

Article 17. Concord-Carlisle Regional School District Landfill Remediation

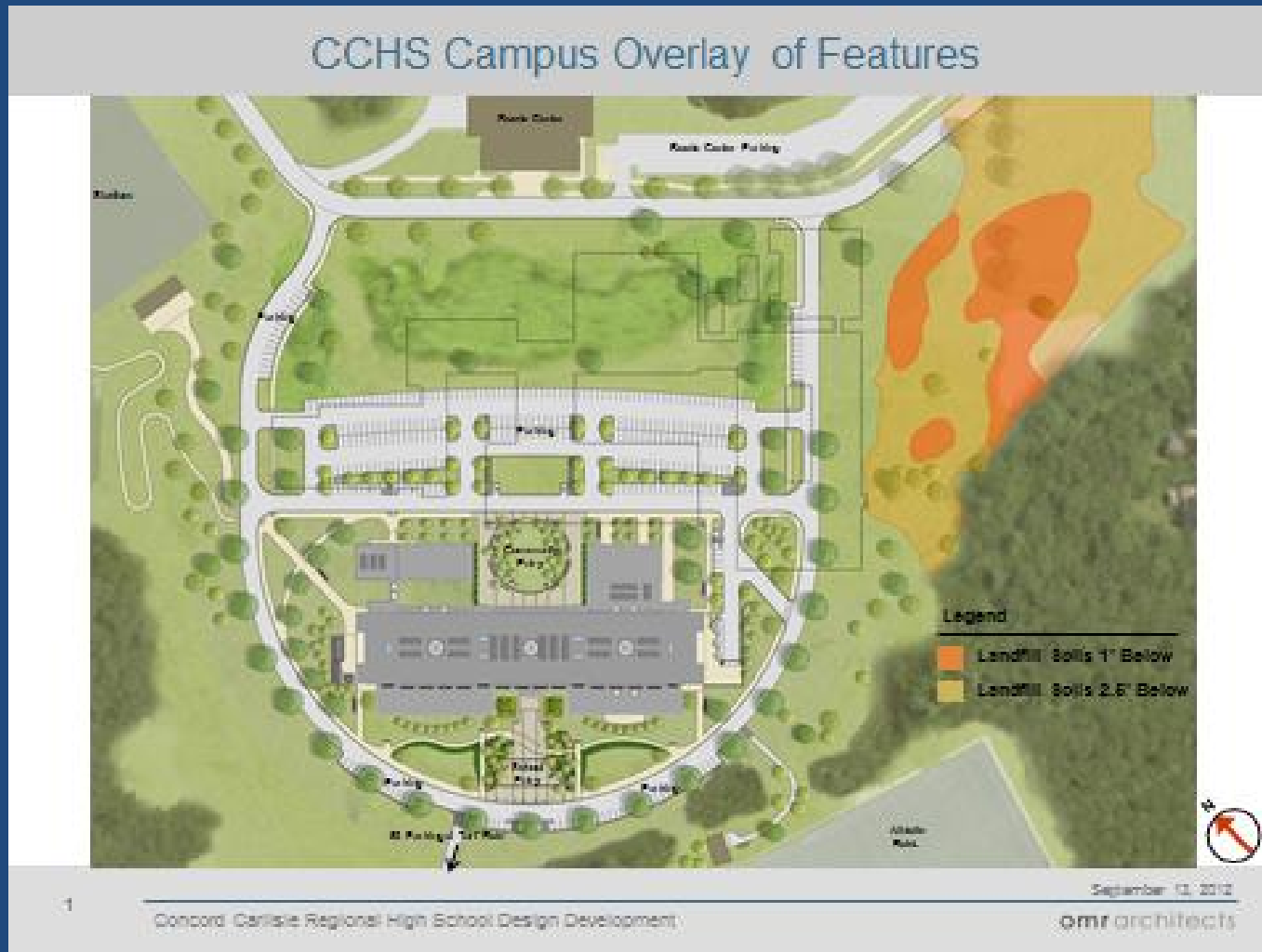
ARTICLE 17. Ms. Boynton moves that: the Town will vote to approve \$1,200,000, or any other sum, of debt authorized by the Concord-Carlisle Regional School Committee for landfill remediation; provided, however, that this approval shall be contingent upon passage of a Proposition 2 1/2, debt exclusion referendum under General Laws Chapter 59, §21C(k); to exempt the Town's allocable share of the amounts required for the payment of interest and principal on said borrowing; or take any other action relative thereto.

