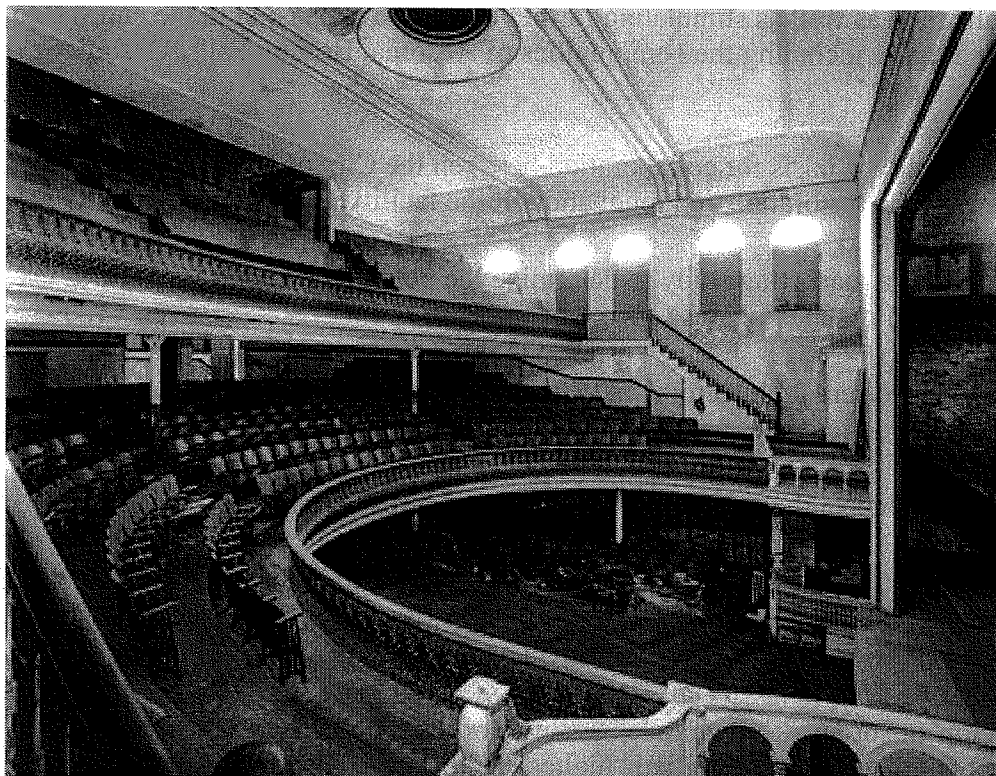


# ***Sterling Opera House***



Sterling Opera House

The city of Derby has released the Sterling Opera House Feasibility Study, and you have full access to it here on the web. You can read through the Executive Summary on this page as a starter. For a fuller version in Adobe Acrobat format, [click here](#). Keep in mind that it is a very large file, and you will need Acrobat Reader installed on your computer.

**[Click here](#) to read about the first phase of the restoration work.**

**[Click here](#)** to read about the 2006 roof replacement.

## **I. EXECUTIVE SUMMARY**

### Study Objectives

The Sterling Opera House, located in downtown Derby, Connecticut, is one of the most valuable “sleeping” cultural assets in the Greater Naugatuck River Valley and all of Western Connecticut. The historic building was constructed in 1889 and has the distinction of being Connecticut’s first designated Landmark listed on the *National Register of Historic Places*. Having played host to stars of the stage and screen, as well as celebrated musicians and athletes, the theater has been “dark” since 1945 yet remains essentially sound and in its original configuration. The City of Derby, as well as other regional partners, recognize the facility’s potential value in stimulating economic revitalization and providing a center for the arts, learning, and gathering for the entire region.

The first step toward the realization of such an objective is the preparation of a feasibility and

marketing analysis evaluating the project's viability on a number of levels. The basic objectives of this study include the following:

- Test the project's economic viability and potential in contributing to Derby's revitalization as well as stimulating further economic expansion in the entire Naugatuck Valley Region including the communities of Ansonia, Beacon Falls, Oxford, Seymour, and Shelton.
- Establishing the basis for collaboration between the City of Derby and other regional partners in the restoration and renovation of the facility.
- Conducting a marketing study to determine the potential demand for various uses of a restored Sterling Opera House.
- Assess the current architectural and structural condition of the facility including code and "life-safety" deficiencies and other issues pertinent to the facility's revitalization.
- Determine the "highest and best" appropriate use for the facility.
- Prepare a preliminary schematic design for the structure's renovation and restoration predicated on its value as an historic resource while accommodating its "highest and best use" as identified in the needs assessment and market analysis.
- Develop an "order-of-magnitude" estimate of the renovation and restoration costs for the project based upon the identified "highest and best use" for the resource, including all "hard and soft" costs for the project's implementation.
- Evaluate various "long-term" management options for the facility's on-going operation.
- Prepare a preliminary business plan and management options for the facility's operation.

### Overview of Findings

The market for the arts in the Valley is very positive. The resident community represents a mix of occupations, higher levels of educational attainment, and high household income levels. These factors normally suggest high levels of participation in the performing arts and entertainment. Using the PRIZM model developed by Claritas, 79% of the resident population can be characterized as "more likely than average" to attend arts events. Through interviews and the distribution of surveys to organizations and presenters, we measured demand for these facilities in the area on the part of regional professional arts organizations, schools, presenters and promoters, and other community-based organizations. The Planning Team found several potential uses and users for a renovated Sterling Opera House. Above all, local and regional arts organizations have expressed interest in using the facility for dramatic productions, lectures, meetings and musical entertainment. Other uses include arts instruction, historic interpretation, media training, social gatherings and special events / fundraisers. If restored and reopened, the Sterling Opera House could be one of the catalysts to Derby's downtown revitalization, which would result in "quality of life" improvements such as educational opportunities, community development and economic revitalization. Over time, the building's programs could become a destination for the Valley's tourist market. The facility would be a true community arts center; accessible to the general public, serving local and regional programming, and drawing resident and regional audiences.

A stage the size of the one in the Sterling Opera House is most suitable for performances of drama, musical theatre, small music ensembles, bands, recitals, small orchestras, and small

dance ensembles or solo pieces. Lectures, public meetings, and film screenings are also appropriate uses for the space. The small square performance area, approximately 30' x 30', is not suitable for opera or ballet, which require a minimum performance area of 48' x 48' to achieve the staging demanded by those arts forms. Modern and folk dance groups often have more flexible requirements, and may be successfully accommodated at the Sterling Opera House. This building is not large enough to accommodate symphony orchestras or traveling Broadway shows. Modern concert halls do not have prosceniums and have very low stages in order to place the musician and the listener in the same volume. Large orchestras require an enormous amount of square footage and a large cubic volume for the music to resonate within. An even greater area and volume is needed for symphonies with a chorus. Smaller orchestras, chamber groups and solo recitals, however, would be very successful venues at the Sterling Opera House. The Hall is acknowledged for its superb acoustical characteristics.

A preliminary scenario indicates a potential use of the theatre by over fifteen different groups totaling 153 performances per year. With 63 "event days" and 56 "prep days", the theatre would be in use a total of 119 days per year. "Sterling Hall", a multi-purpose room supplementing the theatre, would account for an additional 108 days of use. Total attendance would approximate 34,878 patrons.

Based upon the space program developed through the Needs Assessment and Market Analysis, (as well as an assessment of the building's historic configuration), a preliminary schematic design for requisite building modifications has been prepared to accommodate the Sterling Opera House's program of activities. The schematic design is respectful of the historic Theatre's position as one of Connecticut's cultural assets and is predicated on the *Secretary of the Interior's Standard's for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. The schematic design also addresses the requisite modifications to fully comply with all current life-safety and accessibility requirements.

Based on the project as it is currently conceived and delineated in the architectural recommendations, an "order of magnitude" estimate of hard construction costs total approximately \$6.1 million. (This equates to approximately \$181 / square foot.) Other capital costs including theatrical equipment as well as furniture and fixtures total approximately \$1.1 million. Other miscellaneous expenses including administrative costs, design and consultant fees and legal expenses total to approximately \$1.9 million. Consequently, the gross estimate for project implementation approximates \$9.2 million.

A pro-forma operating budget for a base year of operations for the re-activated Sterling Opera House has been developed. The key step in developing the pro-forma has been estimating activity in the theater and adjacent spaces. While the resulting program of events is not an exact forecast of activity, it does provide a basis for projecting earned revenues and expenses. The pro-forma should be considered as a "live" model, one that can be adjusted based on changing circumstances and assumptions. It is fundamentally a tool to help the City of Derby, the Valley Arts Council and "Save Our Sterling" (SOS) to prepare for the operation of the renovated facility.

Funding the renovation and restoration of the opera house is a significant challenge. The Planning Team believes that it is important to seek funding from multiple sources, to develop an endowment to support operations of the Sterling, and to position the project to compete successfully for funding without threatening other organizations' current fundraising efforts. With anticipated operating revenues of \$94,000 and operating expenses of \$294,000, the Sterling covers 32% of operating costs with earned revenues, leaving an annual funding requirement of approximately \$201,000.

Key sources of funds will mostly be a combination including the State, the City of Derby (funding and/or services), corporations, foundations and individuals. As seen in a few enterprising communities, a tax levy on services, an assessment on sales, or another form of

public funding may also provide a steady revenue stream to support the Sterling's operation. Funding must support both the construction and operation of new facilities: if the project cost is \$9.2 million, we would recommend a funding plan that seeks \$10.7 million from the public sector and private sector, with that additional \$1.5 million to create an endowment.

We would stress the importance of professional advice in the investigation of the funding potential of the project, and the scaling and/or phasing of the project based on the results of that analysis. First and foremost, what our study has done is to identify and describe what we think is the right project for the community. This is now a tool for fundraising experts to use in their analysis.

For the next steps, the Planning Team would stress the importance of determining the level of support likely to come from the public, and then investigating the potential to raise the balance of required funds from the private sector. We would also emphasize the importance of integrating this project into overall plans for downtown Derby, and the continuing effort to forge operating partnerships. For the Sterling to regain its status as a community asset, it is critical that the arts council and SOS work with users of the Sterling on institutional preparation issues and audience development goals. This study represents several small steps towards the development of the Sterling as a regional cultural center.



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A Feasibility Study, Market Analysis and

**M A S T E R   P L A N**

For the Restoration and Revitalization of the

**S T E R L I N G   O P E R A   H O U S E**

~  
Derby, Connecticut

March 1, 2002

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(NOTE: The cover sheet of each section divider of this report includes a photograph of various building details indicative of the Sterling Opera House's existing condition.)

### I. EXECUTIVE SUMMARY

#### Study Objectives

The Sterling Opera House, located in downtown Derby, Connecticut, is one of the most valuable “sleeping” cultural assets in the Greater Naugatuck River Valley and all of Western Connecticut. The historic building was constructed in 1889 and has the distinction of being Connecticut’s first designated Landmark listed on the *National Register of Historic Places*. Having played host to stars of the stage and screen, as well as celebrated musicians and athletes, the theater has been “dark” since 1945 yet remains essentially sound and in its original configuration. The City of Derby, as well as other regional partners, recognize the facility’s potential value in stimulating economic revitalization and providing a center for the arts, learning, and gathering for the entire region.

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## II. EXISTING CONDITIONS ASSESSMENT

### A BRIEF HISTORY OF THE STERLING OPERA HOUSE

The Sterling Opera House, located in downtown Derby, Connecticut, is one of the region's "sleeping" cultural assets. The building is acknowledged as the first structure in the State of Connecticut to have been listed on the *National Register of Historic Places*. The Sterling Opera House was erected to serve as a cultural and civic center for both the City of Derby and the Lower Naugatuck Valley towns of Ansonia, Shelton and Seymour. The theatre opened on April 2, 1889 and remained in use until "going dark" in 1945. Two lower levels of the building served as Derby's City Hall and Police Station until a new building was erected for those uses in 1965. The building has been vacant ever since with the exception of a violin concert performed in 1966. The building was scheduled for demolition in the 1970's but was saved by the efforts of the late Vivian Kellems, a Connecticut industrialist and patron of the arts.

