

ERWIN & BIELINSKI

ARCHITECTS AND ENGINEERS, PLLC.

ASSESSMENT OF THE PROPOSAL BY THE COMMITTEE TO SAVE ST. PAUL'S

Erwin & Bielinski was retained to provide an independent assessment of the condition of St. Paul's School in Garden City, New York (the "School"), and an analysis of the June 29, 2010 and October 6, 2011 proposals submitted for limited reuse of the School by the Committee to Save St Paul's and the Garden City Historical Society (collectively, the "Committee"). In its submittal, the Committee included costing information provided by Sullivan Builders and also refers to estimates provided by Turner Construction Company ("TCCo").

The cost estimate line items from TCCo that are included into the Committee's report appear to have been excerpted from a cost estimate prepared by TCCo dated June 28, 2011. The total cost of restoration shown on the full estimate varies significantly from the excerpted estimate incorporated into the Committee report.

ERWIN & BIELINSKI BACKGROUND

Erwin & Bielinski is a forensic architectural firm founded in 2006 to provide consulting services to the architectural, construction, insurance and real estate communities. We provide these services in the New York City metropolitan area as well as in other parts of the United States. As part of our services, we are regularly called upon to provide existing building assessments as part of real estate transactions and as part of feasibility studies. We have been involved with assessing numerous structures similar to St. Paul's, and have also been the project architect for renovation of such structures. We also are called upon to prepare budget estimates for consideration in these types of projects.

Our firm was originally retained by the Village in connection with the preparation of the Final Environmental Impact Study ("FEIS") completed in February 2011. Our original full report is included as Appendix M to the FEIS and we refer you to the analysis contained therein for a full discussion. In October of 2011, the Committee submitted an updated proposal, and this report serves as an update in summary form of our original report to address this October 2011 Committee proposal. This report has been provided at the request of the Board of Trustees of the Village of Garden City.

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SUMMARY

The proposal prepared by the Committee envisions making limited repairs to the School in order to stabilize the facility and make portions of the ground floor usable for some public activities. The large majority of the School would remain unused and partially stabilized for future restoration. The Committee's proposal includes the work broadly described on its Appendix A. The October 2011 submission by the Committee did not vary substantially from the original proposal which was analyzed by our firm in the FEIS.

After extensive analysis, including a review of plans and material submitted to the Village of Garden City by the Committee, and other relevant material, our firm has come to the conclusion that the Committee's most recent proposal does not meet minimum current safety and building code requirements, and is unlikely to be approved by the building authorities as currently envisioned. We also conclude that the costs projected by the Committee are not realistic and are not the full costs of preparing the building for use, even under the limited scope of work contained in the committee's latest plan; the full cost of restoration of the building is simply deferred to the future, it is not eliminated.

In our opinion there are several specific weaknesses or drawbacks to the proposal that the community should consider in assessing the Committee's proposal.

We believe that the \$8 million projected cost of the Committee's proposal (1) is underestimated and unclear; (2) would be largely wasted if a future reuse option is implemented; (3) simply defers the cost of the inevitable full stabilization, restoration and renovation to some point in the future; (4) requires a significantly higher initial Village expenditure than full demolition and requires continued annual funding for maintenance of the occupied and unoccupied portions of the facility; (5) is insufficient in scope to prevent continuing deterioration of unused portions of the facility, (6) may face significant and perhaps insurmountable objections from the Building Officials related to the safe use of a portion of the building, and (7) does not address the fundamental problems with the physical layout of the School for any future reuse.

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Even if the Committee's cost of the partial restoration is assumed to be accurate, the fact remains that it is only a down payment on the full restoration project, a project for which no viable use has been identified and for which significant sums will be required. We believe the fundamental question that the community must make is whether the effort and expense to restore the School for short-term and partial use is justified based on the project's inherent value and its contribution to the life of the community, even if no future use is ever identified.

For all of these reasons, it is our opinion that the cost projection of approximately \$100 per year per "average resident" over a fifteen year period put forth by the Committee for the project is not a realistic reflection of the actual cost that will need to be borne by the community in order to obtain a building that can be partially utilized, and an even less realistic reflection of the cost to the community to obtain a building that can be fully utilized.

DISCUSSION

(1) The Cost of the Proposal is Underestimated and Unclear

We believe that the Committee underestimates the cost of the work. First, there are numerous exclusions from both of the Sullivan and TCCo cost estimates for work that could not be properly estimated. The TCCo estimate includes three pages of clarifications and assumptions, including over a dozen significant exclusions from the scope of work such as fire stairs, refurbishment of the clock tower, landscaping, soft costs, structural modifications, heating system, plumbing upgrades, and fire standpipe system. These are costs that are going to be incurred at some point when the building is renovated for its ultimate use.

The Sullivan estimates appear to be based on optimistic "best cases" assumptions rather than "worst case" assumptions. It is unlikely that the School, which has been abandoned and untended for nearly twenty years, will present the best case for any of the restoration trades. We particularly question the magnitude of all of the "make-watertight" trades

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including roofing restoration, exterior wall repair and restoration, and repairs to windows and doors.

The estimates also appear to minimize the effort that will be required to restore the School. This is a building constructed of historic material, and correctly restoring these materials is very time consuming and expensive. For example, there is no allowance for the restoration of the stained glass windows, pipe organ or true plaster work in the chapel. There is elaborate woodwork in the feature rooms that will require repairs and restoration. In addition, some of the estimated costs presented by the Committee in its latest estimate are lower than their previous estimate. We believe that these reductions are unrealistic. The net effect is that the Committee's proposal for its own reduced scope of work may be underestimated by over \$1,000,000.

We do not fundamentally disagree with the "unit costs" incorporated in Sullivan and TCCo cost estimates submitted by the Committee. A unit cost is the cost of completing a unit of work such as the cost of installing one square foot of flooring. However, we disagree with the quantity and extent of the work described by the Committee. When we adopt the unit costs used by the two contracting firms and then project the cost of the full scope of work that we believe is necessary, it results in total costs that are in the \$40,000,000 to \$50,000,000 range. Thus, there is no controversy about the cost of doing any specific item of work; there is a significant controversy related to the scope of work that is necessary to make the building able to be occupied. We believe that the Committee has significantly underestimated the extent of work that will be required, and thus has significantly underestimated the cost of the work.

In addition to our opinion that the Committee has underestimated the cost of construction, we also find that the Committee's cost presentation is unclear and lacks transparency. When it is examined in detail, there are numerous inconsistencies and contradictions.

- The Committee represents that the TCCo estimate amounts to \$10,000,000, yet when the TCCo line items in the presentation are added up, it totals \$14,909,300. This is more than the TCCo's own tabulation in the full cost estimate.

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- The full TCCo cost estimate for the interim stabilization project, as tabulated in its full cost estimate, is actually \$21,000,000, not the \$10,000,000 that the Committee claims.
- The Committee represents that the \$10,000,000 figure reflects an email from TCCo that provided a "reduced price to reflect reduced stabilization scope." There is no information on what this reduced scope is, so there is no way to analyze what the significance of the figure is.
- The Committee only includes certain items from the TCCO cost estimate, and excludes such expenses as soft costs, hoisting costs, professional fees, insurance and other expenses that will be required to complete the project. These are costs that actually are required in order to do the work.
- The Committee states that the Sullivan Builder's cost estimate is \$8,224,340, yet adding up the line items in the Committee's presentation results in a total of \$8,482,683, not including any mark ups.
- The Committee's presentation states that Sullivan is including a \$350,000 budget for abatement of hazardous materials in the occupied portion of the building, but the Sullivan estimate includes only a \$75,000 line item for lead abatement.

Whether the hazardous material abatement budget submitted by the Committee is \$75,000 or \$350,000, there is no substantiation that this allowance is appropriate, and no evidence that that lead paint is the only environmental hazard that exists within the proposed occupied areas. In fact, there is asbestos and other materials located throughout the School, albeit in small quantities. A prudent course would be to undertake the environmental abatement of the entire School before the partial renovation and occupancy. This would serve to make it safe for persons to enter any part of the building, and would eliminate the possibility of contaminants entering the 10,500 square foot renovated and occupied space the Committee proposes. Also, since some of the work included in the Committee's proposal involves the installation of HVAC and building wide fire, security and sprinklers systems in the unoccupied areas of the building,

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hazardous materials will be encountered and disturbed during this work. This will require local abatement at multiple locations. Finally, partially abating a building which ultimately must be fully abated regardless of its ultimate disposition results in the loss of the economies of scale that accrue to a larger abatement project, and results in paying twice for the complex isolation and decontamination facilities that the work requires. The community should be aware that even if the cost for this work is not included in the budget today, it is not a cost that is eliminated; it is a cost that is simply deferred to some later date.

Over \$2.5 million of the budget for the work proposed by the Committee is allocated for "soft costs" such as contractor profits, scaffolding and fees; appropriate and necessary costs that will be incurred, but ones that do not result in any tangible work product; they are simply the costs of getting the work done. However, since the Committee's plan envisions this scope of work as being an interim step and not the final disposition of the School, these soft costs will be required to be incurred again in the future when the final restoration project is undertaken.

The Committee's construction schedule of one week to mobilize and approximately 10 weeks to complete the construction is simply unrealistic. From merely a cash-flow basis, this would represent completing nearly \$1,000,000 of work per week, an astounding and untenable rate. Maintaining an appropriate level of quality control and project oversight at this rate of production would be very difficult if not impossible. Renovation projects of this type must include generous allowances for time involved with uncovering field conditions and coordinating the work of the various contractors. A more realistic estimate of the timeframe for completion would be at least two years. This increase in construction time will result in an increase in carrying costs and expenses.

We previously prepared a budget estimate of the work that we believed was necessary to accomplish the full stabilization of the School in anticipation of reuse, and determined that the full scope of work for both interior and exterior work amounted to approximately \$38,000,000. The estimate for the exterior restoration work alone totaled \$5,100,000, a

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figure that compares closely to TCCo's estimate for the same work of approximately \$5,600,000.

The TCCo estimate for interior work is limited to the cellar and ground floor. If the cost of that work per square foot is extrapolated to the restoration of the entire building, it nets a construction estimate of approximately \$16,500,000. Our estimate for a similar scope of work is \$17,500,000. Once again, the two estimates are reasonably comparable.

When we examined the Sullivan cost estimate, and extrapolated the square foot cost of the limited building restoration over the entire building, once again the full cost to be borne by the community at some point in the future was approximately \$15,000,000; comparable to the cost arrived at by TCCo and us.

We conclude that the unit costs included in both estimates are consistent with industry standards, and when applied in an "apples to apples" method to the same scope of work, the full cost of the restoration of the School they return estimates that are not very dissimilar. The discrepancy between the Committee's cost estimate and our estimate is the result of the Committee's position that it is only the cost of the interim stabilization that is the deciding factor for the community, not the full cost of the restoration of the building so it can be reused. The community needs to be aware that the costs not included in the Committee's presentation are not eliminated; they are simply deferred to a later date when the building is renovated for its ultimate purpose.

(2) Much of the Investment Will Not be Recovered

Not all of the repairs completed in the Committee's proposal will be salvageable or reusable in the future. The scope of current work is limited, and the full use of the School will require much of these repairs to be done again or in a different manner in the future for whatever use is ultimately selected. For example the separation walls, electrical systems, mechanical systems, new bathrooms and other plumbing improvements installed for the interim use will probably not be appropriate for the future use. The sprinkler and fire alarm systems will certainly not be installed in such a way that it can be reused in the

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future. The temporary clean up of the finishes on the interior will doubtless need to be scoped again to suit the prospective use. The asphalt shingles may need to be replaced in the future by slate or synthetic slate shingles in order to obtain funding for historic preservation grants. The cost of patching the windows proposed by the Committee will result in a temporary benefit, but in the future further patching and ultimately a full window replacement program will be required. The investment for all of this work will not be recovered during future restoration projects.

(3) The Proposal Defers Full Cost of Restoration

As stated by the Committee, its proposal is intended only as an interim step towards full restoration. At the end of the proposed repairs, perhaps 10% of the interior will have been rendered legal for occupancy, and approximately 25% of the exterior stabilized. 90% of the interior and 75% of the exterior will remain to be repaired and renovated in the future. The Committee's submittal postpones the full investment in the renovation, it does not eliminate it. As noted in our preliminary report, our firm has estimated the total cost for the work required would be approximately \$38,000,000. TCCo has estimated that the cost would be in the range of \$21,000,000.

(4) The Proposal Has Higher Up-Front Cost and Continuing Maintenance Costs

The Committee does not disagree that its proposal is more expensive than simply demolishing the building. This is simply a fact that the community must take into consideration.

The Committee is also frank in identifying a suggested operating cost of \$125,000 as part of its proposal. We have not analyzed this estimate. In our opinion, until an end use for the School is identified, any estimate of annual cost is pure conjecture. The potential ongoing annual operating costs are expenses that the community will incur on a continuing basis until the prospective use is found for the School.

We believe that the annual cost may be overly optimistic. It does not include any permanent staffing, building maintenance or upkeep, but includes a line-item of \$8,400

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per month in "miscellaneous" expenses. There are continuing maintenance and upkeep costs for any building, particularly one that has only been partially restored. These costs could be significant, but are difficult to determine. However, if no money is allocated to continuing maintenance, the condition of the building will only continue to deteriorate. Also, unless staff is transferred from another location in the Village to inhabit the School, there will be some staffing costs required to maintain a presence at the site. The community should be aware that occupying the School may result in unfunded costs simply related to occupying the School

(5) The Proposal does not protect the Unused Areas

No climate control is proposed for the unused portions of the building. This, coupled with the mere passage of time, will permit the continued deterioration of the materials in the building. Each year that passes, certain of the environmentally sensitive materials such as wood and plaster will continue to deteriorate. Once again, this pushes off into the future the full cost of accounting for the accumulating damage.

(6) The Proposal does not Address Significant Building Code Issues

We believe that the most critical issue that the Committee has not fully addressed is the significant building code and life safety challenges presented by the School. The proposal states that at the end of the process the School will comply with "all building codes." There is little or no information detailing how this is to be accomplished in the documents we reviewed. The architectural plan presented by the Committee is vague in the specifics of how the separation of the unoccupied and occupied portions of the buildings is to be accomplished, and how the legal means of egress are to be provided, among other issues. A detailed and factual explanation of this statement must be provided by the Committee to explain how it intends to meet these requirements.

The Committee's approach envisions a "box-within-a-box" renovation, with the renovated "box" of the usable area of the building being embedded in and attached to the surrounding "box" of the unused school. That surrounding box is an unoccupied and

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unused building that has no certificate of occupancy, does not meet most current building codes and life safety standards for public occupancy buildings, and cannot be occupied or used until significant and extensive modifications and upgrades are accomplished. This arrangement is contrary to the spirit and letter of safety codes which dictate that spaces that are safe and legal to be occupied must be located within buildings that are safe and legal to occupy. To our knowledge the "box-within-a-box" approach as proposed by the Committee has no precedent, and therefore, there is no guidance offered by the Code on how to proceed. The level and extent of work that the Building Official may demand cannot be predicted, and there is no assurance that the Building Officials may not have insurmountable objections in principal to this approach. The Building Official for Garden City should be engaged to review any proposal by the Committee to verify that it complies with its requirements before the community is asked to make a decision.

Code deficiencies are not hurdles that can be overcome by fiat; the local Building Officials are obligated by the oaths of their office to be shown in concrete terms how the School will be brought into compliance with current Building Codes to protect the life-safety of the community. It is not enough to hold that the School once was fully and legally occupied and therefore the accumulated code violations are somehow "grandfathered." It is no longer either fully occupied or a school. It has no certificate of occupancy, so any new use will have to address all of the applicable code issues. It is an open question whether the School would ever be able to gain the approval from the Building Officials to be occupied as the Committee proposes.

Among the many code-related problems are the following:

- The floor construction is of heavy timber joists with a proprietary cement panel nailed to the bottom. Current code requires that the floor assembly comply with certain fire-resistance requirements, which this one does not. The construction would have to be certified by means of a laboratory fire-test, or reconstructed in some manner to bring it into compliance with a known assembly to the satisfaction of the Building Official. Furthermore, and a licensed professional

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architect or engineer would have to be willing to accept the legal liability for any risk that the system may present if it is reused.

