

A PERFORMING ARTS CENTER
FOR ARLINGTON, TEXAS

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PROFILE OF ARLINGTON

Arlington, Texas has experienced phenomenal growth and prosperity since its founding in 1876. Conveniently equidistant from Dallas and Ft. Worth, the city which started out as a single store along the Texas-Pacific Railroad has grown to encompass nearly 100 square miles within its limits. Not unlike the growth rate of the Dallas - Ft. Worth metroplex, the population of Arlington has increased 27 times in a single generation.

The drawing force for Arlington and the metroplex is economic stability. Displaced by the poor economic outlook in many Northern and Southern states, a multitude of white collar workers migrated to Texas. The economic situation is much improved in Texas, and within the state, the Dallas - Ft. Worth area is one of the most promising. It is not surprising to discover that in some Arlington neighborhoods only one out of every eight residents is a native Texan. Since economic prosperity encourages growth and vice versa, the present population of Arlington is expected to double within the next 40 years.

Arlington, once a bedroom community to Dallas - Ft. Worth, has become a city in its own right. However, it is the commuter image of Arlington that persists.

"The major downtown streets are suburban strips: gas stations, fast food joints, car dealerships, low-rise buildings. There are no large assembly points and not much cultural activity. Dallas and Ft. Worth, the locals will tell you, are nearby and well endowed." ¹

This "local" attitude appears to be changing. Many of the new residents come from cities in the East that offer a variety of cultural activities and expect their new community to support similar opportunities. The expectations of these new residents are largely responsible for the proliferation of arts groups within Arlington.

"Ten years ago there were two cultural organizations in Arlington - the Arts Association and the Civic Chorus . . . Arlington now supports a community theater, a children's theater, a historical museum, 11 dance studios, two acting studios, six art galleries, a classical music society and a volunteer band." ²

Gradually the city's motto, "For the Good Times", is taking a greater significance than an afternoon at local amusement parks. In the near future, perhaps the arts will be allowed to contribute to the good times in Arlington.

PROBLEM STATEMENT

In the spring of 1983, several Arlington community groups formed the Performing Arts Coalition. The membership, dedicated to the development of the performing arts in Arlington, included; Theatre Arlington, Dance Theatre of Arlington, Gown Town Theatre, The Good Times Chorus, Arlington Civic Chorus, and Arlington Music Teachers Association. Foremost among their priorities was the establishment of a Performing Arts Center for their community. Arlington undisputedly needs a cultural center and the growth of coalition groups is proof that the city has sufficient interest to sustain such an effort.

A performing arts center would be beneficial to the coalition for many reasons. Shared staff and facilities increases the cost effectiveness of the member organizations. A consolidation of facilities would produce the best equipped showcase for the performing arts, and the consolidation of creative talent and staff would likewise improve the quality of productions. Secondly a cultural center would increase the visibility of the performing arts, thereby strengthening its support in the community.

The Performing Arts Coalition is actively pursuing its stated objective. Due to its energetic and well organized leadership, the Performing Arts Coalition received a land pledge from the Kelton-Mathes Development Corporation. Encouraged by this economic boon, the coalition has now turned its efforts toward securing the necessary funding for the construction of this facility.

Therefore the subject of this thesis substitute is an architectural design solution for Arlington's performing art center. The project will not only produce a hypothetical resolution of the problem but will hopefully contribute to the future reality of a performing arts center in Arlington.

THEATER AS PALACE PARADIGM

The phenomenon of American theaters and movie palaces can be linked to the development of European palace theaters. Due to widespread prohibition on acting and distrust of European influences, American theaters were not widely developed until the early 1800s. Despite the rhetorical search for a national style, America adopted the organization and imagistic vocabulary of French and Italian theaters. A historical review of European theater types will elucidate the sources of American theater development.

Prior to the Renaissance, the strongest theatrical traditions were represented by Greek and Roman plays or religious productions of the Middle ages. However during the Renaissance, a renewed interest in classicism caused a resurgence in theatrical arts. Not only were numerous revival theaters constructed, but theatrical images were often incorporated into palace plans.

An example of a theatrical Renaissance palace is the Belvedere. Designed by Bramante and built in 1503, this Vatican palace provided a theatrical setting for religious services. Arranged about an exterior courtyard, the Belvedere suggests that the origin of theatrical space may be found in Renaissance courtyards. Perhaps the best illustration of the inclusion of theater images into the palace is the Villa Giulia. Designed by Vignola, Vasari, and Ammannati, this villa presents its garden areas as if they were a sequence perspectival stage sets. Ammannati, who was responsible for the garden design, conceptually linked the Villa Giulia to the form of the Roman theater; comparing the palazzo to the theater, and the court garden to the orchestra and proscenium. Although the Renaissance produced many produced many palaces with theatrical illusions, it was not until the seventeenth and eighteenth centuries that working theaters were inserted within the theater type.

No period of history has been as involved with theatrics as the Baroque era. The Shakespearean tenet, "All the world's a stage" could not have been more applicable. During a time of widespread political and social unrest, the escapism of the theater appealed to the poor and princely alike.

Theater became the courtly rage of Europe. Encouraged by the spectacular displays of Louis XIV at Versailles or the Medici family in Florence; many courts indulged in the theater as a way to display their wealth and power. Royal efforts did not end with the establishment of palace theaters but extended their influence to public festivals, including processional entries and tournament jousts. One example of the extent of theatricality in court life was the establishment of Marie Antoinette's Hamlet at Versailles. Within the contrived assembly of small cottages, the queen and her court could act out a scenario of peasant life.

Nevertheless, a focus on court theaters is not intended to deny the existence of public theater. The popularity of amateur productions and passion plays was widespread, involving many members of the community. Another popular form of public entertainment was the traveling puppet show. Within the small scale of the puppet stage, the puppeteer experimented with new scenic devices like the mechanized deus ex machina. Therefore, the puppet show enabled the public to witness a miniaturization of the royal theater spectacle.

Although the Baroque period lasted from 1600 to 1800, the two centuries were distinctly different in character. For example, seventeenth century drama dealt with themes of power and dignity whereas eighteenth century drama addressed pastoral themes. These changes in thematic content were also paralleled by

changes in set design. High Baroque theater utilized mechanical devices to simulate the glory of heaven and the tragedy of hell but late Baroque theater replaced this artificiality with an emphasis on greater realism. Actors were no longer symmetrically placed within a symmetrical set, but were allowed more naturalistic stances. "As in real life, the self conscious, stiff splendour of the last decades of the seventeenth century gave way to supple elegance, graceful, lightfooted delicacy, spontaneity and naturalness . . . The aim now was a realistic representation and use of space."³

The longevity of Baroque theater is due to its suitability as an expression of the age. Within the seventeenth and eighteenth centuries ". . . certain characteristics are common to both phases: the fluidity of boundaries between illusion and reality, and the theatricality of real life, the flaunting of personality, the posturing and gesturing on the stage of life, and the desire to sublimate and transcend one's being."⁴

The endurance of the Baroque theater was due to its appropriateness as a vehicle for royal display. The king was hierarchically positioned within the theater and the production was a direct reflection on the power and influence of its sponsor. The development of the theater, therefore, was directly related to the theatricality of the era.

The Development of the Court Theater

The dividing line between Renaissance and Baroque theaters was the Teatro Olimpico in Vicenza. Originally designed by Andrea Palladio and completed by Vincenzo Scamozzi in 1584, this theater initiated the Baroque unity of stage and auditorium. More importantly, the Teatro Olimpico composed the initial vocabulary of the Baroque theater. Originally built as a revival theater for academicians, this theater was modeled after the Vitruvian theater prototype. The semicircular form of the Roman amphitheater, as exemplified by the Theatre of Marcellus, was adapted into the semielliptical seating of the Teatro Olimpico. Likewise, the proscenium was translated from the form of the triumphal arch.

The concept for set design at Teatro Olimpico was adapted from designs by Sebastiano Serlio. Although he used a medieval platform stage, Serlio proposed a new convention for scenery that replaced the random pavilions of the medieval stage. Depicting the three scenes of Vitruvius, the tragic, the comic, and the satyric, he designed fixed three dimensional sets with perspectival views.

In a similar manner, the set design of the Teatro Olimpico was also a fixed three dimensional set composed of five diverging street scenes. To create a convincing street scene the stage platform raked upwards with increasing depth of the stage, and heights of the scenery decreased according to the conventions of perspective. The construction of fixed architectural sets remained the primary scenic device until the invention of wing and shutter sets in the seventeenth century.

The design of the Teatro Olimpico in Vicenza was almost identical to the design of early court theaters, exemplified by the Teatro Olimpico in Sabbionetta. Not only were the two theaters identical in name but they were also the work of the same designer, Scamozzi. Built in 1588 for the palace of Vespasian Gonzaga, the Sabbionetta theater had amphitheater seating within a rectangular hall like its namesake in Vicenza. In both designs the seating area was topped by a colonnade which provided a rudimentary gallery for spectators. At Sabbionetta, however, an extension of the gallery space was created through trompe l'oeil painting. Members of the audience observing a performance were depicted in addition to scenes of Rome.

Theater development was boosted by the introduction of court festivals. Commemorating a coronation, royal wedding, birth of an heir or the arrival of dignitaries, court festivals were not merely limited to the court theater but extended into the streets, piazzas, and parks. Elements of a Baroque court festival might include one or all of the following: a triumphal procession, a tournament to display equestrian skill, or a feast accompanied by a theatrical presentation. During the 1600's the grandiose productions of Louis XIV at Versailles or the Medici family in Florence set the theatrical standard that lesser courts aspired to.

The theater which accommodated Medici festivals was located in the Uffizi palazzo in Florence. Within a hall 172 feet long by 67 feet wide, five rows of amphitheater seating were placed. Positions of honor were located at the centerfront, while spectators of lesser importance stood on the audience floor or were located in an upper gallery. Sightlines for the standing audience were improved by inclining the floor plans, enabling spectators to see over those before

them. Stage sets, largely designed by Buontalenti, were noted for their diverse imagery. Representations of mountains, caves, islands, or forests were not uncommon, and heroes of mythology often descended to the stage via mechanized clouds.

By no means could the confines of one palace theater house the court festivals of the Medici. For example, in order to celebrate the 1608 marriage of Prince Cosimo to Archduchess Maria Magdalena, one month of festivities were planned. The activities included a calcio match and equestrian ballet in the Piazza Santa Croce in addition to performances in the Pitti Palace and the Uffizi Theater. The highlight of the festival was a performance of Jason's capture of the Golden Fleece, staged on a fleet of sixteen boats in the Arno River.

One theater that resulted from the Medici theatricals was the Teatro Farnese. Commissioned by the Duke of Parma and designed by Giambattista Aleotti in 1618, the Teatro Farnese was a combination festival and tournament theater. The U shaped seating increased the open floor area, or parterre, so that dance or equestrian events could be presented. Also a greater stage depth could be utilized due to the invention of wing sets. Instead of scenery composed of fixed architectural sets or revolving periaktoi, Aleotti proposed a system of moveable wooden frames stretched with canvas. Since the wing sets were fixed to a rail system under the stage, scenery change could take place without visible assistance.

After Aleotti's invention, a variety of scenic devices were available, from two dimensional representations of space to three dimensional constructions of space. This wide range of scenic devices produced the illusionistic phenomena of the Baroque theater.

"On every stage in Europe periaktoi were turning, wings were sliding in and out, divine apparitions ascending and descending on fixing machines, the earth was opening, spewing forth devils and demons, and swallowing the damned; the sea raged and the heavens stormed . . . Space had broken its bounds and become indeterminate."⁵

The greatest single influence on the development of the theater was the opera. Due to the increased attendance of the middle class at operatic performances, by the 1630's, opera was no longer the exclusive interest of the nobility. Although court theaters continued to be built, the source of innovative theater design was the public playhouse. Successful features were later transplanted into the royal court.