Designed by Carnegie Hall design collaborator H.E. Ficken, the Sterling Opera House combines several styles. The building's exterior and cupola (now missing), as well as the building's entry porticos, are Italianate Victorian and display the final evolution of the Italian Baroque Opera House prototype. The configuration of the auditorium seating was influenced by German composer Richard Wagner's conception of a triangular arrangement with all seats enjoying an unobstructed view of the stage. No box seats were employed, but two "piano boxes" were situated on either side of the stage proscenium to accommodate two pianos donated by the Sterling Piano Factory, once Derby's largest manufacturing employer and the theatre's namesake. A simple proscenium arch frames the 60 by 34 foot stage.

In its heyday, the Sterling Opera House served as host to a remarkable array of stars and celebrities. Renowned magician Harry Houdini once performed feats of magic and daring escapes at the Sterling. Aviatix Amelia Earhart addressed the local Women's Club in 1936. Lionel Barrymore, a legend of American Theatre, joined his famous relatives, John and Ethel Barrymore, in appearances at the Opera House. Ex-heavyweight champion John L. Sullivan performed the role of Simon Lagree in a Sterling Opera House production of *Uncle Tom's Cabin*. Silent filmmaker D.W. Griffith was so pleased with the reception his *Birth*

*of a Nation* received at the Opera House that he used the theatre to inaugurate several of his subsequent films before their general release. Other celebrities who appeared at the Sterling include comedian Red Skelton, composer John Phillip Sousa and dancer Donald O'Connor. On the walls of the dressing rooms under the stage are remnants of playbills and posters advertising the shows. Among the descriptions are the following: "*Haverly's Minstrels, May 1889*"; "*Two Little Vagrants, A Powerful Melodrama, April 10, 1910*"; and "*The Queen of Ballet, a Novel Terpsichorean Feature ~ A Happy Celebration of Song, Ballet and Harmonious Costume Coloring*".

While the history of the Sterling Opera House is largely undocumented in published format, numerous historic photographs of the building's exterior are available. The following are among the many reviewed during the preparation of this report:

## ARCHITECTURAL ASSESSMENT

### Stage House

The stage width is 60'-10" wide x 30'-2 1/4" deep with a 29'-0" wide proscenium opening. The stage floor is 3'-6" above the orchestra seating level. Wing space stage right and stage left is 15'-11" from the proscenium opening on each side. A mezzanine floor, located just below the stage, includes dressing rooms for the stage above. The orchestra level, on the building's second floor, features a small orchestra pit and raked seating area. A horseshoe balcony on the third floor features fixed seating on tiers, while a smaller second balcony on the building's fourth floor provides overflow seating on wooden benches.

The useable wing space is currently reduced significantly by stairways providing vertical circulation between the dressing rooms, the stage, and the balconies. Escape stairs from the 1<sup>st</sup> balcony provide egress into the wings stage right and stage left. A stair in the stage right wing descends to the dressing rooms on the 1<sup>st</sup> floor.

The orchestra pit is vaudevillian style, both narrow and shallow. The size of the pit limits its use to small bands and ensembles of 4-6 musicians, rather than an

orchestra of the size typically found in Broadway-style musical theatre (generally 26 pieces.)

Two “piano boxes” are located on either side of the proscenium arch at 2'-8" above the orchestra floor, believed to have been originally designed to accommodate two Sterling pianos for which the Opera House was named.

There is a fly tower with an original wooden grid above the stage. The grid supports hemp rope rigging of linesets and spot sets with sandbag counterweight for the flying of scenery, draperies, and lighting battens. Inspection of the grid by a structural engineer is required to determine the condition and loading capacity.

### Theatrical Equipment

The existing facility lacks basic theatrical equipment such as a stage lighting dimming system, stage lighting fixtures, house lighting, sound system, projection system, stage draperies, rigging sets, and stage equipment such as ladders, music stands, etc.

Electrical service and mechanical systems such as HVAC are insufficient to support modern stage systems and ensure patron comfort.

### Auditorium Seating

The orchestra level seating has been removed. The first balcony fixed seating and the second balcony benches remain. At the rear of the second balcony is a wooden platform, 3'-7" above the balcony floor, which frames-out the large window on the front of the building and may have served as a followspot lighting position.

### Circulation

Lobby space is inadequate for the auditorium seating capacity. Likewise, restroom facilities are insufficient and do not meet ADA requirements. The auditorium spaces and the former municipal office spaces have separate entrances and do not have connecting circulation.

Egress from the balconies to the orchestra level, and from the orchestra level to the ground level is inadequate by modern fire code regulations and ADA requirements. There are no elevators for patrons or backstage use, presenting problems for people with disabilities and for movement of equipment and scenery.

### Stage Support Areas

There is no control booth for stage managers, light board operators, or projection equipment. There is no sound mix position.

The dressing room areas in the first floor are poorly configured and lack required support spaces such as wardrobe facilities and greenroom amenities.

There is no loading dock or scenic storage/assembly area, restricting the size and design of stage scenery and limiting production options.

### ENVIRONMENTAL ASSESSMENT

EnviroMed Services, Inc., the Planning Team's environmental consultant, conducted a site inspection of the building on November 5, 2001. Several potential environmental hazards were observed. The potential for lead-based paint existed on the exterior and interior portions of the structure. The exterior of the building is comprised of non-painted brick, non-painted stucco, painted wood windows, and painted wood doors. The interior of the building is constructed of painted plaster, painted wood, painted wallboard, painted metal, and painted tin ceilings. Much of the painted surfaces for the exterior and interior portions of the structure were defective (i.e., peeling or cracking).

Suspect asbestos-containing buildings materials were noted for the structure, and included exterior stucco, exterior window caulking and glazing compounds, interior plaster, wallboard and joint compound, and thermal systems insulation (TSI) located in the basement of the building. It should be noted that the TSI was observed to be in poor condition with much of the pipe insulation having fallen to the basement floor.

An underground storage tank (UST) is located on the northeast portion of the site just beneath the sidewalk. A fill pipe and vent pipe were observed at this location adjacent to the exterior of the building. On the northeast wall in the basement boiler room is a feed and return line coming from the UST. Oil staining was observed just beneath the feed/return lines as they enter the building. The UST supplies heating oil to the boiler. The size and age of this UST is not known.

The first floor of the building has fluorescent lighting. The fluorescent lights contain ballasts that may contain polychlorinated biphenyls (PCBs) or diethylhexyl phthalate (DEHP). The lighting appeared to be in good condition, with no evidence of leaking or staining. The fluorescent lamps in the lighting fixtures may contain mercury.

Four steel drums were observed in the northwest portion of the basement. The sizes of the drums were between 35 to 55-gallons each. The drums did not contain any labels to identify the contents. The tops of the drums were observed to be slightly rusted. No leakage or spillage was observed around these drums.

#### Existing Conditions Drawings

Subsequent to a review for potential archival documentation, no existing drawings of the Sterling Opera House were found to be available. Consequently, as an initiating activity, the building was field measured and the following drawings prepared documenting the structures existing configuration:

- Site Location Plan
- Existing Basement Plan
- Existing City Hall Floor Plan
- Existing Dressing Room and Orchestra Pit Plan
- Existing Orchestra Floor Plan
- Existing Grand Tier Floor Plan
- Existing Balcony Floor Plan
- Existing Tower Floor Plan
- Existing Roof Plan

## Photographic Documentation

While conducting the architectural assessment of the building, a comprehensive “existing conditions” photographic survey was prepared. Representative photographs are included in the report.

### III. NEEDS ASSESSMENT and MARKET ANALYSIS

As a point of departure in establishing a viable program and master plan for the ultimate resurrection, restoration and renovation of the historic Sterling Opera House, four basic questions need to be addressed:

- 1) *Who and what is the potential market for events and activities at a restored Sterling Opera House?*
- 2) *Who are the potential users of the facility and what are the possible uses for the opera house?*
- 3) *What other cultural facilities exist in the region and how should the Sterling Opera House fit within the inventory of area cultural facilities?*
- 4) *What other potential impacts and benefits—such as community development, economic revitalization or cultural tourism—could this project have on the Naugatuck Valley's future development?*

The methodology of addressing these questions included a review of previous studies, community interviews, and comparable project's analysis. Following is a summary of the needs assessment presentation delivered to Derby's Board of Aldermen on January 11, 2001. These results are critical to determining how the opera house should be restored.

#### Needs Assessment Overview

- Several previous studies have added depth to the analysis of the Sterling Opera House's viability and possible renovation. For the most part, these studies attempted to address means to develop the Valley economy and, by extension, opportunities to improve living standards for residents. The *Mt. Auburn Report* focused on social, health and human needs of Valley residents and proposed several changes in the Community Foundation of Greater New Haven's grantmaking practices to effect improvements in this area. Healthy Valley 2000 and the Alliance for Economic Growth are important collaborative efforts, which have succeeded to establish working relationships among public agencies and civic organizations for resource-sharing as well as other benefits. Additionally, commercial projects, such as Derby's riverfront proposal, and downtown revitalization plans have stimulated interest in the Sterling as an anchor for further development.
- An arts and cultural assessment of the Lower Naugatuck Valley was completed in September 2000. The report details the assets of the Valley, from individual artists and performing groups, to arts and cultural organizations. It describes how a long tradition of city-sponsored cultural councils and open-air festivals has permitted the arts and culture to remain accessible to all residents. The lists of activity demonstrate that much of what is going on in the Valley is at the community level, and essentially volunteer-driven. The assessment recommends the development of a Valley Arts Council to support cultural development of the region, through specialized services and programs. The report also makes a strong case for the redevelopment of the Sterling as a regional arts center for the Valley.

- The Valley consists of Ansonia, Beacon Falls, Derby, Naugatuck, Oxford, Seymour and Shelton. Beacon Falls and Naugatuck are more often associated with Waterbury, whereas Shelton, Derby and Ansonia are often considered to have a closer relationship to New Haven. Together the area population is 127,394 (2000 estimate). Shelton is the largest community, with an estimated 38,667 residents. The Greater Valley area is approximately one hundred square miles.
- The market for the arts in the Valley is very positive. The resident community represents a mix of occupations, higher levels of educational attainment, and high household income levels. These factors normally suggest high levels of participation in the performing arts and entertainment. Derby's profile, however, is more challenging to define. The city has experienced a slight decline in population growth, and, with a high proportion of aging seniors and lower household income levels, this segment of Derby is not likely to be frequent arts attendees.
- Using the PRIZM model developed by Claritas, 79% of the resident population can be characterized as "more likely than average" to attend arts events. (See Appendix) Within the primary market, Shelton, Derby and Ansonia have a large proportion of households fitting the profile of having higher than average potential to attend theater, dance and music programs. East of the Valley, Woodbridge, Orange and Bethany also have high potential as arts audiences. Analysis of arts attendance at Derby, Shelton and New Haven events supports these findings.
- Visitors to the Lower Valley and surrounding areas are an important secondary market segment. However, little information on the profile or interests of area visitors has been identified. While the possibility of attracting regional visitors would seem likely, the concept of reaching overnight visitors is more uncertain, as few institutions in the area have developed marketing skills to this extent. The Valley's designation as an "All-America City" in 2000 and the first River Celebration show promise for the region as a tourism destination. However, investment to attract tourists to the Sterling should not be made without a commitment to a larger marketing plan for the Valley.
- The most important component of the study was our investigation of potential uses and users of new facilities. Through interviews and the distribution of surveys to organizations and presenters, we measured demand for these facilities in the area on the part of regional professional arts organizations, schools, presenters and promoters, and other community-based organizations. We found several potential uses and users for a renovated Sterling Opera House. Above all, local and regional arts organizations are interested in using the facility for dramatic productions, lectures, meetings and musical entertainment. Other uses include arts instruction, historic interpretation, media training, social gatherings and special events/fundraisers.
- Based on the Alliance for Economic Growth's arts and cultural assessment of the Valley, we created a facilities inventory to show the attributes of available cultural facilities. The inventory shows that few facilities are available to

host large community events. Though several school auditoriums are located in the market area, only Shelton High School is appropriate for large presentations. Libraries, community centers and churches also accommodate the need for public spaces, but on a smaller scale. The Strand Theatre in Seymour is the only privately operated theatre in this market area. Beyond the Valley, there are several large and high quality venues available in Waterbury, Bridgeport and New Haven.

