Fairfield Taxpayer

THE OSBORN HILL WALKWAY – TIME TO RECONSIDER

1. Context for the Osborn Hill Walkway Proposal

- **The State of Connecticut is in a serious and deepening financial crisis**.
- **Educational Cost Sharing grants and other aid from the State have been cut and may be cut further, including Fairfield's historical ~25% State reimbursement of school construction costs**.
- **Fairfield may be forced to pay one-third** (and perhaps more) **of the $27.6 million cost of its teachers' retirement benefits** in 2018, all of which is currently paid by the State and which, all other things being equal, **would require a 3.3% increase in our property taxes** next year.[1]
- All Fairfield residents face the prospect of **higher State taxes**, perhaps through an increase in the sales tax and/or the extension of the sales tax to products and services that are currently exempt, perhaps though an increase in personal income tax rates.
- **Public-employee compensation costs continue to rise 3%-4% annually**, driven by 2%-2.5% increases in salaries and "steps," and by ~8% increases in healthcare costs; meanwhile, **public-employee retirement benefits remain very generous by private-sector standards**.[2]
- **Social Security recipients received no cost-of-living increase** in their benefits in 2016 and received **only a 0.3% increase in 2017** (i.e., less than one-third of one percent).
- **Construction costs** continue to escalate (e.g., Penfield Pavilion, FLHS, Holland Hill), and public construction costs continue to be inflated by the union-protecting **Prevailing Wage law**, which requires that we pay high hourly wage rates for any public construction project (e.g., $99,000 per year in wages and benefits for workers employed as: "Laborers – common or general").
- On January 31st, Governor Malloy unveiled a proposal to increase the Prevailing Wage thresholds from $100,000 for renovation and $400,000 for new construction to $500,000 and $1 million, respectively, **which would cut the cost of projects like the Osborn Hill Walkway**.
- **Fairfield's tax base is down 10%** from its 2011 peak, and it **will probably be flat in FY 2018** as the benefit from new construction is offset by the loss of G.E. taxable property, **and flat again in FY 2019** when we will lose the remaining G.E. property from the tax base.
- **Home values in Fairfield remain weak**, particularly at the higher end of the market.
- **Enrollment is declining, but the Board of Education wants a 3.1% increase in its budget**.
- **In summary, this is a critical time for Fairfield when our elected officials must seize every opportunity to control operating and capital costs.**

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[1] http://ctmirror.org/2017/02/03/malloy-would-bill-towns-for-teachers-pensions-hints-at-cut-to-middle-class-income-tax-credit/. **Note that the cost to Fairfield will increase substantially** if the Teachers Retirement System lowers its rate-of-return assumption from 8.0% to 6.9% as the State Employees Retirement System has done.

[2] For example, assuming a 3% discount rate (current yields on 10- to 30-year Treasury bonds are 2.49%-3.11%), it would cost the average Fairfield firefighter **$2.3 million** to buy a lump-sum annuity that replicates value of the retirement benefits provided by the Town.

2. Background on the Osborn Hill Walkway

- **Osborn Hill Elementary School** (**OHES**) has an annex building of approximately 4,000 sf at the rear, which is connected to the main school building by a 46-foot covered (but not enclosed) walkway. At two miles per hour, traversing a 46-foot walkway requires 16 seconds.

- **In January 2012**, the **Representative Town Meeting** (**RTM**) authorized **$4.2 million** to pay for renovations and PCB remediation at OHES, including the cost of enclosing the walkway.

  - In the draft Proposed 2013 Plan for renovations and PCB remediation (dated 12/21/12), the project architect (Silver/Petrucelli) noted that "*the Town and FPS staff asked that this report investigate enclosing the walkway* . . ." to "*improve the security of the children [and] shield students and faculty from inclement weather*."
  - The same report estimated that the cost of enclosing the proposed **700 sf** walkway would be **$100/sf**, or **$70,000**.

- **In February 2015**, the **RTM** authorized another **$0.34 million** to cover higher-than-expected costs at OHES. In its deliberations, the RTM noted that the walkway had not been enclosed and considered adding **$120,000** to the resolution to cover the cost of doing so, but was advised by counsel not to modify the resolution.