- The top floor ceiling joists and the entire roof structure is constructed of wood. The large attic space is virtually open from one area to the next. This is a serious concern in a fire event, and would allow fire to rapidly propagate up and over the entire structure.
- The exterior wall is constructed with hollow cavities that extend the full height of the building, allowing a fire and smoke to travel unimpeded from floor to floor. The entire building would need to be inspected and fire stopping would have to be installed in all such cavities.
- There are no "legal" stairs anywhere in the facility to provide a means of egress in case of a fire. The existing stairs do not meet current code and would have to be either replaced or supplemented with all new stairs. This particularly is an issue with the chapel, which would require two new means of egress. The Committee envisions reusing the historic stair as a means of egress, but these are not "legal" stairs: they are not in compliance with the dimensional requirements and the fire-enclosure requirements of the code, among other things.

These unacceptable conditions are inherent in the fabric of the entire building, and attempting to surgically separating the proposed occupied spaces from the surrounding fabric in which it is embedded is virtually impossible. The Code violations in the building weave their way through, hang over and abut the occupied spaces on all sides. The proposed occupied spaces were never conceived of as a separate entity, and cannot be made such today.

It should also be made clear that even if a robust fire protection and fire separation system were to be installed to meet the Building Official's approval, the intent of such a system would be to allow time to evacuate the occupants and protect the fire-fighters during a fire event. The community should not be left with the impression that the

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installation of such systems is intended to protect or preserve the School for future reuse or to protect the community's investment. Instead, the opposite is true: the sprinklers are installed to protect the occupants from the dangers of the surrounding building. If a fire were to occur during the interim period before its final restoration, there is no assurance that it would not result in the total loss of the building.

Also, unlike modern buildings that are constructed of relatively fire- and water-resistant finishes, virtually everything in the School, with the exception of the exterior walls and cast-iron stairs is sensitive to exposure to water. If a fire were to occur in this building, the damage from the effects of the fire sprinklers and the fire-fighting effort alone would likely be catastrophic.

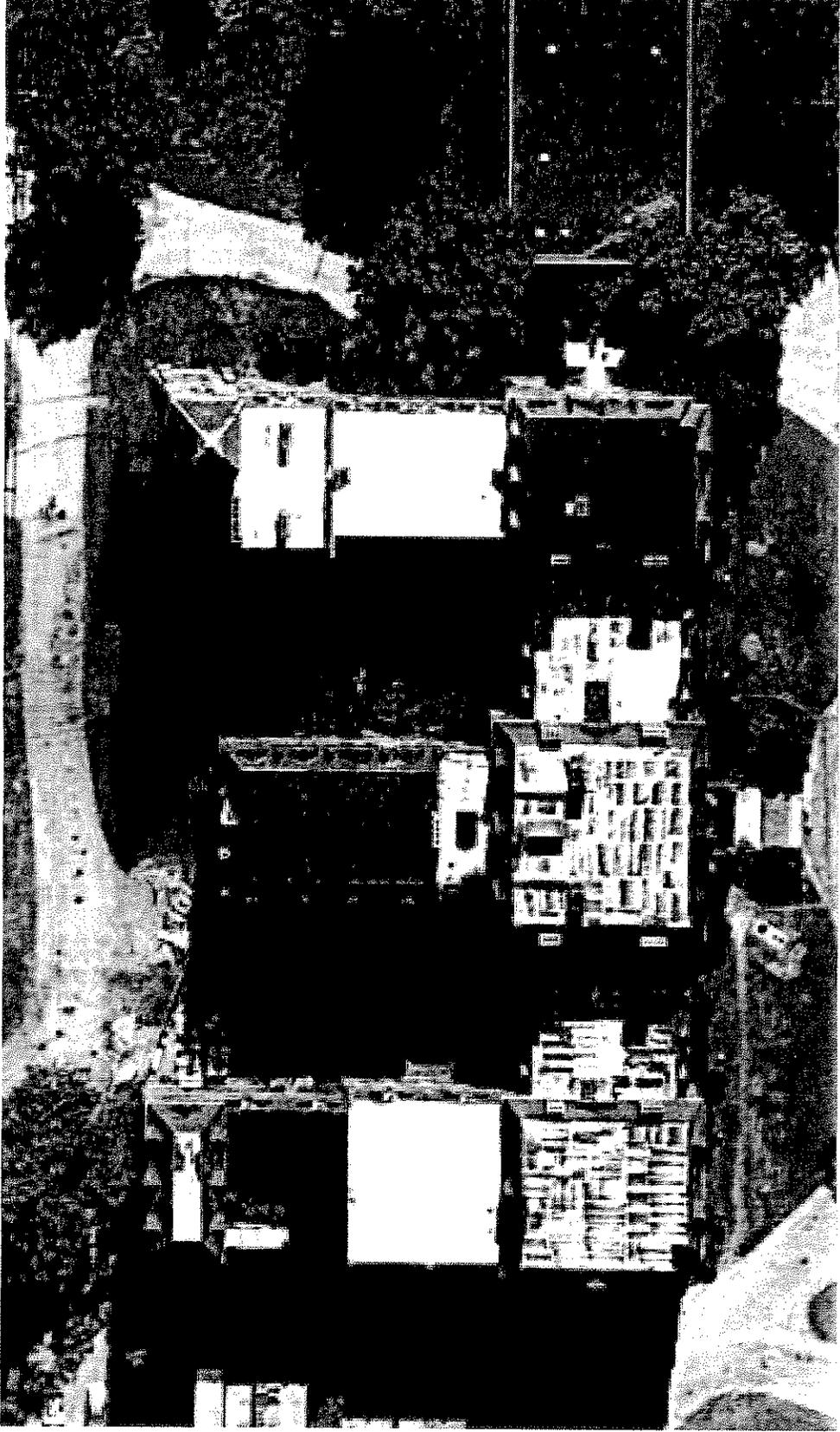
(7) The Proposal Does Not Address the Lack of Utility of the School

Finally, the Committee must face the fact that the School is archaic in construction and lay-out and lends itself to virtually no modern occupancies. It is also an enormous building, far larger than any of the remotely conceivable occupancies might require. In short, the School has outlived its usefulness as a building. The urge to preserve this admittedly handsome building is entirely admirable, but the community should weigh whether the scale of the necessary investment compared with the likelihood of a successful reuse is consistent with their wishes.

CONCLUSION

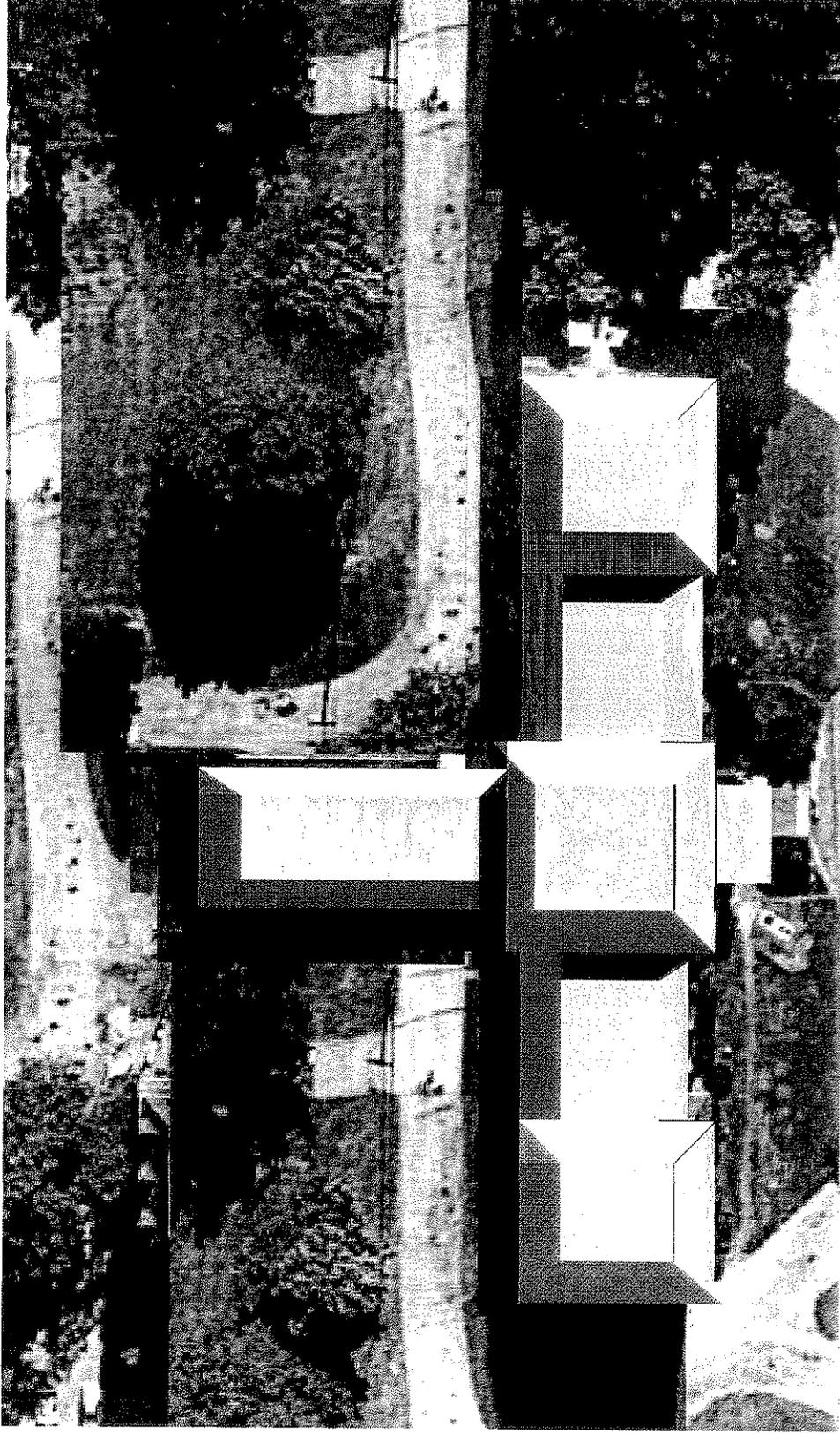
The Committee's proposal attempts to accomplish the limited goal of partial stabilization and partial reuse of the building, but that proposal is unrealistic and flawed. It also does not address the issues relating to the long-term cost of full renovation and the viability of any potential future use for the building. We believe that there are significant, perhaps insurmountable financial, administrative and technical problems with any proposal to reuse the School.

St. Paul's School - Other Development Options



Existing Building Complex

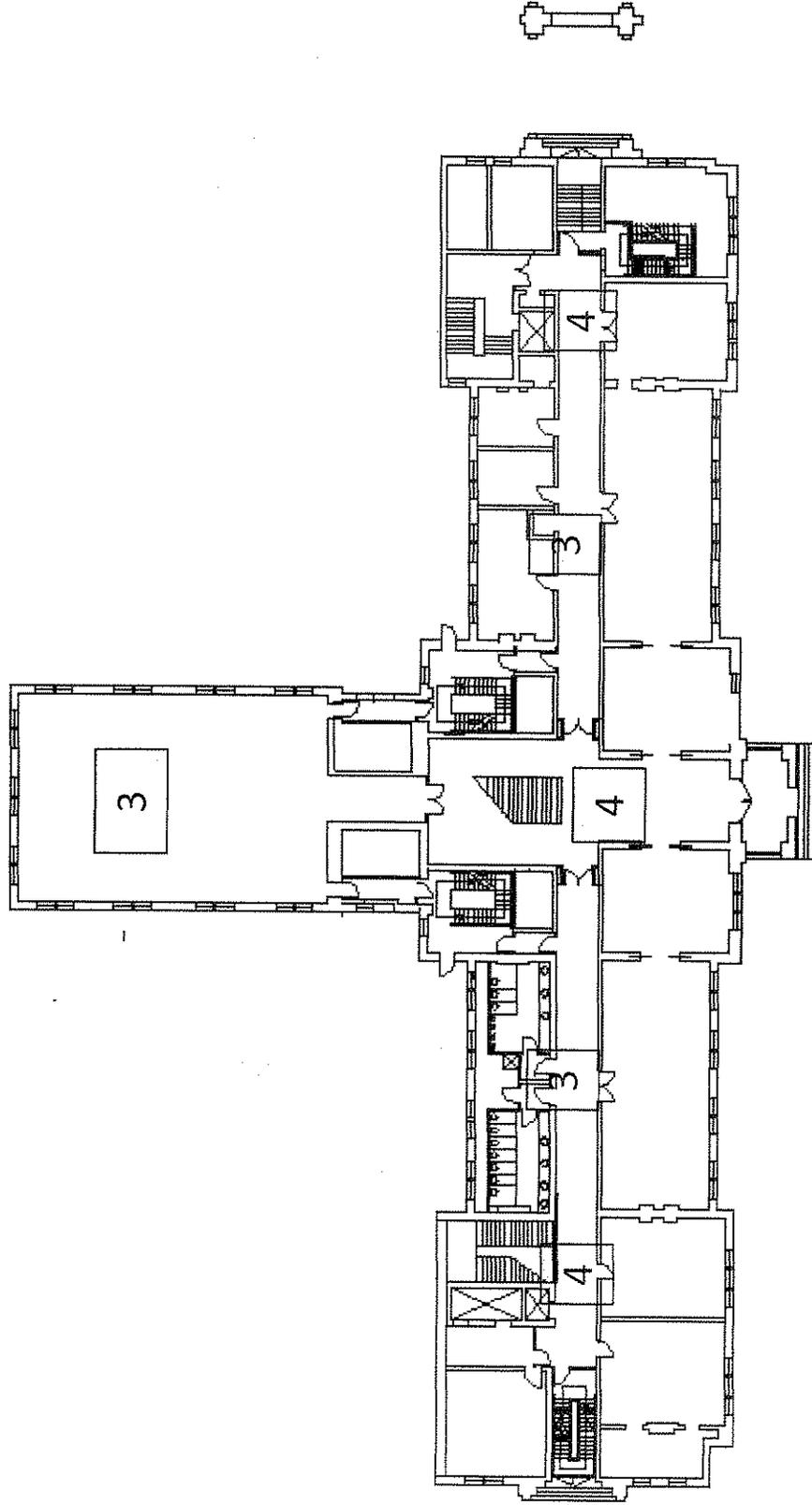
St. Paul's School Option I



Option I: Remove Wings and Restore Front Wing and Chapel

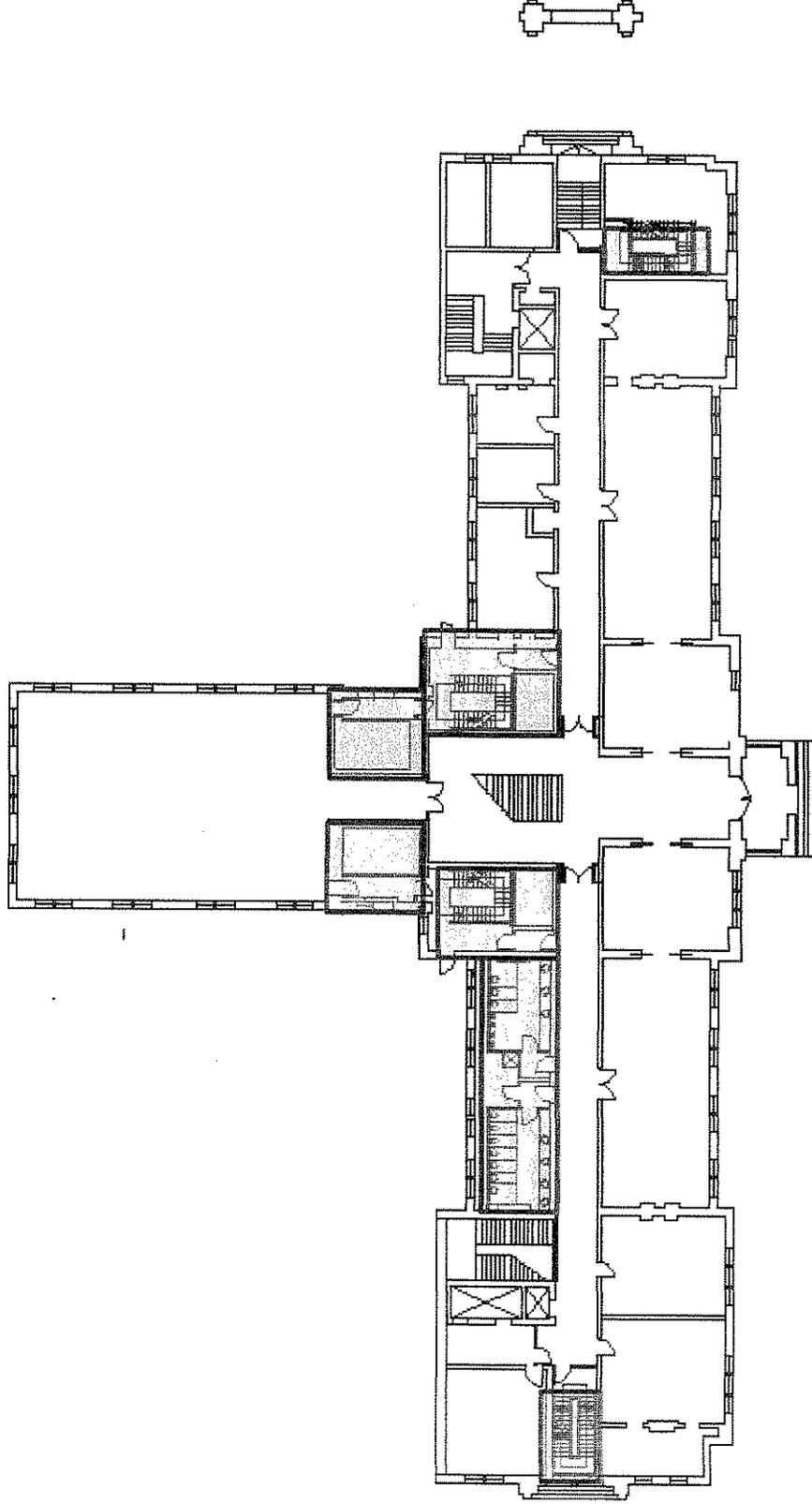
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St. Paul's School Option I



Option I would provide three levels of program space in the chapel wing, three levels in the front wing and four levels in the three towers.