- In light of our assessment of the Valley's community needs, the proposal to redevelop the Sterling Opera House has several potential impacts and benefits. If reopened, the Sterling Opera House could be the catalyst to Derby's downtown revitalization, which would result in quality of life improvements such as educational opportunities, community development and economic revitalization. Over time, the building's programs could become a destination for the Valley's tourist market.
- We recommend the restoration of the Sterling Opera House to accommodate a diverse selection of cultural and educational programming such as plays, recitals, lectures, special events, public meetings and film screenings. Generous backstage support, adjacent rehearsal space and rooms equipped for instruction and exhibition should also be included in this project. We recommend these particular components because we believe that they can be both unique to the region and appropriate to the needs of audiences and users. The facility would be a true community arts center--accessible to the general public--to serve local and regional programming, and draw resident and regional audiences.
- There is keen interest in activating the Sterling for daytime arts instruction. We will convene a meeting of educational leaders from the Valley to further explore opportunities for the Sterling to meet needs in this area. Any educational program introduced at the Sterling should complement the activities of other area schools. In that context, it is important to note that Waterbury is in the final planning stages for a new magnet school for the arts.
- Supporting our recommendations is research on comparable renovation projects across the county, including historic theatres in Vermont, Wisconsin, Colorado and California. These projects suggest how funding has been assembled to restore and operate a theater, and what kinds of activities have succeeded in smaller communities. The Warner Theatre in Torrington is added as a local example of a reopened theatre.

Subsequent to the needs assessment and market analysis, a business planning exercise to develop a management and operations model for the recommended restoration strategy has been prepared (see Section IX). This component includes the development of operating pro-formas and staffing requirements as well as an assessment of funding opportunities. Physical planning efforts will be coordinated with this phase of the study; concept development, space programs and the construction of order-of-magnitude capital budgets must be conducted on a parallel track for informed decision-making. Ultimately, combining these processes leads toward institutional preparation.

Important issues to be addressed as plans for the Sterling Opera House continue to evolve include consideration of:

- How to promote the necessity of this project against potentially competitive and larger projects in the region;
- How to find the appropriate balance between flexibility and utility of the theatre against those qualities which will make it unique in the region; and
- How to cultivate leadership to manage fundraising efforts and oversee project management.

(Note: See appendix for additional and substantiating data.)

## IV. FACILITY USE RECOMMENDATIONS

Subsequent to conducting the Needs Assessment and Market Analysis, as well as evaluating the existing conditions and configuration of the Sterling Opera House, assumptions need to be formulated as to potential anticipated activities prior to the establishment of a program for facility renovation and recommended architectural modifications. The facility use recommendations will further be utilized in the preparation of the business pro-forma and management plan (see Section IX).

A stage the size of the one in the Sterling Opera House is most suitable for performances of drama, musical theatre, small music ensembles, bands, recitals, small orchestras, and small dance ensembles or solo pieces. Lectures, public meetings, and film screenings are also appropriate uses for the space.

The small square performance area, approximately 30' x 30', is not suitable for opera or ballet, which require a minimum performance area of 48' x 48' to achieve the staging demanded by the art form. Modern and folk dance groups often have more flexible requirements, and may be successfully accommodated at the Sterling Opera House.

This building is not large enough to accommodate symphony orchestras. Modern concert halls do not have prosceniums and have very low stages in order to place the musician and the listener in the same volume. Large orchestras require an enormous amount of square footage and a large cubic volume for the music to resonate in. An even greater area is needed for symphonies with a chorus. Smaller orchestras, chamber groups and solo recitals would be very successful here.

Based on the Needs Assessment and Market Analysis, as well as the physical constraints of the existing theatre, the following potential users of the Sterling Opera House have been identified:

- Youth CONNexion
- New England Ballet Company
- Orchestra New England
- Valley Arts Council

- Private Dance / Music Schools
- Derby High School
- Connecticut Opera
- Town of Derby Special Events
- Bethwood Suzuki
- Family and Children's Series
- Commercial Rentals
- Business Meetings
- Arts Council / DHS Film Screenings
- Teacher In-Services and other Educational Programs
- Civic Events

A preliminary scenario indicates a potential use of the theatre totaling 67 performances per year. With 63 "event days" and 56 "prep days", the theatre would be in use a total of 119 days per year. "Sterling Hall", a multi-purpose room supplementing the theatre, would account for an additional 108 days of use. (Note: the Activity Profile does not include the potential use of the facility by a Regional Magnet School for the Arts.)

Based on these potential users, the following space program has been formulated for the theatre's renovation:

#### PROPOSED SPACE PROGRAM

Space	Name	Use	NSF	Existing SF	Stage Level
A1	Stage	Performances/rehearsal of: Dance Music theater Small music ensembles Drama Orchestra Band Recitals	1110	37'x30'-2 1/2" = 1110	Y
A2	Stage right wing		360	360	Y
A3	Stage left wing		360	360	Y
A4	Orchestra Pit		204	72	N

Space	Name	Use	NSF	Existing SF	Stage Level
A5- A6	Dressing rooms	30SF/person = 16 persons/ea	960 (2 @ 480 ea)		N
A7	Wardrobe room	Maintenance of costumes for productions while in residence	100		N
A8	Piano storage	For storage of piano with easy stage access	100		Y
A9	Guest Artist Suite	Dressing room with toilet in suite	240		Y
A10	Performers toilets & showers – men		120		
A11	Performers toilets & showers – women		120		
A12	PWD Toilet		50		Y
A13	Greenroom	Assembly area prior to the stage, doubles as dressing room overflow	500		N
A14	Stage sound and light locks	Vestibule to trap sound and light at entries to stage	50 (2 @ 25SF ea)		Y
A15	Warm up room/ rehearsal room/ performance studio	Multipurpose room for warm ups, rehearsals, possibly small chamber performances	900 (30'x30')		Y
A16	Loading dock	Load-in of scenery, props and equipment for shows produced elsewhere	600 + Freight Elevator = 888		Y
A17	Assembly Area	Tool storage, materials, hardware, possible assembly of small pieces	400		Y
A18	Technical Office	Tech director's office, plan storage	100		Y
A19	Stage	Office and storage of valuables	100		N

Space	Name	Use	NSF	Existing SF	Stage Level
	Managers Office				
A20	Electrics Office	Storage and repair of lighting equipment	100		N
A21	Sound Office	Storage and repair of sound equipment	100		N
A22	Crossover		5x60=300		
A23	Dimmer Room		64 (8'x8')		N
A24	Control Booth		288 (12'x24')		Y
A25	Follow spot Booth		96 (12'x8')		N
B1	Seating- Orchestra Level			2297	
B2	Seating - 1 <sup>st</sup> Balcony			1160	
B3	Seating - 2 <sup>nd</sup> Balcony			900	
C1	Lobby	Based on 6SF per seat- 480 seats. Gathering place before show and during intermission	2880		N
C2	Box office	Ticket sales, three windows separate from rest of box office (see B3)	98		N
C3	Back Box Office	Subscription fulfillment	100		N
C4	Concessions	Long bar to serve many	308		N
C5	Concessions Storage	Storage area for concessions	112		
C6	Public Restrooms - Men	1 fixtures per 25/2 per sex based on 480 people, 50% of fixtures for lavatories	10+5=15*30=450		
C7	Public Restrooms - Women	1.5 fixtures per 100 per sex based on 480 people, 50% of fixtures for lavatories	12+5=17*35=595		
C8	Vertical circulation	Freight elevator for scenic use on stage & passenger elevator.	as necessary		

Space	Name	Use	NSF	Existing SF	Stage Level
C9	Janitor's Closet	Storage for cleaning supplies	30		
C10	Rehearsal storage		112		
C11	Chair storage		112		
C12	Classroom	For general community arts classes	600 (20'x30')		
C13	ADA Bathroom		50		
Totals			17,414		

## V. THEATRICAL RECOMMENDATIONS

### RECOMMENDATIONS

The following recommendations aim to restore the Sterling Opera House auditorium to accommodate a diverse selection of cultural and educational programming such as plays, recitals, acoustic musical performances, ensemble musical performances, lectures, special events, public meetings, and film screenings. Additional spaces in the lower levels will accommodate rehearsals, educational instruction, public events, and small performances or arts exhibitions.

A full compliment of stage equipment is recommended, providing a facility that is able to accommodate local user groups that lack the economic means to purchase or rent such equipment. A house inventory of equipment eliminates the need to install rental equipment for each production, reducing the wear and tear on the facility of repeatedly loading in and out rental equipment.

#### Stage House

- 1) The stairways in the wing space of the stage should be relocated to increase the useable wing area for scenery, performers, and equipment. It is recommended that the stairs from the balcony be re-routed to the orchestra level, as the stage is not a safe path of egress for patrons in the event of an emergency.
- 2) Vertical circulation from the stage to the support spaces below may be accomplished with an addition to the rear of the building. This addition would provide stairs between floors, a freight elevator to a new loading dock on the ground floor, and a backstage crossover from stage right to stage left, allowing the full depth and width of the stage to be used for performances.
- 3) It is recommended that the orchestra pit be enlarged to accommodate larger ensembles of musicians. Pit filler platforms may be set to the level of the orchestra floor for additional seating, or raised to stage level for extension of the stage apron into the auditorium. Additional study of vertical sightlines

is required before a determination of the ideal pit size can be made.

- 4) The piano platforms should be retained as a signature architectural element of the auditorium.
- 5) Pending inspection of the wooden grid by a structural engineer, it is recommended that the grid be refurbished for use with traditional hemp rope rigging. This should not be seen as a limitation; many Broadway theatres have no counterweight rigging. The Belasco, Booth, Cort, Helen Hayes, Holymouth theatres are all hemp houses. Existing catwalks with pin rail above the stage right and stage left wings, used to secure the rigging set ropes, may need refurbishment or replacement. Additional study is required to determine if the existing catwalks are at the desired height.
- 6) Box booms should be installed near the proscenium on the 1<sup>st</sup> balcony level for side lighting positions, and a rear of house pipe installed at the 2<sup>nd</sup> balcony to provide front lighting positions.

#### Theatrical Equipment

- 1) The fly grid and pin rail require additional rigging equipment to work as a functional system. Hemp spot line sets, which include three rope lines, batten, clew, and sandbag, are utilized to rig scenery, draperies, and stage lighting.
- 2) A fire curtain is required by code to block the spread of an on-stage fire until the audience can be evacuated, provided the stage house walls are of rated construction.
- 3) A full set of stage draperies is required to provide masking of the wings and grid from audience view. A cyc and scrim provide a lighting surface at the rear of the performance area. Traveler curtains can be opened or closed to reveal or mask a portion of the stage. The main curtain closes the proscenium arch and may serve as an act curtain. A decorative grand drape and portal curtains reduce the size of the proscenium opening to the desired proportions.
- 4) A stage and house light dimming system is required. Stage lighting circuits

are distributed throughout the auditorium to power stage lighting fixtures that are located on a per-production basis. A computerized lighting console and accessories controls the dimming system to achieve lighting cues as required for each production or other facility use. Control plates located backstage and in the house allow control of house lighting and stage lighting presets without the use of the lighting console.

- 5) Ladders and a personnel lift are required for production uses such as rigging, lighting, and scenery installation.
- 6) Additional stage equipment, such as music stands, acoustical shell, dance floor, and stacking chairs, is required to accommodate performance groups.

#### Auditorium Seating

- 1) New historic reproduction seats are needed in the orchestra level. Loose chairs and seats with removable armrests are necessary to meet ADA requirements. A new seating layout will meet code requirements while maximizing sightlines to the stage. Approximately 292 seats will be installed on the orchestra level.
- 2) Refurbish existing seats in the 1<sup>st</sup> balcony (Grand Tier) with padded seat pans for patron comfort and self rising devices as required by code. A new seating layout will accommodate approximately 232 seats.
- 3) Refurbish the 2<sup>nd</sup> balcony benches, which provide greater overflow capacity than individual seats. Seats, if desired, could be installed. The benches will serve approximately 152 patrons.

#### Circulation

- 1) A new building addition will provide backstage vertical circulation, including a freight elevator and loading dock. A "stage cross-over" segregated from the stage is also recommended.
- 2) Lobby stairs from the ground level to the orchestra level and from the orchestra level to the balconies must be redesigned to meet code requirements.