One of the features incorporated into the court theater was the box. In order to accommodate the increased attendance at operatic performances and to maximize the seating on a limited site, theaters abandoned amphitheater seating in favor of a vertical layering of gallery space. As early as 1637, however, these galleries were divided into individual boxes. The concept of boxes is attributed to Benedetto Ferrari at the Teatro San Cassiano in Venice (1637), however the concept of royal boxes did not emerge until Zwinger in Dresden, 1664-67. Therefore, the public playhouse was responsible for the development of boxes which later found their way into court theaters.

Since opera attracted a mixture of social classes, Baroque theater developed hierarchical seating to indicate the social status of the viewer. The semicircular

seating found in early court theaters expressed equality in its seating arrangement therefore it was rejected for the U shaped form of the tournament theater. U shaped seating acknowledged the dominance of the center as did the subsequent horseshoe, egg, or lyre theater shapes.

The Hvar theater is an example of the early Venetian opera houses. The arrangement of the theater is simply two tiers of boxes around a horseshoe shaped parterre. The prominent position in this scheme was not in the boxes, but centered in the first row of the stalls, where the nobility assumed their position.

An example of the similarity between the public opera house and the private court playhouse can be illustrated by the 1748 Bayreuth house and the 1752 Residenz theater in Munich. Designed by Giuseppe Galli-Bibiena and Francois Cuvillies respectively, both theaters possessed bell shaped auditorium and both were encircled by layers of box seating. The Bayreuth opera house possessed three tiers of boxes but the Altes Residenz theater exceeded that with an additional level. Also both theaters possessed a highly ornamented royal box. Therefore it is demonstrated that the public opera house was so totally incorporated into the court theater, that the two types were hardly distinguishable from one another.

Although mutual influences cannot be denied, Parisian public theater was clearly derivative of the court theater. This claim can be substantiated by reviewing a sequence of theaters that housed the comedy troupe of Moliere from 1640 to 1689, the Palais Royal, the Theatre de Guenegvad, and the Comedie Francais. Although the Palais Royal was a private theater, it established an organization that was operative in public theaters up to and beyond the construction of the Comedie Francais.

Originally, the private theater of Cardinal Richelieu, Jacques LeMercier was responsible for the design of the Palais Cardinal, later known as the Palais Royal. Built in 1640, it was intended for the entertainment of invited guests only. Nevertheless, seating was only available for the cardinal and members of the royal family. Other guests viewed the stage from the two tiers of open galleries or from an open arcade above.

When Moliere remodeled the Palais Royal for public use in 1660, few changes were necessary. Other than the insertion of amphitheater seating in the rear portion of the hall, most changes were revisions of existing features. One such revision was the partitioning of the open galleries into individual boxes. In addition, distinguished members of the audience lost a degree of their earlier visual prominence, since they were now positioned amongst the audience in the front portion of the parterre.

Surprisingly, when D'Orbay designed the Comedie Francaise, he closely adhered to the plan of the remodeled Palais Royal. Many similarities existed between the two plans. For example, both theaters were tightly constricted within a rectangular field. Also, the components of the two theaters are identical; an open parterre, two tiers of box seating, and limited amphitheater seating.

A change in theatrical focus was indicated by the altered seating arrangement of the nobility. Prior to the construction of Comedie Francaise attention was focused on the nobility since they were placed in a royal box or prominent position within the parterre. Also, the performance was staged to present the king with the best view of the spectacle. However, when the royal boxes were transferred

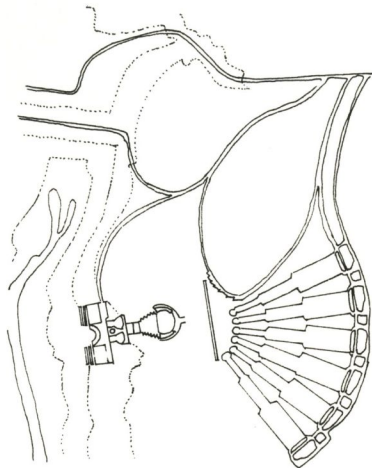
to either side of the stage, the audience in the pit gained the most advantageous view of the performance. Although the French theater was based on court theater antecedents, the repositioning of the nobility produced a more egalitarian environment for the public.

Organized in a like manner to the Palais Royal or the Comedie Francaise, the Theatre de Metz and the Theatre de Montpellier were both developed as independent buildings. As the public theater became a free standing monument, the development of the court theater declined. The theater which was once so dependent on the palace type had become a palace in its own right.

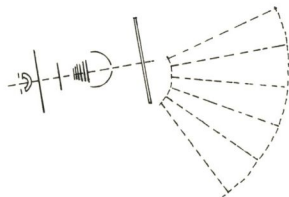
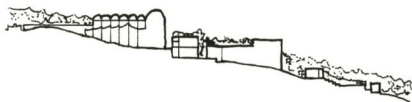
Undoubtedly American theaters adopted the conventions of the Baroque court theater. As the concept of the court theater was extended to greater numbers of people, the theater began to dissociate itself from its context, and the architectural promenade was elaborated within the confines of the building. Mirroring the evolution of the French theater, the American theater became a free standing monument and a building type that could not be separated from images of the palace.

CONTEMPORARY CASE STUDIES

Context



Organization



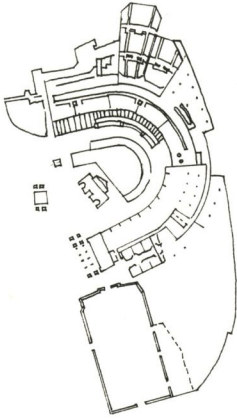
POCONO ARTS CENTER

The Pocono Arts Center
Luzerne County, Pennsylvania
Architect: Louis Kahn

The Pocono Arts Center commissioned Louis Kahn to design a facility for an academy of performing arts, ballet, and music. The center required a two part program. One part called for the accommodation of the normal activities of the academy to include two 1,000 seat theaters, an open air theater in the round, along with workshops, studios, and living quarters. The second portion was to house a summer festival of music and dramatics. Kahn provided a partially covered theater for 3,000 people with additional seating on lawn areas. Support facilities for this portion included practice theaters, exhibition space, and a restaurant.

On the banks of the Lehigh River and situated on a heavily wooded site Kahn's solution maintained the natural tree growth and topography of the site.

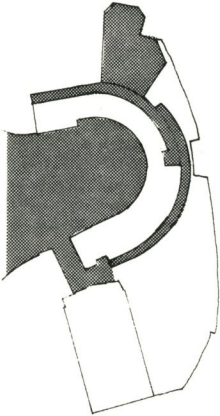
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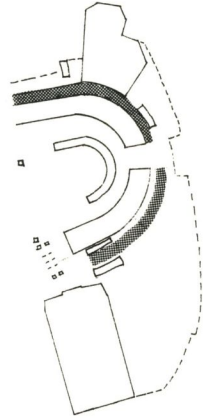
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•Public/Private



•Organization

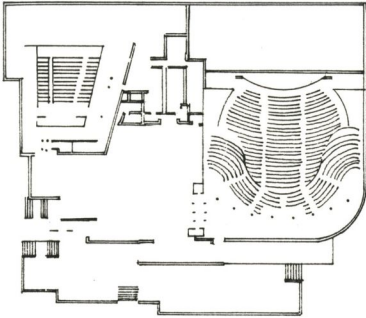


City Center Competition
Derby
James Stirling

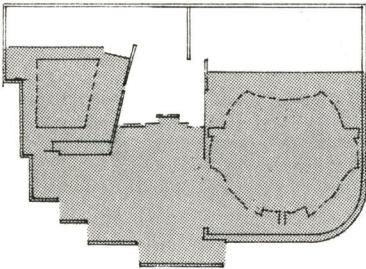
The objective of the competition for the city of Derby was the reestablishment of its medieval center, Market Square. In his proposal, James Stirling designed a building that simultaneously defined a public square and created a background for public assemblies and theatrical performances. Seating was placed against the exterior of the building and oriented toward a band shell formed from a facade of a burned building.

The interior circulation was organized about a horseshoe shaped arcade which served the lower level shops and offices. Parallel to the arcade, was a system of ramps that led to the upper level auditorium and banquet halls. Therefore, Stirling not only generated an interior promenade to the auditorium but also improved exterior circulation in providing a theatrical public arena.

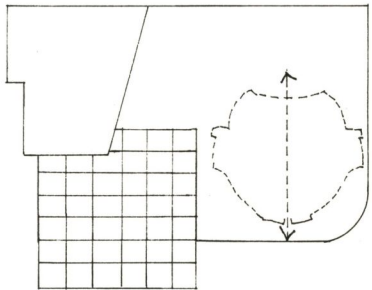
Plan



Public/Private



Organization



Hult Center for the Performing Arts
Eugene Oregon
Hardy Holtzmann Pfeiffer Associates

In an attempt to revive the downtown areas of their city, residents of Eugene, Oregon planned the development of a conference center, hotel, and a performing arts center. The commission for the design of the master plan as well as the design of the performing arts center went to Hardy Holtzmann Pfeiffer Associates. In order to satisfy the 36 major groups utilizing the facility, the architects recognized the need for two distinct performance areas. One performance area was a traditional theater with a horseshoe shaped orchestra and a proscenium stage, while the smaller experimental theater possessed asymmetrical seating and a flexible stage area without a permanent proscenium. Both auditoriums were constructed of flat poured in place concrete shells which required interior acoustical adaptation. Additional space requirements were minimized since the performance areas shared lobby space and the backstage service areas were virtually eliminated.

Since local arts groups demanded a visible contribution in the performing arts center, HHPA initiated a competition to select works for inclusion into the project. Besides the selection of free standing sculpture, the architects selected many items, such as tile, that were incorporated into the interior finishes of the building. By integrating local art within the center, HHPA also gained the endorsement of visual arts groups in Eugene.

PROFILE OF CLIENT

The major challenge in designing a performing arts center for Arlington will be the accommodation of several clients. Through interviews with the various organizations, the characteristics and requirements of each group were identified. In formulating the functional requirements of the building, it should be noted that the clients are also the main users of the facility. Since the quality of performance is dependent on the proper functioning of the building, the program should heavily acknowledge the criteria set by the clients.

Theatre Arlington has been providing the community with quality theatrical productions since 1972. From that time, the community has responded by supplying an ever-increasing audience. Attendance figures for the 1982-1983 were twice the number for the 1979-1980 season, and another doubling is expected to occur within the next five years.

The Theatre's backing is adequate to maintain a full time staff, support that few cultural groups in Arlington have been able to capture. However, Theatre Arlington is not content to remain a community theater. According to Cliff Redd, Executive Director, the goal of the organization is to raise its status to a regionally recognized company. Theatre Arlington stages a repertoire varying from drama to musical comedy, and controls every aspect of the performance including set and costume design. In addition, to the presentation of an eleven month season, Theatre Arlington sponsors a childrens theater, as well as acting and set design classes.

In leading the performing arts community toward the possibility of a performing arts center, Theatre Arlington had specific requests for the proposed facility.

First of all, the performing arts center should maintain three performing areas. The main performing area should have a 400 seat auditorium with a proscenium stage of adequate dimensions to accommodate a variety of theatrical productions as well as choral and instrumental performances. The second performing area should have adequate depth to stage dance theater with a 150 seat auditorium. An experimental theater would be the third performing area and should be designed for flexibility of stage and seat areas alike. A seating capacity of 75 is requested. In all three performing areas, an intimate environment is sought, with minimum distance between the stage and audience. The lobby, vestibule and other public areas should be designed as a showcase, expressed by an unduring, simplistic architectural vocabulary.