- **In March 2015**, the RTM once again considered a resolution that would add **$120,000** to the OHES project to cover the cost of enclosing the walkway, but withdrew the resolution after assurances that the project's Owner's Representative had found an additional $250,000 in its funding and therefore "the Building Committee no longer needs to ask this body for additional funds" . . . [and is] "committed to getting this done as soon as possible."

  - Notwithstanding the assurances in March 2015, the OHES Building Committee (OHESBC) treated the walkway enclosure as what is called an "add alternate," which means that it would only be done if sufficient funds were available after completing the other renovations and remediation.

- **In December 2016**, the OHESBC returned to the BOS with a request an additional **$475,000** in funding to enclose the walkway.

  - The estimated cost of the walkway has now increased to **$767,140** (not a typo, **$767,140**), ***more than ten times the original estimate***.

  - **Please note that the median home in Fairfield is valued at ~$525,000, including the value of its land, its kitchen and bathrooms, special finishes and other improvements that are not required in a 46-foot enclosed walkway.**

  - A "cheaper" **$567,283** proposal that would use "translucent panels" instead of "glass / masonry" was approved 2-1 by the Board of Selectmen on January 4, 2017.

  - With **$292,300** remaining in its project funding, **the OHESBC is therefore seeking an additional $275,000-$475,000** to enclose the walkway ($292 + $475 = $767).

3. "Glass / Masonry" Versus "Translucent Panels"

- The presentation of the proposal by the OHESBC is ***clearly biased*** in favor of the more expensive alternative – the so-called "**Glass / Masonry Solution**."

- In its "*Design Comparison*," the presentation suggests that the more expensive option is less expensive at **$490/sf** than the cheaper option at **$780/sf *without explaining that it has more than doubled the size of the Glass / Masonry enclosure – from 700 sf to 1,500 sf***.

- The presentation then claims that one of the "*Pros*" for the more expensive option is that it provides a "*larger occupiable space*" (i.e., **800 sf more**) **without explaining why spending more money to create more occupiable space in a corridor is even desirable, let alone necessary**.

- Other invalid or meaningless "*Pros*" offered for the more expensive option include: "*new roof*" (which will cost tens of thousands of dollars more); "*new structure*" (both structures would be new); "*new stairs, ramp, rails & finishes*" (why necessary and at what incremental cost?); "*everything is new*" (at what incremental cost?).

- Some of the invalid or meaningless "*Cons*" offered for the less expensive option include: "*smaller space*" (why is more space necessary and what is the incremental cost?); "*no new stairs, ramp or railings*" (why are these necessary and what is the incremental cost?); "*design does not match existing building*" (the walkway is basically visible only from the school's interior courtyard); "*existing structure to remain, currently oversized*" (why does this matter?); "*layout creates a hidden exterior corridor between walkway and gym wall*" (why does this matter and what is the incremental cost?).

- Claims that the more-expensive option requires only a "***slight cost increase over the other solution***," when in fact $767,000 is **35% more** than $567,000, and claims that the less-expensive option provides only a "***slight cost savings***," by which it means the less-expensive option **would save $200,000, or 26%.**

- Claims that the bids received for the Translucent Panels are "*overpriced*," without explaining why it has not sought bids that are not overpriced, or why the bids received for the Glass / Masonry option are not equally or more overpriced.

- The Committee provides projections of maintenance costs over 42 years for both options which are designed to demonstrate that greater maintenance costs for translucent panels will almost offset the initial ~$200,000 saving in capital costs.

  - The alleged difference in maintenance costs over 42 years is **$161,000** ($210,750 minus $49,750).

  - However, there is **no credit for at least $252,000 in capital costs** over the 42-year period on the ~$200,000 that would be saved (and could be used for other Town projects). Even at the current low rate of 3%, this saving is ***56% greater than the alleged difference in maintenance costs***, and future capital costs are likely to be higher.