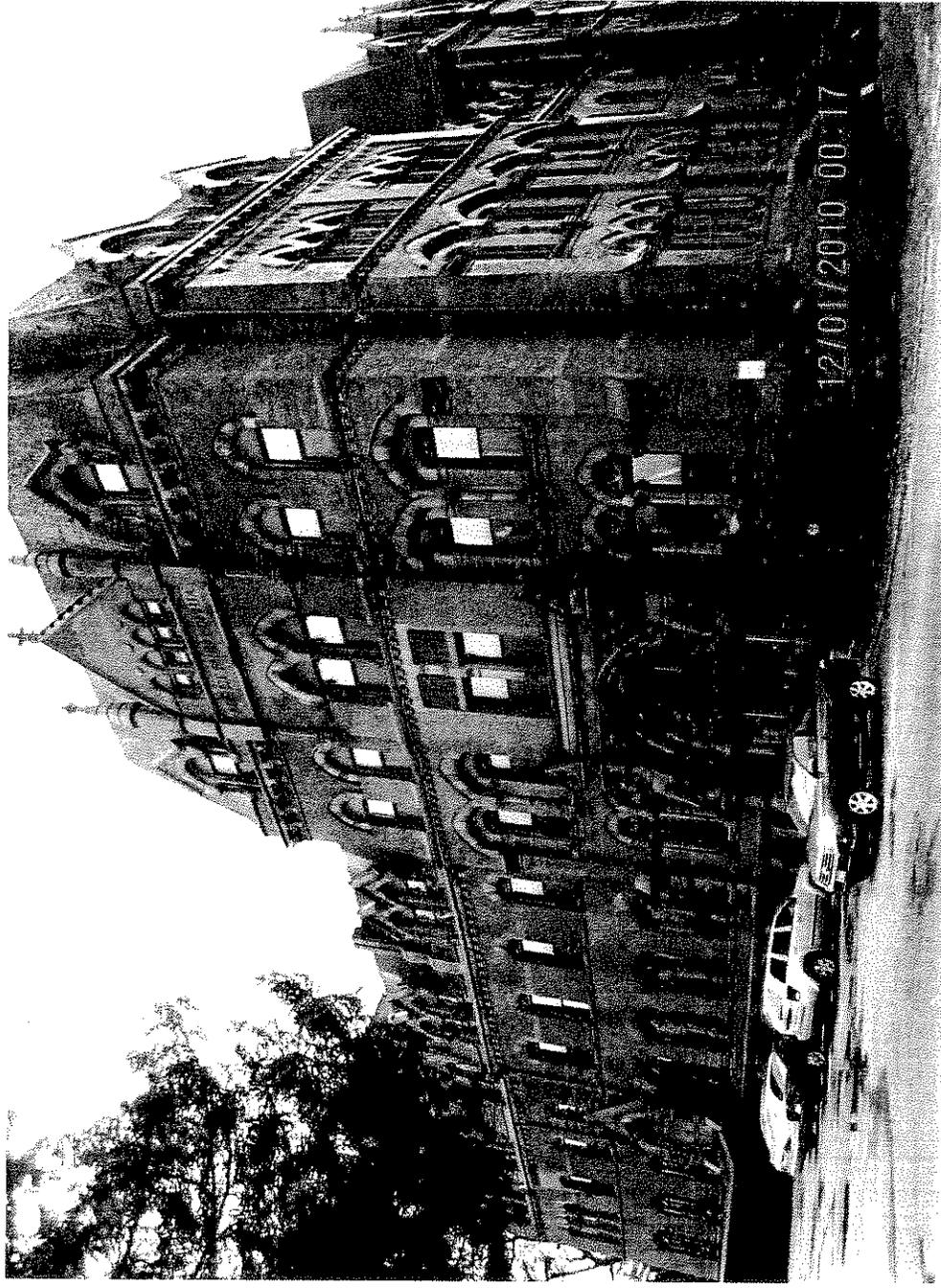
St. Paul's School Option I



In addition to all new fire protection, heating, ventilating, electrical and plumbing systems, Option I will require new stairs, fire walls, elevator and toilets as well as interior restoration of finishes

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St. Paul's School Option I



Option I: Before Demolition

St. Paul's School Option I



Option I: After Demolition

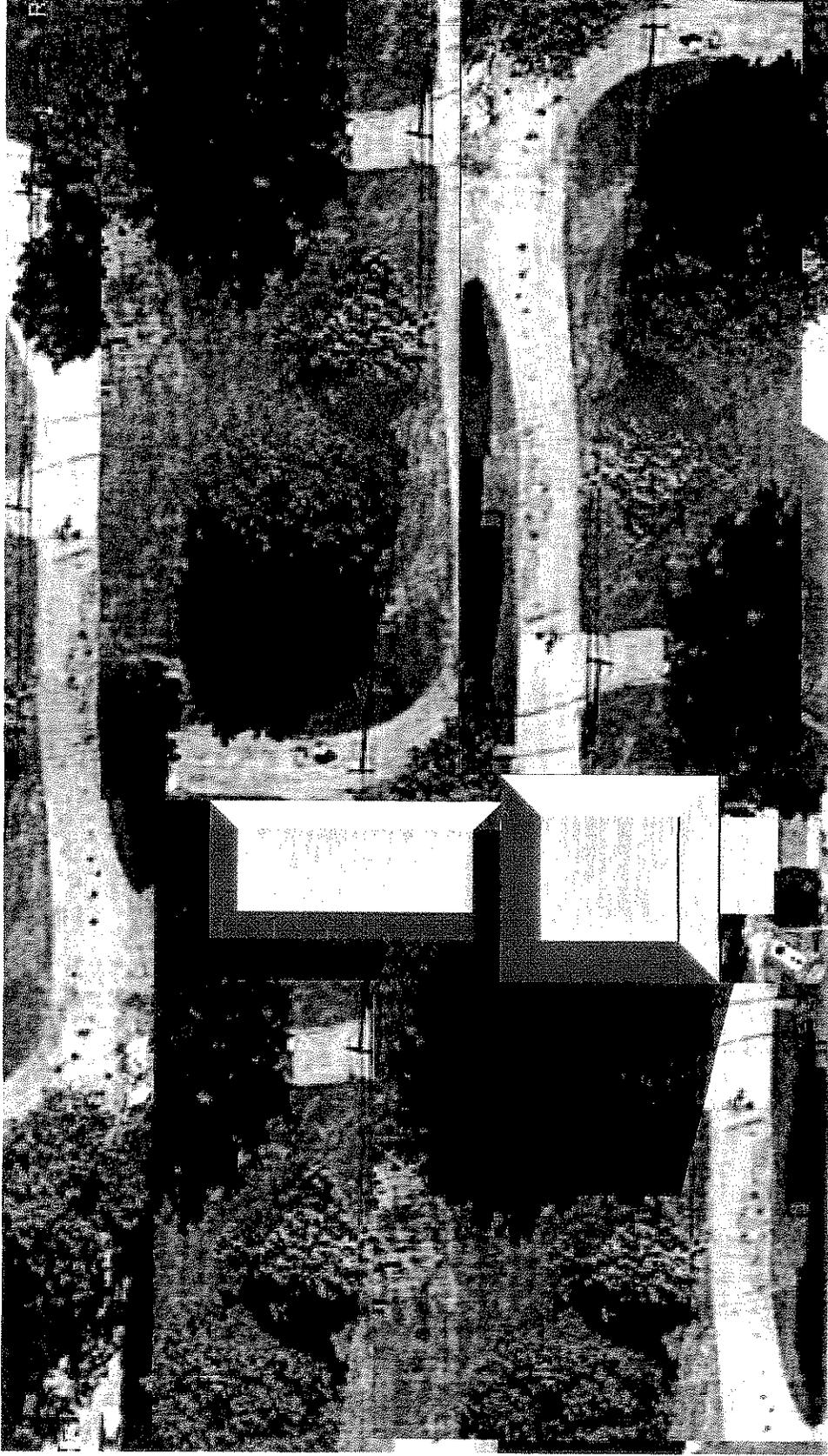
St. Paul's School Option I

- Advantages
 - Reuses a large portion of existing building while eliminating the inefficient wings
 - Maintains a substantial amount of the original massing of the building

St. Paul's School Option I

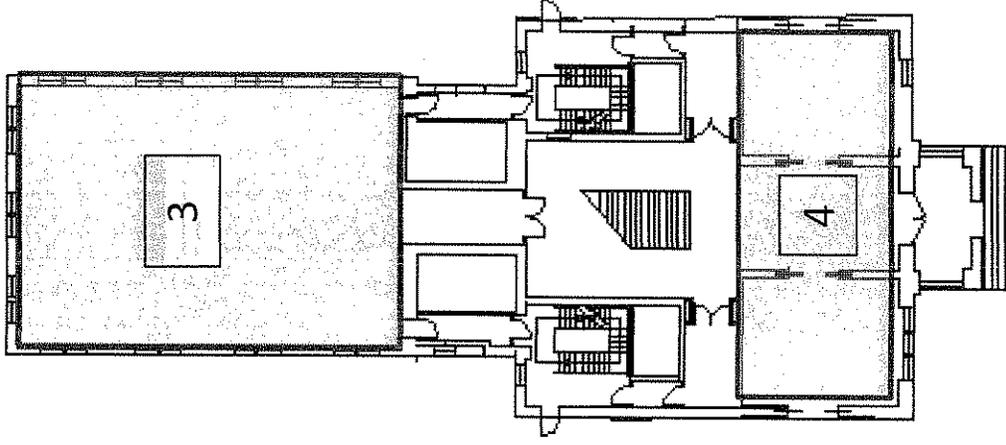
- Disadvantages
 - Requires extensive reconfiguration to provide acceptable means of emergency egress
 - Requires extensive construction to bring up to current life-safety and other building codes
 - No viable use has been proposed for renovated spaces
 - Approximately \$25 million premium over simple demolition.

St. Paul's School Option II



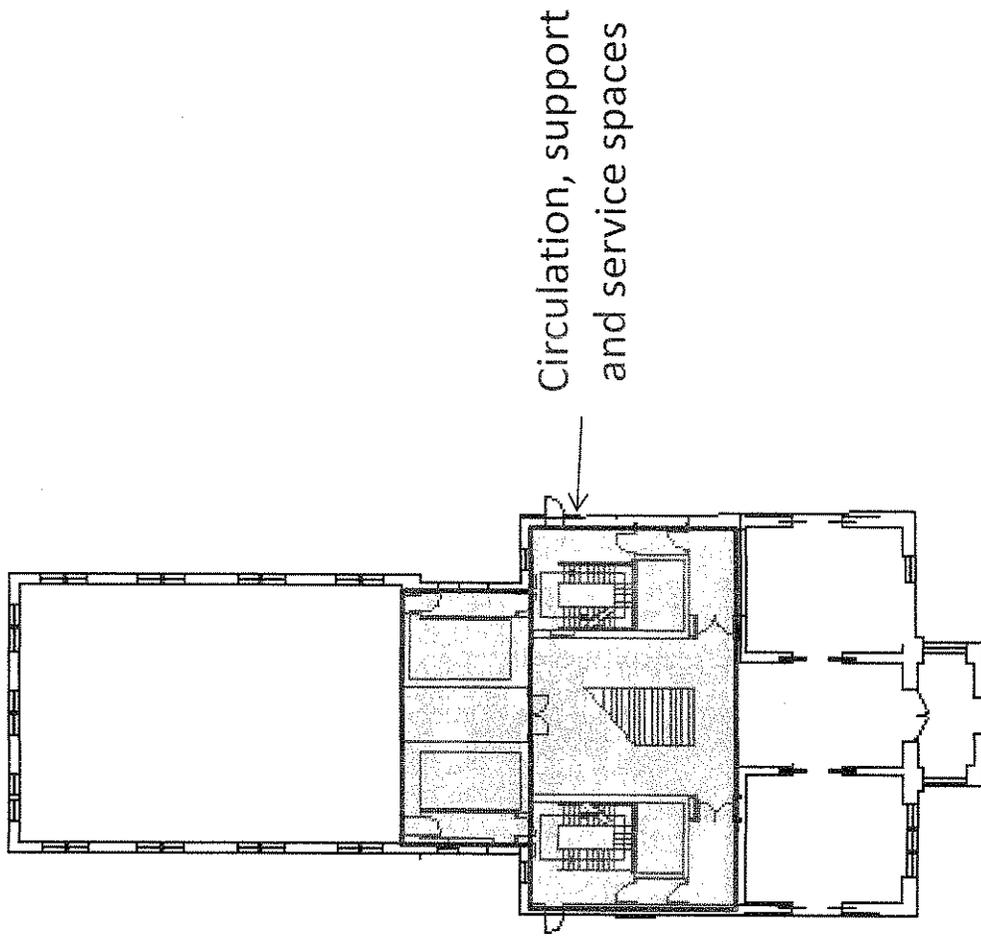
Option II: Remove All but Center Bay and Chapel