Support areas serving the stage are of utmost importance to a performing arts center. Theatre Arlington requested that careful consideration be given to the functional relationships of backstage areas. Also, circulation paths between the stage and dressing, makeup and green rooms, should be carefully studied. Generous areas for storage of costumes and scenery were requested, as well as, long term, low maintenance surfaces.

Theatre Arlington projects that a five year planning and fund raising effort is needed for construction of the performing arts center. Funding for this project would come from three sources. From the national level, funds would be available through the National Endowment of the Arts. Local funding would be sought through various Ft. Worth foundations and donations from the private sector.

Working closely with Theatre Arlington is Dance Theater of Arlington. Formerly Miss Persis Studio of Dance, Dance Theater is the city's first dance academy. Not

unlike its theatrical partner, Dance Theater also aspires to recognition as a dance company. Dance Theater's increase in academy enrollment is an indication that such goals may become a reality. Since its founding in 1952, attendance at the dance studio has multiplied three times. Tap, ballet, jazz, and pointe classes are now offered in addition to musical theater training.

Initiated in the spring of 1983, the establishment of ballet and jazz companies is a new venture for Dance Theater. If the company classes experience the steady growth of the academy classes, Dance Theater would request a permanent studio at the performing arts center. The majority of academy classes, however, would remain at their present location.

Dance Theater's involvement with local productions gained Persis Forster, its founder, a respected reputation as choreographer. Although it is also a strong organization in itself, Dance Theater is an important resource for the fine arts center, providing dance direction for Theatre Arlington and Gown Town productions.

Due to their close association, Dance Theater and Theatre Arlington envision a facility in which their two organizations could consolidate joint space requirements. Beyond the obvious shared use of performance areas, costume and scenery space should be common to both. To some extent, makeup and dressing rooms can also be shared.

Dance Theater generates special requirements for dance performance. For example, studio dimensions should accommodate movements of the dancers, allowing adequate height for lifts and jumps. Flooring designed to yield upon the

dancer's impact is also a required feature. Moreover Dance Theatre requests a recording studio since video tape is frequently used as a teaching aid.

Although Dance Theatre and Theatre Arlington require daily use of the building, a variety of organizations would be utilizing the center on a limited basis. Gown Town Theatre, an organization dedicated to the production of a single musical every summer, would therefore only require space during the summer months. The Good Times Chorus and The Arlington Civic Chorus are both groups that require rehearsal space once a week. The Good Times Chorus, founded in 1962, is a group specializing in barbershop singing. With a current membership of 70, The Good Times Chorus requires a performance space only once a year, drawing an audience of 1000 to 1200 at their annual concert. The Arlington Civic Chorus founded in 1972, maintains an approximate membership of 95 to 100 singers. Seeking space within the performing arts center, the Civic Chorus requires access to a rehearsal hall once a week and to a performance hall for three different programs a year. Although the membership of the Arlington Music Teachers Association has no regularly scheduled demand for space, they would occasionally require an acoustically correct hall for recitals and a facility to accommodate instrumental festivals.

PROFILE OF USER

In an attempt to outline a model arts program for the city, Leadership Arlington reviewed the feasibility of a performing arts center. The committee's first directive was that the only way to successfully compete with the allure of Dallas - Ft. Worth cultural activities was to generate a performing arts center with a variety of programs to serve the user - the family. Educational programs such as continuing education classes in theater, dance, or music would be one way to generate family support. Also the proper scheduling of these classes during low use periods of the building would maximize their ability to serve the community. Children's theater or outdoor festivals would be another excellent way to maximize family participation.

PRELIMINARY SITE ANALYSIS

Site selection was initiated by a preliminary review of four different sites in Arlington. In order to avoid any preconceived design solutions, sites of divergent location and character were chosen. The following is a brief description of the proposed sites:

Arlington Convention Center

Centre Point Venture of Dallas proposes to build a convention center and Visitors Bureau in the abandoned Seven Seas amusement park. Within the confines of the original sea life park, the proposal calls for a 750 room hotel and three office towers in addition to the convention center.

Centre Point should have considered a plan in which tourists and conventioners would be interfaced with a cultural environment rather than an eight to five office environment. Undoubtedly, the opportunity to see a play or dance performance would be more successful in promoting Arlington than an anonymous office complex.

Vandergriff property at Center and Division Streets

The southeast corner of Center and Division Streets represents a site in an older established area of Arlington. On this site stands one of the few existing structures to survive the "renewal" of Arlington's city center. Originally the home of Bob Benny Chevrolet, the building was sold to Hooker Vandergriff in the 1930s and has been retained as family property since then. Once used as a garage and showroom for the Vandergriff car dealership, the building is currently used as a storage area for antique cars. The inclusion of this building into the project could strengthen a sense of identity in the arts center and establish a link to Arlington's

past. Also, if land acquisition can be arranged from the Jehovah's Witnesses, property west of Center Street could be an additional phase in the development of the art center program. Originally, the home of Arlington's first movie theater, the existing space could be easily adapted for theatrical productions. It offers another opportunity to use a building that can evoke a prehistory of the site.

The main advantage of this site is its central location. Its adjacency to the City Hall and Main Library allows a grouping of civic minded buildings. Localizing these activity centers would hopefully generate wider community participation in the arts, letters, and government. Also the convenience of the University of Texas at Arlington could strengthen the educational programs of the center and be an encouragement for community participation in university activities.

Veterans Park

The third site is located within Veterans Park, one of Arlingtons city parks. Descriptively, this is the only site proposal that retains a rural character. Once on Arlington's outskirts, this site is now surrounded by an area of rapid residential development. If Arlington continues its projected Southward growth, Veterans Park will eventually be a public park centrally located within the city.

A mixture of open pasture land and densely wooded areas, Veterans Park has changed little from its original farm status. Rush Creek runs through the property accompanied by 50 feet of topographic change that creates favorable views of Arlington to the Southwest.

The development of this project would require cooperation between the art community and the city, particularly the Parks and Recreation Department.

Melvin Shanks, director of the department, envisioned the use of Veterans Park as a botanical or arts center providing an alternative to the predominance of sports oriented parks in the city. One move toward this goal was the selection of Veterans Park as the site of an amphitheater, Arlingtons contribution to the Texas sesquecentennial celebration. The proposal of the Parks Department is to position an amphitheater and arts center along a waterway created by Rush Creek. Therefore, the integration of the city, the arts, and nature would be a key issue in utilization of this site.

The Highlands

The Kelton Mathes Development Corporation is planning the phased utilization of 289 acres north of Interstate 20 in the vicinity of Matlock Road. Over the next 20 years, the Kelton - Mathes family will implement a land use plan that includes a medical complex, office buildings, apartments, restaurants and a hotel. Within their master plan, the developers have reserved a site for both a performing arts center and an art museum. Since the present land use proposal is composed of unrelated object buildings in a field of parking lots, the selection of this site requires a new proposal of related building types. For the successful creation of an arts district within a planned development, consistent organizational and thematic tactics should be employed.

SEVEN SEAS

CIRCULATION

- Pedestrian Access
- Vehicular Access
- Availability to Handicapped

NATURAL SITE CONDITIONS

- Beneficial Drainage
- Favorable Soil Conditions

CONTEXT

- Visibility of Site
- Freedom from Noise
- Compatible Existing Land Use
- Site with Sense of Identity