- **$92,000**, or 44% of the Translucent Panel maintenance costs, is for sanding and coating the panels every seven years to control "*fiber bloom*," **but there is no documentation of the need for this maintenance**, and an exhaustive "*google*" search produces no references whatsoever for this need. On the contrary, several websites cite 25-year fiber bloom warranties for translucent panels (see Appendix).

- **$49,000,** or 23% of the Translucent Panel maintenance costs, is for replacing the roof over the walkway **twice**, which compares to a $31,500 cost for replacing the Brick & Glass roof **once**. **This is like telling a homeowner that her roof has another 14 years of useful life, but if she replaces it now, she will only have to replace it once instead of twice in the next 42 years**. In addition, with no explanation, the cost per square foot of replacing the roof is 67% more at **$35** for the Translucent Panel option versus only **$21** for the Brick & Glass option.

- Finally, there is no explanation for why there is a labor cost to replace a damaged translucent wall panel, but **no labor cost** to replace a glass panel.

4. Other Arguments You May Hear for Spending More of the Taxpayers' Money

- **Durability** – "The longevity of Brick & Glass is much greater."

  - **Response:** See discussion of maintenance and capital costs above.

- **Aesthetics –** "The Brick & Glass option looks nicer."

  - **Response:** The corridor is basically visible only from the school's interior courtyard, and the Brick & Glass option is exorbitantly expensive at **$767,000**.

- **Safety – "**Perhaps the Brick & Glass option is safer."

  - **Response:** Chief MacNamara reviewed both options and told the BOS he had no safety concerns with the less-expensive translucent panel option.

- **Urgency** – "This project has taken too long and, having already bid and rebid this walkway project three times, the Committee is 'under a time constraint with the contractor.'"

  - **Response:** All this may be true, and the Town should improve its building management oversight process, **but this is not a good reason to spend more money than is necessary**.

- **Deference** – The more expensive option should be approved because the Committee voted unanimously in favor of it.

  - **Response:** The OHESBC is not responsible for the financial well-being of the Town.

5. Recommendation

- **Fairfield Taxpayer recommends that elected officials reject this exorbitantly expensive project and reconsider it later, hopefully when it will not be necessary to comply with the State's Prevailing Wage law.**

HOW CAN THIS MAKE ANY SENSE?

Proposed Enclosed Walkway at Osborn Hill School: $767,000

1085 Unquowa Rd. – 4 beds 3 baths 2,000 sqft – Sold 11/21/16: $770,000

Great Location! Walk to train, town and schools. "Move-in" ready 4 Bedroom. New Everything! New Gas Furnace, A/C compressor, Kitchen cabinets with slow closing doors, White Carrera counter, new roof, Garage doors/openers, California Closets, patio, 20 recessed lights, master suite shower/bath with Carrera marble throughout and huge walk-in closet, 36" gas Stove, high-end appliances, washer and dryer on first floor, crown molding throughout, Sliders to a spacious patio, walk-up attic and beautiful hardwood floors throughout. Private Wooded backyard. Tall Ceilings in Basement for future expansion. NOT in flood zone.

- Baths: 2 full, 1 half
- Lot: 0.34 acres
- Single Family
- Built in 1964
- Cooling: Central
- Heating: Forced air
- Sale price/sqft: $385
- 1000 sqft basement
- Double Pane/Storm Windows
- Fenced Yard
- Fireplace
- Flooring: Hardwood
- Lawn
- Garage – Attached
- Patio
- Unfinished basement
- Dishwasher
- Dryer
- Range/Oven
- Refrigerator
- Washer
- Breakfast nook
- Dining room
- Family room
- Laundry room
- Room count: 8
- Floor size: 2,000 sqft
- Heating: Gas
- Remodeled in 2016

Appendix

SKYLIGHTS AND WALL SYSTEMS

Guardian 275® translucent panel daylighting systems are a unique combination of high-performance materials, and offer a versatile and energy-saving option for wall systems, skylights and canopies. Their sandwich panel construction consists of an aluminum grid core and two fiberglass reinforced polymer (FRP) face sheets. These sheets allow light to pass through while eliminating glare and blocking harmful UV rays. Our Ultimate Series™ FRP face sheet goes beyond industry standards by incorporating an enhanced resin system that withstands wide temperature fluctuations, acid rain, smog, and seismic vibration up to your specified structural limit without cracking, crazing, or shattering.