St. Paul's School Option II



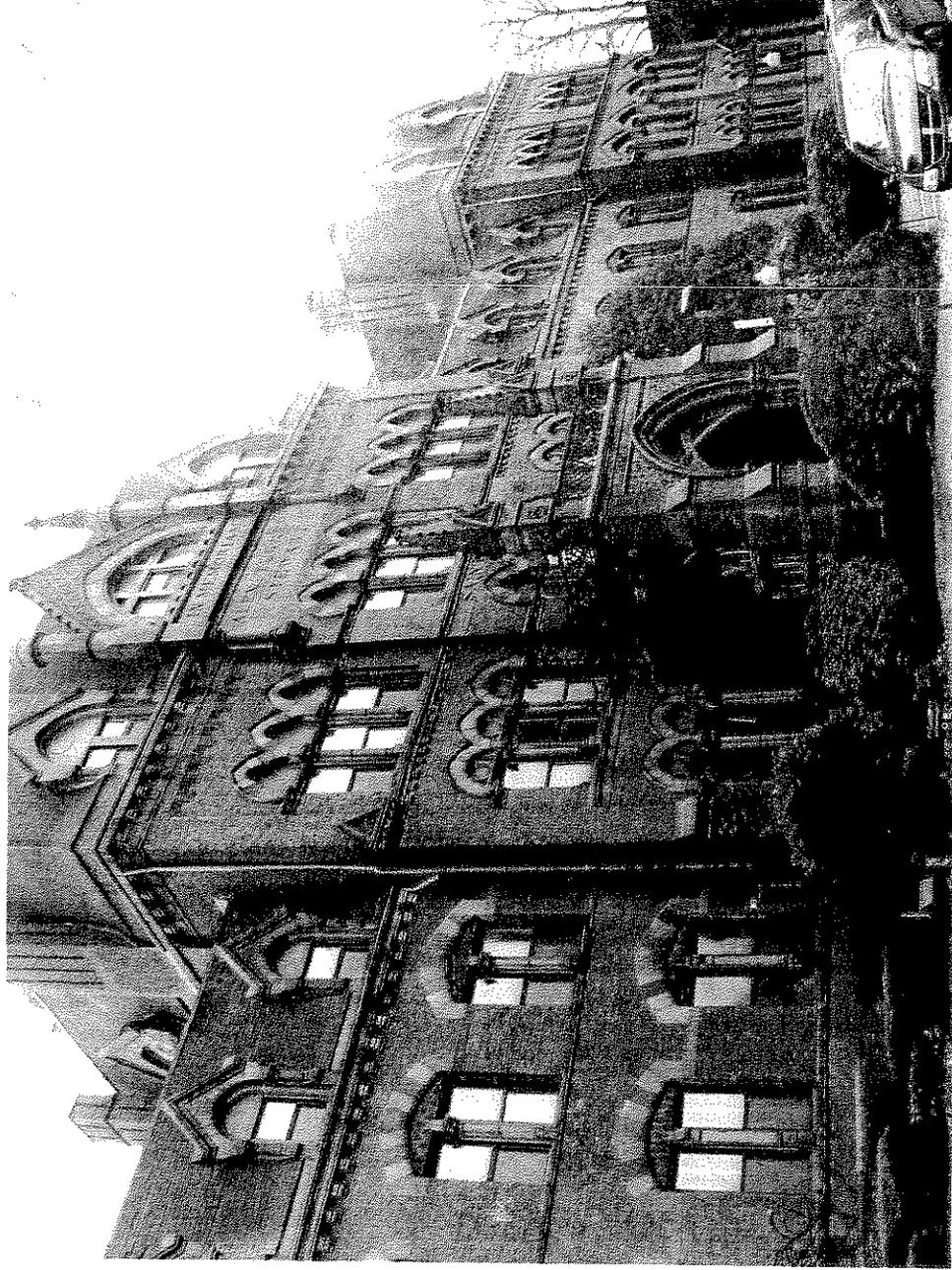
Option II: There are 3 levels of floors of program space on chapel side, 4 levels in the central bay

St. Paul's School Option II



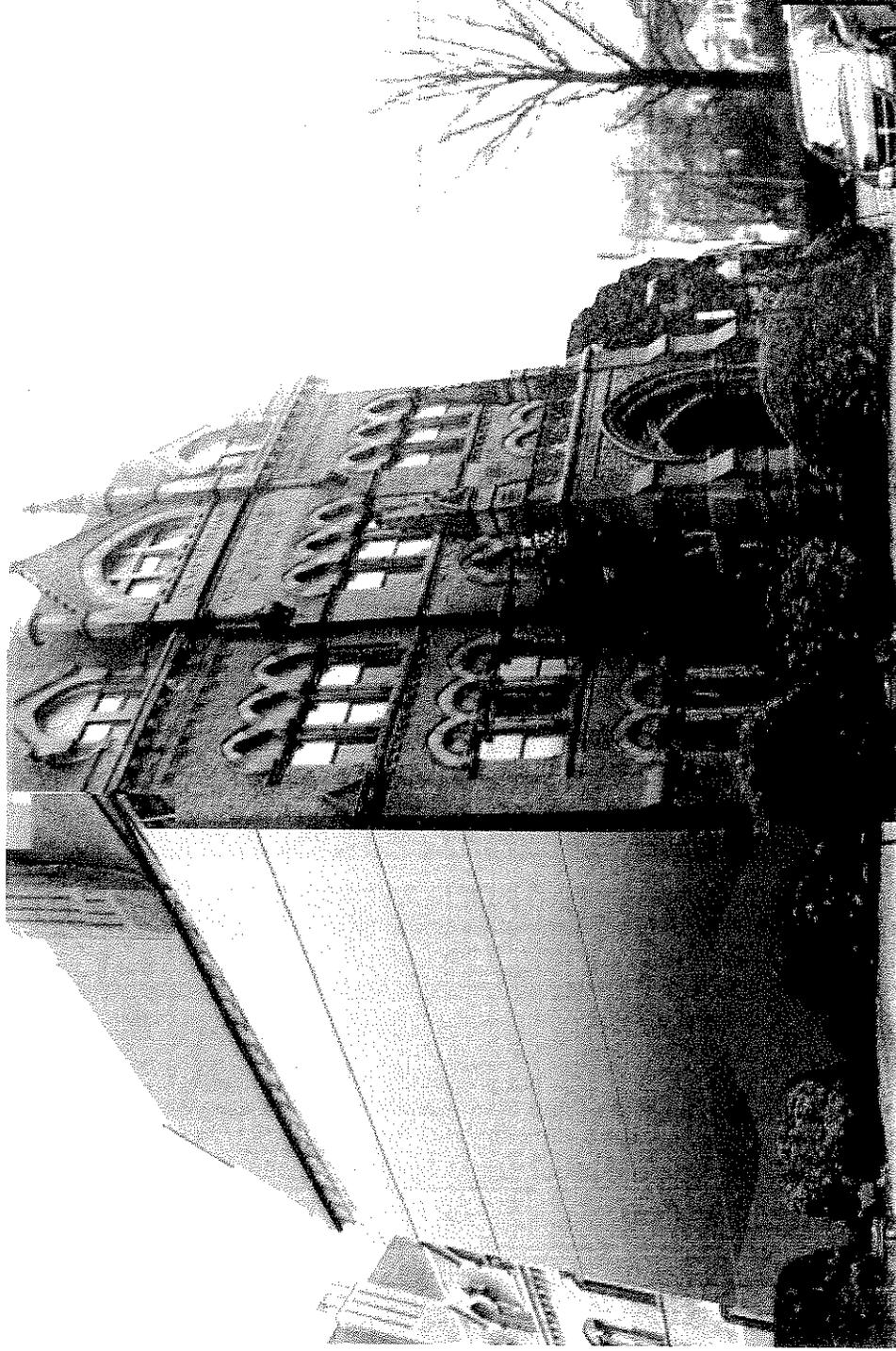
Option II: the center of the building is largely service and circulation

St. Paul's School Option II



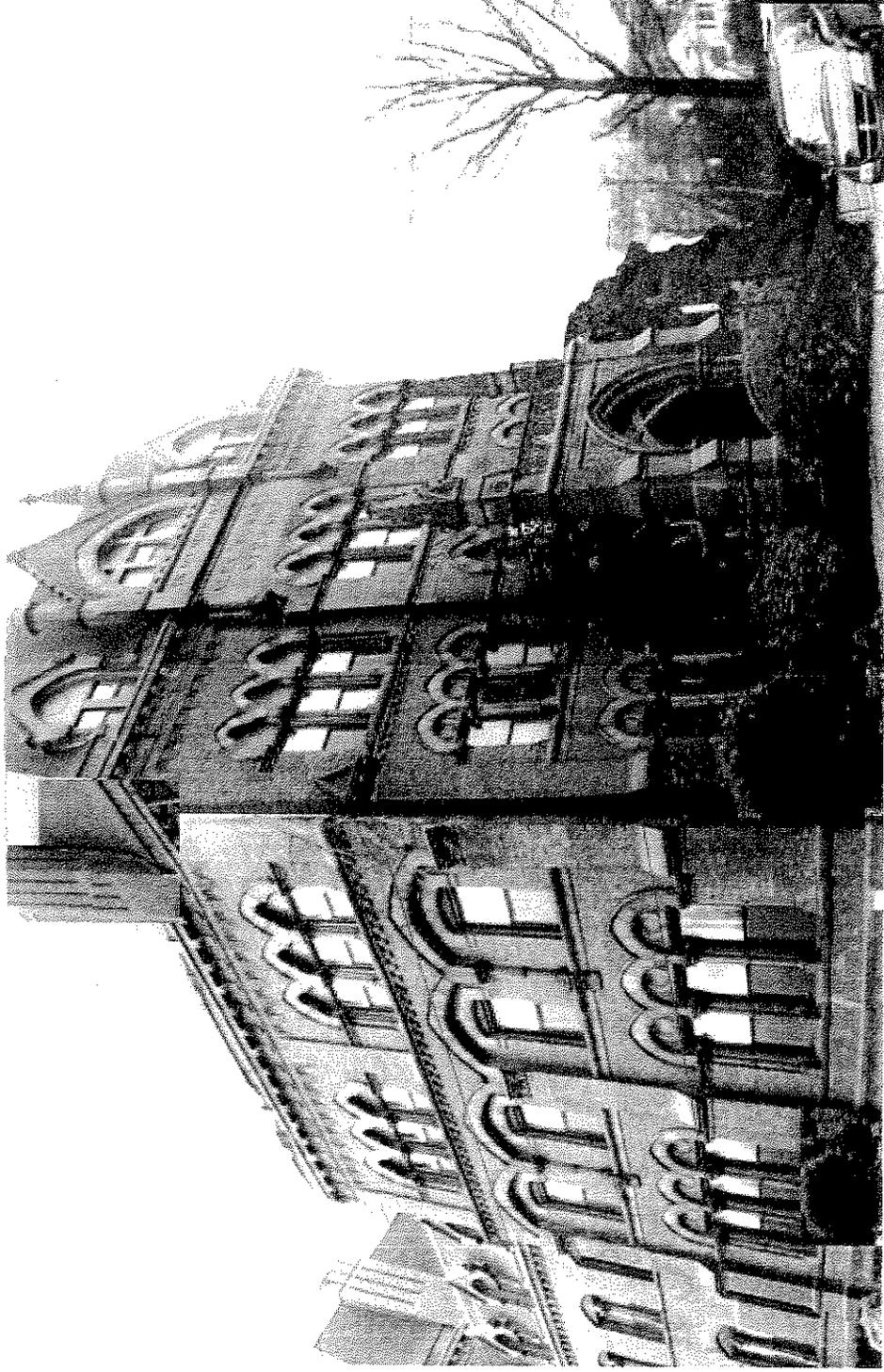
Option II: Before Demolition

St. Paul's School Option II



Option II: After Demolition, with Plain End wall

St. Paul's School Option II



Option II: After Demolition, with Contextual End wall

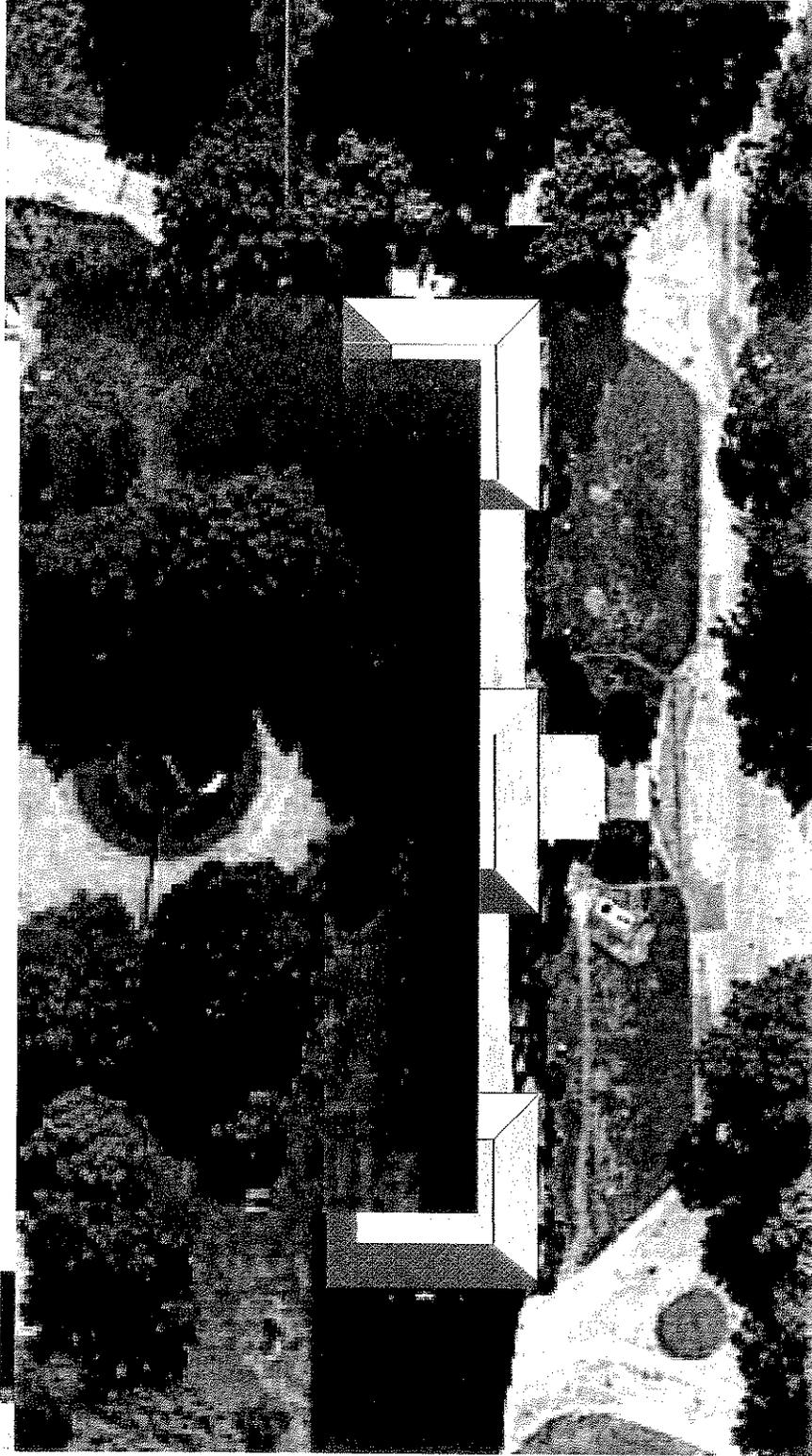
St. Paul's School Option II

- Advantages
 - Reduces the program space to a minimum while retaining the Chapel and public spaces

St. Paul's School Option II

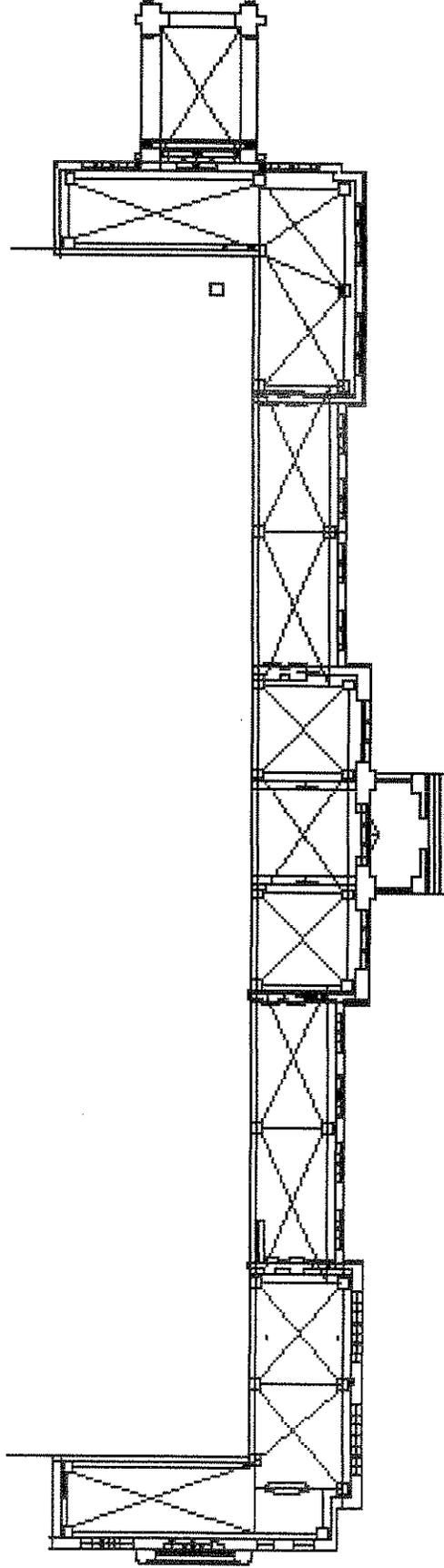
- Disadvantages
 - Same disadvantages as Option I
 - Requires very large investment in return for very little usable space
 - Architecturally, will look very peculiar
 - Approximately \$13 million premium over simple demolition