- 3) A passenger elevator must be added for patrons with disabilities, providing circulation to all levels. Elevators are needed at the front and rear of the facility to serve the split-levels of the building.
- 4) A new lobby/common space on the ground level accommodates performance patrons, concessions areas, special events, and may serve as a visual art exhibition space.

### Stage Support Areas

- 1) A control booth is proposed at the rear of the orchestra seating level, from which stage managers call cues and technicians run control consoles with acoustic isolation from the audience.
- 2) Dressing rooms below the stage are recommended to be two large chorus style rooms, each with makeup mirrors and benches, sink, changing booths, hooks or lockers for personal clothing, and space for costume racks.
- 3) Toilet and shower facilities for performers shall be located separately from the dressing rooms, allowing dressing room assignment to be made by criteria other than gender.
- 4) A guest artist suite, which shall also serve as a dressing room for persons with disabilities, will include a makeup table, lavatory, toilet, shower, and small kitchenette.
- 5) A greenroom is recommended as an assembly area for performers and stage crew and doubles as dressing room overflow. A small kitchenette is recommended. This space may also serve as an informal meeting area or classroom when performances are not in progress.
- 6) A multipurpose warm up room/ rehearsal hall/ small performance space will include a wooden dance floor and may also serve as a classroom instructional space.
- 7) A wardrobe facility is recommended for maintenance of costumes for productions in residence. This facility should include an industrial

washer/dryer, sewing machine, ironing board, iron/steamer, and sanitary washbasin.

- 8) A scenery storage/assembly shop, with direct access to the freight elevator, is recommended for the load-in and maintenance of scenery, props, and equipment for shows produced elsewhere and in-house assembly of small scenery pieces. Storage of tools, hardware, and construction materials should be provided.
- 9) Offices for staff, including box office, technical office, stage managers office, and office/storage rooms for sound and stage electricians are necessary for visiting and resident users of the facility.

### Architectural Lighting

- 1) New historic reproduction architectural fixtures are recommended throughout public areas such as the auditorium, lobby, and stairways. These low wattage fixtures, supplemented with additional lighting, will provide adequate levels of illumination while respecting the historic interior design of the facility.
- 2) A chandelier in the auditorium, likely a feature of the original Opera House design, is recommended as the primary source of house lighting and will serve as a strong historic design element.

### RIGGING RECOMMENDATIONS

This document outlines rigging live load requirements and is provided as a basis to develop structural steel – changes may be required throughout the design process.

#### Rigging System and Infrastructure

- 1) The proposed hemp rope rigging system consists of approximately 28 linesets spaced evenly across the rigging grid. Each lineset has a total capacity of 800 lbs. Stage roof structure should be sized to support loads.
- 2) The walking grid requires support capacity of 50-lbs/sq ft.

- 3) Pin Rails have an uplift load of 400/lft with 800 lb concentration.
- 4) The fly gallery requires support capacity of 50-lbs/sq ft.
- 5) The fly gallery will store the majority of the unused counterweight. Counterweight will be in the form of sandbags ranging from 5-75 lbs. They will be lined up along the offstage side of the flyfloor which is generally attached to the structural wall of the theatre.

520 lbs of counterweight/lineset x 28 linesets	=	
14,560 lbs		
SR Fly gallery stores 50% of counterweight	=	7,280
lbs		
SL Fly gallery stores 50% of counterweight	=	7,280
lbs		

- 6) Total live load on roof structure for rigging:

28 linesets @ 520 lbs ea. (800 lbs w/ 65% diversity)	=	
14,560 lbs		
Vertical load on headblock beams (1 each side)	=	
14,560 lbs		
Live Load for Grid @ 50 lbs./sq ft. x 900 sq ft.	=	
<u>45,000 lbs</u>		
 Total Weight on Roof Structure	 =	 74,120 lbs

- 7) Total horizontal load on headblock beams = 14,560 lbs

### Installation

An authorized Rigging Trade Contractor (RTC) specified by the Theatre Consultant (TC) will provide the specialized theatre rigging equipment. The RTC will furnish and install equipment. This document does not include loads for

motors or winches for items such as speaker clusters, acoustical reflectors, or lighting bridges.

## **ELECTRICAL RECOMMENDATIONS**

This document outlines electrical requirements and special needs for the proposed theatrical dimming system in the theatre. This document is provided as a basis to begin cost estimation only and changes may be required throughout the design process.

### **General Rules and Wiring**

- 1) Dimmer branch circuits or other line voltage must be run in separate conduit from the low voltage signals.
- 2) Dimmer branch circuits cannot have three hots ganged to one neutral as in standard practice. Each circuit out of the dimmer rack must have one hot and one neutral.
- 3) Theatrical dimmer cabinets have a branch breaker for each dimmer specified; therefore, no other branch circuit protection is required. Relay cabinets, if specified, do require a separate branch breaker cabinet for all circuits.
- 4) Low voltage wiring must be run according to manufacturers specifications and standards as published by USITT.

### **Installation**

- 1) An authorized supplier, several of which will be pre-approved by the Theatre Consultant (TC), will supply the specialized theatre dimming equipment to the Owner or Electrical Contractor (EC). These suppliers, referred to, as System Integrators (SI) will furnish equipment to be installed by the EC.

All conduit, wiring and devices will be installed by the EC, with the exception of termination of low voltage wiring. The SI will arrive on the job site once the EC is prepared for the system to be energized. The SI will terminate low

voltage devices, energize the system, perform all tests required to hand-over the system and instruct the owner on system use.

### Power Requirements

Below are the recommended power services to be provided by the EC:

#### Stage Dimming System:

- Stage Lighting Dimmers (2 racks) – 1 @ 800A 3\_ 4 wire + ground  
120/208v
- House Lighting Dimmers (½ rack) – 1 @ 200A 3\_ 4 wire + ground  
120/208v

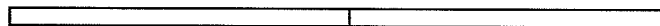
Additional services will be required for uses listed below:

- Sound System (clean power) – 1 @ 200A 1\_ 2 wire + ground  
120/208v
- Wardrobe Room Power – 1 @ 200A 1\_ 2 wire + ground  
120/208v
- Scenic Assembly Area Power – 1 @ 100A 3\_ 2 wire + ground  
120/208v
- Rehearsal Room Power – 1 @ 200A 3\_ 4 wire + ground 120/208v

Cut sheets and specifications of these disconnects will be provided to the Electrical Engineer.

We base the service required for the Stage Lighting Dimmers on the NEC Article 530-19 which states:

*(a) General. It shall be permissible to apply the demand factors listed in Table 530-19(a) to that portion of the maximum possible connected load for studio or stage set lighting for all permanently installed feeders between substations and stages and to all permanently installed feeders between the main switchboard and stage distribution centers or location boards.*



Portion of Stage Set Lighting Load to Which Demand Factor Applied (volt-amperes)	Feeder Demand Factor
First 50,000 or less	100%
From 50,001 to 100,000 at	75%
From 100,001 to 200,000 at	60%
Remaining over 200,000 at	50%

*Table 530-19(a)*

Service must be provided for each pair of racks. Therefore, for a system of racks with each rack containing 96 dimmers rated for 2400 watts each, such as the one proposed for this facility, the following calculations apply:

2300 watts\* x 96 dimmers x 2 racks = 441,600 watts total potential connected load.

First 50,000 watts x 100% diversity	50,000 watts
Next 50,000 watts x 75% diversity	37,500 watts
Next 100,000 watts x 60% diversity	60,000 watts
Remaining 241,600 watts x 50% diversity	120,800
	watts

Total after applying table 530-19(a) to the total potential connected load equals 268,300 watts.

268,300 watts / 3\_ / 115V = 777.7 Amps required per pair of racks; therefore, one 800A service for each pair of racks or one 400A service for individual racks.

2300 watts is used in this calculation instead of 2400 because modern stage lighting fixtures use 575w, 750w and 1000w lamps making the worst case scenario 4 fixtures with 575w lamps totaling 2300w.

Stage and House lighting dimmers are non-linear loads; therefore, the Electrical Engineer must consider the presence of harmonics. Below are related issues:

Transformers should be K-rated.

Neutral feeder conductors should be oversized by at least 25%.

Circuit breakers for the dimmer cabinets should be fully rated electronic breakers.

For air-conditioning loading, the stage lighting impact would be as follows:

Total stage lighting wattage x % of fixtures in zone = wattage in zone

Approx. 268,300W x 60% = 160,980W in stage zone

Approx. 268,300W x 40% = 107,320W in audience zone

## VI. ARCHITECTURAL RECOMMENDATIONS

Based upon the space program developed through the Needs Assessment and Market Analysis, a preliminary schematic design for requisite building modifications has been prepared to accommodate the Sterling Opera House's program of activities. The schematic design is respectful of the historic Theatre's position as one of Connecticut's cultural assets and is predicated on the *Secretary of the Interior's Standard's for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. The schematic design also addresses the requisite modifications to fully comply with all current life-safety and accessibility requirements. The following outlines the Sterling Opera House's proposed architectural recommendations: (Drawings follow the narrative.)

### Proposed Site Modifications

One of the challenges of resurrecting the Sterling Opera House to modern use is the provision of an adequate truck delivery and loading facility as well as code compliant means of egress. The proposed design includes the construction of two new additions to the existing building: a new "back-of-house" addition to accommodate a loading dock with an exterior dock leveler, as well as a "crossover" and new egress stair servicing the rear of the stage; and a new egress stair at the "front of House". The stage addition would be sandwiched between the rear of the existing theatre and the rear of the existing Connecticut State Superior Court Building on the opposite side of the block. The loading dock would be accessed from Olivia Street via a new paved service drive adjacent to the Superior Court Building. (The existing transformer and generator enclosures servicing the court would not be disturbed.) The only other new construction beyond the building's existing envelope would be the provision of an additional egress stair at the northeast corner of the building on Elizabeth Street. (Note: the construction of the new egress stair will require the reconfiguration of the existing ramp servicing the Court House in the small park to the north of the theatre.) The two additions would increase the building's total "footprint" by approximately 3050 square feet.

In addition to the provision of an adequate loading area for the theatre, a new "pedestrian way" connecting Elizabeth and Olivia Streets is proposed at the south side of the building. The promenade would be landscaped from the

service drive and would provide space for congregating outside of the “will-call” and box office prior to performances. The area could further serve as an outdoor “break-out” area during intermissions.

#### Proposed Exterior Modifications

The new “back-of-house” addition and front egress stair is proposed to be constructed with the same pallet of materials as the historic building, i.e. stucco and brick. Their visual impact on the historic resource will be minimal. Other than these two components, the remainder of the exterior work will consist of restoration work. In addition to brick and stucco repair, window replacement and carpentry restoration, a new cupola will be constructed predicated on archival photographic documentation.

#### Proposed Interior Modifications

#### Drawings:

The following drawings illustrative of the proposed architectural recommendations have been prepared and included in the report:

- Site Plan
- Lounge Floor Plan
- Lobby Floor Plan (including “Sterling Hall” multi-purpose room)
- Dressing Room and Orchestra Pit Plan
- Orchestra Floor Plan
- Grand Tier Floor Plan
- Balcony Floor Plan
- Tower Floor Plan
- Roof Plan
- South and East Elevations
- North and West Elevations
- Building Sections

## VII. MASTER CONTROL BUDGET and COST ASSESSMENT

### Notes on the Master Control Budget

The Master Control Budget is intended to provide a comprehensive budget plan for all direct and indirect costs likely to be associated with the renovation and restoration of the Sterling Opera House project based on the preliminary conceptual design developed for the facility. The Master Control Budget (MCB) contains a total of 41 line items divided into five basic categories: 1) Capital Construction Costs [hard costs]; 2) Other Capital Costs; 3) Expenses [soft costs]; 4) Project Contingency; and 5) Administrative and Legal. All construction features that would be competitively bid and that would be included in a construction contract are included in the first section. Other construction-related components that would not necessarily be bid or provided by a General Contractor are included in the second section. Likely expenses such as administrative costs, consultant fees, etc., to be incurred by the City in the process of implementing this project are included in the third section. The fourth includes a general project contingency. Finally, the fifth category covers administrative costs incurred by the City in executing the project.

