Design-Build-Lease- Creative Financing

A design-build-lease agreement is a system of development in which a property is leased to a private person, firm, or corporation, which then finances the construction on that property in accordance with the requirements determined by the government. Upon completion of the project, the building is leased back to the public sector until the cost of the project and the company's profit has been paid. Benefits of the design- build- lease back method include:

- the circumvention of the lengthy bid process for construction
- a simplified process that results in faster completion and more quality control
- the establishment of a fixed-price contract that eliminates construction risks and cost controls
- does not require the school to borrow any money- capital budget and bond rating are not affected
- a singly entity is responsibility for design and construction, which reduces the possibility of error
- up to 100 percent of the project's cost can be financed
- state legislature approval is necessary

Examples of design-build-lease projects include:

- Allegheny County Jail – The jail was abandoned in 1993, and in 1998 Mascaro Construction Co., in conjunction with IKM inc., began construction upon this National Historic Landmark building under a design-build-lease agreement. The building was renovated into a facility that currently houses the Family Division of the Court of Common Pleas. Architectural firm IKM inc. won the 2001 Master Builders Award in the Design/Build category for their work on the Allegheny County Jail.

Allegheny County Jail, Pittsburgh, PA

- Marquette Tower – This building was originally a hotel, built in 1921, but was restored and renovated in 2004. The building now houses offices, including offices for the State of Missouri. By utilizing the design-build-lease system, Prost Builders in Missouri was able to revitalize this historic building and utilize it for a new, constructive purpose while still preserving its original beauty. Prost Builders received the 2006 Preserve Missouri award for the restoration of this building.

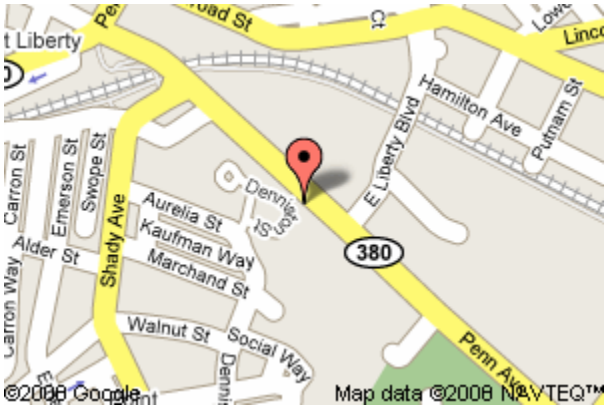
Marquette Tower, Cape Girardeau, MO

- Davenport Commons – Northeastern University in Boston utilized a design-build-lease agreement in order to build Davenport Commons, a combination of affordable housing for both students and families within the community that opened in 2001. Davenport Commons brought 60 condominiums and 15 town homes to a vacant lot within a neighborhood with very low homeownership rates, and simultaneously brought students and local residents together to create an innovative, and ultimately successful, community.

Davenport Commons, Boston, MA

Preserve and Renovate Schenley

Schenley High School, built in 1916, has become a school that sets standards for achievement district wide. Whether you look at test scores, college bound rates, or even the minority achievement rates that have proven illusive for most schools, Schenley is successful. The school also has unique programs that are unparalleled anywhere in the district. The Pittsburgh Ballet Theatre Art Program draws students from around the country to attend Schenley while taking master classes at the Pittsburgh Ballet Theatre. The International Baccalaureate program, one of the few statewide, challenges Schenley students with its advanced curriculum. And, one can't fail to mention the boy's basketball team who won the state championship in 2007. From the tangible element of the historic building, to the intangible element of the Schenley community, all options should be looked into before any decision is made regarding the future of Schenley.



Many parents, students and community leaders believe there are options. A CMU report on the issue confirms that belief. The exact cost of renovations for the Schenley facility is in dispute, but this report will use the low estimate of 40 million as well as the higher estimates. Based on a 20 year (AAA) corporate rate of approximately 6.2% the cost to retire 40 Million in debt would be approximately $3.5 Million annually* ($70 million principle and interest).

Financing the Lease-Community Development of Reizenstein

The plan to finance the Schenley renovations involves selling Reizenstein. The Allegheny County assessed land value for Reizenstein was $13 million dollars in 2003, but the CMU report projects that the final sale value could be as high as $15.1 million. Private developers will bid on the plot, and the buyer will have a variety of development options. Different development strategies will yield different amounts of tax revenue but even using a lower estimate, in which the Reizenstein lot is used for town homes the expected new tax revenue the school district will see is 37.9 million over twenty years or 1.89 million annually. These $50.9 million, derived from the sale of Reizenstein (left) and the new tax revenues cover three quarters of the Schenley renovation cost. Additional costs to cover the profit margin of the developer can be covered by eliminating capital improvements needed at other schools if Schenley were closed. The gap in available revenue and the cost of the project may appear daunting, but many alternative funding resources exist and a few are presented as follows:

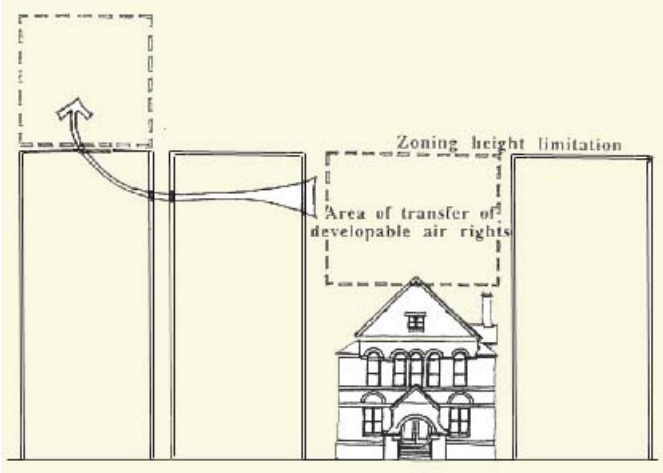
The 21st Century Green High-Performing Public School Facilities Act- requires the Secretary of Education to make grants to states for the modernization, renovation, or repair of public kindergarten, elementary, or secondary schools to make them safe, healthy, high-performing, and technologically up-to-date. The House of Representatives has commited more than $20 billion to the fund over the next 20 years. The states would give this money to the local educational agency which will use the grant for moderization, renovation, or repair of public schools including asbestos removal from public schools.[1]

The Federal Historic Preservation Tax Incentives Program– gives 20% tax credit for rehabilitation of certified historic structures. The program is managed by the National Park Service and IRS. Requirements for this tax program include that the building must be

[1] http://www.opencongress.org/bill/110-h3021/show

depreciable, the rehabilitation must be substantial, exceeding $5,000, the property must be returned to use, and the building must be a certified historic structure when it is put into use.[2]

Transfer of Development Rights- A lease of undeveloped air rights would provide funds to Schenley over the entire extent of the lease, in exchange for the unused area of developable air rights. The one who would lease this area of developable air rights would have ability to transfer that area to another project of theirs so long as their development would not hinder the surrounding community, but enhance it. An example of such a leasing and transfer can be found in the case of the Arts Club of Washington DC, a non-profit educational organization dedicated to furthering interests in the arts that was founded in 1916, which profited about $2 million a year for the first 15 years and then around $120,000 in the years to follow.[3] Once this area is sold or leased however, Schenley would have to meet with the Historic Review Commission and Pittsburgh Zoning Board of Adjustment regularly to prove that it has not expanded into the air that no longer belongs to the property.



Conclusion

The lack of funding required to make the necessary capital improvements, should not be the reason Shenley High School closes. By combining a design-build-lease financing plan to the sale and redevelopment at Reizenstein and pursuing presently available historic preservation, green building and other grants, Schenley High School can remain the Grand Old Lady of Oakland and enrich another century of students with a quality education.

[2] http://www.epa.gov/reg3hwmd/bfs/fed_prog_guide/fed_his_pres.htm
[3] http://www.international.icomos.org/publications/93sy_eco11.pdf

Schenley High School

Keeping Pittsburgh's Public School Open: A Feasibility Study

Decision Analysis and Decision Support Systems

Carnegie Mellon University

I. Executive Summary

The Pittsburgh Public School District currently faces the decision of closing Schenley High School, one of the district's best performing high schools. This Oakland school has several problems, including outdated mechanical systems and high levels of asbestos. The asbestos is not currently a threat to safety; however, it could become so if mechanical systems are torn out and asbestos fibers are released into the air. Thus, the mechanical systems cannot be updated without first removing the asbestos. The cost of these improvements has been estimated anywhere between 42 and 65 million dollars. Due to the high cost, it was initially voted that Schenley be closed and the students relocated to other schools in the district. However, public outcry and new financing options have led the district to reconsider.

This study examines one particular financing option that is currently being discussed within the school board. Reizenstein, a former Pittsburgh Middle School located at the edges of Shadyside and East Liberty, currently sits empty on 12.91 acres of land. If this property were to be sold and redeveloped into a residential area, property and income tax from residents could create a stream of revenue to be used for Schenley repairs. This study uses land prices, assessed property values, and estimated median incomes in the Reizenstein area to estimate the potential revenue generated by three different development plans: townhouses, apartment complexes, and single-family homes. Analysis predicts that none of these plans, even with beyond optimal assumptions, would produce a strong enough revenue stream to finance Schenley repairs. Thus, selling and redeveloping the Reizenstein property should not be considered the solution to the problem of lacking funds, but rather only one part of the solution.

II. Background:

Schenley High school was built in 1916 and has since thrived in Oakland, the cultural and educational center of Pittsburgh. The prominent triangular-shaped building was the first high-school in the United States to cost over 1 million dollars, and was added to the National Register of Historic Places in 1986. Like many buildings that were constructed in the first half of the 20th century, Schenley High School contains significant amounts of asbestos. Before the serious health risks of asbestos were known, the fibers were often mixed with building materials because of their resistance to heat, electricity and chemical damage. Thus, asbestos can be found in Schenley's walls, ceilings, floor tiles, pipe coverings and wires. Currently, the asbestos in Schenley poses little threat to students and faculty, as it is embedded within materials. A threat only develops once asbestos fibers are released into the air, making it likely that they will be inhaled or that they will become embedded in skin.

Deteriorating infrastructure is also a function of the building's age. Plumbing, electrical wiring and ADA bathrooms are all very outdated, and modernization has become necessary. Furthermore, the school's ventilation system has not functioned for several years as a result of mechanical problems and the system's inefficiency. The lack of ventilation in combination with water leakage and humid weather has led to accumulation of moisture within the building, which is causing plaster to delaminate in several places. This process of delamination has been greatly exacerbated by the recent addition of new windows, which trap heat and increase the building's humidity problems. Replacing worn infrastructure is top priority, but the replacement process will likely release asbestos into the air, putting individuals in the building at risk. Therefore, the infrastructure problems cannot be fixed without first removing or containing the asbestos.