St. Paul's School Option III



Option III: Preserve and Restore Front and End Façades Only

St. Paul's School Option III



There will be no interior usable space

St. Paul's School Option III



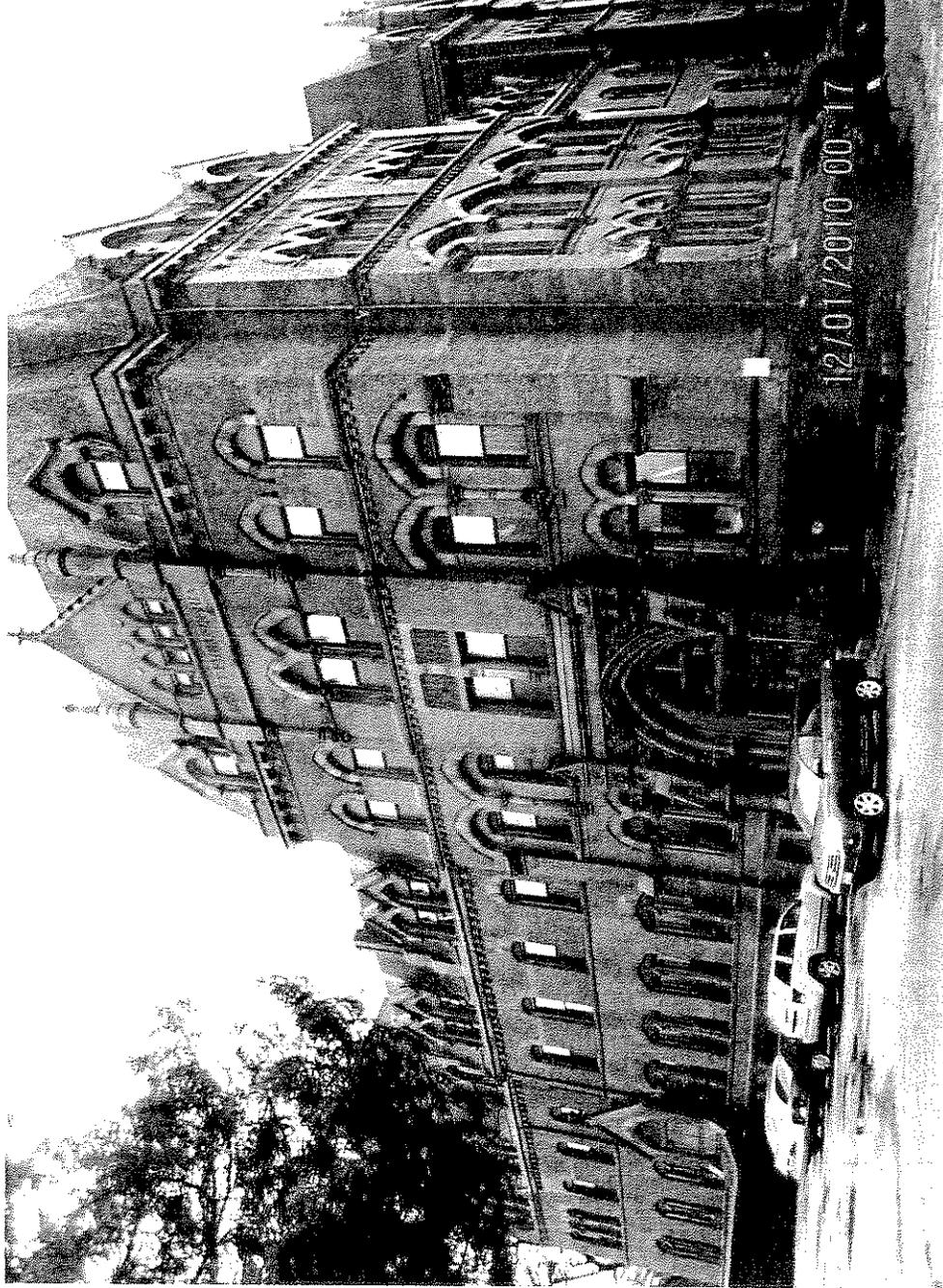
Option III: Before Demolition

St. Paul's School Option III



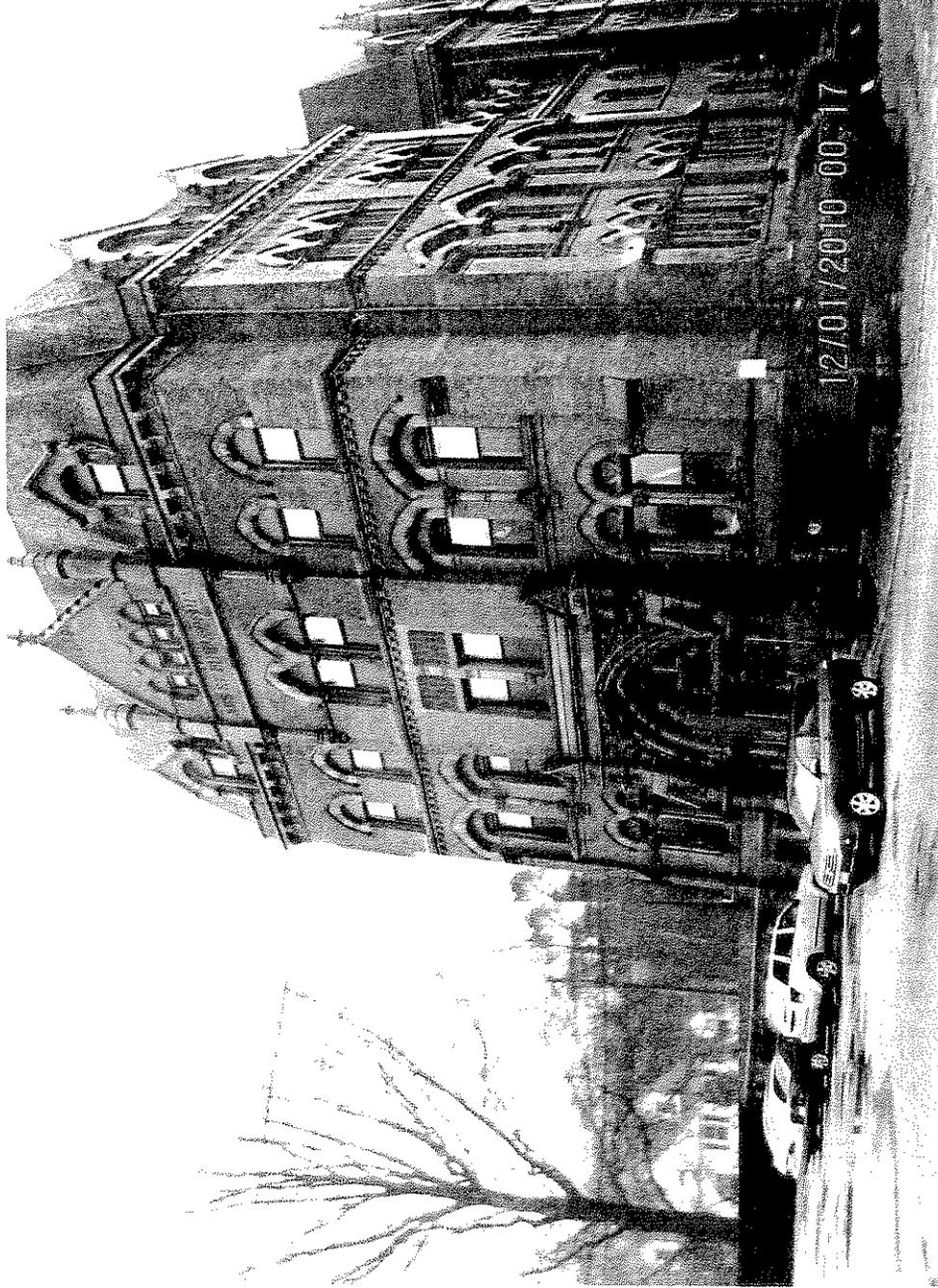
Option III: After Demolition

St. Paul's School Option III



Option III: Before Demolition

St. Paul's School Option III



Option III: After Demolition

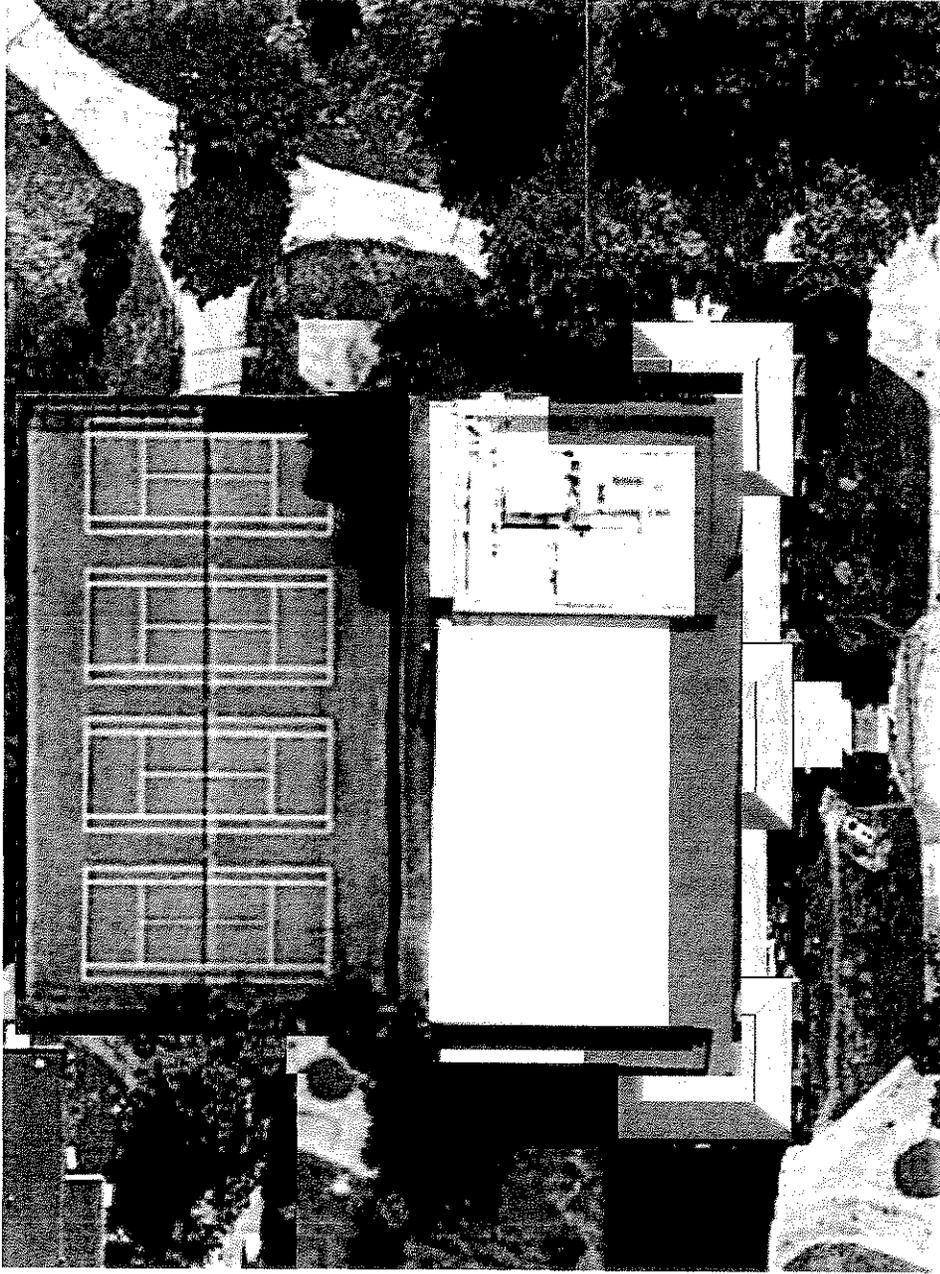
St. Paul's School Option III

- Advantages
 - Does not involve significant interior restoration costs
 - Maintains the appearance of the full building complex from the south

St. Paul's School Option III

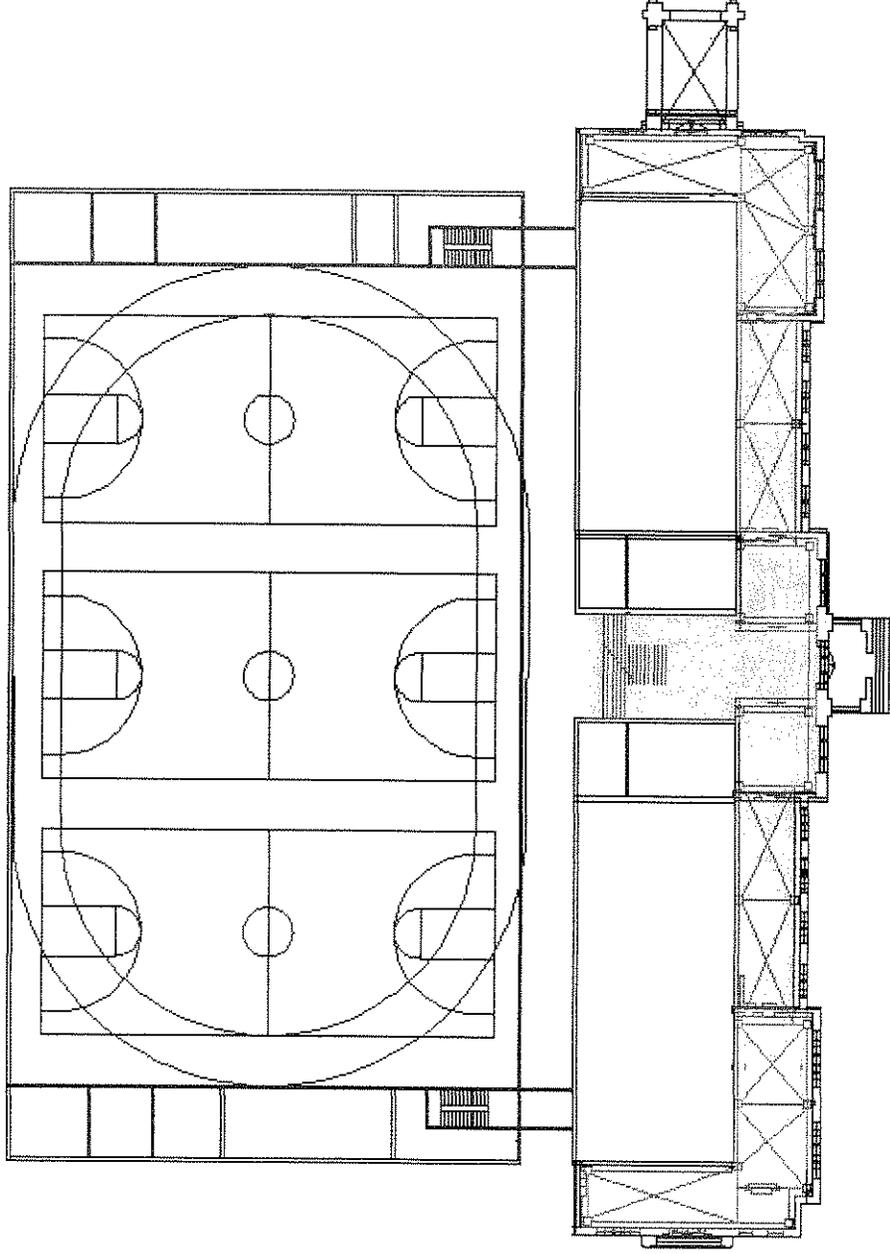
- Disadvantages
 - Requires extensive structural work to support the façade.
 - There would be no usable space, but would still require continuing maintenance of facade
 - The north façade would be a large and potentially unattractive blank surface unless more money is spent to provide some ornamentation
 - There is no viable use for the façade other than appearance
 - Approximately \$11.5 million premium over simple demolition

St. Paul's School Option IV



Option IV: Restore Façade as Part of Larger Project, Perhaps New Recreation Center.

St. Paul's School Option IV



Option IV: The area within the restored façade and the grand staircase could be used as part of new facility.