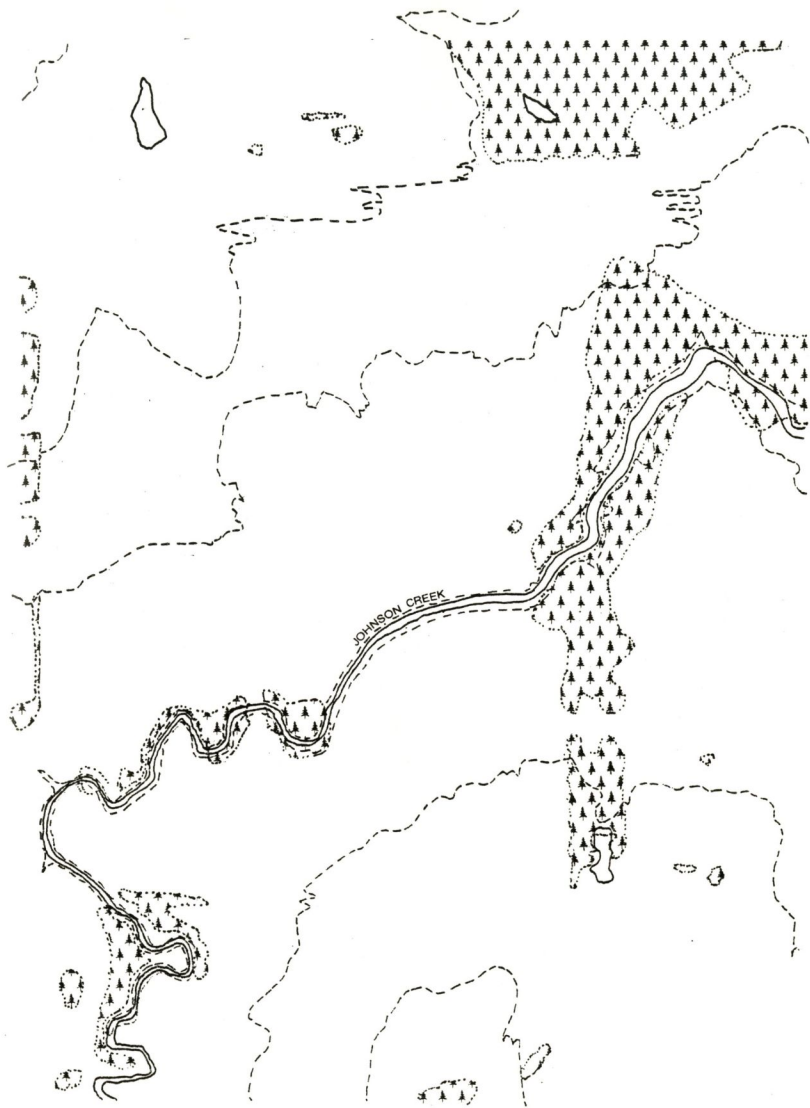
SERVICES

- Availability of Utilities
- Ample On-Site Parking

PROGRAMMATIC RESTRICTIONS

- Accomodation of Future Expansion
- Compatibility of Projected Land Use

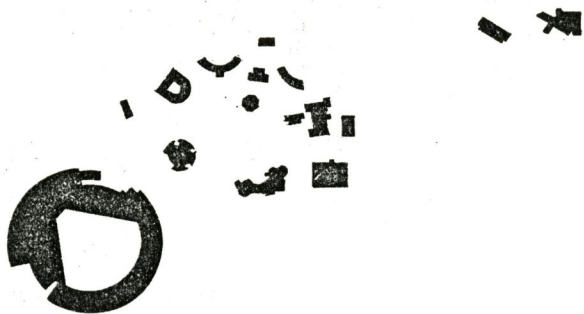
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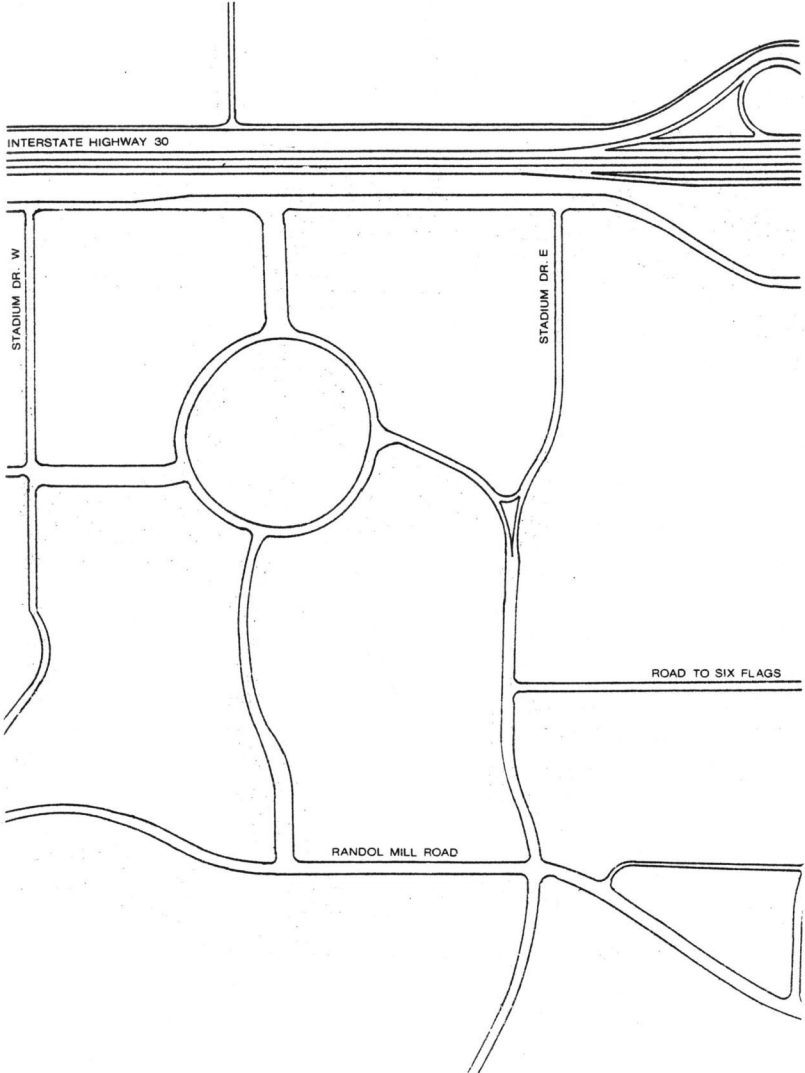
TOPOGRAPHY / VEGETATION



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FIGURE / GROUND



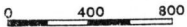
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STADIUM DR. W

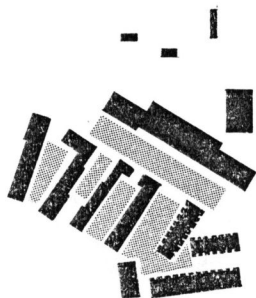
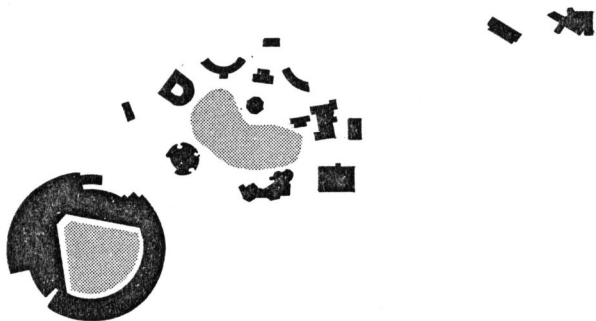
STADIUM DR. E

ROAD TO SIX FLAGS

RANDOL MILL ROAD



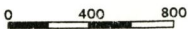
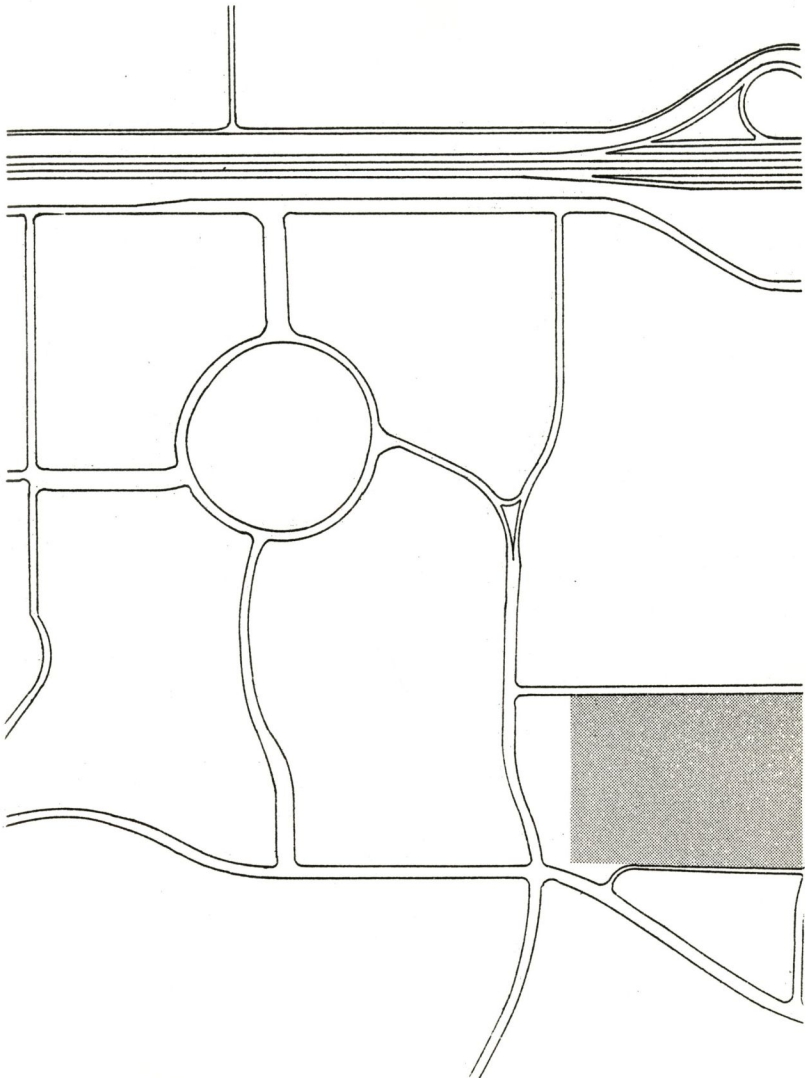
VEHICULAR ACCESS



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CONTAINED OPEN SPACE



PUBLIC / PRIVATE

VANDERGRIFF PROPERTY

CIRCULATION

- Pedestrian Access
- Vehicular Access
- Availability to Handicapped

NATURAL SITE CONDITIONS

- Beneficial Drainage
- Favorable Soil Conditions

CONTEXT

- Visibility of Site
- Freedom from Noise
- Compatible Existing Land Use
- Site with Sense of Identity

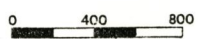
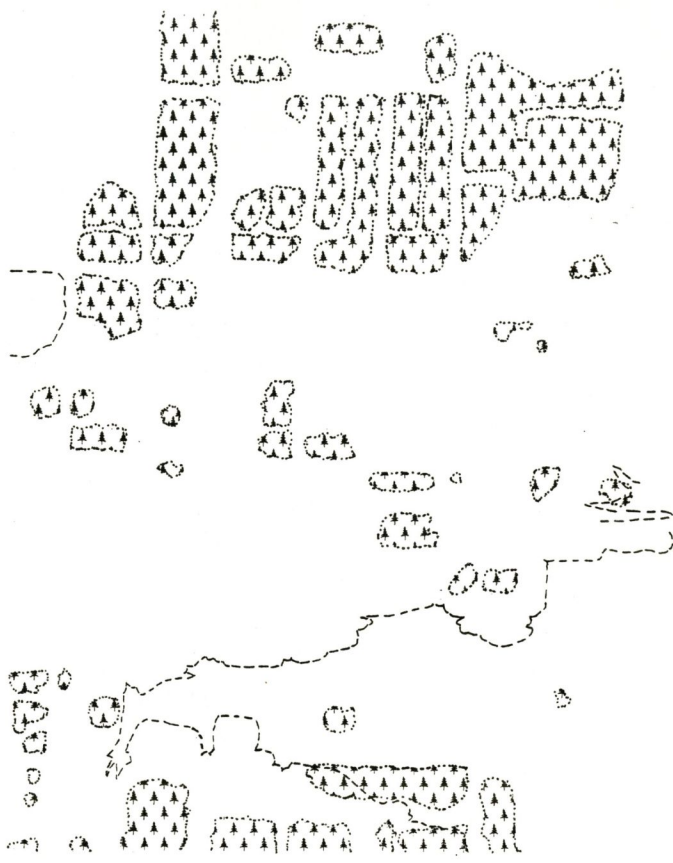
SERVICES

- Availability of Utilities
- Ample On-Site Parking

PROGRAMMATIC RESTRICTIONS

- Accomodation of Future Expansion
- Compatibility of Projected Land Use

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4	3 0	3 0
4	0 2	0 2



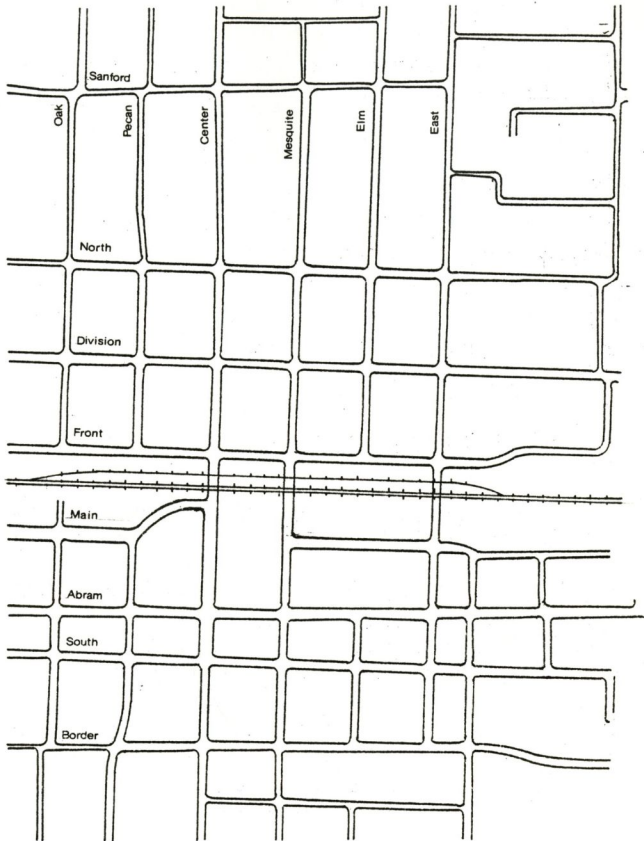
TOPOGRAPHY/VEGETATION



0 400 800



FIGURE/GROUND



0 400 800



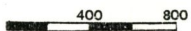
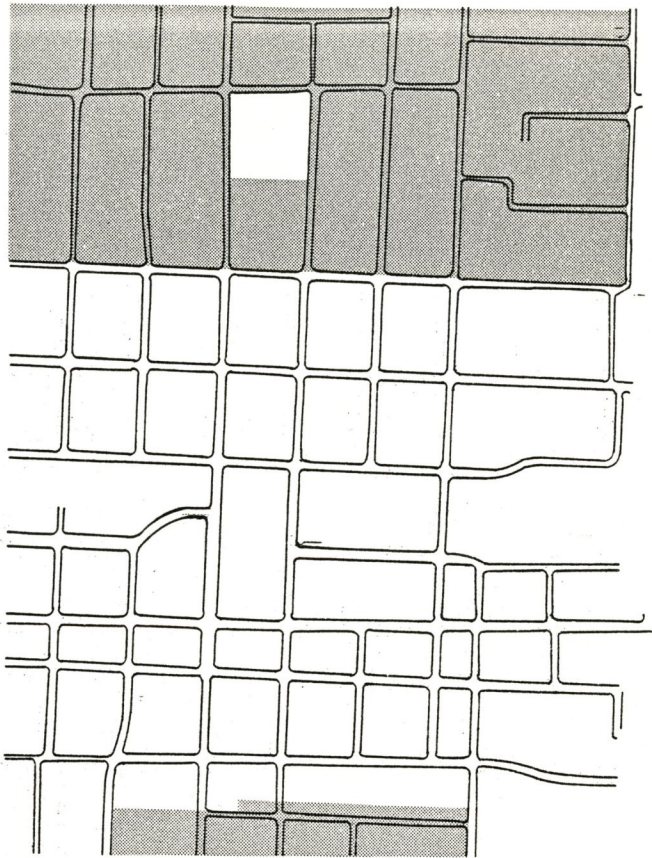
VEHICULAR ACCESS