Ultimate Series™ face sheet also offers:

• Longer lasting exterior FRP – with an available industry-best 20 year color change warranty

• Erosion veil for extreme environments – **backed by a 25 year fiberbloom warranty**

• High-impact options, color options and more!

http://majorskylights.com/wp-content/uploads/import/literature/guardian275catalog.pdf

The Polycarbonate Difference

Prior to the availability of structured polycarbonate panels, EXTECH used Fiberglass Reinforced Panels (FRP) in our daylighting systems. When cellular polycarbonate came on the scene, we gave it a try - and quickly realized how superior it is to FRP. **EXTECH began specializing in the use of cellular polycarbonate for daylighting solutions, and we never looked back – a decision that has proven prescient and valuable.**

The benefits of this versatile and environmentally-friendly product are unsurpassed in terms of quality and function for walls, windows, skylights, canopies, and interior projects. Polycarbonate is delicate enough to transmit light while possessing the durability to withstand hurricane-blown debris. It isn't affected by "fiber-bloom," a deterioration that happens in FRP (see below photos for example). Polycarbonate is also resistant to yellowing, another symptom of aging FRP. Polycarbonate can be used with a wide range of applications, from industrial structures that demand resilience to cultural institutions that prefer soft, ethereal aesthetics.

Other advantages include:

- Highly insulating
- Light-weight panels install quickly for reduced installation cost
- Protects against UV rays and delivers solar shading
- Diffuses light, providing a soft glow without glare; glass beads can be added to the resin to deliver an enhanced glow

- 100% recyclable; utilization can count toward LEED certification
- Superior alternative to Fiberglass Reinforced Panel (FRP) because of FRP's tendency to result in "fiber-bloom" (see below photos)
- Resistant to yellowing as it ages, an issue with FRP
- Good alternative to glass, which is prone to breakage, and heavy (making it hard to install)
- Extremely durable; tested and designed to deliver impact resistance for use in coastal structures affected by hurricanes
- Available in various colors and translucencies
- Especially effective for retrofits
- Less expensive than glass
- Unlike glass, polycarbonate can be cold-formed to various radii to create curved applications
- Available in ASTM E-84 Class A, CC-1 fire rated material

"Fiber-bloom" is a deterioration that is common in Fiberglass Reinforced Panels (FRP) and can happen within 10 years of an application's construction. Many of our retrofits are done on buildings that originally used FRP but had to be replaced with polycarbonate due to yellowing and a diminished daylighting capacity. Fiber-bloom is one of the many reasons EXTECH does not use FRP.

https://extechinc.com/polycarbonate-panels/

Interlocking Translucent Polycarbonate Wall #3440

Our most popular product, the Interlocking Translucent Polycarbonate Wall System, Series #3440, offers beauty, durability and economy with vertical panels up to 39' long.

These wall panels form a continuous wall of daylight unbroken by vertical or horizontal aluminum framing. Your facility will benefit from comfortable, diffused daylighting and all the benefits provided by cellular polycarbonate.

Other benefits include:

- Low friction gaskets reduce the noise caused by expansion and contraction
- No fiber-bloom like Fiberglass Reinforced Panels (FRP)
- Highly Insulating, up to R-4 for 40 mm thick panels
- Tongue and Groove joinery for a clean appearance.

Product Features

The 3440 Interlocking Polycarbonate Wall System combines beauty, durability and economy with panels up to 54 ft. long (vertical) that can form a continuous wall of highly insulating cellular polycarbonate providing daylighting unbroken by vertical or horizontal aluminum framing.