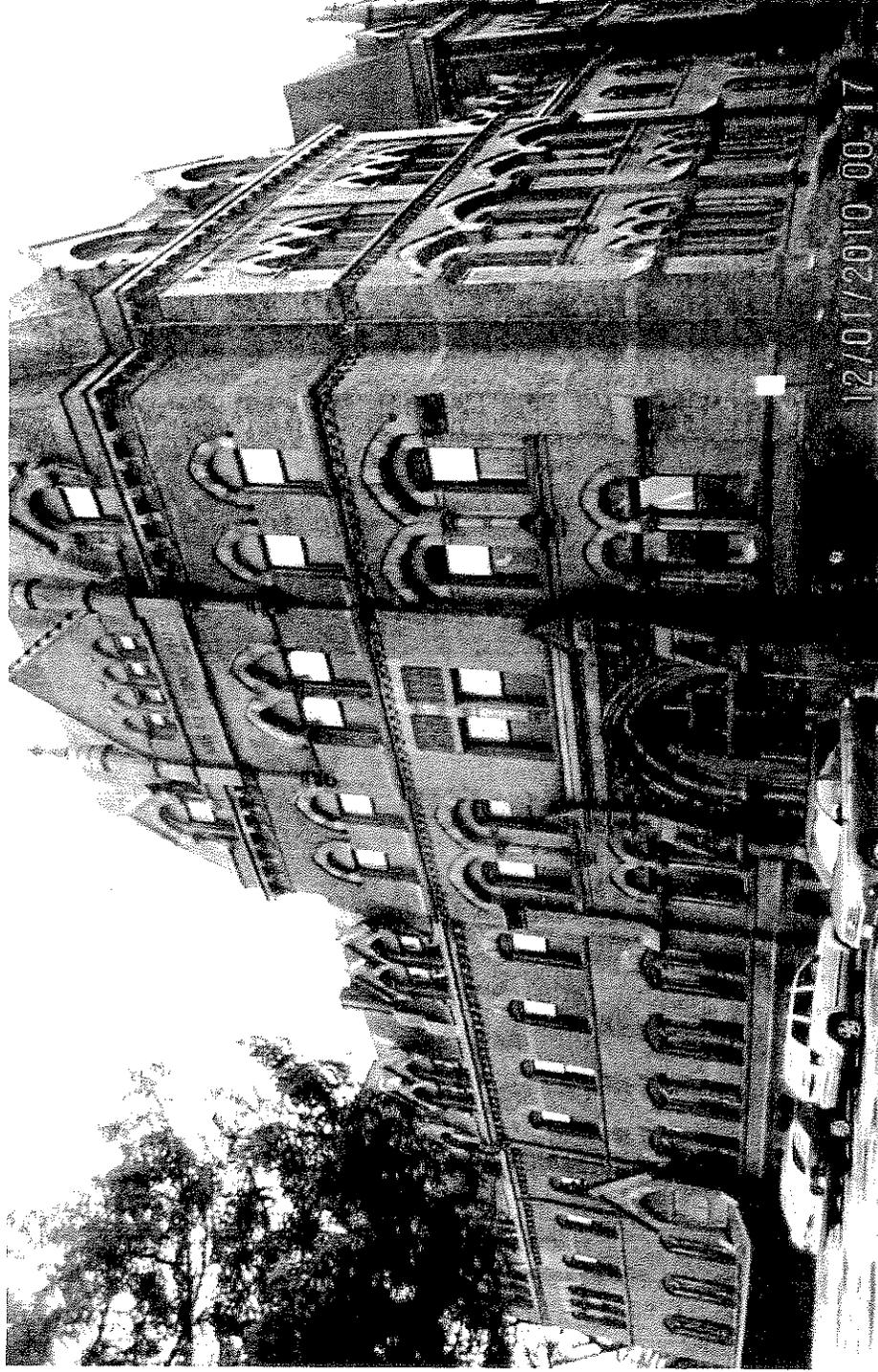
St. Paul's School Option IV

- Advantages
 - Same advantages as Option 3
 - Will be less expensive than restoration of façade alone, due to economies of scale and “double functioning” elements shared by both facilities
 - Potentially very exciting, architecturally
 - Has an immediate potential use for the site rather than relying on unknown future uses

St. Paul's School Option IV

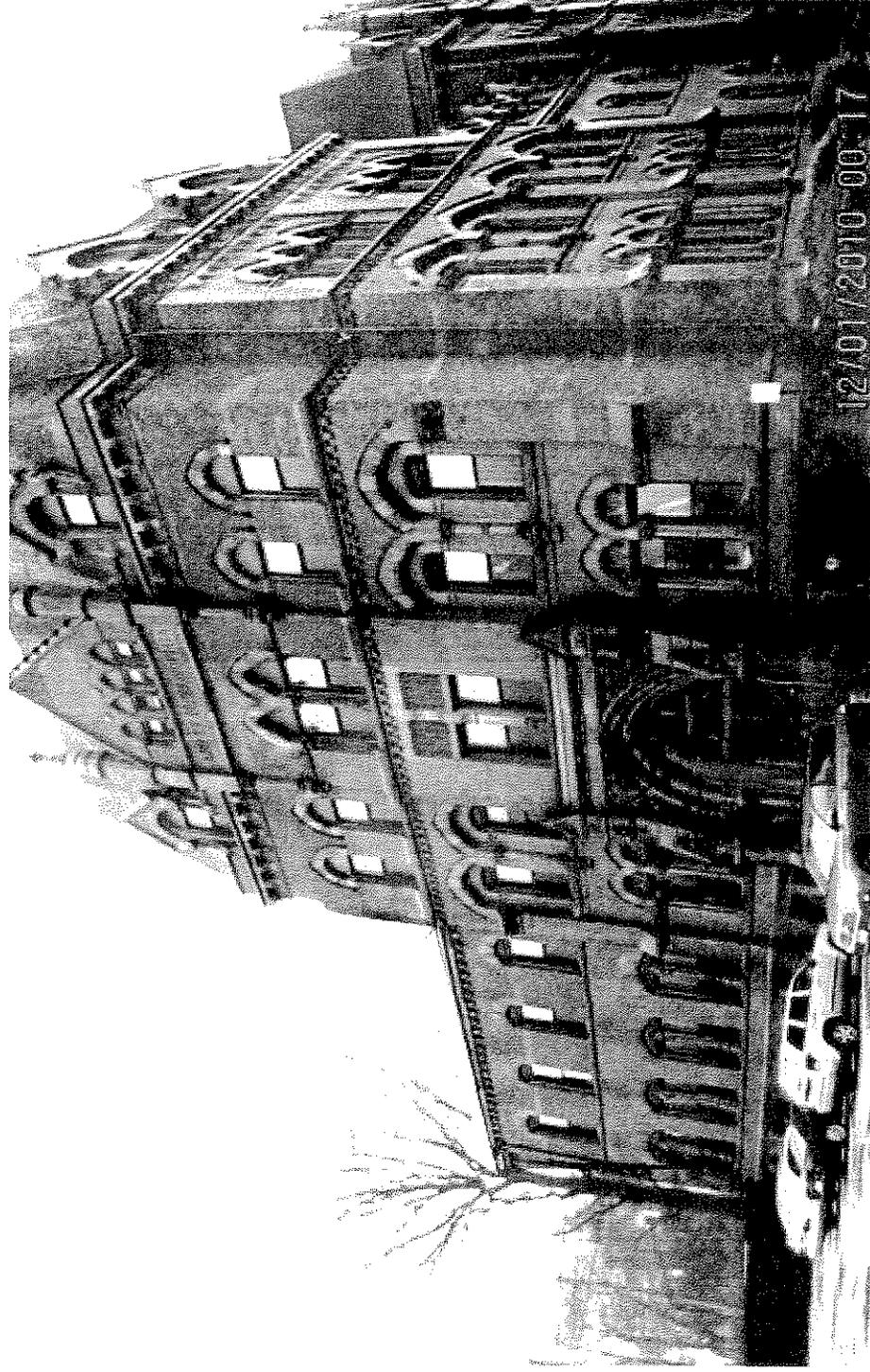
- Disadvantages
 - Will require larger maintenance costs compared to all-new façade
 - Assumes that there is a community commitment to investment in recreational facility
 - Approximately \$6.5 million premium over simple demolition.

St. Paul's School Option IV



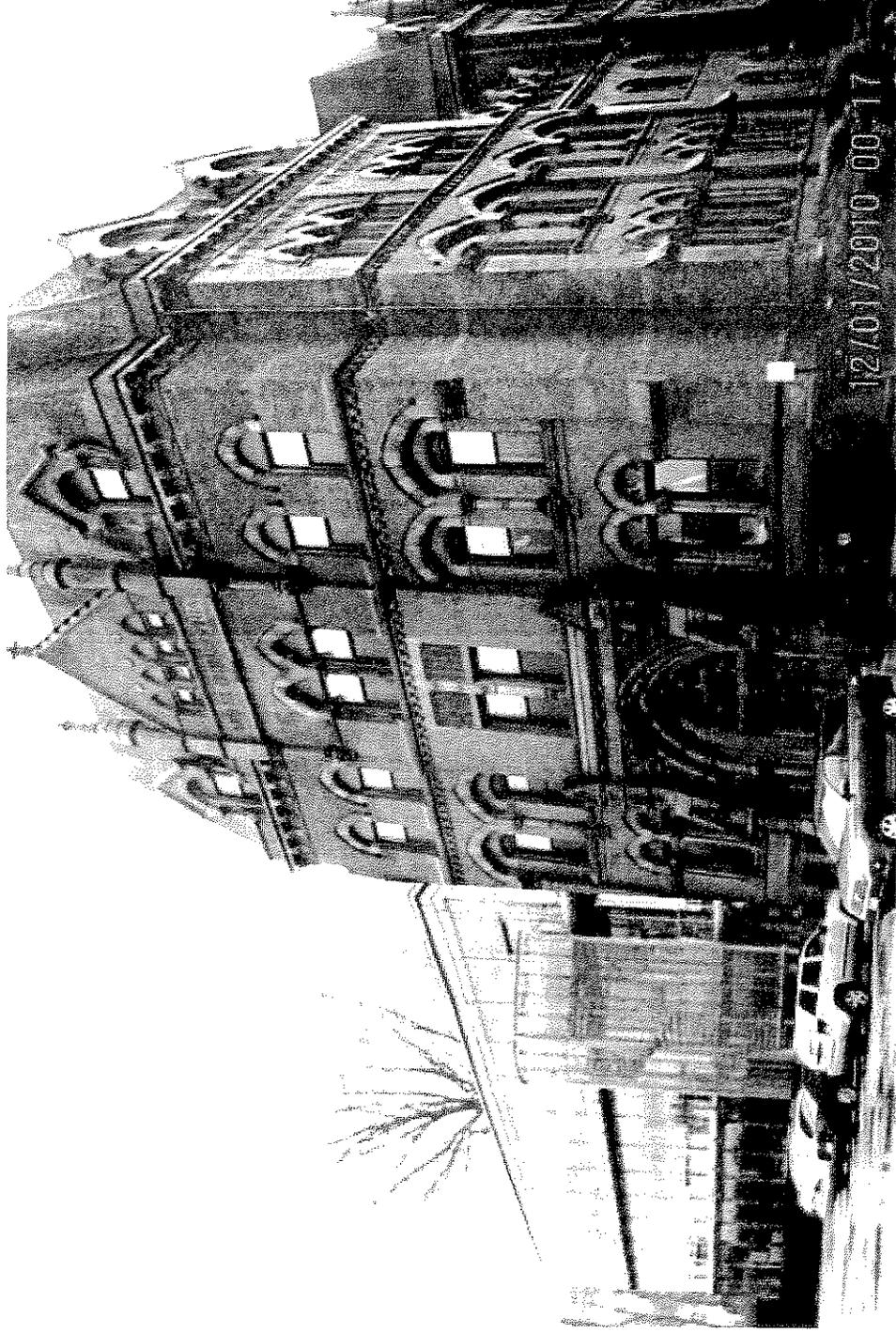
Option IV: Before Demolition

St. Paul's School Option IV



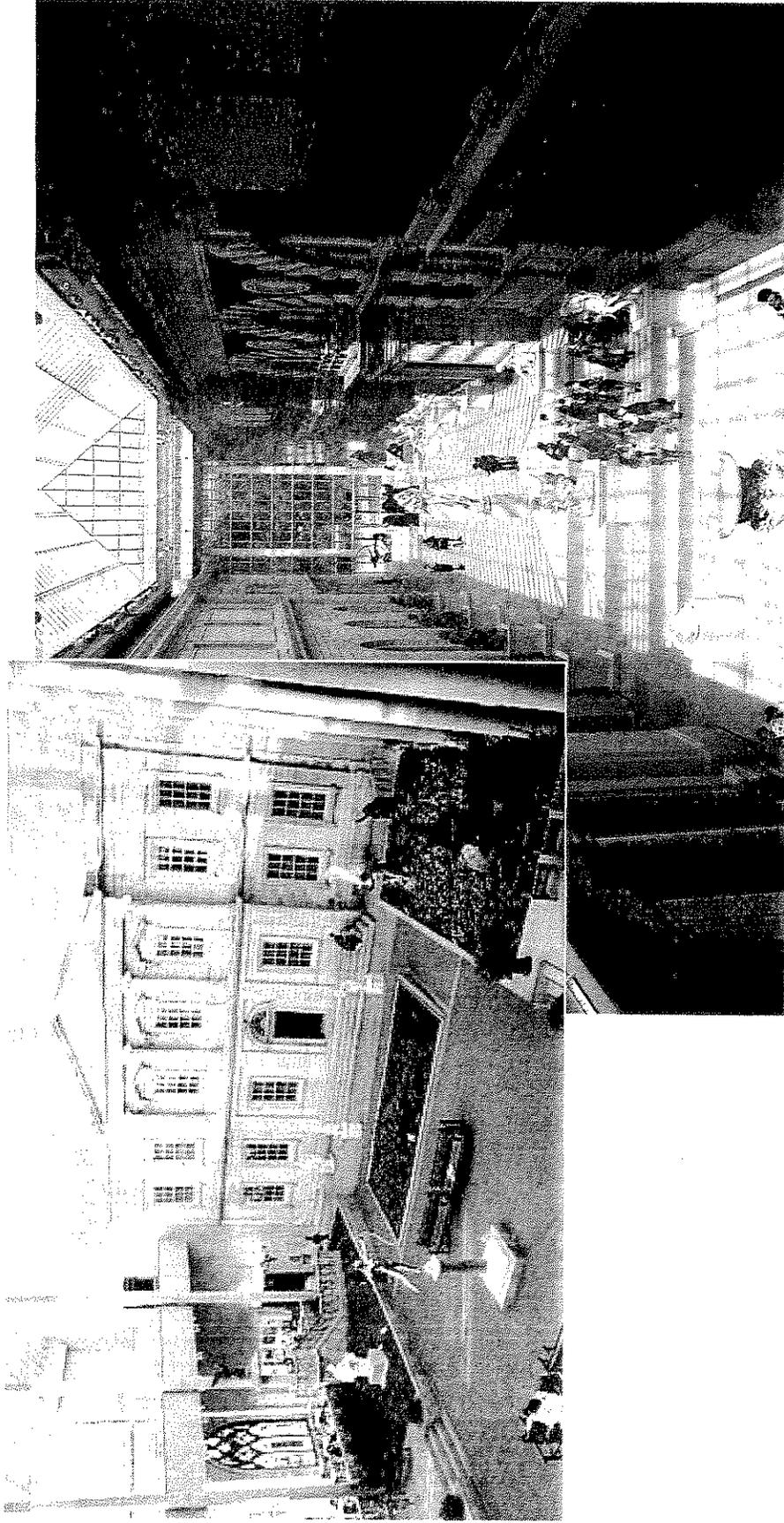
Option IV: After Construction with Contextual Facade