The school district has received several estimates for the cost of these repairs. For complete removal of asbestos and building renovations, estimates range from $50 million (PPS Facilities Staff) to $64.4 million (Astorino, Inc.). Astorino has also provided an estimate for asbestos encapsulation and renovation, a more limited procedure, at $42.4 million. It is thus clear that, no matter how the repairs are done, they will be extremely costly. At the present time, the school district does not have the funds to finance such costly repairs. The 2008 budget will allocate $4,263,186 to use for facilities, which is only 0.81% of the total budget. Because this is the total amount reserved for all facilities in the district, Schenley would be able to secure only a small portion of this allocation. Beyond this, the district has been running budget deficits for several years and has recently been dipping into reserve funds to achieve balance.

III. Closing Schenley High School

Based on this information, the district superintendent, Mark Roosevelt, made an initial decision in October 2007 to close the school and relocate students to other high schools in the Pittsburgh District. Under this decision, current Schenley students would be placed at Reizenstein, a former Pittsburgh Public middle school that was closed in 2006 as part of the "Plan to Right-Size the Pittsburgh Public Schools." Schenley students participating in the Technology Magnet, one of Schenley's unique academic programs, would also be moved to Reizenstein, but would complete their magnet courses at Peabody High School, located in East Liberty. Incoming 9th graders who would have been placed at Schenley will be sent to various different locations. Incoming Technology Magnet students will attend Peabody, students in Schenley's International Program will attend Pittsburgh Frick, and students in Schenley's mainstream program will attend Milliones, another former middle school closed in the Right-

Sizing plan. Pittsburgh Frick, which is currently a 6-8 Middle School, will become a 6-12 school. Milliones will assume the same format, as Miller and Vann middle schools students are also moved to the building. Reizenstein would become yet another 6-12 school.

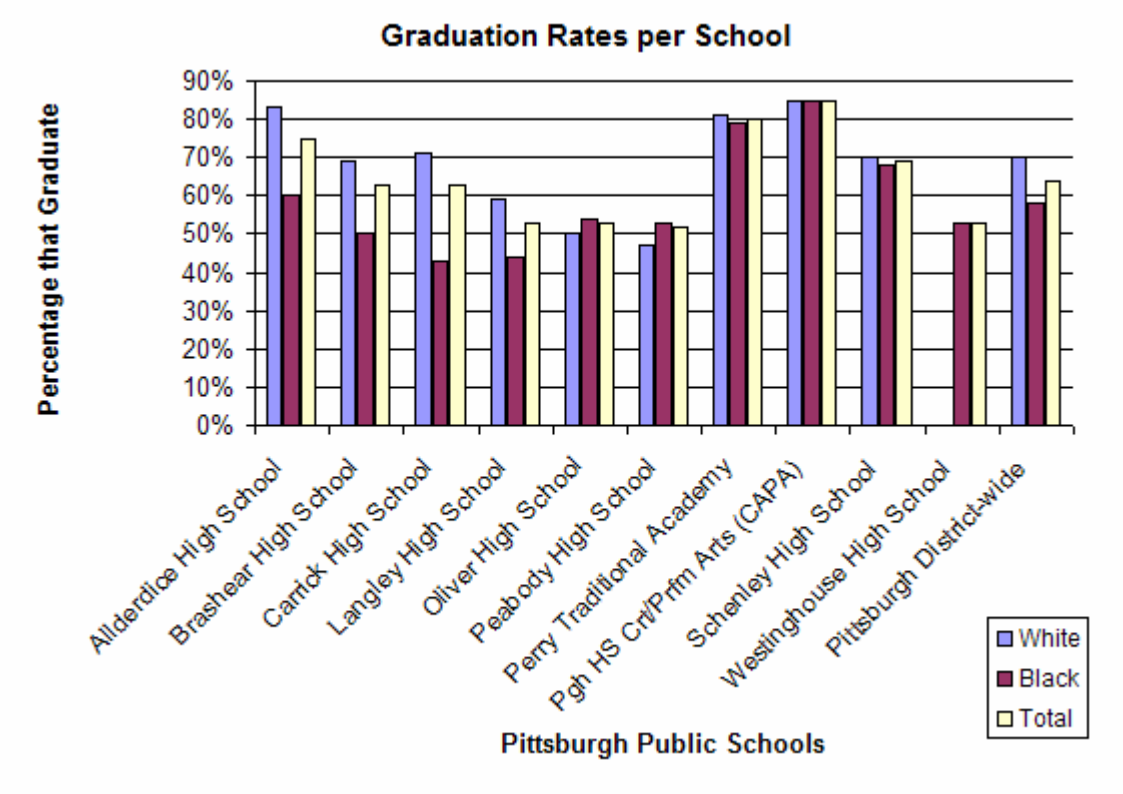
This relocation plan does have some tangible costs associated with it. School transportation will need to be rerouted, former middle schools will need to be redesigned in order to accommodate older students, and equipment from Schenley will need to be moved to the new locations. Though such costs will definitely be incurred, it is not likely that they will outweigh the potential $64 million cost of keeping students at Schenley. While it may seem that Schenley *should* be closed based on this information, indirect and less tangible costs of moving students must also be considered. Test scores, graduation rates, dropout rates, and college-bound rates all indicate Schenley as one of the highest performing high schools in the Pittsburgh Public School District. The school performs particularly well when considering only the African-American student population. This is of particular importance, as the racial achievement gap is a major problem within Pittsburgh's schools. A 2006 study by the Rand Corporation collected data on the graduation and dropout rates for each of Pittsburgh's 10 public high schools. The graduation rate at Schenley was reported at 69%, which can be compared to 63% at Brashear and Carrick High Schools, 53% at Langley, Oliver and Westinghouse High Schools, and 52% at Peabody High School. Only three high schools outperform Schenley on this attribute, one of which is CAPA, Pittsburgh's performing arts high school. Because CAPA follows a vastly different curriculum than other schools and has strict admissions requirements, it may be unreasonable to compare it to Schenley. When it comes to African-American students, Schenley outperforms all other schools aside from Perry and CAPA. What is more, the percentage gaps are much larger when looking at this group. While Schenley's graduation rate for African American

students is 68%, Carrick and Langley High Schools have rates of 43% and 44%. These percentages are presented in the following table and graph.