- Interlocking Wall panels offer Insulating values up to R-4

- Highly Impact Resistant- 200x greater than glass
- Structural cellular polycarbonate panels are 500 mm (19-11/16") wide
- Low friction gaskets reduce noise caused by expansion/contraction.
- Field labor is reduced with easily installed, fully fabricated, lightweight system.
- Easy Maintenance and Cleaning
- Up to 15 year Manufacturers Warranties
- Comfortable, Diffused daylighting saves on energy costs
- Polycarbonate and Aluminum framing both available in a variety of colors and finishes.
- Available with Class A (ASTM E-84) fire/smoke rating
- Cannot fiber-bloom like Fiberglass Reinforced Panels (FRP)

https://sweets.construction.com/Manufacturer/EXTECH-Exterior-Technologies--Inc-NST3548/Products/Translucent-Polycarbonate-Walls-NST65260-P

Translucent Replacement Window Panels for Schools, Factories, Warehouses and Commercial Buildings

Translucent replacement window panels provide a high quality and cost effective alternative for schools, factories, public transit facilities and commercial building owner. In this web page learn how these glare free panels can reduce energy and lighting costs – while simultaneously increasing productivity and reducing vandalism.

Reduce heating and cooling costs – Old windows provide poor insulation values. Our translucent windows have U value options from .53 to .05 (or R values from 1.88 to 20). Use this product to save on heating and cooling costs in cities like Cleveland, Akron, Columbus, Dayton and Cincinnati.

Glare-free diffused, usable daylighting eliminates the need for curtains or shades – Screen out glare, harmful sunlight and UV rays. In schools and workplaces it will be easier to work and view computer screens. Even on a cloudy day more balanced diffused daylight creates a positive effect on attitude and productivity.

Reduced lighting costs and controlled solar gain.

Maintenance free – there is no need to scrape, paint or wash these windows.

Shatterproof and vandal resistant

Environmentally sound green building material that contributes to LEED certified projects – Translucent insulated windows and wall panels can contribute to optimized energy performance as a highly insulated light-transmitting system. The product contains approximately 20% recycled content.

Quick installation system and service – Translucent wall panels can be installed one room at a time from the inside or outside to minimize disruption. Panels are factory prefabricated and built to the size and specifications of each opening and can be installed by our professional installation team.

http://innovatebuildingsolutions.com/products/glass-block/translucent-window-replacement-panels

Materials Workshop: Polycarbonate — a Low-Cost Alternative to Glass

Looking for something lighter, stronger and less expensive than glass? Multiwall polycarbonate may be a good option

When it comes to transparent or translucent surfaces for the home, the choice of materials is limited. Glass dominates, and it's often the default choice. But its high cost, heavy weight and low impact resistance — and the amount of energy needed to produce it — limit its range of use.

Plastics are popular substitutes for glass, because they address many of its disadvantages. They're lightweight, durable and inexpensive. They're easy to obtain and don't require special tools or expertise to install. But not all plastics can meet the rigorous demands and quality our homes require, especially when it comes to exterior applications. Polycarbonate, a relatively new thermoplastic patented by Bayer in 1953, is an exception.

Polycarbonate has been widely adopted, because it's affordable, extremely strong and adaptable to a variety of uses. It's used in eyewear and in the automotive and aviation industries; it's used to make DVDs and electronics. By extruding polycarbonate into complex shapes, manufacturers figured out a way to increase its strength and boost its thermal properties, making it a less expensive but equally viable alternative to glass. Here's an in-depth look at the material and its uses.

What is it? Structured multiwall sheet plastic is an extruded polycarbonate panel that can be used in place of glass in a variety of applications indoors and out. The extrusion looks like a translucent ice cream sandwich. The inner and outer layers are connected by fins that create channel-like flutes. This interior structure is similar to an I-beam, lending the sheet stability and special thermal properties.

Sheet size. Because it's extruded, it can be specified in almost any length; 24 to 36 feet is standard. Longer sheets are available, but shipping constraints start to outweigh the benefits. Standard widths are 4 and 6 feet. The larger the sheet, the less labor it will cost to install, and because they're lightweight, large panels are still easily handled in the field.

Composition. Polycarbonate is roughly 200 times stronger than glass and is a fraction of its weight. This means that supporting it is relatively simple, and structural elements can be minimized. This works nicely with the material's visual lightness.