St. Paul's School Option IV

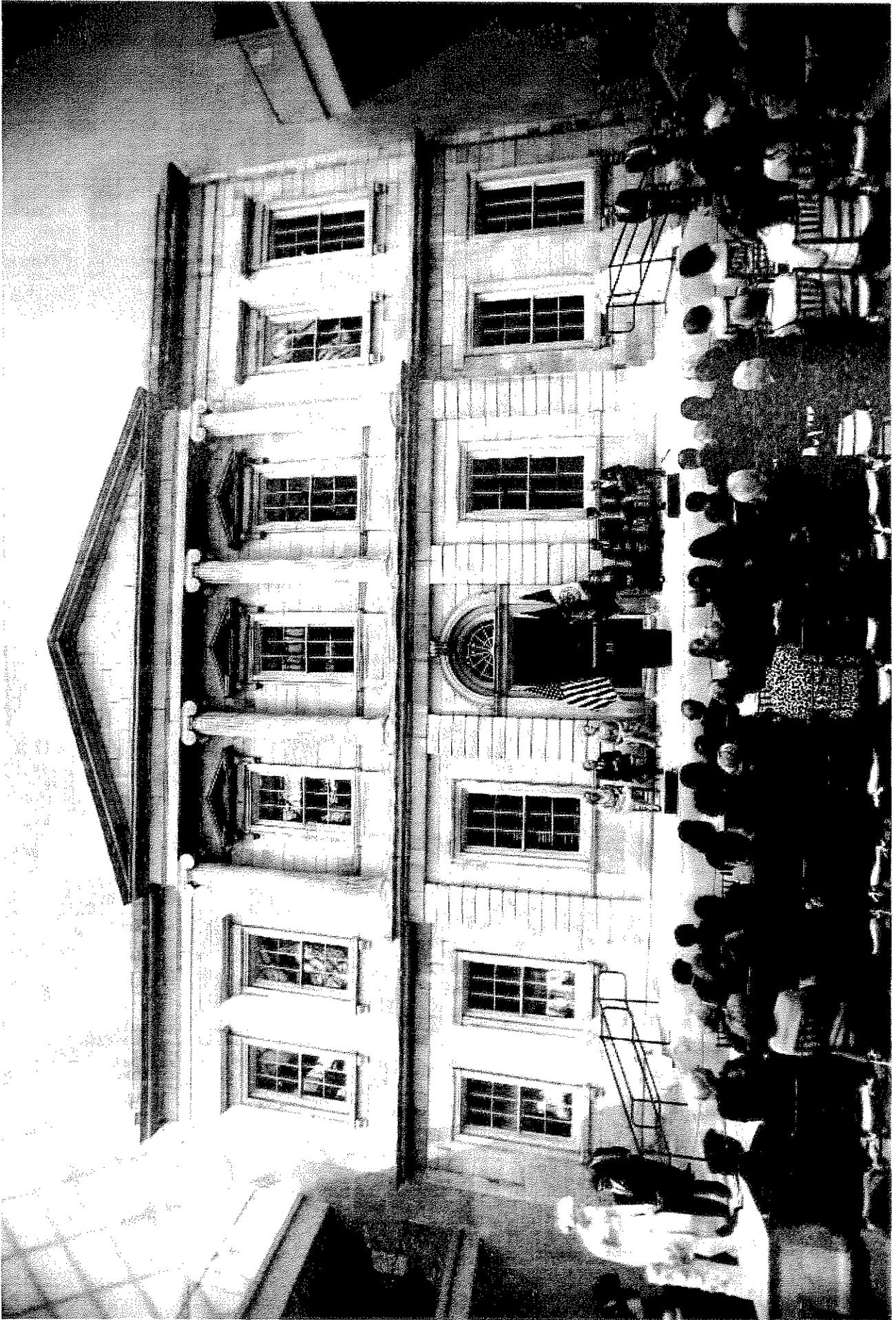


Option IV: After New Construction, with Modern Facade

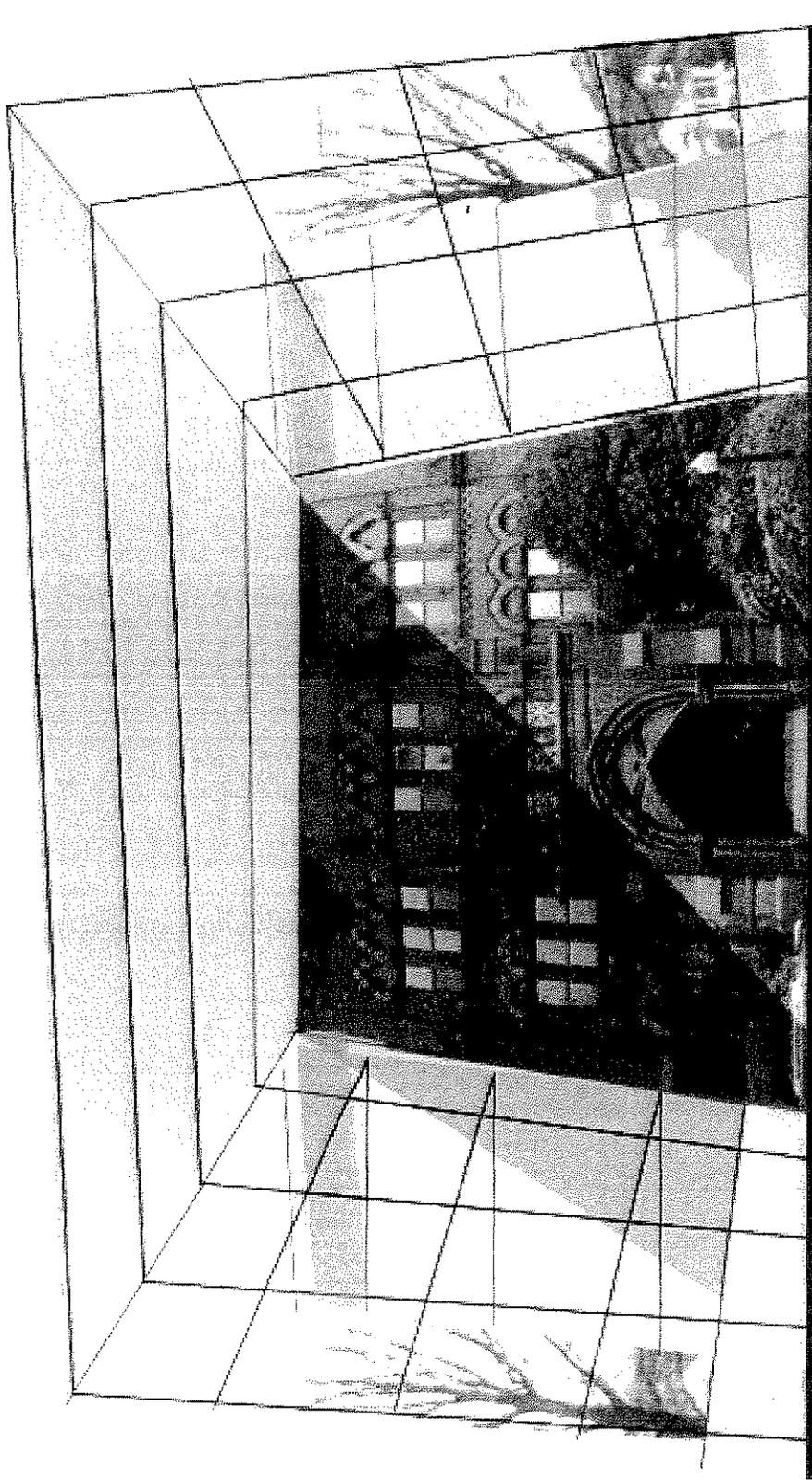
St. Paul's School Option V



Option V: Use portion of façade as part of interior of a new facility



St. Paul's School Option V



Option V: Incorporate Façade Within a New Facility

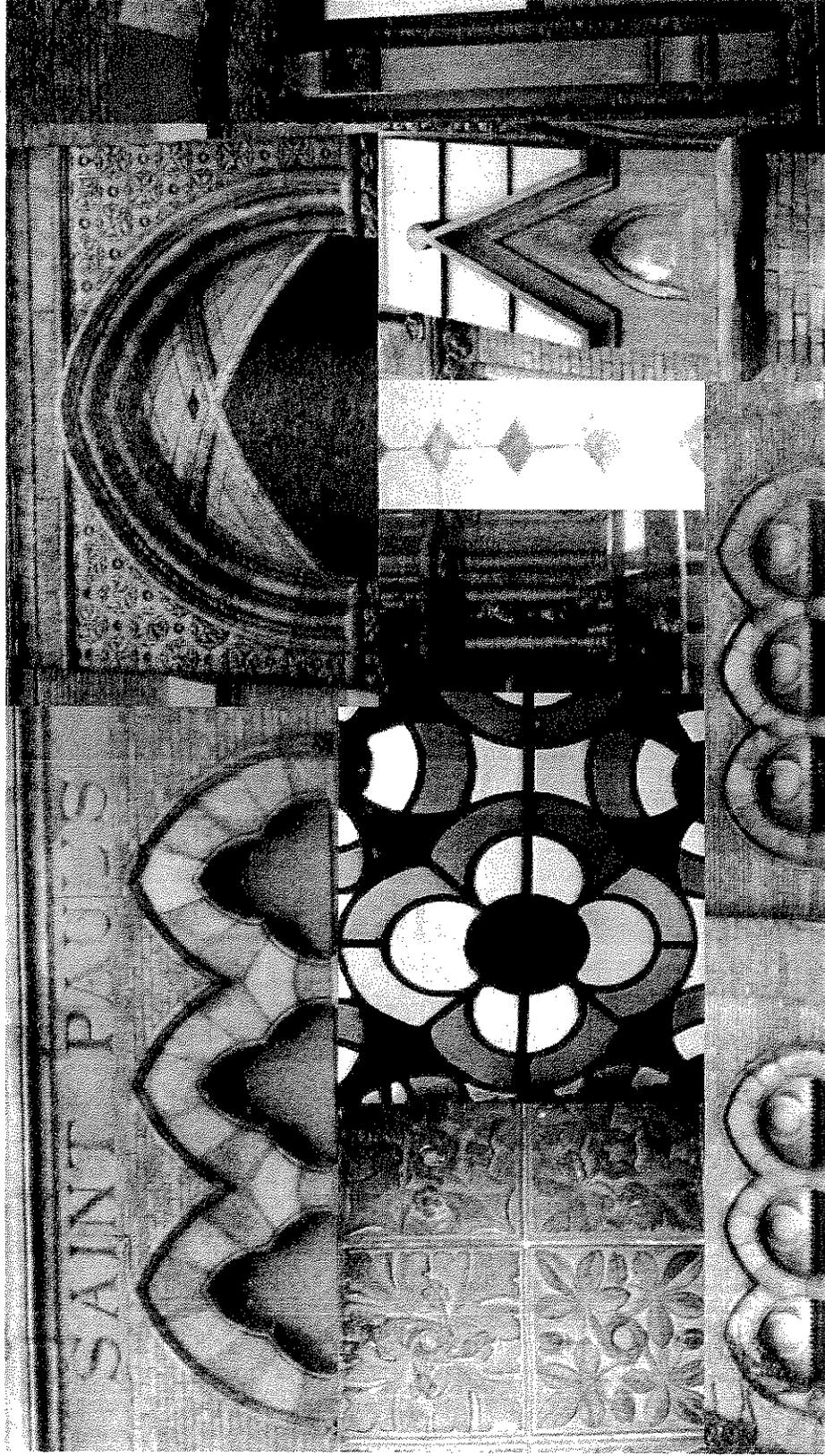
St. Paul's School Option V

- Advantages
 - Reduces the cost of restoration of historic façade
 - Creates an appropriate setting for showcasing the preserved façade
 - Façade is protected from elements and requires minimal maintenance
 - Architecturally potentially very exciting

St. Paul's School Option V

- Disadvantages
 - Somewhat limits flexibility in designing new facility around the existing portion to be preserved
 - There will a cost premium for preserving the façade, but it cannot be determined without a preliminary design.

St. Paul's School Option VI



Option 6: Select pieces of the building to preserve, and incorporate them in a creative way in the new facility

St. Paul's School Option VI

- Advantages
 - Virtually no premium cost to community above simple demolition
 - Preserves the desirable portions of the building fabric as relics without the burden of preserving the undesirable portions
 - Can be incorporated wherever and whenever the community decides

St. Paul's School Option VI

- Disadvantages
 - There are no significant practical disadvantages to this option, although there may be members of the community that may find it objectionable based on subjective criteria

St. Paul's School

- Order of Magnitude Budget Estimates

OPTION	COST	INCREASED COST ABOVE SIMPLE DEMOLITION
I – Restore Front Wing and Chapel	\$31.5 Million	\$25.7 Million
II – Restore Front Bay and Chapel	\$18.7 Million	\$12.9 Million
III – Restore Front Façade Alone	\$17.3 Million	\$11.5 Million
IV – Restore Front Façade as Part of Larger Project	\$12.4 Million	\$ 6.6 Million
Simple Total Demolition	\$5.8 Million	--

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St. Paul's School

Order of Magnitude Budget Estimates

Base Option: Complete Demolition

0 SF Restored Floor Area
 100,000 SF Demolished Floor Area
 0 SF Restored Basement
 29,000 SF Demolished Basement

Description	Quantity	Unit	Unit Cost	Subtotal
I. DEMOLITION				
Abatement of Building Areas to be Demolished	130,000	SF	\$ 15.00	\$ 1,950,000.00
Statutory Monitoring		LS		\$ 375,000.00
Building demolition	100,000	SF	\$ 10.00	\$ 1,000,000.00
Selective Demo in Basement	129,000	SF	\$ 5.00	\$ 645,000.00
Subtotal Demolition and Abatement				\$ 3,970,000.00
IV. Exterior Regrading and Landscaping				
Landscaping and site improvements	200,000	SF	\$ 6.00	\$ 1,200,000.00
Subtotal Sitework				\$ 1,200,000.00

Cost of Construction	\$	5,170,000.00
GENERAL CONDITIONS 5%	\$	258,500.00
CONTRACTOR OH/P 5%	\$	258,500.00
Contractor Cost	\$	5,687,000.00
FEE AND PERMITS 2%	\$	113,740.00
Project Cost	\$	5,800,740.00

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St. Paul's School

Order of Magnitude Budget Estimates

Option I: Demolish Two End Wings, Restore Chapel and Front Wing

55,200 SF Restored Floor Area
 44,800 SF Demolished Floor Area
 19,000 SF Restored Basement
 10,000 SF Demolished Basement