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Article 17:

- addresses the required landfill remediation at CCHS known at DEP as, “Concord-Carlisle High School Eastern Parking Lot”
- provides for Concord’s share of the remediation cost (*FY18 73.51%*)
- Cost to be assessed annually over a 10 year period
- Estimated annual tax impact – approximately \$16.33 to median tax bill

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History

- May 2011 – June 2013 - Environmental issues identified
- November 2013 - Submitted Phase II and Phase III plans to DEP.
- Spring 2016 – Article failed at Concord TM, passed at Carlisle TM
- September 2016 - CCRSC hired Weston & Sampson to study expanded options for capping the Landfill at CCHS
- November 2016 - CCRSC held Public Forum on landfill options and Weston & Sampson's recommendation.
- December 2016 - SC adopted Weston & Sampson's Flexible Cap Design suitable for several possible future uses

Future

CCHS Campus Advisory Committee will recommend future uses

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Overview of the Weston & Sampson Feasibility Study

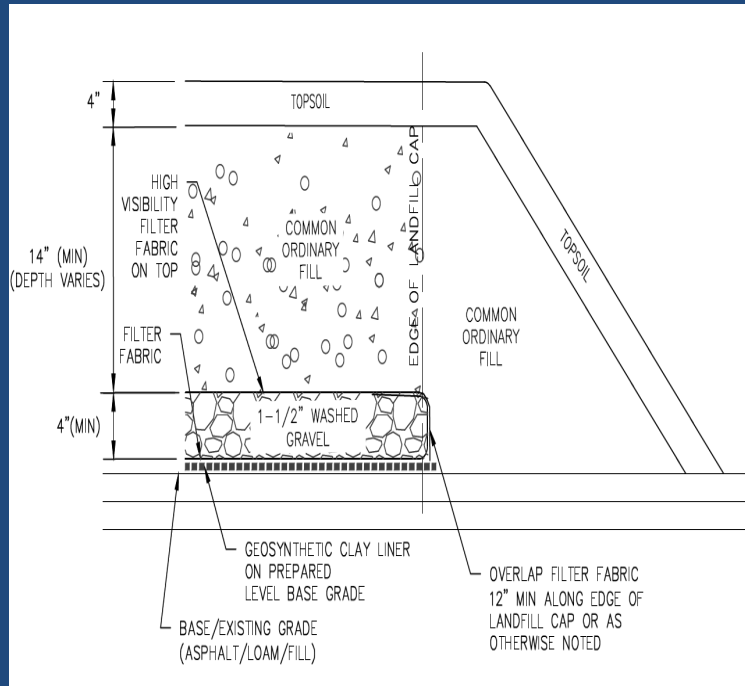
- Emphasized increasing the possible uses of the site after remediation
- Developed preliminary cost estimates for alternatives
- Provided recommendation to improve the baseline cap design to allow for future cost effective construction