0 400 800



CONTAINED OPEN SPACE



PUBLIC/PRIVATE

PRELIMINARY SITE SELECTION

SITE: VETERAN'S PARK

CIRCULATION

- Pedestrian Access
- Vehicular Access
- Availability to Handicapped

NATURAL SITE CONDITIONS

- Beneficial Drainage
- Favorable Soil Conditions

CONTEXT

- Visibility of Site
- Freedom from Noise
- Compatible Existing Land Use
- Site with Sense of Identity

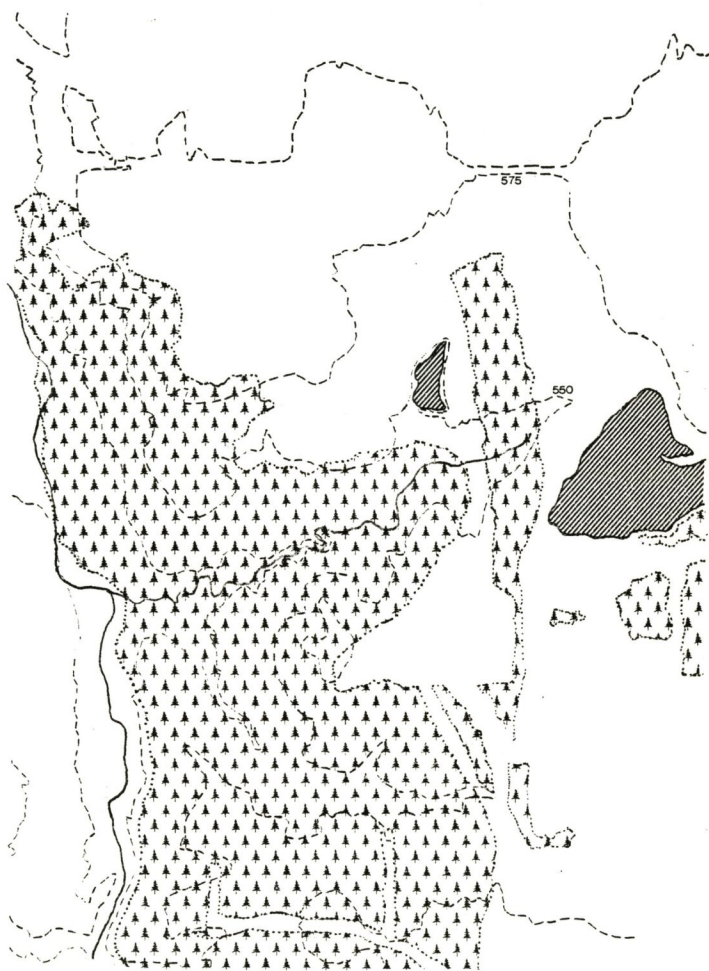
SERVICES

- Availability of Utilities
- Ample On-Site Parking

PROGRAMMATIC RESTRICTIONS

- Accomodation of Future Expansion
- Compatibility of Projected Land Use

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	3	3
	2	4
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TOPOGRAPHY / VEGETATION

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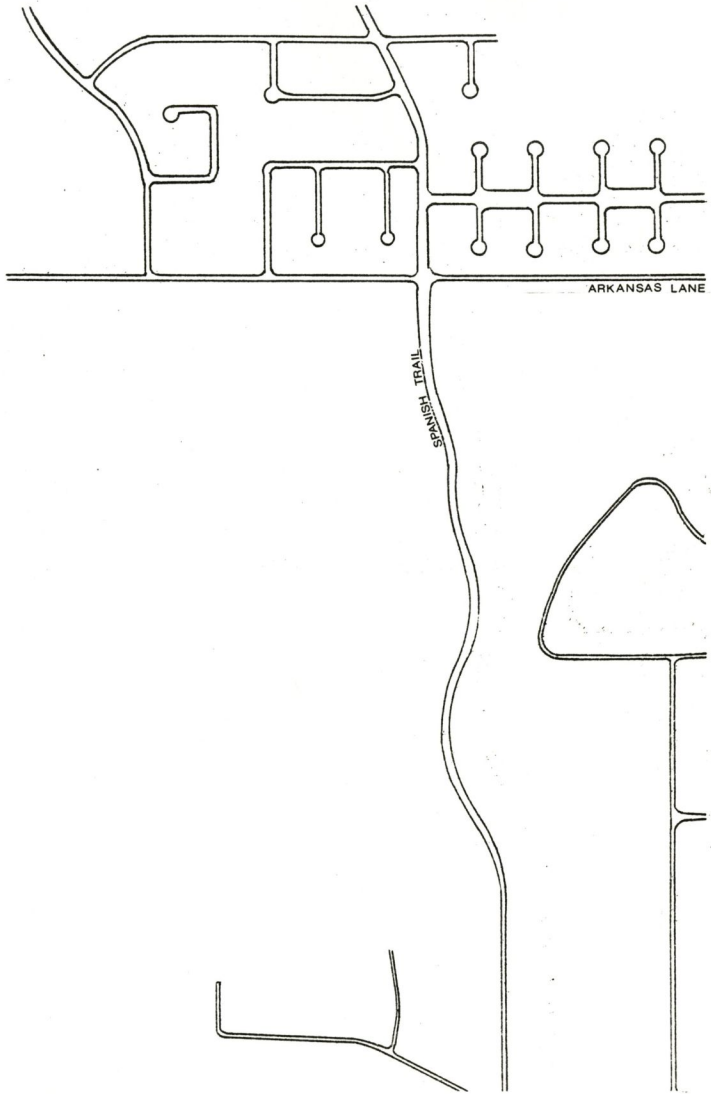
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FIGURE / GROUND



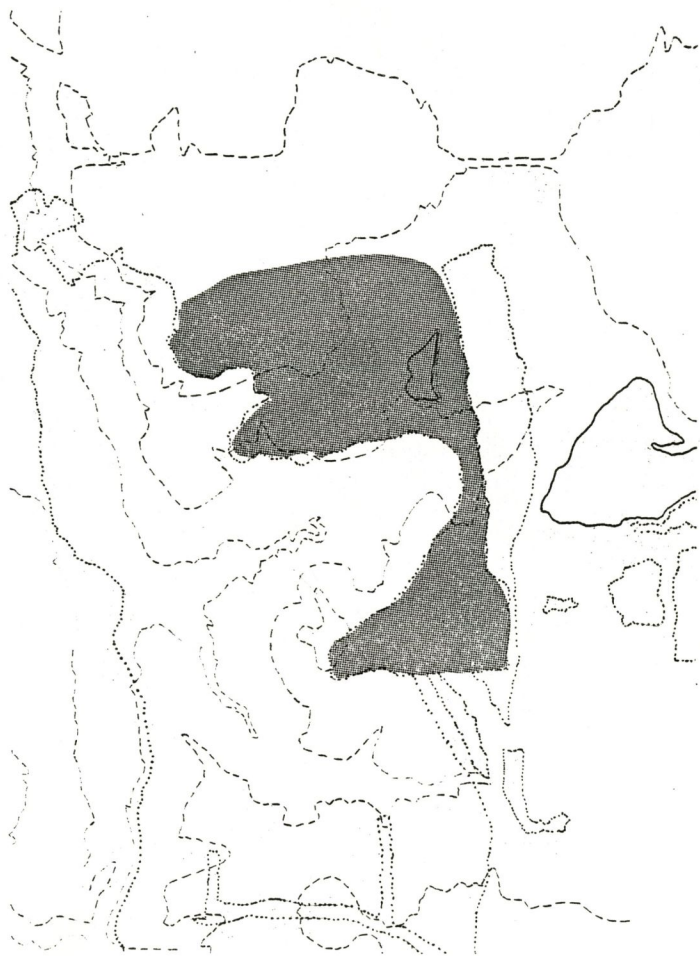
ARKANSAS LANE

SPANISH TRAIL

0 400 800



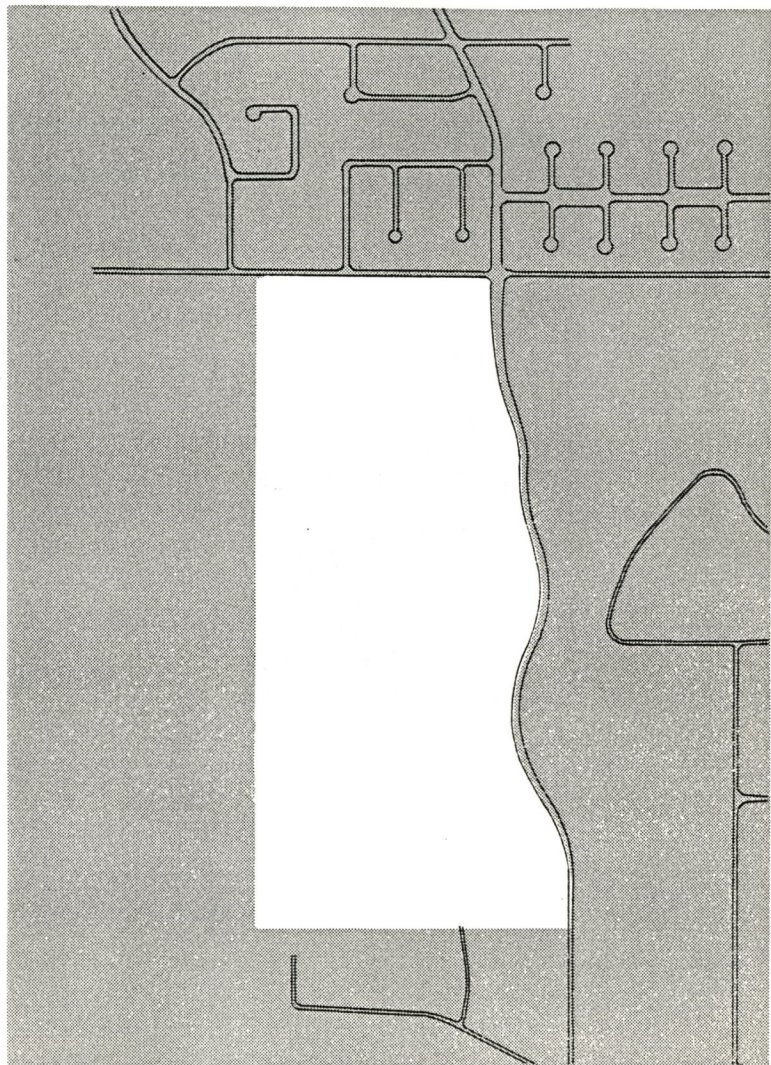
VEHICULAR ACCESS



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CONTAINED OPEN SPACE



0 400 800



PUBLIC/PRIVATE

THE HIGHLANDS

CIRCULATION

- Pedestrian Access
- Vehicular Access
- Availability to Handicapped

NATURAL SITE CONDITIONS

- Beneficial Drainage
- Favorable Soil Conditions

CONTEXT

- Visibility of Site
- Freedom from Noise
- Compatible Existing Land Use
- Site with Sense of Identity