TABLE 1: Graduation Rates in Pittsburgh Public High Schools (2006)

Graduation Rates	White	Black	Total
Pgh HS Crt/Prfm Arts (CAPA)	85%	**85%**	**85%**
Perry Traditional Academy	81%	**79%**	**80%**
Allderdice High School	83%	**60%**	**75%**
Schenley High School	70%	**68%**	**69%**
Brashear High School	69%	50%	63%
Carrick High School	71%	43%	63%
Langley High School	59%	44%	53%
Oliver High School	50%	54%	53%
Westinghouse High School	*	53%	53%
Peabody High School	47%	53%	52%
Pittsburgh District-wide	70%	64%	64%

GRAPH 1: Graduation Rates in Pittsburgh Public High Schools (2006)

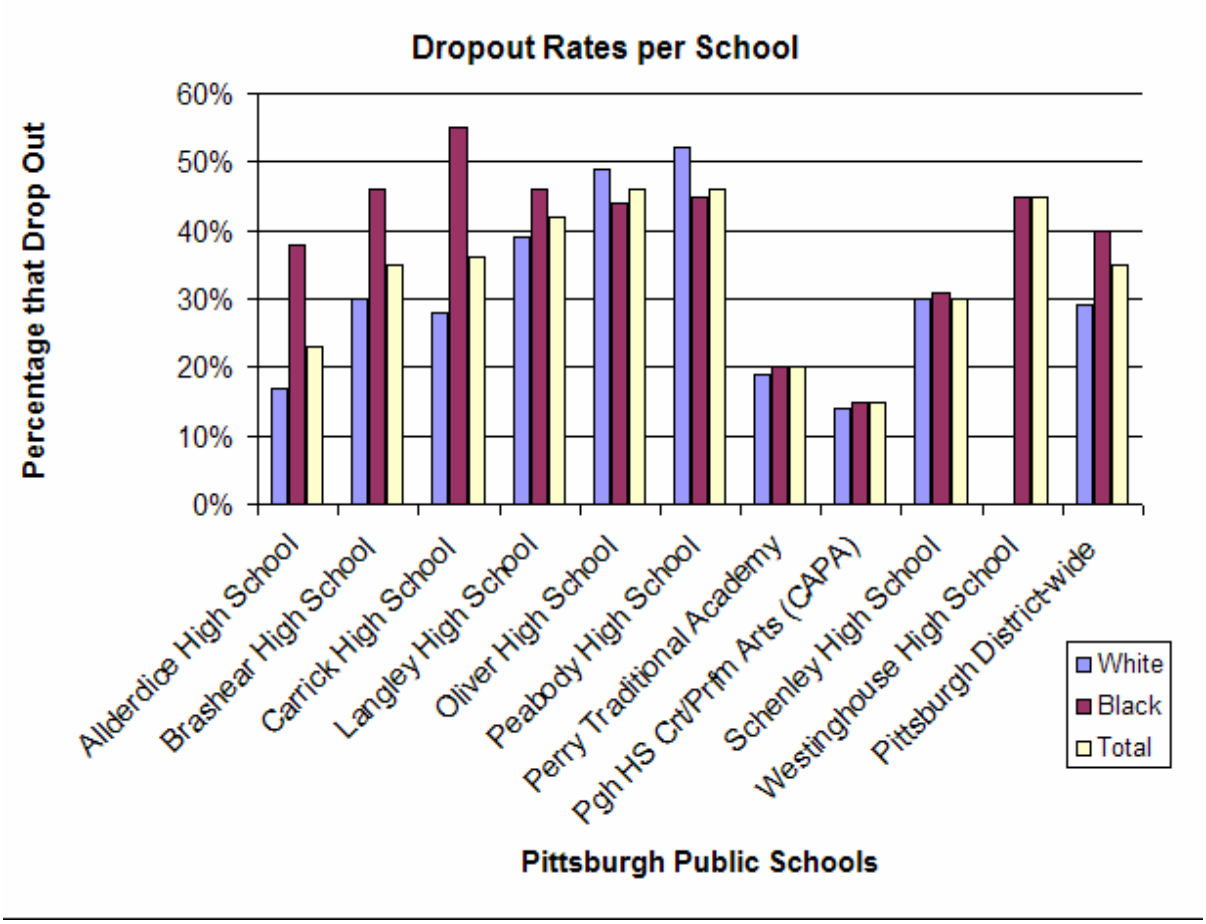


A similar pattern can be observed when comparing dropout rates for Pittsburgh's public high schools. Schenley outperforms all of the same schools, and differences between African-Americans at Schenley and those at lower-performing schools are quite large.