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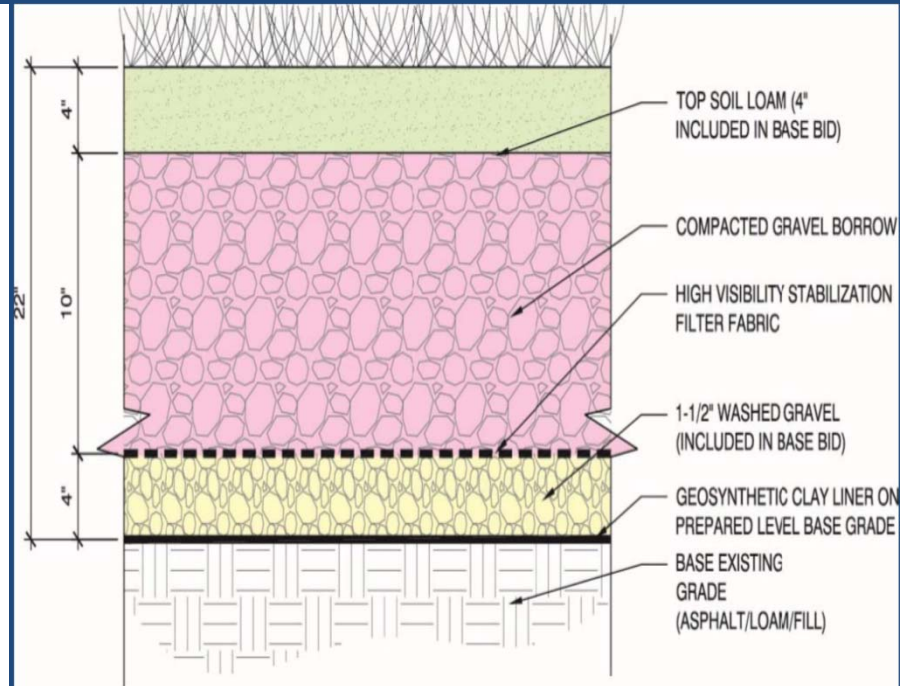
Overview of the Weston & Sampson Recommendation

- Utilize a Flexible Cap Design (FCD) to maximize flexibility for future uses.
 - Using FCD slightly increases initial costs (approx. \$70K) but saves more money on future options.
 - Savings are related to minimizing future soil-handling and escalation costs
- The Flexible Cap Design is the best choice for offering high quality base for any future alternative construction.

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Previous Request



Flexible Cap Design

Current request provides an improved fill material that would be useable in many future use scenarios without removal costs of previously specified "common" fill

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Other Project Elements:

- Construction of a retaining wall around existing skate park
- Construction of a paved pathway and ramped access to skate park
- Construction of a drainage trench

CCHS Campus Advisory Committee will recommend future use of the remediated area

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- The installation of an Engineered Barrier with Flexible Cap Design option:
 - satisfies the requirements for environmental closure of this site by capping subsurface soil contamination
 - complies with the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000.
- Article 17 cost of \$1.2 M is based on construction bids of \$825,900, estimated project management fees of \$75,000 and contingency and soft cost allowances up to \$299,100.

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- **Remediation Method Selected:** \$ 1.2 M
 - Installation of a flexible cap engineered barrier.
 - Reduces the risk of cost growth in remediating the site.
 - Prepares for future uses of the site for passive recreation (AUL), and possible playing field, track, or other projects.
- **Other Options Considered:**
 - Soil excavation and off-site disposal of 110,000 cubic yards of soil with an estimated 10% containing hazardous waste. \$15 M
 - Excavation, Ex-situ soil treatment & solidification/stabilization processes \$ 9 M
 - In-situ soil treatment and solid/stabilization \$ 5 M

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Remediation Actions:

The construction of a cap over an approximate 3.5-acre area consisting of the installation of the following:

- Geosynthetic Clay Liner with Flexible Membrane Liner Filter Fabric
- Gravel/Peastone Subbase
- Plastic Defining Marker or High Visibility Mirafil Filter Fabric
- Compacted “gravel borrow” fill instead of “common” fill
- Topsoil and seed

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IMAGE SOURCE: MAGIS 2008 ORTHOPHOTO

CDW **FIGURE 2** **PROPOSED CAP BOUNDARY**
CONCORD CARLISLE HIGH SCHOOL
CONCORD, MA
 June 2015

DATA PROJECTION: NAD 83 MASSACHUSETTS STATE PLANE (METERS)