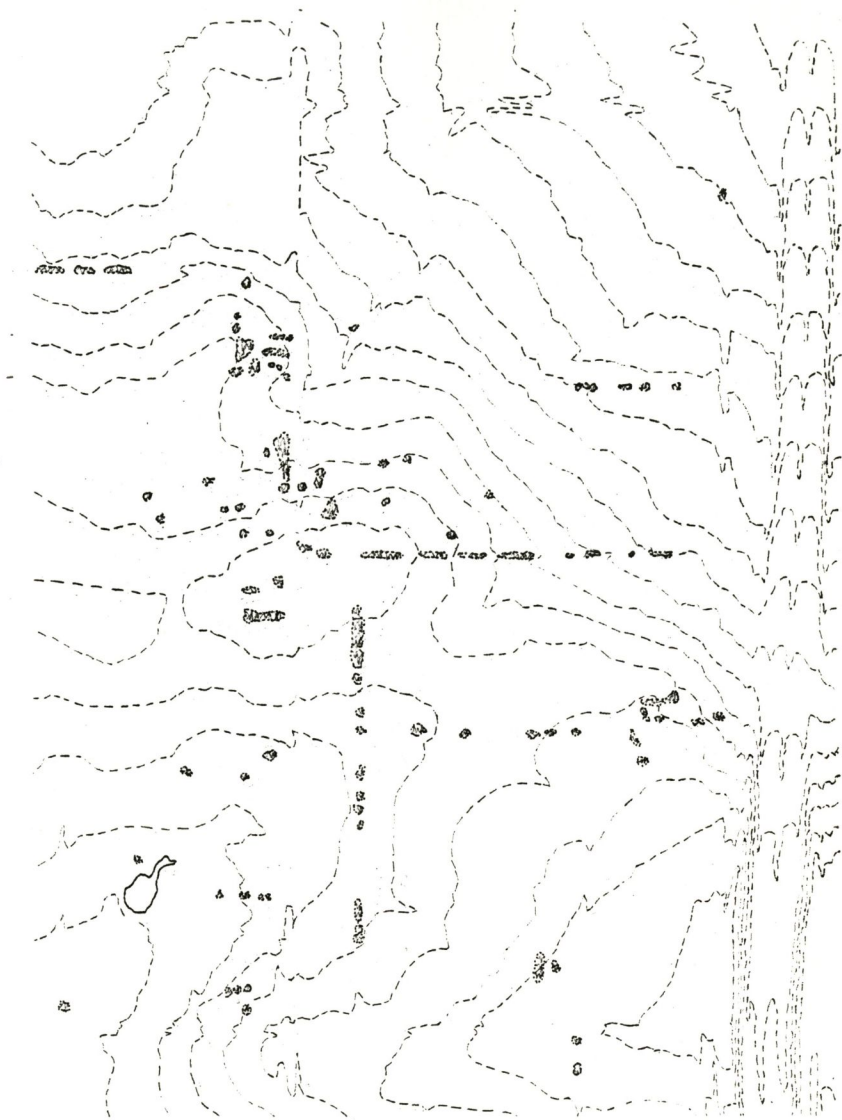
SERVICES

- Availability of Utilities
- Ample On-Site Parking

PROGRAMMATIC RESTRICTIONS

- Accomodation of Future Expansion
- Compatibility of Projected Land Use

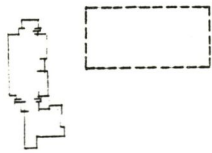
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	4	4



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TOPOGRAPHY / VEGETATION



FIGURE/GROUND

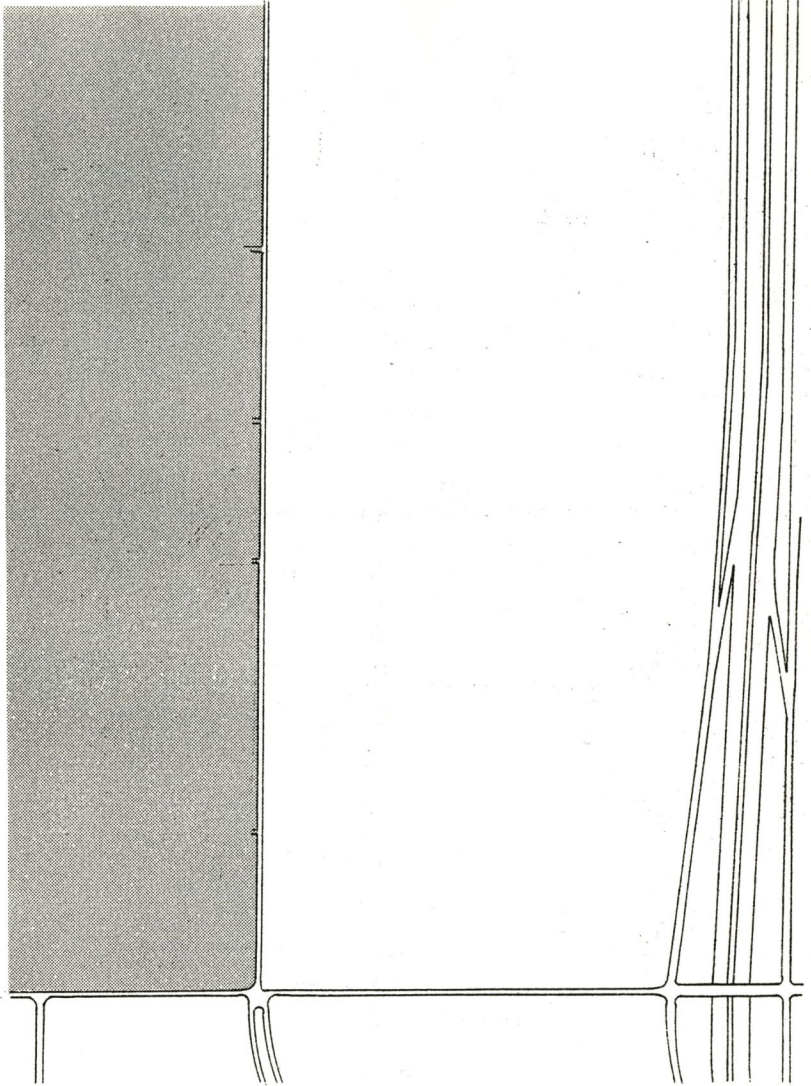
ARBROOK

MATLOCK RD.

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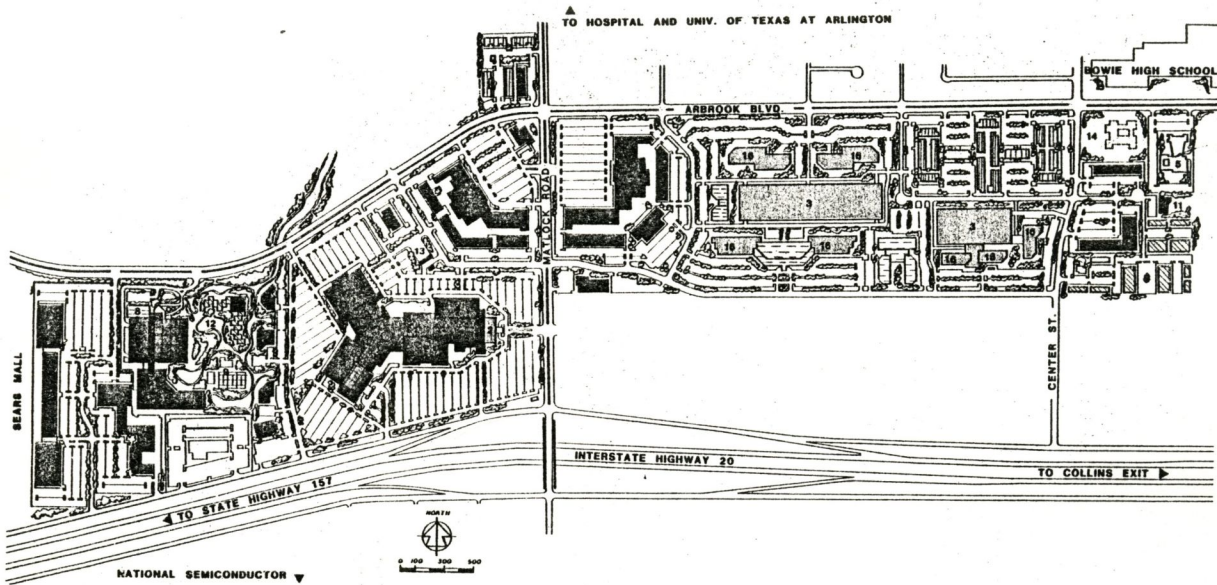
VEHICULAR ACCESS



0 400 800



PUBLIC / PRIVATE



- | | | |
|--|------------------|---|
| | RETAIL FACILITY | 1 SHOPPING MALL |
| | HIGH-RISE OFFICE | 2 BANK TOWER |
| | MID-RISE OFFICE | 3 PARKING GARAGE |
| | HOTEL MID-RISE | 4 CENTER FOR FITNESS AND WELL BEING |
| | CULTURAL CENTER | 5 ARLINGTON CENTER FOR CREATIVE AND PERFORMING ARTS |
| | GARDEN OFFICES | 6 SPA AND CONDOMINIUMS |
| | APARTMENTS | 7 HOTEL-RESTAURANT-CLUB |
| | | 8 MEDICAL OFFICE BUILDING |
| | | 9 TENNIS COURTS AND POOLS |
| | | 10 RESTAURANTS |
| | | 11 DAY CARE CENTER |
| | | 12 THE LOCH |
| | | 13 DRIVE-IN BANK |
| | | 14 RESERVED SITE - ART MUSEUM |
| | | 15 SUPERMARKET |
| | | 16 HIGH-RISE OFFICE |
| | | 17 MAJOR |

A LAND USE PLAN FOR :

the Highlands

ARLINGTON, TEXAS

KELTON MATHES
DEVELOPMENT CORPORATION

HARRY J. ALLISON ASSOCIATES - ARCHITECTS
ARLINGTON, TEXAS



SITE ANALYSIS

Due to the different priorities of the performing arts coalition and the city government, Veteran's Park would not be a feasible site proposal. However, for the purpose of this project, their mutual cooperation has been assumed. Having made this assumption, Veteran's Park is the site which offers the greatest number of site opportunities.

Initially, it was selected over other available city property because Veteran's Park was the site of the proposed Texas Sesquicentennial amphitheater. By siting the performing arts center at Veteran's Park, the use of the outdoor theater could be shared, consolidating city-theater efforts and further diversifying the performance areas of the center.

A facility on the Veteran's Park site would not only join city amenities and community goals, but it could provide a landscaped connection between Arlington and Dalworthington Gardens. Projections for Arlington forecast a shift of the city center toward the southwest, positioning Veteran's Park as an accessible central park. By linking the park with "Pappy" Elkins Park in Dalworthington Gardens, to the east, and to a proposed greenbelt along Rush Creek, to the west, and important landscaped connection could be created between the two cities.

Other benefits of Veteran's Park include its size, topography, and vegetation. Because it is a large site, Veteran's Park can easily accommodate on-site parking as well as future building expansion. In addition, by siting the center on higher areas of the park, visibility of the facility can be accomplished without

adjacency to nearby roads, eliminating noise interference as a site drawback. Finally, the balance of wooded and open areas in Veteran's Park encourages festival activities to take place within the natural theater of the park itself.