The Capital Construction Costs of the Master Control Budget is predicated on the Construction Specifications Institute (CSI) formatted construction cost estimate. This estimate is based on a method of cost forecasting with quantities and unit prices for all major components of construction anticipated at this time for the project at a level of detail appropriate to the project's current state of development. The unit costs are based on similar projects located in Fairfield County that have recently been bid. Bid costs may vary from these unit costs as a result of the actual timing of the bid process. This cost estimate generally constitutes the "hard cost" category of the Master Control Budget.

The CSI Estimate has been formatted in three levels of detail. First, a CSI cost summary has been generated. Second, the estimate has been delineated by CSI Division, and third, a detailed breakdown with the associated quantities has been provided. It should be noted that the estimates do not include estimated escalation beyond the first quarter of 2003.

## Potential Cost Impact For Containment/Remediation Of Hazardous Materials

The potential costs for containment or remediation of the lead-based paint, asbestos-containing building materials, underground storage tank, fluorescent lighting, and storage drums are difficult to determine. A comprehensive building inspection for lead-based paint and asbestos-containing building materials would help determine which building materials are regulated as lead-based paint or as asbestos. Quantities of these regulated materials could be determined based upon the sampling and analytical results. It would also be helpful to know the overall design plan for the building to more accurately determine which areas of the buildings would be disturbed during renovations activities.

A cost to perform an inspection for both lead-based paint and asbestos-containing materials would range from \$9,000-\$15,000. Abatement costs for lead-based paint and asbestos-containing building materials could be estimated once the inspections were completed.

The UST, fluorescent lighting and storage drums would not be a major ticket item for remediation, roughly \$5,000-\$10,000, as long as the UST did not leak. The UST must undergo proper closure (i.e., removed or abandoned in place) under the State of Connecticut UST Regulations [22a-449(d)-1] since the tank is not being used.

## Master Control Budget Summation

Based on the project as it is currently conceived and delineated in the architectural recommendations, an "order of magnitude" estimate of hard construction costs totals to approximately \$6.1 million. (This equates to approximately \$181 / square foot.) Other capital costs including theatrical equipment as well as furniture and fixtures totals to approximately \$1.1 million. Other miscellaneous expenses including administrative costs, design and consultant fees and legal expenses total to approximately \$1.9 million. Consequently, the gross estimate for project implementation approximates \$9.2 million.

# COST SUMMARY

Run Date: 01-23-02

Total Building Area: 28,900 SF

Description	Total Price	Cost Per SF
01 Demolition	121,056	4.19
02 Earthwork	79,673	2.76
03 Foundations	310,202	10.73
04 Substructure	35,717	1.24
05 Superstructure	224,311	7.76
06 Exterior Closure	269,227	9.32
07 Roofing	64,211	2.22
08 Interior Construction	1,265,264	43.78
09 Mechanical	947,250	32.78
10 Electrical	346,800	12.00
Estimate Subtotal:	3,663,711	126.77
Escalation:	146,548	5.07
Contingency:	571,539	19.78
Prj Mgmt & Super:	438,180	15.16
Fee:	385,598	13.34
Permit:	41,645	1.44
<b>GRAND TOTAL</b>	<b>5,247,221</b>	<b>181.56</b>

Note: This conceptual estimate does not contain:

- Design Fees
- Abatement
- Windows
- Escalation beyond 1<sup>st</sup> Qtr 2003
- Theater Equipment or Seating

**CSI SUMMARY**

Run Date: 01-23-02

Total Building Area: 28,900 SF

Description	Total Price	Cost Per SF
02050 Demolition	127,304	4.40
02200 Earthwork	50,001	1.73
02400 Sanitary	15,963	0.55
02500 Paving	10,639	0.37
02800 Site Improvements/Misc	15,000	0.52
03300 Concrete Foundations	143,060	4.95
03312 Underpinning	137,515	4.76
03320 Slabs on Grade	18,480	0.64
03350 Slabs on Deck	24,070	0.83
04200 Masonry	242,981	8.41
04400 Stone	13,000	0.45
05100 Structural Steel	207,087	7.17
05500 Miscellaneous Metals	235,570	8.15
06100 Rough Carpentry	32,836	1.14
06200 Finish Carpentry	26,657	0.92
07100 Waterproofing	21,037	0.73
07200 Insulation	13,564	0.47
07250 Spray Fireproofing	7,350	0.25
07270 Firestopping	4,428	0.15
07500 Roofing	59,669	2.06
07920 Sealants & Caulking	2,274	0.08
08100 Hollow Metal	17,464	0.60
08210 Wood Doors	47,444	1.64
08360 Overhead Doors	5,000	0.17
08510 Aluminum Windows	53,236	1.84
09200 Plaster	31,000	1.07
09217 Exterior Finish System	32,468	1.12
09250 Drywall	108,986	3.77
09300 Tile	20,745	0.72
09510 Acoustic Ceilings	5,146	0.18
09550 Wood Flooring	16,000	0.55
09650 Resilient	28,308	0.98
09680 Carpeting	57,202	1.98
09900 Painting	74,279	2.57
10160 Toilet Partitions	13,300	0.46
10400 Signage	10,000	0.35
10810 Toilet Accessories	6,100	0.21
11160 Dock Equipment	3,500	0.12
14200 Elevators	420,000	14.53
14400 Wheelchair Lift	11,000	0.38
15300 Sprinklers	72,250	2.50
15400 Plumbing	152,500	5.28
15500 HVAC	722,500	25.00
16000 Electrical	346,800	12.00
Estimate Subtotal	3,663,711	126.77
Escalation:	146,548	5.07
Contingency:	571,539	19.78
Prj Mgt & Supervision:	438,180	15.16
Fee:	385,598	13.34
Permit:	41,645	1.44
<b>GRAND TOTAL</b>	<b>5,247,221</b>	<b>181.56</b>

Note: This conceptual estimate does not contain:

- Design Fees
- Abatement
- Windows
- Escalation beyond 1<sup>st</sup> Qtr 2003
- Theater Equipment or Seating

Cost Detail

Run Date: 01-23-02

Total Building Area: 28,900 SF

Description	Quantity	Unit	Total Price	Unit Price
01 Demolition				
02050 Demolition				
30 Cy Dumpster	20	EA	11,000	550.00
Gut lower to Bare Walls	3	Day	6,768	2,256.00
Gut 1st Flr to Bare Walls	4	Day	9,024	2,256.00
Demo Stairs to 2nd Flr	2	Day	4,512	2,256.00
Tempy Shoring Orchestra Lvl	144	Mhrs	7,488	52.00
Remove Level 100	2,900	SF	11,280	3.89
Remove Slab On Grade	3,500	SF	15,680	4.48
Remove Lower Walls & Footings	320	LF	22,560	70.50
Remove 1st Flr Walls	400	LF	22,560	56.40
Tempy 12x12 Opg Elev 87	1	EA	1,568	1,568.00
Door Opg Block Wall	6	Loc	1,848	308.00
Gut Orchestra to Balcony	3	Day	6,768	2,256.00
			-----	
		Demolition	121,056	
			-----	
		Demolition Total	121,056	
02 Earthwork				
02200 Earthwork				
Excavate for 4 cols	60	CY	3,264	54.40
Excavate Ramp	250	CY	2,536	10.14
Backfill Ramp	250	CY	5,036	20.14
Mass Excavate & Remove	1,200	CY	24,480	20.40
Gravel under SOG	30	CY	878	29.26
Interior Mech Trenching	180	LF	1,877	10.43
			-----	
		Earthwork	38,070	
02400 Sanitary				
Trenching	400	CY	3,170	7.92
Backfilling	400	CY	2,113	5.28
Trench Box	1	LS	5,000	5,000.00
Bedding Material	30	CY	770	25.65
Patch Road @ Sanitary	1	LS	3,000	3,000.00
Police/Traffic	2	DAY	800	400.00
6" PVC Piping	80	LF	1,110	13.88
			-----	
		Sanitary	15,963	
02500 Paving				
Process Aggregate	210	TN	5,421	25.81
Bituminous Paving Tonnage	80	TN	4,800	60.00
Surfaced Area Grade/Compact	335	SY	419	1.25
			-----	
		Paving	10,639	
02800 Site Improvements/Misc				
Revise Ramp to Court Bldg	300	SF	15,000	50.00
			-----	
		Site Improvements/Misc	15,000	
			-----	
		Earthwork Total	79,673	

03 Foundations

02200 Earthwork			
Foundation Excavation	480 CY	5,072	10.57
Foundation Backfill	380 CY	3,211	8.45

Earthwork	8,283		
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03300 Concrete Foundations			
Column Footings	8 CY	2,000	250.00
Concrete Footings	119 CY	28,560	240.00
Concrete Walls	225 CY	112,500	500.00

Concrete Foundations	143,060		
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03312 Underpinning			
Hand Excavate Underpinning	170 CY	10,880	64.00
Lagging @ Underpinning	1,755 SF	49,140	28.00
Form Underpinning Ftgs	2,340 SF	20,085	8.58
Reinforcing Underpinning Ftg	5 Ton	14,400	3,200.00
Underpinning Concrete	110 CY	43,010	391.00

Underpinning	137,515		
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07100 Waterproofing			
Waterproof Walls	4,970 SF	19,880	4.00

Waterproofing	19,880		
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07200 Insulation			
Perimeter Insulation	960 SF	1,464	1.52

Insulation	1,464		
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Foundations Total	310,202		
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04 Substructure

02200 Earthwork			
Gravel under SOG	90 CY	3,647	40.53

Earthwork	3,647		
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03320 Slabs on Grade			
Slab on Grade System	4,620 SF	18,480	4.00

Slabs on Grade	18,480		
----------------	--------	--	--

03350 Slabs on Deck			
Slab on Deck	4,530 SF	13,590	3.00

Slabs on Deck	13,590		
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Substructure Total	35,717		
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05 Superstructure

05100 Structural Steel			
Four Main Columns	112 LF	14,000	125.00
Struct Renov Orchestra Lvl	3,000 SF	24,000	8.00
Struct Renov Elev 109	1,900 SF	7,600	4.00
Structural Frame Lobby flr	32 Tn	100,680	3,146.25
Structural Frame West Add	12 TN	41,355	3,446.25
Structural Frame Orches Pit	2 Tn	6,293	3,146.25
3" Galv'd Floor Deck 20ga	4,530 SF	13,160	2.91

Structural Steel	207,087		
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06100 Rough Carpentry

Infill Stair Opgs El 109	250 SF	3,508	14.03
Frame New Flrs 3rd & 4th	560 SF	8,400	15.00
Frame Elev Opg 2nd	1 LS	2,000	2,000.00
Frame Roof North Stair	260 SF	3,316	12.75

Rough Carpentry 17,224

Superstructure Total 224,311

06 Exterior Closure

04200 Masonry			
8" Back-up	5,500 SF	66,589	12.11
Fabric Flashing	234 LF	4,574	19.52
Block Up 12x12 Temp Opg	144 SF	2,160	15.00
Brick Veneer	2,170 SF	44,349	20.44
Scaffolding & Equip	2,170 SF	6,510	3.00
Exterior Wall Cleaning	16,000 SF	16,000	1.00
Point and Repair Masonry 50%	6,000 SF	10,740	1.79