TABLE 2: Dropout Rates in Pittsburgh Public High Schools (2006)

Dropout Rates	**White**	**Black**	**Total**
Pgh HS Crt/Prfm Arts (CAPA)	14%	15%	**15%**
Perry Traditional Academy	19%	20%	**20%**
Allderdice High School	17%	38%	**23%**
Schenley High School	30%	31%	**30%**
Brashear High School	30%	46%	35%
Carrick High School	28%	55%	36%
Langley High School	39%	46%	42%
Westinghouse High School	*	45%	45%
Oliver High School	49%	44%	46%
Peabody High School	52%	45%	46%
Pittsburgh District-wide	29%	34%	35%

GRAPH 2: Dropout Rates in Pittsburgh Public High Schools (2006)



Overall, Schenley has the highest percentage of college-bound students (out of all schools for which data is available). When looking specifically at females, both black and white, Schenley outperforms all other Pittsburgh high schools, and when looking at males, both black and white, Schenley is only surpassed by CAPA.

TABLE 3: College Bound Rates in Pittsburgh Public High Schools

College Bound Rates	Average	Black M	Black F	White M	White F
Schenley High School	87.40%	72.60%	90.10%	94.90%	93.40%
Pgh HS Cr/Prm Arts (CAPA)	83.80%	90.00%	93.80%	73.30%	78.70%
Allderdice High School	82.50%	70.20%	88.50%	88.70%	92.00%
Brashear High School	75.90%	69.70%	84.50%	72.70%	88.90%
Carrick High School	75.20%	59.40%	68.80%	74.70%	84.80%
Oliver High School	70.80%	72.60%	72.90%	53.30%	n/a
Langley High School	65.20%	60.00%	71.90%	43.30%	88.50%
Westinghouse High School	53.90%	43.10%	62.50%	n/a	n/a
Peabody High School	48.00%	34.50%	54.00%	n/a	n/a
Perry Traditional Academy	n/a	n/a	n/a	n/a	n/a

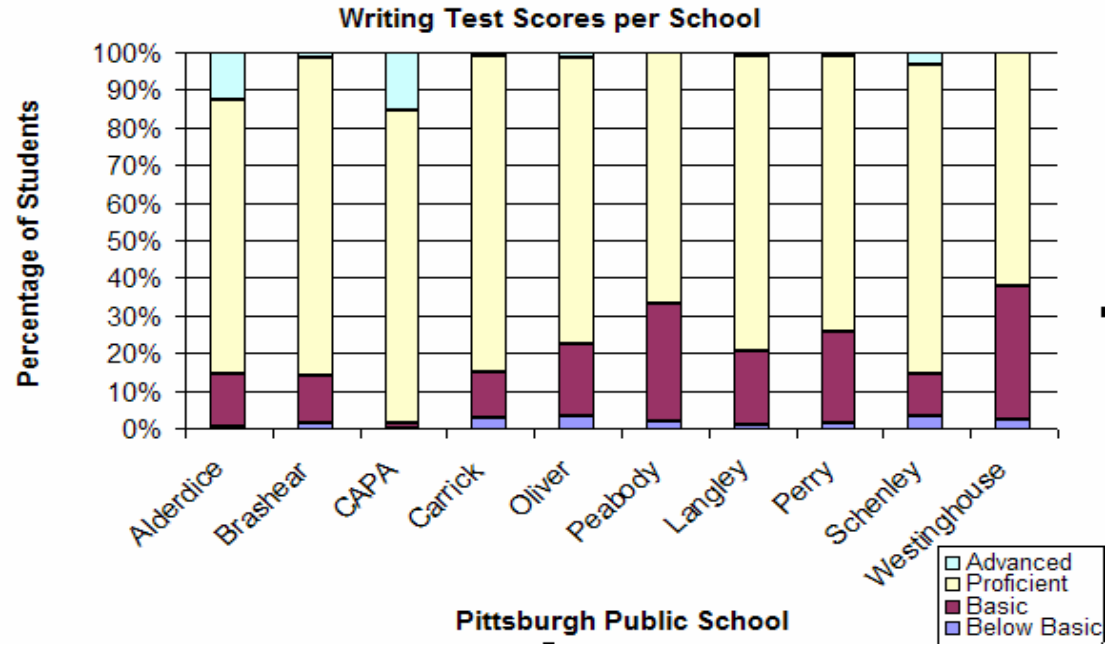
Each high school has unique standards for graduation, and accordingly these results can be inflated as individual schools may "push students through" to achieve a high graduation level. Perhaps the fairest way to determine the academic success of a school is to objectively compare schools to a uniform standard. The current standard is the PSSA, which is administered in every Pennsylvania school. This test qualifies students on three different areas: reading, writing, and mathematics. After comparing each Pittsburgh Public School, we can see Schenley tends to outperform its competitors.

There is no school exactly like Schenley. Schenley has an enrollment of 1,050 students, making it the second largest public school in Pittsburgh. Additionally, Schenley has an African American population which consists of 64.14% of their student body. The closest schools with similar percentages of African-American students are Langley (61.13%) and Perry (58.95%). Schenley outperforms all three of these schools with regards to a percentage of advanced and proficient students, and further illustrates that this school is overcoming the racial achievement gaps that exist in Pittsburgh.