Cost. Depending on the thickness and coatings specified, typical prices are in the range of $1 to $4 per square foot for the material. This doesn't include any special coatings or installation accessories (aluminum channel frames or interlocking trims).

https://www.houzz.com/ideabooks/43870464/list/materials-workshop-polycarbonate-a-low-cost-alternative-to-glass

Polycarbonate products

Polycarbonate is a versatile engineering material which is used to manufacture a number domestic and engineer products. Some of the most common products include:

Polycarbonate sheets and panels; the polycarbonate sheets are panels are available in different configurations. They have excellent mechanical, thermal, optical and chemical properties. It is for this reason that they used in glazing applications such as in the construction of green houses.

The polycarbonate sheets are available in different configurations such as the multiwall, embossed, textured and corrugated sheets. Each sheet has unique advantages and disadvantages. For instance, the multiwall polycarbonate sheets are known for good thermal insulators.

Generally, these sheets are used to make a number of roofing materials in the modern architectural designs.

Bullet proof windscreens; the bullet proof windscreens and windows is yet another common polycarbonate product. This has been due to their unbeatable strength and light weight. They are popularly used in banks as security measures to prevent attacks. The bullet proof windscreens are 30 times stronger than acrylic and 250 times stronger than glass. These windscreens are virtually unbreakable and they do not break. This eliminates chances of replacing the windscreen.

Protective devices; due to its strength, polycarbonates are used to manufacture a number of protective gadgets. One of the most common gadget are the anti-riot shield and helmet which are commonly used by law enforcers. They can with stand all manner of impacts without breaking.

Automotive industry; polycarbonates are commonly used in the automotive industry to manufacture a number of products. Companies like Jeep are using polycarbonate sheets to manufacture windscreens for their vehicles. They can remain intact even when they are driven in rough terrains.

A number of vehicles are fitted with polycarbonate headlamps besides having the interior sections of the car designed using polycarbonate products.

https://www.linkedin.com/pulse/polycarbonate-sheet-wikimake-you-expert-plastic-field-sunny-sun-6001686744817221632

Why Polycarbonate sheet is a Better Investment Than Glass

Polycarbonate sheet has become very popular because of its extreme durability and resistance to harsh conditions especially when compared to glass. Glass can be easily broken and damaged, causing a potentially hazardous situation. Polycarbonate can save you time, money, efficiency, and significantly reduce the risk of injury when replacing glass in buildings and construction.

Impact Resistance

Polycarbonate is considered almost unbreakable, giving it a very clear advantage over glass in safety. It can withstand extreme force during harsh weather and can replace glass in places like schools, subways, bus shelters, greenhouses and hospitals.

For security purposes, polycarbonate sheet protects much better against burglaries and vandalism because of it's unbreakable properties. Compared to safety glass, polycarbonate is 250 times more resistant to impact, not only protecting valuables inside but also reducing the risk of injury due to broken glass.

Longer Lifespan

Because polycarbonate sheet is durable, impact resistant, and can withstand heat, it has a long lifespan, cutting down on the cost of replacement. Glass tends to break and damage easily and needs to be replaced more often, especially when using thin panels. This can become very costly in building construction for schools, greenhouses, and hospitals that have hundreds or even thousands of windows that need to be constantly maintained.

Better Insulation

Traditional glass has very poor insulation quality compared to polycarbonate. Polycarbonate is essential for building construction because it's thermal efficiency stabilizes and evens out the temperature of a space, cutting down on the cost of utilities and reducing your carbon footprint.

http://www.acplasticsinc.com/informationcenter/r/polycarbonate-sheet-is-a-better-investment-than-glass

MULTIWALL POLYCARBONATE TRANSLUCENT WALL SYSTEM

LumiWall multiwall polycarbonate panels are constructed with fully fabricated, lightweight, interlocking tongue and groove panels. It is a dry glaze system and offers optional polyurethane thermal breaks for improved thermal performance. The translucent wall system has large span capabilities, is easily installed by commercial contractors, and requires no UV maintenance. LumiWall delivers superior light transmission, high impact resistance, and low u-values, all at an affordable price.

http://www.wascoskylights.com/product-category/for-architects-and-builders/translucent-wall-system/

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