6%
PROGRAM AREA 4680:	UTILITIES/HEATING OF BUILDINGS	291,812	256,430	35,382	237,812	257,683	19,871	8.4%
PROGRAM AREA 4690:	UTILITIES/OTHER	565,852	509,010	56,842	568,852	541,507	(27,345)	-4.8%
PROGRAM AREA 5800:	DEBT SERVICE	646,636	640,060	6,576	2,422,739	2,835,424	412,685	17.0%
PROGRAM AREA 5810:	INSURANCE	2,266,909	2,147,179	119,730	1,887,954	2,142,052	254,098	13.5%
PROGRAM AREA 5820:	RETIREMENT	473,533	473,533	0	511,119	523,666	12,547	2.5%
PROGRAM AREA 5830:	ASSESSMENTS	40,000	49,906	-9,906	95,000	51,403	(43,597)	-45.9%
PROGRAM AREA 5840:	OTHER FIXED COSTS	87,825	71,793	16,032	82,825	73,947	(8,878)	-10.7%
	Grand Total	24,290,423	24,282,767	7,666	28,305,603	27,437,330	1,131,727	
	-- less Debt Service	643,036	636,460		2,419,139	2,831,824		
	Total Operating Budget	23,647,387	23,646,307		23,886,464	24,605,506	719,042	3.01%