Masonry 150,923

05500 Miscellaneous Metals			
Bldg Connection Expansion Jts	220 LF	7,810	35.50

Miscellaneous Metals 7,810

07100 Waterproofing			
Waterproof Walls	160 SF	640	4.00
6 Mil Vapor Barrier	5,500 SF	517	0.09

Waterproofing 1,157

07200 Insulation			
Cavity Wall Insulation	5,500 SF	12,100	2.20

Insulation 12,100

07920 Sealants & Caulking			
Sealants @ Exterior Walls	5,684 SFW	2,274	0.40

Sealants & Caulking 2,274

08100 Hollow Metal			
Extr.HM Dr.& Fr/Hardware	6 EA	5,760	960.00

Hollow Metal 5,760

08510 Aluminum Windows			
Aluminum Entry Doors w/Panic	13 EA	32,500	2,500.00
Curtain Wall @ Stair	432 SF	20,736	48.00

Aluminum Windows 53,236

09217 Exterior Finish System			
High Impact EIFS 1 1/2"	3,330 SF	32,468	9.75

Exterior Finish System 32,468

11160 Dock Equipment			
Dock Leveler	1 EA	3,500	3,500.00

Dock Equipment 3,500

Exterior Closure Total 269,227

07 Roofing

06100 Rough Carpentry			
5/8 Plywood Sheathing	1,600 SF	2,592	1.62
5/4 Fascia Boards	300 BF	1,950	6.50
		-----	
	Rough Carpentry	4,542	
07500 Roofing			
Rem & Replace Existing Roof	8,200 SF	49,200	6.00
Timberline Ultra Shingles	1,480 SF	2,960	2.00
Ridge Vents	20 LF	233	11.65
Valley/Hip Metal Flashing	120 LF	1,996	16.63
Roof Downspouts	240 LF	1,920	8.00
Roof Gutters	44 LF	660	15.00
Built In Roof Gutters	54 LF	2,700	50.00
		-----	
	Roofing	59,669	
		-----	
	Roofing Total	64,211	
08 Interior Construction			
02050 Demolition			
Misc Cut/Patch Mech/Elec	142 HR	6,248	44.00
		-----	
	Demolition	6,248	
03350 Slabs on Deck			
Conc Fill Pan Stairs	2,620 SF	10,480	4.00
		-----	
	Slabs on Deck	10,480	
04200 Masonry			
12" Block Walls @ Frt Elev	1,400 SF	22,735	16.24
8" Block Walls	432 SF	4,523	10.47
2 HR Firewalls Between Bldgs	58 LF	34,800	600.00
Passenger Elevator Shaft	5 Stp	30,000	6,000.00
		-----	
	Masonry	92,058	
04400 Stone			
Stair Treads Lby to Lounge	208 LF	10,400	50.00
Stair Treads Entry to Lobby	52 LF	2,600	50.00
		-----	
	Stone	13,000	
05500 Miscellaneous Metals			
Balcony Railings	160 LF	16,000	100.00
Misc Metals - Allow	22,140 SF	11,070	0.50
Elevator Pit Ladder	1 EA	600	600.00
North Stairway in Addition	104 RSR	26,000	250.00
Stair Entry to Lobby	6 RSR	4,200	700.00
Main Stair Lby to Lounge	21 RSR	14,700	700.00
North2&South Stair	155 RSR	50,375	325.00
Northwest Stair	36 RSR	11,700	325.00
Southeast Stair	75 RSR	24,375	325.00
N&S Guardrail W/Handrail	300 LF	27,000	90.00
Rails Lby to Lounge	60 LF	7,500	125.00
Rails Entry to Lobby	16 LF	2,000	125.00
Wall Rails Lby to Lounge	36 LF	2,880	80.00
Southwest StairGuardrail W/HR	104 LF	9,360	90.00
N&S Stair Wall Railing	332 LF	13,280	40.00
Northeast Stair Wall Railing	64 LF	2,560	40.00
Southeast Stair Wall Railing	104 LF	4,160	40.00
		-----	
	Miscellaneous Metals	227,760	
06100 Rough Carpentry			
Rough Carpentry x Bldg. Area	22,140 SF	11,070	0.50

		-----	
	Rough Carpentry	11,070	
06200 Finish Carpentry			
Finish Carpentry Allow	22,140 SF	16,605	0.75
Wood Base	1,795 LF	10,052	5.60
		-----	
	Finish Carpentry	26,657	
07250 Spray Fireproofing			
Spray Fireproofing 1"	4,375 SF	7,350	1.68
		-----	
	Spray Fireproofing	7,350	
07270 Firestopping			
Firestopping - Allow	22,140 SF	4,428	0.20
		-----	
	Firestopping	4,428	
08100 Hollow Metal			
Hollow Metal Door w/Hdwr	5 EA	3,340	668.00
Hollow Metal Single Frames	52 EA	7,384	142.00
Hollow Metal Dbl Frames	5 EA	980	196.00
		-----	
	Hollow Metal	11,704	
08210 Wood Doors			
Wood Doors w/HDWR	39 EA	24,464	627.27
8x8 Swing door to stage	1 EA	3,000	3,000.00
Rated Wood Doors w/HDWR	18 EA	19,980	1,110.00
		-----	
	Wood Doors	47,444	
.08360 Overhead Doors			
Overhead Doors	2 EA	5,000	2,500.00
		-----	
	Overhead Doors	5,000	
09200 Plaster			
Patch/Paint Plaster Ceilings	3,100 SF	31,000	10.00
		-----	
	Plaster	31,000	
09250 Drywall			
Drywall Wrap column	8 EA	1,440	180.00
5/8 Gyp Ceilings on Stud frmg	9,732 SF	38,928	4.00
5/8 Gyp Ceilings on furring	1,612 SF	2,257	1.40
Interior Partitions	13,500 SF	60,750	4.50
Orchestra Pit Partition	50 LF	1,250	25.00
Wet Walls	1,246 SF	4,361	3.50
		-----	
	Drywall	108,986	
09300 Tile			
Ceramic Tile Base	390 LF	2,925	7.50
Ceramic Tile Floors	1,240 SF	9,300	7.50
4x4 Ceramic Tile Walls	1,420 SF	8,520	6.00
		-----	
	Tile	20,745	
09510 Acoustic Ceilings			
2x2 Acoustic Ceilings	2,080 SF	4,576	2.20
2x4 Acoustic Ceilings	300 SF	570	1.90
		-----	
	Acoustic Ceilings	5,146	
09550 Wood Flooring			
Stage Wood Flooring	2,000 SF	16,000	8.00

	Wood Flooring	-----	16,000	
09650 Resilient				
Resilient Flooring	2,550 SF		3,825	1.50
Rubber Base	2,050 LF		2,563	1.25
Rubber Riser/Tread	1,480 LF		11,840	8.00
Rubber Flooring	1,440 SF		10,080	7.00
	Resilient	-----	28,308	
09680 Carpeting				
Carpeting	1,788 SY		57,202	32.00
	Carpeting	-----	57,202	
09900 Painting				
Paint Conc Block	10,861 SF		7,060	0.65
Paint Drywall Ceilings	11,344 SF		5,672	0.50
Finish HM Doors	5 EA		490	98.00
Finish Wood Doors	57 EA		4,342	76.18
Paint Sgl HM Frame	52 Loc		1,742	33.50
Paint Double HM Frame	5 EA		203	40.67
Vinyl Wall Covering	23,084 SF		46,168	2.00
Paint Gypsum Walls	21,504 SF		8,602	0.40
	Painting	-----	74,279	
10160 Toilet Partitions				
Toilet Partitions	26 EA		13,000	500.00
Urinal Screens	2 EA		300	150.00
	Toilet Partitions	-----	13,300	
10400 Signage				
Signage	1 LS		10,000	10,000.00
	Signage	-----	10,000	
10810 Toilet Accessories				
Toilet Accessories	61 FIX		6,100	100.00
	Toilet Accessories	-----	6,100	
14200 Elevators				
3M lb Hydr Passenger Elevator	5 STP		100,000	20,000.00
10M lb Hydr Freight Elevator	1 LS		320,000	320,000.00
	Elevators	-----	420,000	
14400 Wheelchair Lift				
Wheelchair Lift to Stage	1 EA		11,000	11,000.00
	Wheelchair Lift	-----	11,000	
	Interior Construction Total	-----	1,265,264	
09 Mechanical				
15300 Sprinklers				
Sprinklers	28,900 SF		72,250	2.50
	Sprinklers	-----	72,250	
15400 Plumbing				
Plumbing	61 Fix		152,500	2,500.00

		-----	
	Plumbing	152,500	
15500 HVAC			
HVAC	28,900 SF	722,500	25.00
		-----	
	HVAC	722,500	
		-----	
	Mechanical Total	947,250	
10 Electrical			
16000 Electrical			
Electrical	28,900 SF	346,800	12.00
		-----	
	Electrical	346,800	
		-----	
	Electrical Total	346,800	
	Estimate Subtotal	3,663,711	126.77
	Escalation:	146,548	5.07
	Contingency:	571,539	19.78
	Proj Mgt & Super:	438,180	15.16
	Fee:	385,598	13.34
	Permit:	41,645	1.44
		-----	
	GRAND TOTAL	5,247,221	181.56

Note: This conceptual estimate does not contain:

Design Fees  
 Abatement  
 Windows  
 Escalation beyond 1<sup>st</sup> Qtr 2003  
 Theater Equipment or Seating

## VIII. OPERATING PRO-FORMA

### Introduction

A pro-forma operating budget for a base year of operations for the re-activated Sterling Opera House has been developed. Following is a description of the format and structure of the pro-forma, and then a detailed review of assumptions and guidelines. The key step in developing the pro-forma has been estimating activity in the theater and adjacent spaces. While the resulting program of events is not an exact forecast of activity, it does provide a basis for projecting earned revenues and expenses. The pro-forma should be considered as a "live" model, one that can be adjusted based on changing circumstances and assumptions. It is fundamentally a tool to help the Town, the Valley Arts Council and SOS to prepare for the operation of the renovated facility.

### Format and Structure

Operating projections for proposed facilities are presented on five pages. The first section is a summary of assumptions used in the estimates, rental rates for the theater and other available rooms, and then activity profiles for these spaces. The second page identifies all operating revenues for each component of the project, including presenting income, rentals, user fees, and surcharges. The third page includes detailed expenses for the administration, operation and occupancy of the building, as well as the result of operations. The fourth page is a description and estimate of staffing requirements for the opera house. And the fifth page is a review of possible scenarios for the funding of operations.

### Project Assumptions and Forecast of Use

Project assumptions include the capacity of the performance space and the gross floor area of the project. Rental rates for the theater have been established at different levels based on the type of user. These rates would likely be split further to reflect part of a day, time of the week, or perhaps time of the year. In fact, some users may negotiate a flat fee or a percentage of gross revenues in lieu of rent. But for purposes of this exercise, and in order not to over-complicate the issue, we use daily rates that reflect the type of user. For non-performance days, rents are 50% of the performance day fee.

There are two levels of rent, for community non-profit programs and commercial programs.

We have identified specific users for each project component based on previous discussions and surveys of their potential needs. These estimates should not be viewed as commitments on their part, but rather a reasonable estimate of their possible use of the Sterling. We have also estimated non-specific use of various spaces by community groups, recognizing that arts groups, community groups, and regional presenters will emerge to take advantage of the opportunities created by the availability of a new venue. The level of use represented by these non-specific users is conservative.

We would propose that the Sterling be a regular film presenter (with Derby Historical Society as a partner) and an occasional presenter of live events in the theater. A presenter seeks out arts and entertainment programs, books them into a facility, promotes them in the community and bears at least some of the risk associated with the show. We feel that this is an appropriate activity for the owner/operator as a means to maximize the use and utility of the halls, to promote the development of local talent, and to attract culturally significant programs to the area.

Attendance levels are forecast for each event, which allows us to project additional revenue sources (e.g., concessions) on a per-capita basis. Gross revenues for specific events are based on the number of events, capacity sold, attendance, and average ticket prices. The gross revenue figure is used to compute other income categories, such as a proposed ticket surcharge.

### Earned Revenues

Revenues for each project component start with rental income from the use of the theater (and additional spaces) for performance, rehearsal and educational programs—these events are taken directly from the activity summary. Presenting revenues are based on activity estimates on the first page of the pro-forma. We are also suggesting that public spaces be rented on an event basis to community groups and businesses for receptions, meetings and seminars.

Revenues from hospitality are projected on a per-attendee basis, using conservative estimates of revenues taken from comparable facilities. Food and beverage sales are shown only on a net basis.

Catered events can be held in the lobby, theater or stage of the Sterling, using catering facilities planned for the building. We have projected 12 events with a net/event of \$200.

The rental rates for the theater are based on a set price. This includes ticket office charges and basic administrative support. Additional use fees are charged for security, technical staff support and the rental of performance equipment. Rates have been set at comparatively low levels to ensure that local groups are not priced out of the building.

For the majority of events held in the auditorium, the Sterling's box office collects 4% of gross ticket sales. This user fee is proposed to offset operating expenses, a frequent practice for performing arts facilities. There is no surcharge payable by ticket buyers.

We have also estimated some additional income from occasional marquee rentals. This works out to \$1,200 for the year. Arts Council memberships are also included as an additional revenue source.

### Operating Expenses

Expense budgets are broken down by Presenting Expenses, Administrative Services, Programming, Theatre Operations and Building Services. Each budget includes the salary and benefits of full and part-time staff. All of these positions, with salaries and benefit levels, are summarized on Page 4 of the pro-forma.