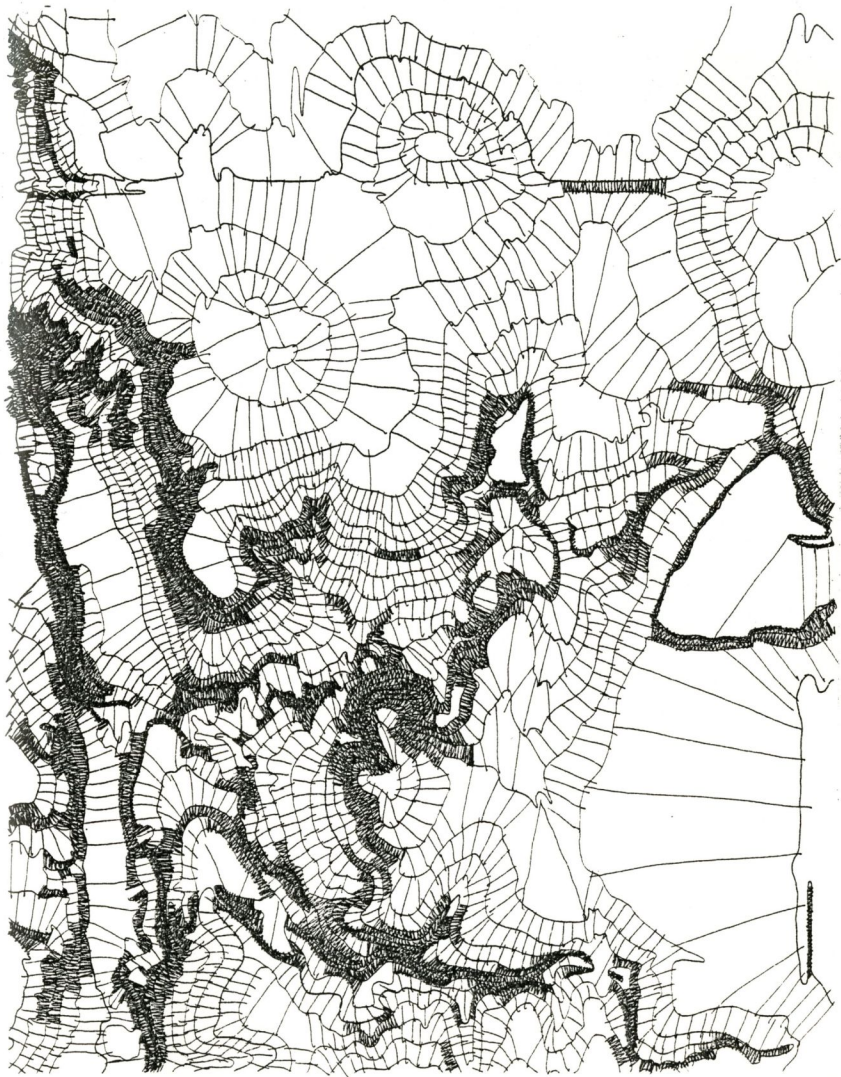
The Veterans Park site can support a richer architectural product, one that brings contextural, site, and programmatic concerns into a unified concept.

FIGURE

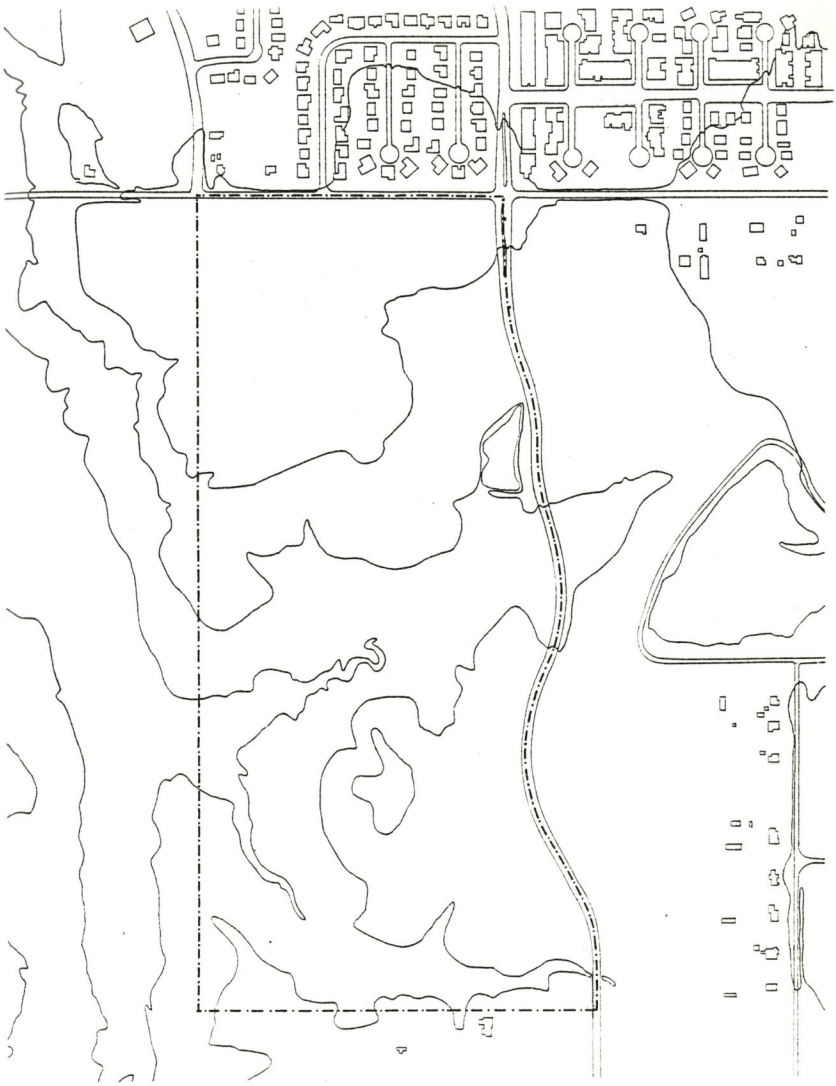
GROUND

FIGURE





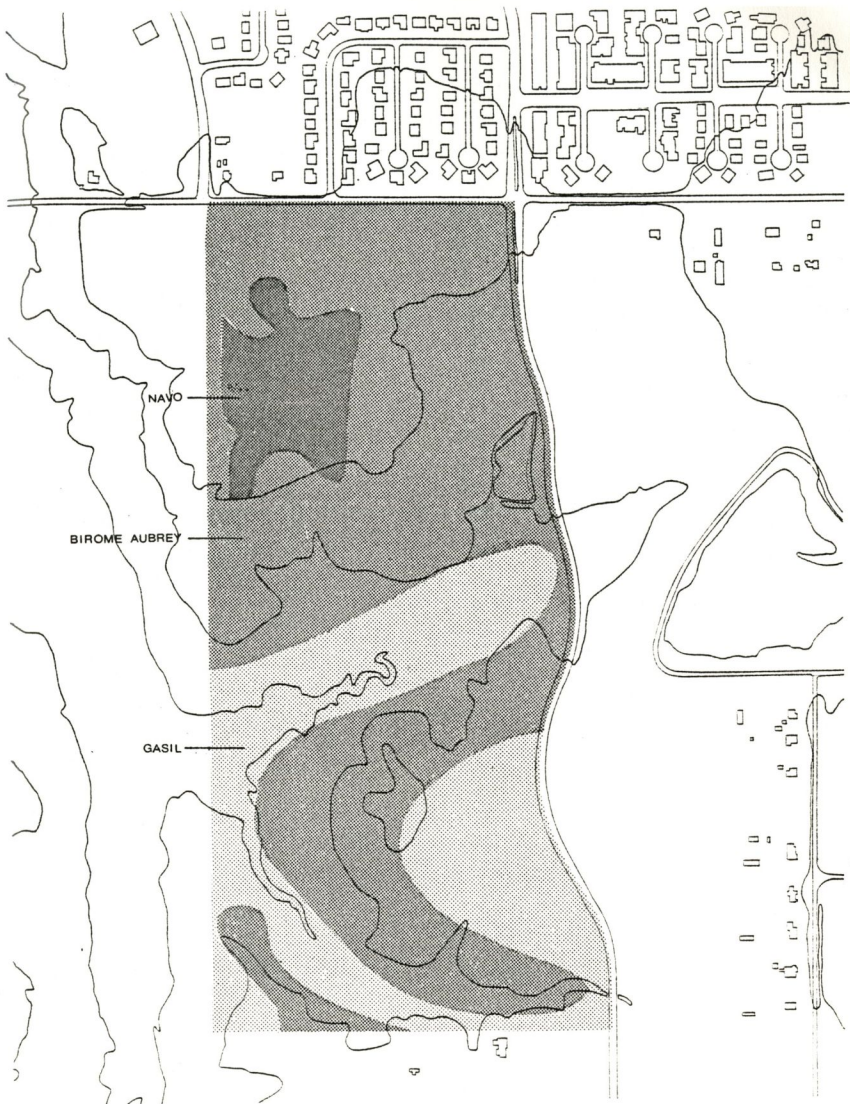
SLOPE ANALYSIS

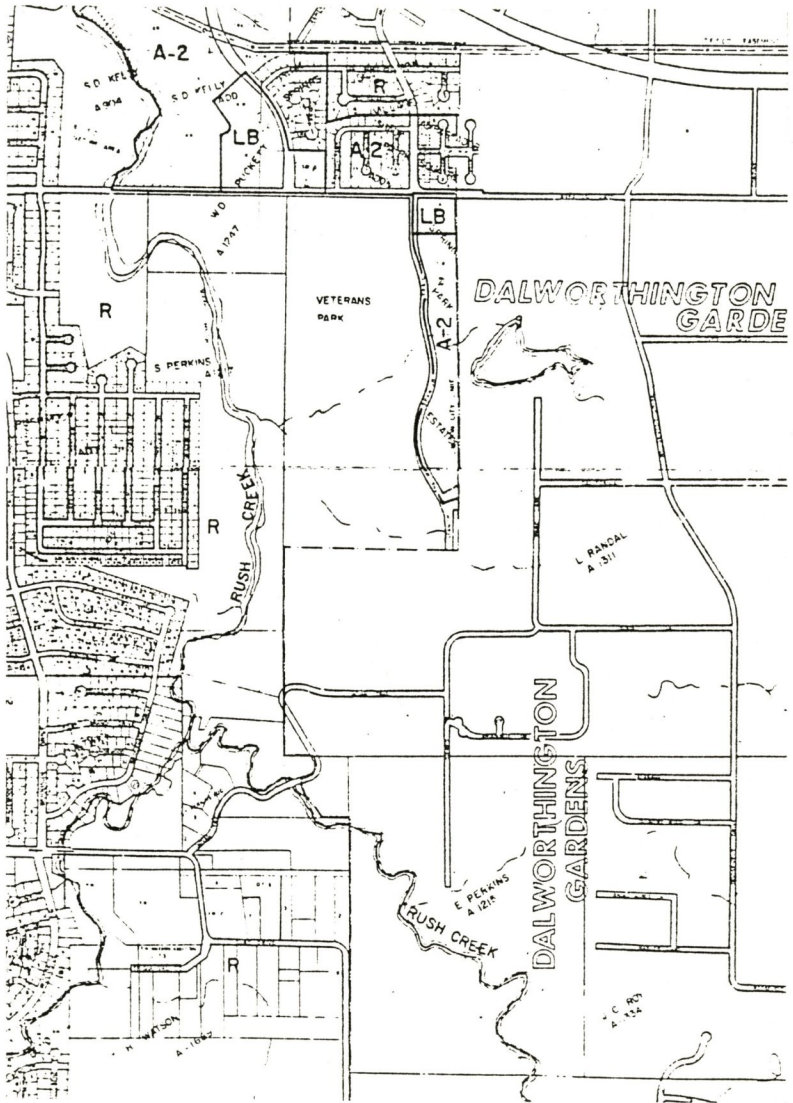


0 75 150 300



PROPERTY LINE





ZONING

FUNCTIONAL REQUIREMENTS

SQUARE FOOTAGE REQUIREMENTS

PERFORMANCE AREAS

Main Stage

Performing area	1200	s.f. (a)
-----------------	------	----------

400 seat Auditorium	<u>3200</u>	s.f. (b)
	4400	s.f.