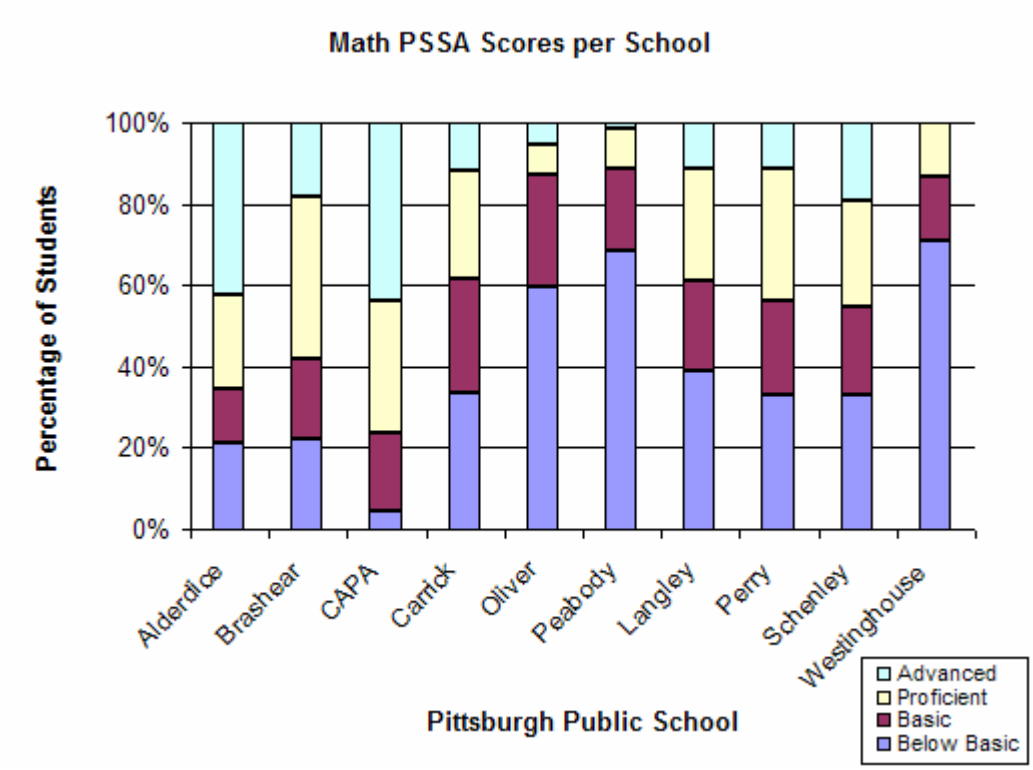
TABLE 4: PSSA Results for Similar African-American Population Schools.

	High School	Langley	Perry	Schenley
	Enrollment	530	816	1,050
	% Black	61.13%	58.95%	67.14%
Writing	**Below Basic**	0.8	1.5	3.1
	Basic	19.7	24.1	11.6
	Proficient	78.8	73.4	82.1
	Advanced	0.8	1	3.1
Math	**Below Basic**	39.2	33.2	32.9
	Basic	21.7	22.9	21.9
	Proficient	28	32.7	25.9
	Advanced	11.2	11.2	19.3
Reading	**Below Basic**	41.3	28.8	26.3
	Basic	18.9	25.9	16.7
	Proficient	30.1	30.7	34.6
	Advanced	9.8	14.6	22.4

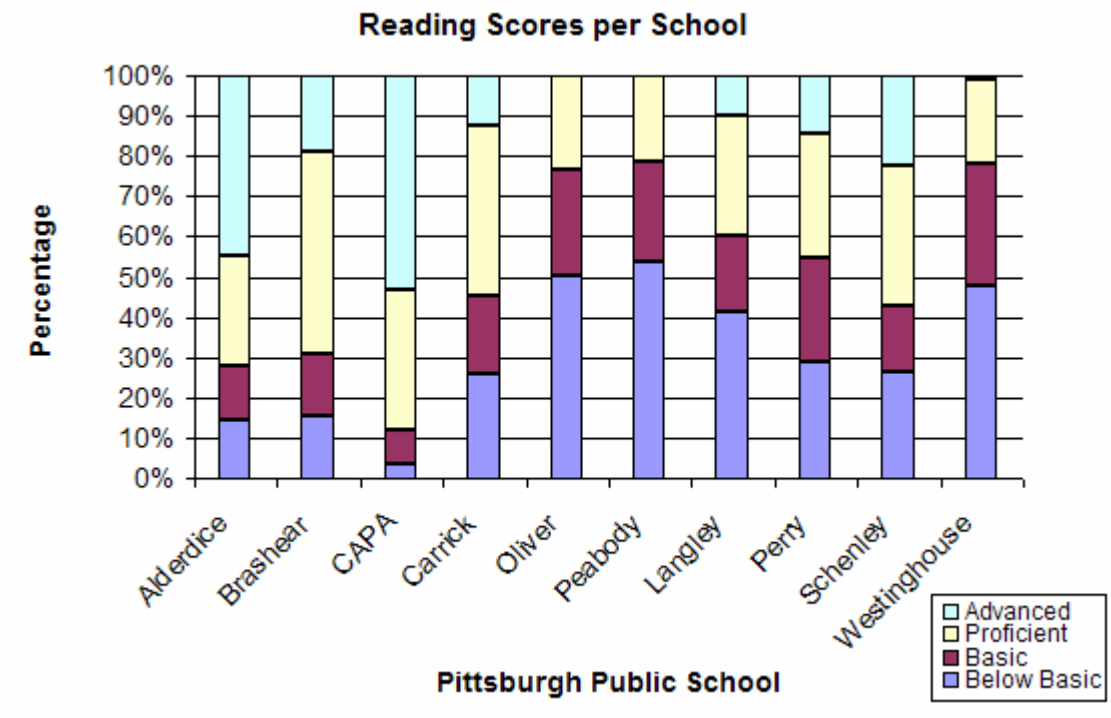
GRAPH 3: Writing PSSA Results for All Pittsburgh Public Schools



GRAPH 4: Math PSSA Results for Pittsburgh Public Schools



Graph 3: Reading PSSA Results



Schenley's strong academic performance is likely tied to its unique and rigorous curriculum. Schenley is the only Pittsburgh Public High School, and one of the few Pennsylvania schools that offers the rigorous IB program. In addition to this program, Schenley offers magnet programs in both technology and international studies. The Pittsburgh Ballet Theatre Art Program is another one of Schenley's strong programs that demonstrates both the commitment to the arts and the overarching Pittsburgh community. This program allows exceptionally talented high school students to take master classes at the Pittsburgh Ballet Theatre. After working through this program, students are shown in a Senior Showcase which allows them to potentially get scouted for professional ballet companies.