0 100 200 300 feet

↑ N



IMAGE SOURCE: MAGIS 2008 ORTHOPHOTO



FIGURE 2

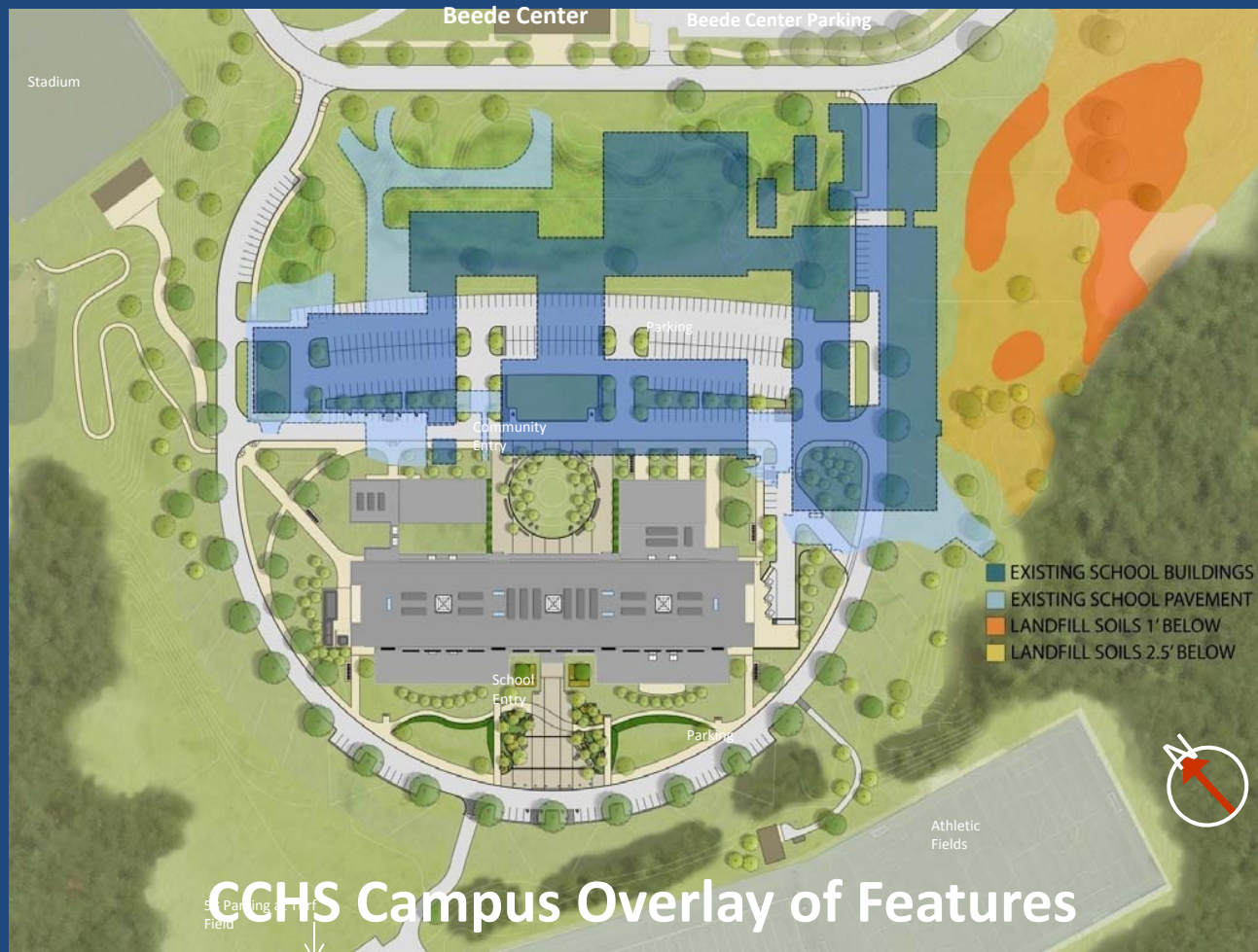
**PROPOSED CAP BOUNDARY
CONCORD CARLISLE HIGH SCHOOL
CONCORD, MA**

SCALE