Presenting expenses are calculated as a percentage of presenting revenues, suggesting a small but positive direct contribution from these activities.

Administrative expenses include personnel, professional services, travel and entertainment, telephone, and other supplies and services.

Ticket office expenses will cover full time and part-time staff as well as a series of hard costs, from ticket printing to maintenance of the ticket office computer system. We are assuming the involvement of a ticketing service, a small net expense to the ticket office. With such a service, there may also be an opportunity to sell tickets from the theater to other community events.

Operating costs relate to the physical operation of the facility, covering house staff, supplies for technical staff, and security. Utilities are estimated on a cost per square foot basis, given occupancy costs of other historic theaters in the market area and comparable performing arts facilities. Operating expenses do not include a capital reserve for major repairs and replacement to the physical plant.

The annual funding requirement for the Sterling, shown as the result of operations, is the difference between revenues (earned plus contributed) and total operation expenses. We also indicate the percentage of expenses covered by earned revenues.

### Staffing

Staffing estimates have been developed on the basis of comparable community-based cultural facilities. Compensation levels have been reviewed with the staff of regional facilities. Benefit levels vary from 10% for part-time staff to 20% for full-time staff. Like most small non-profit organizations, the theater will also rely heavily on the participation of volunteers.

### Funding

The final page of the pro-forma suggests how operations of the Sterling might be supported. First of all, we forecast the size of endowment needed to support the entire annual funding requirement, based on a conservative 5% payout rate. That amount is just over \$4 million.

In the second scenario, we forecast the level of annual fundraising required to support that deficit. If it costs \$.20 to raise a dollar and the funding requirement is \$200,503 that means that the organization must raise \$251,000 a year to sustain operations.

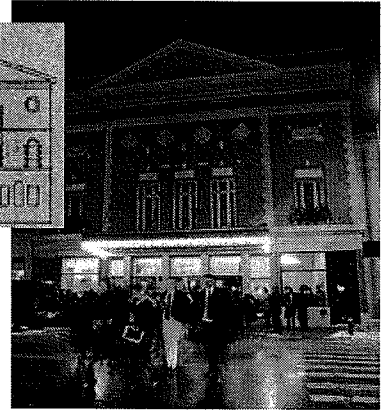
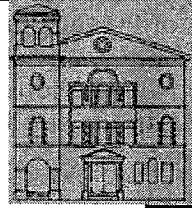
In the third scenario, we suggest multiple sources of funding, namely a fixed endowment of \$2,000,000 (again with a 5% payout), a fixed town investment of \$56,000 per year, and then additional fund-raising of \$56,000 to make up the final \$36,503 needed to sustain operations. It is this third scenario that is most common and most likely for the Derby project. A determination of possible funding form each of these sources is a priority as the project advances.

Overall, the Sterling Opera House is an active facility that operates on a manageable budget and is supported through a mix of earned revenues and contributed funding.

## IX. BUSINESS PLAN and MANAGEMENT OPTIONS

### Business Plan Overview

Based on the results of the needs assessment and market study, the operating and financial implications of reactivating the Sterling Opera House (Sterling) must be addressed. The business plan considers how the Sterling might be owned and operated, and then projects how the restored theater might perform in financial terms. The plan is based on the market study's projected activity profile, which includes information gathered from the Save Our Sterling (SOS) committee, local arts groups, community leaders, as well as regional arts organizations in the New Haven area. The plan is further informed by the building's space program (which identifies areas for revenue), information provided by other theatres in the immediate area (including New Haven), and the experience of other comparable projects.



### Preliminary Conclusions

The preliminary conclusions found that the Sterling can succeed as a downtown arts and education center, capturing the "Lower Valley" market, including communities such as Derby, Shelton, Seymour, Oxford, Naugatuck, and Beacon Falls. The Sterling, if renovated, should be positioned as a community-gathering place and partner with educational and cultural organizations.

### Facility Concept

The facility concept includes the following components: a 676-seat proscenium theater that supports a variety of programs, including music, dance, theater and meetings; back-of-house areas such as dressing rooms, loading dock and catering facilities; a main lobby that can be used for special events, such as receptions and occasional meetings; a large workshop classroom to accommodate school groups for arts education or continuing education purposes; and a space to house the new Valley Arts Council.

## Comparable Projects

Information from several other historic theatres that have been restored or renovated is included in this report. These stories educate us on how other communities have successfully reopened their theatres and how these theatres operate today. These examples offer several lessons that apply to the Sterling project:

- Few theatres are able to break-even; there will be a funding requirement both to renovate and sustain the building.
- If the building is to serve community goals, it must be managed by a community organization.
- The building's leadership should represent the theater's key constituents.
- Presenting is an important but risky activity for arts facilities. The profits provided by presented programs are, however, a critical revenue source to funding theater operations.
- Theatres succeed for many reasons—the most successful are professionally managed, programmed and promoted.

Theater	Location	Built	Restoration	Capacity	Cost to Restore	Operating Budget	Activities
Sheridan Opera House	Telluride, CO	1914	1991	240	\$2.3 m	\$ 812,000	Children's theatre, movie & conferences
Grand Opera House	Oshkosh, WI	1883	1986	650	\$3.8 m	\$ 800,000	Presented programs & rentals
Barre Opera House	Montpelier, VT	1886	1990	645	\$1.3 m	\$ 303,500	Rental house/performing arts series
Woodland Opera House	Woodland, CA	1896	1989	500	\$2.0 m	\$ 323,000	Resident theatre & summer youth camp

## Governance and Operating Model

In the past year, the Sterling Foundation transferred ownership of the Sterling to the Town of Derby. Because of resource constraints of other organizations, the

Town should maintain ownership of the building while delegating some project management responsibilities to *Save our Sterling* (SOS) and the new Valley Arts Council. Even though the town is the owner of the building, it may elect to turn over operations of the theater (including aspects of the building's renovation) to a third party. The significant question then is who should take on the operations of the theater.

While there are several operator options — governmental body, not-for-profit organization, commercial operator, local arts organization or school managed — it may be in the best interest of the project to form a new non-profit organization to act as project manager and then operator of the Sterling; one that supports theater operations and those of the Valley Arts Council is best positioned to be the theater's operator. This new organization should have a board of directors including representatives of the town, SOS, the Chamber of Commerce, and users. This organization would be contracted by the town to operate the theatre on its behalf. How the new non-profit operator (a professional organization) and SOS (currently a volunteer organization supporting the preservation and operation of the Sterling) interact should be clearly defined.

There are a number of possible benefits to this option:

- The organization would be professionally managed and have a mission totally focused on the renovation and operation of the Sterling.
- The board of the organization would represent the interests of all the key constituents. Furthermore, the operations of the theatre and its board would be transparent, as required for a 501(c)3.
- A contractual relationship between the operator and the owner of the theatre provides important and clear benchmarks and conditions for successful operation. This contract should include a mechanism for the town to approve expenditures received by the new organization.

We also recommended the creation of a Community Advisory Committee to allow for broad and inclusive input on how the Sterling is operated, and to provide input on project development and operations. This volunteer group should be appointed and include representatives of resident organizations,

school districts, local officials, emerging arts organizations, and other community leaders.

### Operating Policies

Given the mission of the Sterling and discussions with key constituents, plus the experience of comparable projects, we would propose the following operating goals for the building:

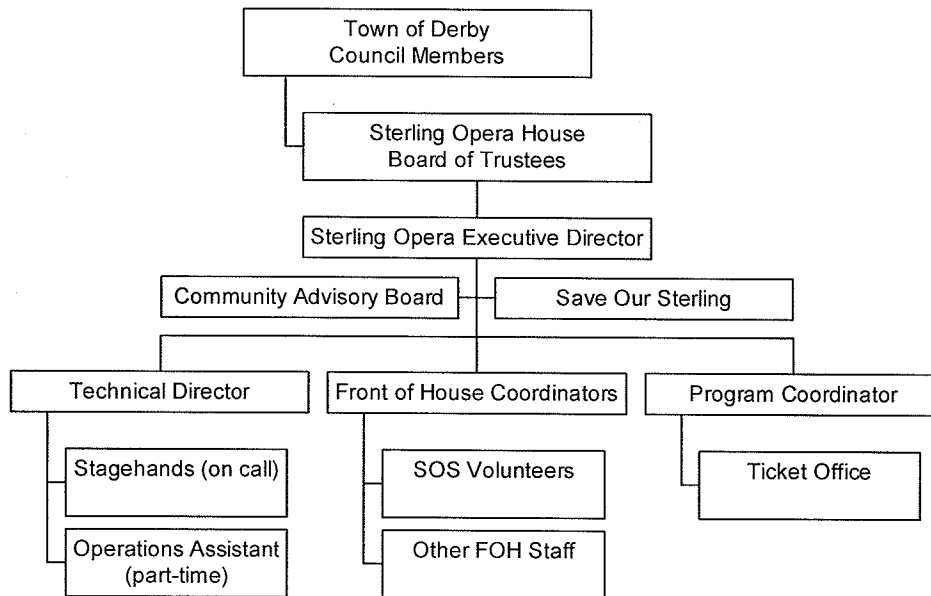
- The Sterling should be as busy as possible with a wide range of programs serving local, regional and visiting audiences.
- Spaces should be as accessible and affordable for local arts organizations, educational users and teaching programs, and other community groups.
- Annual funding requirements should be kept to a level sustainable with identified financial support.
- Renovation of the Sterling should be seen as an opportunity to stimulate downtown revitalization efforts while supporting the arts community, and to promote collaborations and partnerships across the Valley.

Potential users said that the opportunity to 'build a home' for their audiences and to shape an identity for their organizations outweighed their concerns about the exact configuration and capacity of the theater. For several of these organizations, some form of resident status would be appropriate. In order to qualify for resident status, groups should be non-profit, based in the Valley, and undertake to bring the bulk of their programming to the Sterling. Groups should apply for resident status. These applications should be reviewed by an advisory board for approval by the governing board.

The cost of access to the theater will be a major issue. Accordingly, we have recommended scaling the rent to make it more affordable to local non-profit groups, and available to book dates well in advance. Also, renters should have the ability to secure dates at the Sterling twelve months in advance, based on an explicit booking policy. It is critical that all Sterling partners encourage and support regional presenters with flexible financial arrangements and promotional support.

## Staffing Plan

The key to successful operation of arts facilities is that they require highly specialized staff that are deeply committed to this work and are skilled at working in a non-profit, volunteer environment. Two full-time positions are recommended: an Executive Director to manage and fundraise and a Program Coordinator who will oversee activities. In addition, a part-time Technical Director should be on call to supervise operations of the auditorium and theatre equipment. The critical hiring decision is the Executive Director. Though there might be good candidates in the community, we would encourage our client to conduct a broader search for the individual who will fit the job and the community. Also critical to the operation of the Sterling will be internships and volunteer efforts, supporting house and technical functions.



This is a provisional organizational chart for the Sterling that shows the relationship between the town and management of the Sterling as well as SOS and the Community Advisory Board.

## Staff Descriptions

The following are descriptions of staff positions identified through the business planning process:

### ***Executive Director***

The new Executive Director will have the opportunity to develop programs and events that support cultural development in the Valley as well as the duty of reactivating the Sterling Opera House through a mix of educational and entertainment events. Responsibilities include fiscal management and budgeting, planning and implementing fund raising and grant writing, managing staff, and interacting with Board of Directors and cultivating a large volunteer base. Qualified candidates should have a minimum two years experience at Executive or Director-level position in a not-for-profit arts environment, strategic planning experience, solid employee management and staff development experience, proven ability at fundraising from a broad spectrum (foundations, individuals, and corporate support) and strong financial management skills. Familiarity with performing arts and/or grantmaking strongly preferred.

The position should be filled 12 months prior to opening of the Center in order to assist with the completion of construction and to plan for the active operation of the Center from the day it opens.

### ***Community Advisory Board***

We have recommended the creation of a Community Advisory Board to represent the interests of the arts groups and community in the ongoing operation of the Sterling. The composition and duties of the Board should be spelled out in a new agreement. The Board should be principally engaged in ensuring that facility is operated and maintained so as to serve the interests of the arts groups and community. This includes the development and management of operating policy, and efforts to engage the community in the life of the building, reaching out to under-served populations, students, seniors, religious organizations and families, helping them to develop programs and bring them to the Sterling. The Board should be developed six months before and involved in the opening of the Sterling.