Because Schenley performs so well on various levels, and has unique programs not offered in many of the district's other schools, permanently closing it could have a detrimental impact on the quality of education that students receive. While it cannot be assumed that moving students to these schools would result in an immediate decrease in their test scores and graduation performance, it should be noted that these students will be attending some of the worst performing Pittsburgh Public Schools (Peabody, for instance). Students who would have attended Schenley may, in the new school plan, have less options and may be less likely to graduate or attend college. In a school district plagued by racial disparities and general underperformance, it could be quite costly to remove one of the few schools that has escaped these trends. Other benefits of Schenley, such as the building's historic architecture, the large amounts of sunlight received in classrooms, and the proximity to the many cultural and educational amenities of Oakland, are additional things that would be lost in the new school plan. This adds to the intangible costs of closing the school. Though quantifying these exact costs is beyond the scope of our study, it could, over time, exceed the cost of repairing Schenley and

keeping it open. Schenley stands as a model for what can be achieved in the district, and as a result, the idea of closing it has received fierce public opposition.

The public outcry received since Roosevelt's initial decision, as well as a new possibility for funding the repairs, is in large part what has led him to reconsider the decision. The new plan entails the sale and subsequent residential redevelopment of the Reizenstein school property. Property taxes and income taxes that are collected from new residents and allocated to the school district would provide a stream of revenue that could be used for Schenley repairs. (Note: the values in this document are reported under the assumption that all residents in the development are new residents to the city – and thus all revenue generated is new). Though school-district tax revenues are typically placed in a general fund to be used for all Pittsburgh schools, they could be redirected into a fund designated specifically for Schenley for a certain period of time. In our study, we allot a generous twenty years for Schenley High School to receive the revenue. In reality, Schenley would probably not receive 100% of the revenue for this long of a period. The money collected from the actual sale of the property is also a potential source of revenue. The remainder of this study explores the feasibility of this plan and the likelihood that it will generate sufficient revenue.

IV. Developing Rezeinstein

The Reizenstein property is currently zoned RM-M (Multi-Unit Residential, Medium Density). This zoning is meant to preserve the current residential environment of the Shadyside area in which Reizenstein is located. Based on this we consider three different development plans and the revenue that each could potentially generate. One plan entails a community of townhouses, similar to the one that currently borders the Northern side of the Reizenstein

property. The second plan consists of single-family residential homes that resemble those currently standing on neighborhood streets bordering the property. The third plan consists of multiple medium-sized apartment complexes modeled off of a nearby Shady Avenue complex.

The total land area of the Reizenstein property is 562,359.6 square feet, or 12.91 acres. This area was used to calculate the upper limit of the number of units that could fit on the property in each development plan. Median household income in the area surrounding Reizenstein was then used to estimate the amount of income tax revenue that could be collected under each plan. The median household income in the census block in which Reizenstein is located is reported to be between $48,296 and $72,372.66 (average $60,334.48). To determine potential property tax revenue in each of the three plans, data was collected on the assessed value of various townhouses, single-family homes, and apartment complexes currently existing in the Reizenstein area. Furthermore, the 2003 Allegheny County assessed value of the Reizenstein property (both building and land) was used to estimate the approximate revenue that could be collected from the sale of the property. This value was listed at $13,062,800. The office of Property Assessments reports that in 2006, assessed values in Allegheny County were within 87.3% of the 2006 sales prices. Using this information, we established a potential selling price of $15,104,712.64. This high estimate was used in an effort to create a best-care scenario. If the sale and land redevelopment do not generate sufficient revenue even under the absolute best conditions, it is impossible that they will under any conditions. For this reason, “best-case” values are used throughout calculations.

V. Analysis

To recap, revenue may be generated in two ways:

1) From the sale of the Reizenstein property
2) From the residential development of the Reizenstein property, and subsequent collection of property and income taxes

The Reizenstein property may be developed in three different ways:

1) Community of townhouses
2) Single-family homes
3) Medium-sized apartment complexes

Revenue from developments allocated to Schenley

We first consider using only the revenue created by developing the property and collecting taxes. We assume that money made on the actual sale would be placed in a general fund for use by all schools in the district, and that Schenley would receive a negligible portion of this. The first potential development plan is a community of townhouses, modeled off of Reizenstein's neighbor, The Village of Shadyside. In this community, the average lot size is 1,653.85 sq ft. Using this number, it can be determined that an absolute maximum of 340 townhouses can be built on Reizenstein property (not accounting for roads between the townhouses, etc.). At a median income of $60,334.48, and a school-board income tax rate of 2%, the income tax revenue from 340 households after 20 years is $10,553,229.61. This assumes an income growth rate of 2.55% per year (This is the actual growth rate of per capita income between 2000 and 2003, and thus a reasonable estimate). The average assessed property value of a townhouse in this community is $221,956. At a school-district property tax rate of 1.39% and an annual property value growth rate of 3%, the total revenue generated from 340 households after 20 years is $27,442,078.40. Three percent is used as the growth rate because it reflects the average inflation rate of the past decade. The maximum revenue after twenty years

from the income and property tax combined is thus $37,975,308 (average annual revenue of $1,898,765). This is not even enough to cover the lowest repair cost estimate (for complete asbestos removal) of $50 million. Furthermore, we assume that the repairs will be completed immediately and be paid for up front, implying that the district will require a loan in the amount of the repairs. Since, after 20 years, revenue for Schenley will no longer be generated by Reizenstein, we also assume that the loan must be repaid at the end of 20 years (As otherwise, interest would continue to accumulate without any revenue to offset it). Thus, after 20 years, the district will have accrued interest on this loan and final costs will be higher than $50 million if a certain minimum payment is not being made each year.