0 100 200 300

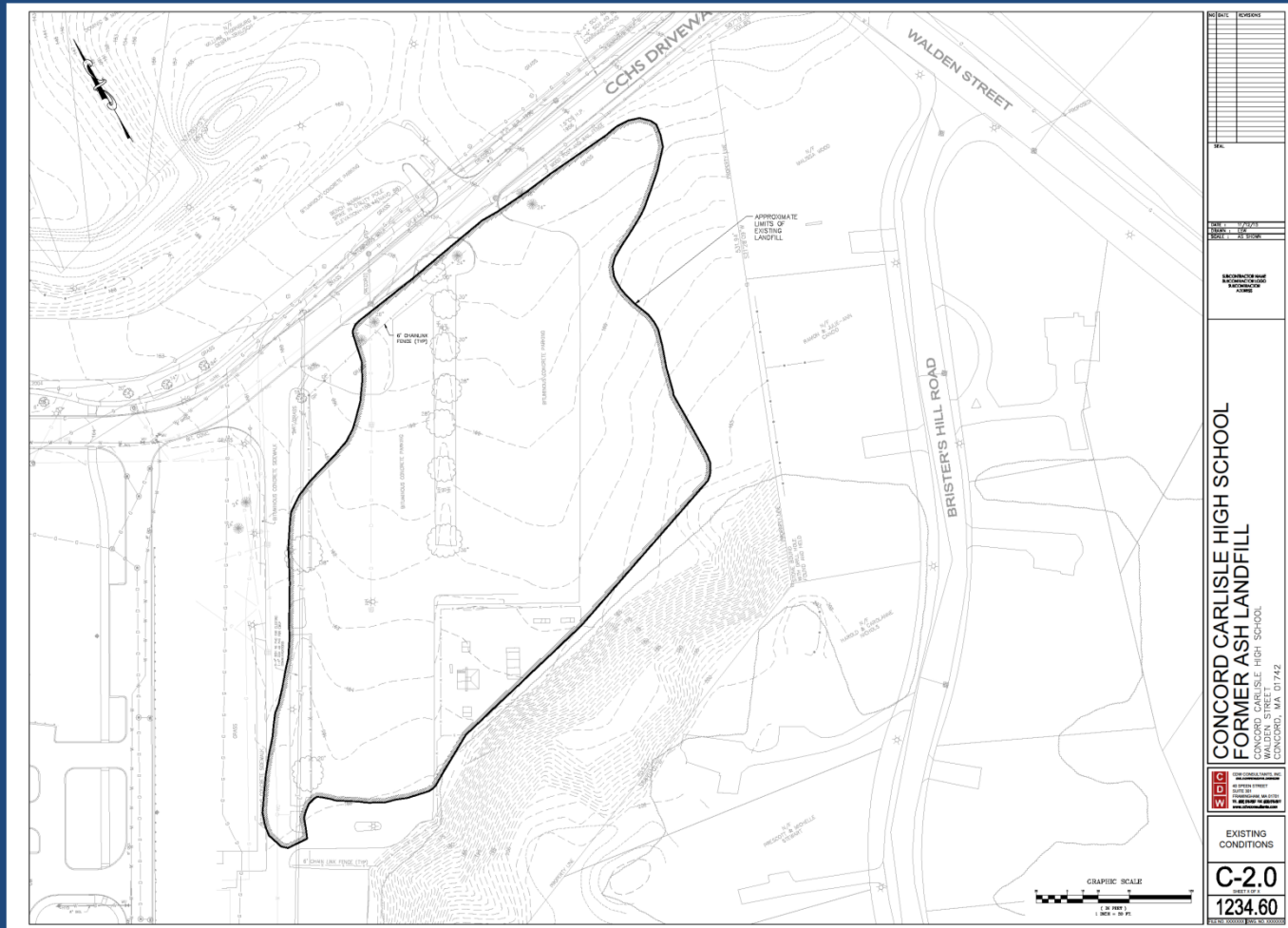
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CCHS Campus Overlay of Features



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