### ***Program Coordinator***

The Program Coordinator oversees all programs and events at the Sterling and organizes outreach programs. A secondary role for the Program Coordinator will be to design technical assistance programs to meet constituents' technical assistance, training, information, and networking needs. This position requires local travel and some weekend and evening events are required. This employee will work closely with staff from arts, educational and business groups to determine their needs, encourage collaborations, and match them with cultural resources. Qualifications necessary for this position include strong communication, interpersonal, and organizational skills; the ability to work

effectively with people of diverse backgrounds; familiarity with the operations of community-based not-for-profit organizations and computer proficiency.

This position should be filled 3–5 months prior to opening to help book the Center and to market and promote the first year's season.

### *Technical Director*

The Technical Director is charged with backstage maintenance and the safe and responsible use of stage equipment and facilities. The position is directly responsible for overseeing contractual obligations to renters, scheduling all load-ins, show calls and strike, and coordinating with front of house volunteers and staff. The position requires experience with stage, sound, lighting, mechanical rigging and electronics systems, as well as theatrical equipment set-up, operation, and maintenance. The position should be filled 4–6 months prior to opening of the facilities to supervise the completion and commission of all technical systems in the theater and adjacent spaces.

### **Result from Operations**

We have developed pro-forma operating forecasts for the theater for a base year of operations, typically the 2nd or 3rd year after the opening, when operations have stabilized. We have constructed these estimates on the theory that activity (renting and presenting in the spaces) drives revenues and expenses. A complete explanation is in the report. The pro-forma is intended to answer the basic question of "what will it take to sustain operations of the Sterling?" It is also offered as a live tool that will allow the owner/operator to test the financial implications of various operating scenarios. The budget is subject to change given that the exact space program for the facility has not been finalized. With a total of 227 days of activity in the theater and total attendance of 35,000 in the base year, the building can achieve earned revenues of \$94,000 against operating expenses of \$294,000. Based on this estimate, the building requires \$201,000 a year to support operations.

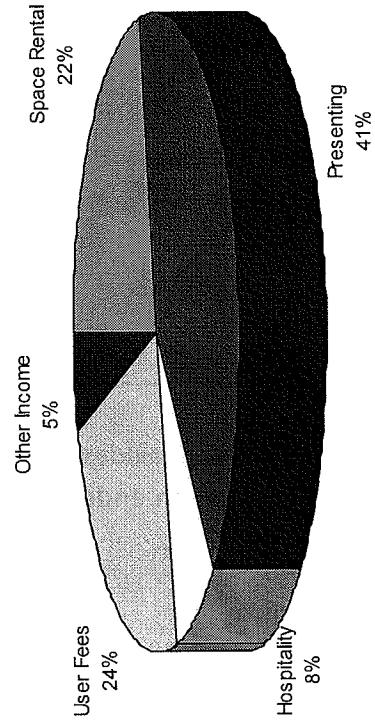
*Charts are on the following page.*

Performances	Event Days	Prep Days	Use Days	Attendance
153	146	81	227	34,878

With operating revenues of \$94,000 and operating expenses of \$294,000, the Sterling covers 32% of operating costs with earned revenues, leaving an annual funding requirement of \$201,000.

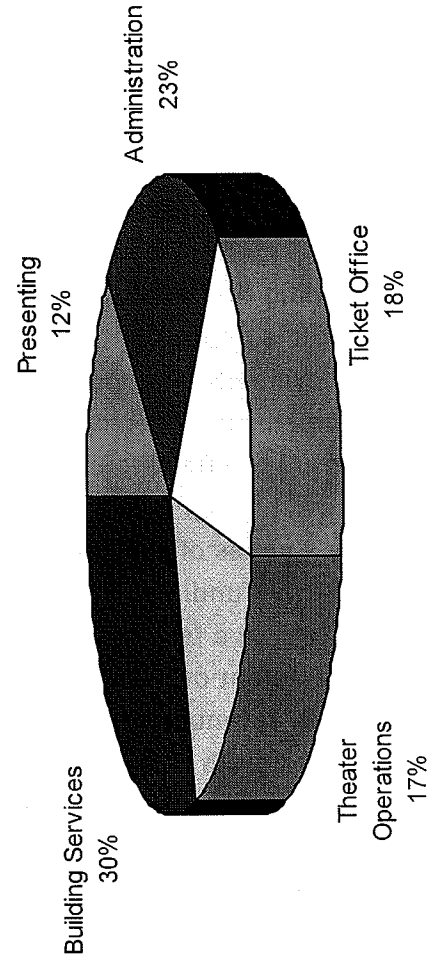
### Operating Revenues

Space Rental	\$20,561
Presenting	\$38,932
Hospitality	\$7,442
User Fees	\$22,204
Other Income	\$4,700
<b>Total</b>	<b>\$93,839</b>



### Operating Expenses

Presenting	\$34,876
Administration	\$68,150
Ticket Office	\$52,734
Theater Operations	\$51,295
Building Services	\$87,288
<b>Total</b>	<b>\$294,342</b>



## Funding Scenarios

Funding the renovation of the opera house is a significant challenge. We believe that it is important to seek funding from multiple sources, to develop an endowment to support operations of the Sterling, and to position the project to compete successfully for funding without threatening other organizations' current fundraising efforts.

Key sources of funds will mostly be a combination of these, including the State, the City (funding and/or services), corporations, foundations and individuals. As seen in a few enterprising communities, a tax levy on services, an assessment on sales, or another form of public funding may also provide a steady revenue stream to support the Sterling's operation. Funding must support both the construction and operation of new facilities: if the project cost is \$9.2 million, we would recommend a funding plan that seeks \$10.7 million from the public sector and private sector, with that additional \$1.5 million to create an endowment.

<b>Public Private Partnership</b>		
Total Funding Requirement		\$200,503
Part A- Annual City Investment		\$56,000
Part B - Foundation-Based Endowment		
Amount	\$2,000,000	
Pay-out Rate	5%	
Annual Income		\$100,000
Part C - Annual Fundraising		
Balance To Raise	\$44,503	
Cost/Dollar Raised	\$0.20	
Funding Required		\$56,000
Fundraising Costs	\$11,200	
Net Requirement	\$44,503	
Annual Fundraising	\$56,000	
Final Result	\$297	

This scenario provides an example for how a combination of annual support from the City, an endowment, and some continuing fundraising might sustain the Sterling.

## Funding

We would stress the importance of professional advice in the investigation of the funding potential of the project, and the scaling and/or phasing of the project based on the results of that analysis. First and foremost, what our study has done is to identify and describe what we think is the right project for the community. This is now a tool for fundraising experts to use in their analysis.

A number of funding sources are available to underwrite operations of the Sterling. While it is impossible to predict how much funding may come from each particular source, we now have some sense of what are the most likely sources for particular needs. Following is one possible scenario for capital and operating support:

### Capital Funding

Main components:

- The largest single source of capital funding is provided from the State of Connecticut. A number of offices at the state level are potential contributors, including the Governor's Office and the State Historic Preservation Office.
- Following the State's seed contribution, direct and indirect support from regional sources including Connecticut Arts Endowment Fund, the Town of Derby, and the Community Foundation for Greater New Haven.
- Additional state and federal funding for site development (Save America's Treasures, HUD, Transportation, Education).
- Private sector funding campaign. A professional fundraiser should conduct a capital campaign. As with other projects, the funding campaign will target individuals, business, and foundations through a mix of "asks," including personal solicitations, direct mail, and special events and naming opportunities. Gift giving opportunities include direct cash gifts, pledges, securities, and real estate property.

### Operating Support

The Sterling's annual funding requirement may be met through a combination of contributed sources, including an endowment, direct contributions and annual fundraising.

Main Components:

- Earned revenue covers approximately 30% of expenses.

- Annual fundraising from individuals, foundations, and businesses. The organization will undertake annual fundraising to make up the projected operating deficit. Fundraising activities may be coordinated through the nonprofit operator or in partnership with resident organizations.
- Direct and indirect support from the Greater Valley Chamber of Commerce and the Town of Derby. Based on economies of scale, it may be more cost efficient for one entity to provide and pay for specific expenses that the Sterling incurs on a regular basis. These items may include utilities, landscaping, salaries, personnel benefits or security.

#### Additional Sources:

- Grants from various levels of government that normally serve to underwrite special programs, such as community outreach or arts education. Federal opportunities for cultural funding of this kind fall under many categories. Initiatives with relevance to this project include: 21<sup>st</sup> Century Community Learning Centers, Goals 2000, and the Corporation for National and Community Service.
- The Connecticut State Arts Council sponsors a number of funding programs for arts programming, arts education and artist residencies.
- Corporate sponsorships. Local and regional businesses provide needed financial support for the costs of marketing, programming, technology and public-service related activities at the Sterling.

#### Endowment Funding

##### Main Components:

- National, family and community foundations. Foundations create an incentive for more donations when matching gift programs or challenge grants can be established.
- Fundraising from individuals connected with capital campaign. Donors in the capital campaign should become champions for the facility, creating a network of supporters for the institution's long-term viability.

This funding strategy is achievable, considering the mix of project participants. The utility of a professional fundraiser to research donors, coordinate planning and implement these strategies is invaluable. A fundraising schedule should be developed to anticipate potential problem areas in terms of project resources, other organizations' events, and application deadlines for public funding

opportunities. Derby government, the Community Foundation of Greater New Haven and school district leaders should provide all appropriate assistance in this effort.

### **Economic Impact**

The Sterling's reactivation will have a significant economic impact on the region. These impacts include construction and operations, and also ancillary spending (eating, drinking and shopping) associated with attendance at events.

### **Project Partners**

Throughout this study we looked for opportunities where the Sterling could explore partnerships for resource sharing. Possible programming partners include the Warner Theatre in Torrington, the Goodspeed, and SNET as well as other historic theaters in Connecticut and New York. Over the long-term, the institution of a magnet program in Derby would assist the Sterling to be active during the day and provide a training ground for students in the creative and performing arts and technical theatre. Along these same lines, the Sterling should function as an anchor for the arts community and manage a centralized calendar, box office and website for increased promotion of historical and cultural events in the Valley.

### **Institutional Preparation**

Another key to success for the project will be the work done by key organizations as they prepare for the project. This might involve program development, audience development, staff development, and board development. This will be particularly important for the formation of the Valley Arts Council, as the Chamber and Alliance work through a strategic planning process that covers the achievement of their current mission, plus the opportunity and challenge of a new facility. A similar process is required on the part of the Sterling to develop a plan for project management,

professionalization and continued volunteer recruitment and training through SOS.

### Next Steps

For next steps, we would stress the importance of determining the level of support likely to come from the public, and then investigating the potential to raise the balance of required funds from the private sector. We would also emphasize the importance of integrating this project into overall plans for downtown Derby, and the continuing effort to forge operating partnerships. For the Sterling to regain its status as a community asset, it is critical that the arts council and SOS work with users of the Sterling on institutional preparation issues and audience development goals. This study represents several small steps towards the development of the Sterling as a regional cultural center. There are many steps to come in a short amount of time, starting with the following:

- Discussion, debate and consensus building among the project committee and representatives on the conclusions and recommendations of this study.
- Analysis of public sector funding options, and eventual fundraising plan.
- Partnership proposals among project participants including resident organizations, Valley governments and business sponsors.
- Agreement on timeframe for project completion.

## X. APPENDIX

The following documents are included in the Appendix:

- Appendix One: Naugatuck Valley Economic Data
- Appendix Two: Market Area Demographic Analysis
- Appendix Three: Claritas Prizm Report
- Appendix Four: Public Participation in the Arts
- Appendix Five: Patron Analysis
- Appendix Six: Organizational Surveys
- Appendix Seven: Lower Naugatuck Valley Arts and Cultural Assessment
- Appendix Eight: Comparable Projects Report
- Appendix Nine: Needs Assessment Power Point Presentation
- Appendix Ten: Business Plan Power Point Presentation
- Appendix Eleven: Master Planning Team Acknowledgements

## Appendix Eleven: Master Planning Team Acknowledgements:

The following team of design professionals prepared the Feasibility Study, Market Analysis and Master Plan:

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