The second potential development plan is a series of single-family residential homes. By collecting data on 11 different homes located on three residential streets that surround the Reizenstein property (Denniston St., Howe St., and Marchand St.), we estimated the average lot-size for a single-family home to be 3,556.45 sq ft. This yields a maximum of 158 homes that could be developed on the Reizenstein property. At a median household income of $60,334.48, the income tax revenue that could be generated by 158 houses over twenty years is equal to $4,894,853.50. The same 11 homes were used to estimate an average property value of $233,718.18. At a property tax rate of 1.39%, 158 properties could generate $13,447,613 in tax revenue over twenty years. Again, this assumes that property values increase at an annual rate of 3%. Summing the two together produces a maximum revenue of $18,342,466. Again, this falls far short of the cost of repairing Schenley and would not even be sufficient to repay an interest-free $50 million principle. Table 8 shows the additional revenue that would be required to repay the loan within twenty years if this particular plan were undertaken – in many years, it is over $3 million.

Lastly, data was collected on an apartment complex located approximately one block from the Reizenstein property at 401 Shady Avenue. This particular complex includes 240 individual units. The lot size is reported as 2.92 acres, or 127,195 square feet. Based on this number, a maximum of four complexes could be established on the Reizenstein property. Using the same median income of $60,334.48, income tax revenue generated from 960 households (240 households per complex *x* 4 complexes) after 20 years is $29,740,883. Based on an assessed property value of $15,321,000, an additional $22,317,355 could be generated in property tax revenue. The total revenue thus generated from this development could reach $52,058,239 (average annual revenue of $2,602,911). This is the only development plan discussed this far that generates enough revenue to repay a $50 million principle. Based on a 5% interest rate, the minimum annual payment required to repay a $50 million loan in 20 years is $4,012,129. However, under this development plan, revenue is less than this amount in each of the twenty years. Five percent interest on $50 million is equal to $2.5 million. Average annual revenue generated under this development is $2,602,911, which implies that the revenue will pay off the interest each year, but will not reduce the principle. Thus, at the end of year 20, a balloon payment of slightly over $50 million would be required to repay the loan in full. An additional source of revenue that could generate an average of $1.4 million per year would sufficiently repay the loan by the end of year 20 (see table 12 in appendix); however, the development cannot sufficiently act as the sole revenue generator for Schenley's repairs.

Sale of Reizenstein Property Allocated to Schenley

We now consider an alternative option, in which the money made from the actual sale of Reizenstein's property is directed towards Schenley's repairs while the subsequent revenue generated from the development is placed in a general school district fund. As stated before, the estimated sale price for Reizenstein that was used was $15,104,712.64. Upon directing this sum towards the $50 million repairs, a loan in the amount of $34,896,000 would be required to cover the remaining costs. To pay back this loan with 5% annual interest in 20 years, a minimum payment of $2,807,309 would be required. This is therefore the amount of annual revenue that must be generated from some alternative source to make this option feasible.

Sale of Reizenstein Property Allocated to Schenley *and* Revenue from Developments allocated to Schenley

Finally, we consider a third option, despite the fact that it is highly unlikely. For this option, we assume that both the money from the sale of Schenley *and* the revenue generated from developing the property would be allocated specifically to Schenley. By immediately directing the $15.1 million earned from the sale towards repairs, the district could reduce the required loan to $34.9 million. Yearly tax revenue from the Reizenstein development could then be used to make payments on this loan. Under this plan, we find that neither the townhouse development nor the single-family home development generate sufficient revenue to repay the loan by year 20, at which point revenue for Schenley ceases. In the case of the townhouses, an additional balloon payment of $32,807,585 would be required at the end of the period. In the single-family home case, an additional balloon payment of $63,838,589 would be required. The apartment complex development does not generate sufficient revenue either; however, the

balloon payment required at the end of the 20 year period to pay off the remainder of the loan is only $10,398,471. An additional source of revenue that generated approximately $457,000 a year for the first thirteen years would render this development plan as a reasonable solution (see table 6 in appendix). We must stress, though, that the likelihood of Schenley receiving both the sale revenue as well as the development revenue is quite low.

Recommendations

From the analysis of these possible scenarios, the sale and subsequent development of the Reizenstein property has the potential to provide a significant amount of revenue, but does not provide enough to fully cover the large cost of Schenley's repairs. It may be worthwhile to do the same analysis at the high-end median income of $72,372.66 – a high-end development could have more promising results, and at this income, the apartment complex development could become more feasible.

This study has made clear the fact that Schenley is an impressive standout in the Pittsburgh Public School district, and its preservation should not be quickly written-off as a lost cause. Therefore, we recommend that additional sources of funding be considered. This could include green building grants and historic preservation grants. Such grants could be highly beneficial, but the potential impact of them is beyond the scope of this study. In conclusion, though the sale and development of the Reizenstein property may not be a complete solution to the Schenley problem, it could indeed be *part* of the solution, and could be a major source of support in the effort to save Schenley High School.