Description	Quantity	Unit	Unit Cost	Subtotal
I. DEMOLITION				
Abatement of Building Areas to be Demolished	54,800	SF	\$ 15.00	\$ 822,000.00
Abatement of Building Areas to be Restored	74,200	SF	\$ 35.00	\$ 2,597,000.00
Statutory Monitoring		LS		\$ 375,000.00
Building demolition of Two Wings	43,800	SF	\$ 10.00	\$ 438,000.00
Selective Demo in Basement to be Demolished	10,000	SF	\$ 5.00	\$ 50,000.00
				Subtotal Demolition and Abatement \$ 4,282,000.00
II. EXTERIOR RESTORATION				
A) Scaffolding				
Manlifts/Scaffolding	62,640	SF	\$ 10.00	\$ 626,400.00
				Subtotal Scaffolding \$ 626,400.00
B) Roof Repair/Replacement				
Remove Existing flat Roof	11,000	SF	\$ 5.00	\$ 55,000.00
Install New 3 Ply Modified Bitumen Roof System	11,000	SF	\$ 20.00	\$ 220,000.00
Install New Perimeter Thru-wall Flashing @ Flat Roof Areas	300	LF	\$ 120.00	\$ 36,000.00
Remove Existing Slate Roof	18,000	SF	\$ 7.00	\$ 126,000.00
Replace Water Damaged Sheathing Assume 20%	5,800	SF	\$ 3.00	\$ 17,400.00
Replace Water Damaged Structural Wood Components	100	Ea	\$ 500.00	\$ 50,000.00
Install New Slate Roof	180	SQ	\$ 2,500.00	\$ 450,000.00
Install New Copper Roof Flashings @ Slate Roof	1,000	LF	\$ 25.00	\$ 25,000.00
Install New Copper Gutters and Downspouts in All Areas (ELB)	800	LF	\$ 100.00	\$ 80,000.00
New Skylight at Grand Stair	100	SF	\$ 200.00	\$ 20,000.00
Roof Specialties (snow guards, railings, vents, stairs, dunnage etc.)			Allow @20% of cost of roofs	\$ 134,000.00
				SUBTOTAL Roof Repair & Replacement \$ 1,213,400.00
C) Exterior Walls				
Clean and Point Exterior Façade	44,700	SF	\$ 10.00	\$ 447,000.00
Replace/Repair Stone throughout	1,400	SF	\$ 100.00	\$ 140,000.00
Repair Structural Masonry Cracking-Complete	1,000	SF	\$ 50.00	\$ 50,000.00
New Footing for wall construction	12	EA	\$ 4,500.00	\$ 54,000.00
Install exterior wall to New North Facing elevation match exist	7,500	SF	\$ 150.00	\$ 1,125,000.00
Structural support system	8	EA	\$ 85,000.00	\$ 680,000.00
Basement footing and retaining wall	110	LF	\$ 300.00	\$ 33,000.00
				SUBTOTAL Exterior Repairs \$ 2,529,000.00
D) Window/Door Replacement				
New windows to meet landmarks	360	ea	\$ 1,500.00	\$ 540,000.00
Furnish and Install New Weather Shield Over Stained Glass	10	ea	\$ 12,000.00	\$ 120,000.00
Restore and protect stained glass	20	ea	\$ 15,000.00	\$ 300,000.00
Furnish, Install or Repair Exterior Entrance Doors	1	LS	\$ 30,000.00	\$ 30,000.00
Repair Miscellaneous Exterior Doors	1	LS	\$ 5,000.00	\$ 75,000.00
				SUBTOTAL Window Repair & Replacement \$ 1,065,000.00
III. INTERIOR FINISH RESTORATION				
Gut Interior, Salvage Historic Finishes	55,200	SF	\$ 10.00	\$ 552,000.00
Restore Existing Finishes @ Corridors	8,000	SF	\$ 35.00	\$ 280,000.00
Firestopping of Existing Exterior Wall ("Ratpatching")	32,000	LF	\$ 5.00	\$ 160,000.00
Restore Fireproofing	55,200	SF	\$ 4.00	\$ 220,800.00
Install New "White Box" Finishes (Floor Leveling, Patch Walls, Paint)	44,800	SF	\$ 20.00	\$ 896,000.00
Install Fire Rated "Separation" Partions W/Doors	32	Ea	\$ 6,000.00	\$ 192,000.00
Chapel Woodwork Cleaning	1	LS	\$ 150,000.00	\$ 150,000.00
Chapel Finishes	2,400	SF	\$ 100.00	\$ 240,000.00
Chapel Lighting	2,400	SF	\$ 25.00	\$ 60,000.00
2 new stairs for Chapel	2	Ea	\$ 200,000.00	\$ 400,000.00
Grand Stairway Work	1	LS	\$ 250,000.00	\$ 250,000.00
2 New egress stairs	2	Ea	\$ 155,000.00	\$ 310,000.00
Create New Toilets Complete	6	Ea	\$ 100,000.00	\$ 600,000.00
Doors and Hardware	44,800	SF	\$ 8.00	\$ 358,400.00
Elevator	1	Ea	\$ 150,000.00	\$ 150,000.00
Wheelchair lifts	5	Ea	\$ 20,000.00	\$ 100,000.00
				Subtotal Interior Finish Restoration \$ 4,919,200.00
III. MECHANICAL/ELECTRICAL/FIRE PROTECTION				
New HVAC System	55,200	SF	\$ 45.00	\$ 2,484,000.00
Electrical Wiring Power and Lighting Distribution	55,200	SF	\$ 35.00	\$ 1,932,000.00
Basement HVAC	19,000	SF	\$ 10.00	\$ 190,000.00
Basement Electrical	19,000	SF	\$ 7.50	\$ 142,500.00
Install New Fire Sprinkler System	85,000	SF	\$ 8.00	\$ 680,000.00
Fire Alarm/Security	85,000	SF	\$ 5.50	\$ 467,500.00
				Subtotal MEP Systems \$ 5,896,000.00

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St. Paul's School

Order of Magnitude Budget Estimates

Option I: Demolish Two End Wings, Restore Chapel and Front Wing

55,200 SF Restored Floor Area

44,800 SF Demolished Floor Area

19,000 SF Restored Basement

10,000 SF Demolished Basement

Description	Quantity	Unit	Unit Cost	Subtotal
IV. Exterior Regrading and Landscaping				
Landscaping and site improvements	200,000	SF	\$ 6.00	\$ 1,200,000.00
Subtotal Sitework				\$ 1,200,000.00

Cost of Construction	\$ 21,731,000.00
GENERAL CONDITIONS 10%	\$ 2,173,100.00
CONTRACTOR OH/P 10%	\$ 2,173,100.00
Contractor Cost	\$ 26,077,200.00
FEE AND PERMITS 12%	\$ 3,129,264.00
CONSTRUCTION CONTINGENCY 10%	\$ 2,607,720.00
Project Cost	\$ 31,814,184.00

Premium above Full Demolition Option: \$ 26,013,444.00

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St. Paul's School

Order of Magnitude Budget Estimates

Option II: Demolish Side and Back Wings, Restore Chapel and Center Bay

28,250 SF Restored Floor Area
 71,750 SF Demolished Floor Area
 8,000 SF Restored Basement
 21,000 SF Demolished Basement

Description	Quantity	Unit	Unit Cost	Subtotal
I. DEMOLITION				
Abatement of Building Areas to be Demolished	71,750	SF	\$ 15.00	\$ 1,076,250.00
Abatement of Building Areas to be Restored	36,250	SF	\$ 35.00	\$ 1,268,750.00
Statutory Monitoring		LS		\$ 375,000.00
Building Demolition: Two Wings	71,750	SF	\$ 10.00	\$ 717,500.00
Selective Demo in Basement to be Demolished	21,000	SF	\$ 5.00	\$ 105,000.00
Subtotal Abatment and Demolition				\$ 3,542,500.00
II. EXTERIOR RESTORATION				
A) Scaffolding				
Manlifts/Scaffolding	30,600	SF	\$ 10.00	\$ 306,000.00
Subtotal Scaffolding				\$ 306,000.00
A) Roof Repair/Replacement				
Remove Existing flat Roof	4,700	SF	\$ 5.00	\$ 23,500.00
Install New 3 Ply Modified Bitumen Roof System	4,700	SF	\$ 20.00	\$ 94,000.00
Install New Perimeter Thru-wall Flashing @ Flat Roof Areas	60	LF	\$ 120.00	\$ 7,200.00
Remove Existing Slate Roof	6,000	SF	\$ 7.00	\$ 42,000.00
Replace Water Damaged Sheathing Assume 20%	2,140	SF	\$ 3.00	\$ 6,420.00
Replace Water Damaged Structural Wood Components	50	Ea	\$ 500.00	\$ 25,000.00
Install New Slate Roof	60	SQ	\$ 2,500.00	\$ 150,000.00
Install New Copper Roof Flashings @ Flat roof area	400	LF	\$ 25.00	\$ 10,000.00
Install New Copper Gutters and Downspouts in All Areas (ELB)	400	LF	\$ 100.00	\$ 40,000.00
New Skylight at Grand Stair	100	SF	\$ 200.00	\$ 20,000.00
Roof Specialties (snow guards, railings, vents, stairs, dunnage etc.)		Allow		\$ 50,000.00
Subtotal Roof Repair & Replacement				\$ 468,120.00
B) Exterior Walls				
Clean and Point Exterior Façade	18,000	SF	\$ 10.00	\$ 180,000.00
Replace/Repair Stone throughout	600	SF	\$ 100.00	\$ 60,000.00
Repair Structural Masonry Cracking-Complete	250	LF	\$ 50.00	\$ 12,500.00
New Footing for wall construction	12	EA	\$ 4,500.00	\$ 54,000.00
Basement footing and retaining wall	110	LF	\$ 300.00	\$ 33,000.00
Structural support system	8	EA	\$ 85,000.00	\$ 680,000.00
Install exterior wall to New North Facing elevation match exist	7,500	SF	\$ 150.00	\$ 1,125,000.00
Subtotal Exterior Repairs				\$ 1,019,500.00
C) Window/Door Replacement				
New Windows	36	ea	\$ 1,500.00	\$ 54,000.00
Furnish and Install New Weather Shield Over Stained Glass	10	ea	\$ 12,000.00	\$ 120,000.00
Restore and protect stained glass	20	ea	\$ 15,000.00	\$ 300,000.00
Furnish, install or Repair Exterior Entrance Doors	1	LS	\$ 30,000.00	\$ 30,000.00
Repair Miscellaneous Exterior Doors	1	LS	\$ 5,000.00	\$ 75,000.00
Subtotal Window/Door Replacement				\$ 579,000.00
II. INTERIOR FINISH RESTORATION				
A) Interior Finishes				
Gut Interior, Salvage Historic Finishes	28,250	SF	\$ 5.00	\$ 141,250.00
Restore Existing Finishes @ Corridors	4,000	SF	\$ 20.00	\$ 80,000.00
Firestopping of Existing Exterior Wall ("Ratpatching")	1,800	LF	\$ 5.00	\$ 9,000.00
Restore Fireproofing	28,250	SF	\$ 4.00	\$ 113,000.00
Install New "White Box" Finishes (Floor Leveling, Patch Walls, Paint)	21,850	SF	\$ 20.00	\$ 437,000.00
Install Fire Rated "Separation" Partitions W/Doors	8	Ea	\$ 6,000.00	\$ 48,000.00
Chapel Woodwork Cleaning	1	Ea	\$ 150,000.00	\$ 150,000.00
Chapel Finishes	2,400	SF	\$ 100.00	\$ 240,000.00
Chapel Lighting	2,400	SF	\$ 25.00	\$ 60,000.00
2 new stairs for Chapel	2	Ea	\$ 200,000.00	\$ 400,000.00
Grand Stairway Work	1	LS	\$ 250,000.00	\$ 250,000.00
Create New Toilets Complete	4	Ea	\$ 100,000.00	\$ 400,000.00
Doors and Hardware	14,000	SF	\$ 8.00	\$ 112,000.00
Elevator	1	Ea	\$ 150,000.00	\$ 150,000.00
Wheelchair lifts	5	Ea	\$ 20,000.00	\$ 100,000.00
Subtotal Interior Finish Restoration				\$ 2,690,250.00
III. MECHANICAL/ELECTRICAL/FIRE PROTECTION ACTIVITIES				
New HVAC System	28,250	SF	\$ 45.00	\$ 1,271,250.00
Electrical Wiring Power and Lighting Distribution	28,250	SF	\$ 35.00	\$ 988,750.00
Basement HVAC	8,000	SF	\$ 10.00	\$ 80,000.00
Basement Electrical	8,000	SF	\$ 7.50	\$ 60,000.00
Install New Fire Sprinkler System	44,250	SF	\$ 8.00	\$ 354,000.00
Fire Alarm/Security	44,250	SF	\$ 5.50	\$ 243,375.00
Subtotal MEP Systems				\$ 2,997,375.00
IV. Landscaping				
Landscaping and site improvements	200,000	SY	\$ 6.00	\$ 1,200,000.00

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St. Paul's School

Order of Magnitude Budget Estimates

Option II: Demolish Side and Back Wings, Restore Chapel and Center Bay

28,250 SF Restored Floor Area
71,750 SF Demolished Floor Area
8,000 SF Restored Basement
21,000 SF Demolished Basement

Description	Quantity	Unit	Unit Cost	Subtotal
			Total Landscaping:	\$ 1,200,000.00

Cost of Construction			\$ 12,802,745.00
GENERAL CONDITIONS	10%		\$ 1,280,274.50
CONTRACTOR OH/P	10%		\$ 1,280,274.50
Contractor Cost			\$ 15,363,294.00
FEE AND PERMITS	12%		\$ 1,843,595.28
CONSTRUCTION CONTINGENCY	10%		\$ 1,536,329.40
Project Cost			\$ 18,743,218.68

Premium above Full Demolition Option: \$ 12,942,478.68

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St. Paul's School

Order of Magnitude Budget Estimates

Option III: Restore Front and Side Facades of Front Wing Only

0 SF Restored Floor Area
 100,000 SF Demolished Floor Area
 0 SF Restored Basement
 29,000 SF Demolished Basement

Description	Quantity	Unit	Unit Cost	Subtotal
I. ABATEMENT AND DEMOLITION				
Building demolition	100,000	SF	\$ 10.00	\$ 1,000,000.00
Abatement	130,000		\$ 15.00	\$ 1,950,000.00
Statutory Monitoring		LS		\$ 375,000.00
Subtotal Demolition				\$ 3,325,000.00
II. EXTERIOR RESTORATION				
A) Scaffolding				
	27,360	SF	\$ 10.00	\$ 273,600.00
SUBTOTAL Scaffolding				\$ 273,600.00
B) Roof Repair/Replacement				
Remove entire Roof Structure	incl Above			
Provide New Prefabricated Mansart Roofs with GFRP Details	10,000	SF	\$ 100.00	\$ 1,000,000.00
Subtotal Roof Repair & Replacement				\$ 1,000,000.00
C) Exterior Walls				
Clean and Point Exterior Façade	24,500	SF	\$ 10.00	\$ 245,000.00
Replace/Repair Stone throughout	600	SF	\$ 100.00	\$ 60,000.00
Repair Structural Masonry Cracking-Complete	1,200		\$ 50.00	\$ 60,000.00
Column footings 8x8x2	23	EA	\$ 4,500.00	\$ 103,500.00
Structural support framing and shoring behind existing façade	52	Ea	\$ 85,000.00	\$ 4,420,000.00
Foundation and Basement Wall	200	LF	\$ 300.00	\$ 60,000.00
Install exterior wall to New North Facing elevation	14,500	SF	\$ 50.00	\$ 725,000.00
Subtotal Exterior Walls				\$ 5,673,500.00
D) Windows/Doors				
Replace Windows and Doors with Dummy Units	90	EA	\$ 1,000.00	\$ 90,000.00
Subtotal Windows/Doors				\$ 90,000.00
V. Electric				
Lighting and Power	24,800	SF	\$ 10.00	\$ 248,000.00
Subtotal Electric				\$ 248,000.00
IV. Landscaping				
Landscaping and site improvements	200,000	SF	\$ 6.00	\$ 1,200,000.00
Subtotal Landscaping				\$ 1,200,000.00

Cost of Construction		\$ 11,810,100.00
GENERAL CONDITIONS	10%	\$ 1,181,010.00
CONTRACTOR OH/P	10%	\$ 1,181,010.00
Contractor Cost		\$ 14,172,120.00
FEE AND PERMITS	12%	\$ 1,700,654.40
CONSTRUCTION CONTINGENCY	10%	\$ 1,417,212.00
Project Cost		\$ 17,289,986.40

Premium above Full Demolition Option: \$ 11,489,246.40

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St. Paul's School

Order of Magnitude Budget Estimates

Option IV: Same as Option III, But as Part of New Recreation Center

0 SF Restored Floor Area
 100,000 SF Demolished Floor Area
 0 SF Restored Basement
 29,000 SF Demolished Basement

Description	Quantity	Unit	Unit Cost	Subtotal
I. ABATEMENT AND DEMOLITION				
Building demolition	100,000	SF	\$ 10.00	\$ 1,000,000.00
Abatement	130,000		\$ 15.00	\$ 1,950,000.00
Statutory Monitoring		LS		\$ 375,000.00
Subtotal Demolition				\$ 3,325,000.00
II. EXTERIOR RESTORATION				
A) Scaffolding	27,360	SF	\$ 10.00	\$ 273,600.00
SUBTOTAL Scaffolding				\$ 273,600.00
B) Roof Repair/Replacement				
Remove entire Roof Structure	Incl Above			
Provide New Prefabricated Mansart Roofs with GFRP Details	10,000	SF	\$ 100.00	\$ 1,000,000.00
Subtotal Roof Repair & Replacement				\$ 1,000,000.00
C) Exterior Walls				
Clean and Point Exterior Façade	24,500	SF	\$ 10.00	\$ 245,000.00
Replace/Repair Stone throughout	600	SF	\$ 100.00	\$ 60,000.00
Repair Structural Masonry Cracking-Complete	1,200		\$ 50.00	\$ 60,000.00
Column footings	12	EA	\$ 4,500.00	\$ 54,000.00
Structural support framing and shoring behind existing façade	52	Ea	\$ 65,000.00	\$ 3,380,000.00
Subtotal Exterior Walls				\$ 3,799,000.00
D) Windows/Doors				
Replace Windows and Doors with Dummy Units	90	EA	\$ 1,000.00	\$ 90,000.00
Subtotal Windows/Doors				\$ 90,000.00

*Note: Savings are realized by incorporating restoration of facade into larger adjacent project. These saving include sharing structural systems with new adjacent facility, reduced size of structural system required to brace restored facade, economies of scale by including restoration in larger project and eliminating need for enclosing rear side of facade.

Cost of Construction		\$ 8,487,600.00
GENERAL CONDITIONS	10%	\$ 848,760.00
CONTRACTOR OH/P	10%	\$ 848,760.00
Contractor Cost		\$ 10,185,120.00
FEE AND PERMITS	12%	\$ 1,222,214.40
CONSTRUCTION CONTINGENCY	10%	\$ 1,018,512.00
Project Cost		\$ 12,425,846.40

Premium above Full Demolition Option: \$ 6,625,106.40