Dance Theater

Performing area	950	s.f.
-----------------	-----	------

150 seat Auditorium	<u>1200</u>	s.f.
	2150	s.f.

Experimental Theater

Performing area	250	s.f.
-----------------	-----	------

75 seat Capacity	<u>600</u>	s.f.
	850 (c)	s.f.

Total Audience Capacity	625	s.f.
-------------------------	-----	------

Total Square Footage of Performance Areas	<u>7400</u>	s.f.
--	-------------	------

Projection Rooms @ 56, 100	156	s.f.
----------------------------	-----	------

Spotlight Booths	312	s.f.
------------------	-----	------

TOTAL	7,868	s.f.
-------	-------	------

a - Normal space requirement for musical theater

b - Based on 8 sq. feet per person

c - Total space allocation for a theater with variable stage and seating capacity

SUPPORT FACILITIES

Stage Workshop	1175	s.f.
Scenery Storage	1170	s.f.
Costume Storage	655	s.f.
Costume Workshop	390	s.f.
Dressing Rooms		
6 individual rooms @ 56	336	s.f.
2 large rooms @ 362	724	s.f.
	<u>1060</u>	s.f.
Make-up Room	150	s.f.
Backstage Toilets = 2 @ 170	340	s.f.
Practice Rooms = 2 @ 50	100	s.f.
Music Library	700	s.f.
Recording Studio	350	s.f.
Dance Studios = 2 @ 1800	3600 (d)	s.f.
	TOTAL	9690 s.f.

PUBLIC AREAS

Vestibule	940	s.f.
Lobby	780	s.f.
Checkroom	190	s.f.
Ticket Office	40	s.f.
Refreshments/Kitchen	100	s.f.
	TOTAL	2050 s.f.

d - With movable partitions to accommodate room separation

OFFICES

Theatre Arlington

Executive Director	250	s.f.
Assistant Director	200	s.f.
Technical Director	150	s.f.
Secretarial Space	200	s.f.

Dance Theatre

Director	250	s.f.
Assistant Directors	250	s.f.
Secretarial Space	200	s.f.

Gown Town Theatre 250 s.f.

Arlington Civic Chorus 250 s.f.

Arlington Music Teachers Assoc. 200 (e) s.f.

The Good Times Chorus 200 (e) s.f.

Board Room 650 (f) s.f.

TOTAL

3050 s.f.

TOTAL SQUARE FOOTAGE 22,658 s.f.

15% CIRCULATION 3,400 s.f.

GRAND TOTAL BUILDING 26,058 s.f.

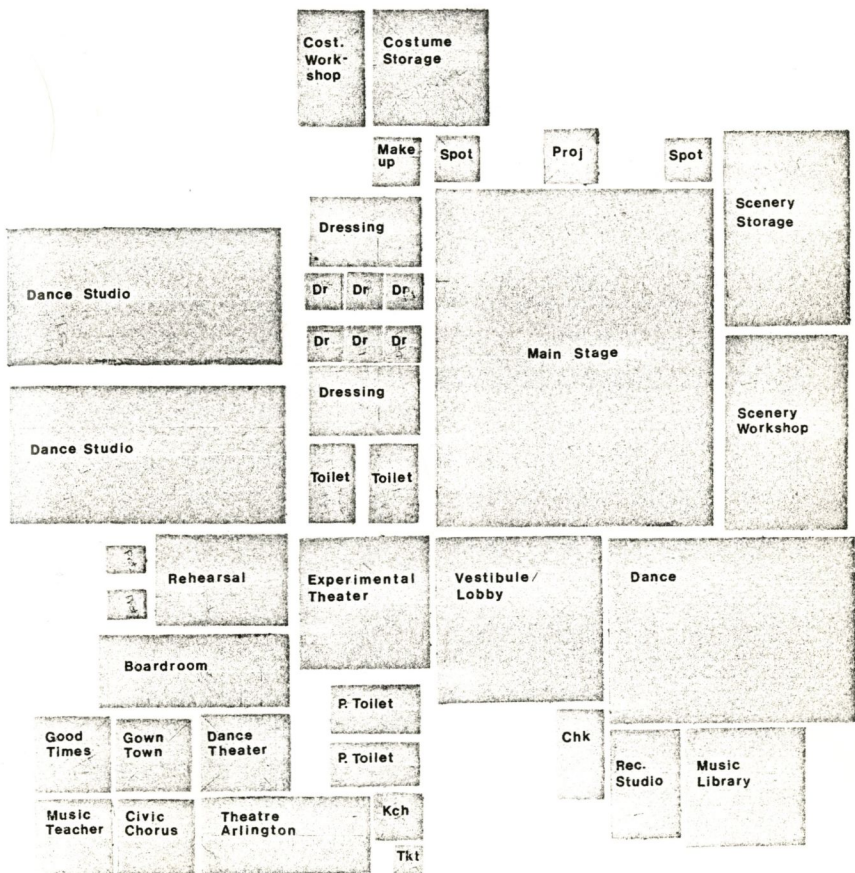
PARKING LOT REQUIREMENT

157 Parking Spaces (g) @ 342 sf/car 53,694 s.f.

e - If organization defaults on commitment to Performing Arts Center, space will be reallocated for office storage

f - Capacity to seat 40 members

g - One parking space required for every four seats



0 5 10 20

FUNCTIONAL DIAGRAM

CODE AND ZONING RESTRICTIONS

BUILDING CODE SUMMARY

Requirements for Group A, Division 2 - Occupancy

Group A, Division 2, Occupancy Defined:

Division 2. Any building or portion of a building having an assembly room with an occupant load of less than 1000 and a stage.

Construction, Height, and Allowable Area:

Sec. 602. (a) General. Buildings or parts of buildings classed in Group A because of the use or character of the occupancy shall be limited to the types of construction set forth in Tables No. 5-C and No. 5-D and shall not exceed, in area or height, the limits specified in Sections 505, 506 and 507.

(b) **Areas of Buildings Over One Story.** The total combined floor area for multistory buildings may be twice that permitted by Table No. 5-C for one-story buildings, and the floor area of any single story shall not exceed that permitted for a one-story building.

Location on Property

Sec. 603. Buildings housing Group A Occupancies shall front directly upon or have access to a public street not less than 20 feet in width. The access to the public street shall be a minimum 20-foot-wide right-of-way, unobstructed and maintained only as access to the public street. The main entrance to the building shall be located on a public street or on the access way. The main assembly floor of Division 1 Occupancies shall be located at or near the adjacent ground level.

Exit Facilities

Sec. 604. (a) **General.** Stairs, exits and smokeproof enclosures shall be provided as specified below.

Group A, Divisions 2, 2.1, 3 and 4 Occupancies:

Sec. 3318. (a) **Group A, Divisions 2, 2.1 and 3.** Group A, Divisions 2 and 2.1 Occupancies shall have exits as required by Section 3317.

Group A, Division 1 Occupancies:

Sec. 3317. (a) **Main Exit.** Every Group A, Division 1 Occupancy shall be provided with a main exit.

The main exit shall be of sufficient width to accommodate one half of the total occupant load but shall be not less than the total required width of all aisles, exit passageways and stairways leading thereto and shall connect to a stairway or ramp leading to a public way.

(b) **Side Exits.** Every auditorium of a Group A, Division 1 Occupancy shall be provided with exits on each side. The exits on each side of the auditorium shall be of sufficient width to accommodate one third of the total occupant load served. Side exits shall open directly to a public way or into an exit court, approved stairway, exterior stairway or exit passageway leading to a public way. Side exits shall be accessible from a cross aisle.

(c) **Balcony Exits.** Every balcony having an occupant load of 11 or more shall be provided with a minimum of two exits. Balcony exits shall open directly to an exterior stairway or other approved stairway or ramp. When there is more than one balcony, exits shall open into an exterior or enclosed stairway or ramp. Balcony exits shall be accessible from a cross aisle. The number and distribution of exits shall be as otherwise specified in this chapter.

(d) **Panic Hardware.** An exit door from a Group A, Division 1 Occupancy having an occupant load of 50 or more shall not be provided with a latch or lock unless it is panic hardware.

Light, Ventilation and Sanitation

Sec. 605. All enclosed portions of Group A Occupancies customarily used by human beings and all dressing rooms shall be provided with natural light by means of exterior glazed openings with an area not less than one tenth of the total floor area, and natural ventilation by means of openable exterior openings with an area of not less than one twentieth of the total floor area or shall be provided with artificial light and a mechanically operated ventilation system. The mechanically operated ventilating system shall be capable of supplying a minimum of 5 cubic feet per minute of outside air with a total circulated of not less than 15 cubic feet per minute per occupant in all portions of the building during such time as the building is occupied. If the velocity of the air at the register exceeds 10 feet per second, the register shall be placed more than 8 feet above the floor directly beneath.

Toilet rooms shall be provided with a fully openable exterior window at least 3 square feet in area; or a vertical duct not less than 100 square inches in area for the toilet facility, with 50 additional inches for each additional facility; or a mechanically operated exhaust system capable of providing a complete change of air every 15 minutes. Such systems shall be connected directly to the outside, and the point of discharge shall be at least 5 feet from any openable window.

Exit lighting in portions of buildings other than the stage shall be on a separate circuit from that of the stage. Such exit lighting shall be controlled from the box

office or other approved central control center located in a portion of the building other than the stage.

All registers or vents supplying air backstage shall be equipped with automatic closing devices with fusible links. Such closing devices shall be located where the vents or ducts pass through the proscenium walls and shall be operated by fusible links located on both sides of the proscenium wall and both inside of and outside of the vent or duct.

There shall be provided in an approved location at least one lavatory for each two water closets for each sex, and at least one drinking fountain for each floor level.

Shaft Enclosures

Sec. 606. Exits shall be enclosed as specified in Chapter 33.

Elevator shafts, vent shafts and other vertical openings shall be enclosed and the enclosure shall be as specified in Section 1706.

Sprinkler Systems

Sec. 607. When required by other provisions of this code, automatic sprinkler systems and standpipes shall be installed as specified in Chapter 38.

Special Hazards

Sec. 608. Stages shall be equipped with automatic ventilators as required in Section 3901.

Chimneys and heating apparatus shall conform to the requirements of Chapter 37 of this code and the Mechanical Code.

Motion picture machine booths shall conform to the requirements of Chapter 40.

Proscenium curtains shall conform to the requirements set forth in U.B.C. Standard No. 6-1.

Flammable liquids shall not be placed or stored in any Group A Occupancy.

STAGES AND PLATFORMS

Stage Ventilators

Sec. 3901. (a) **General.** There shall be one or more ventilators constructed of metal or other noncombustible material near the center and above the highest part of any working stage raised above the stage roof and having a total ventilation area equal to at least 5 percent of the floor area within the stage walls. The entire equipment shall conform to the requirements in Subsections (b) to (i) of this section or their equivalent.

(b) **Opening Action.** Ventilators shall open by spring action or force of gravity sufficient to overcome the effects of neglect, rust, dirt, frost, snow or expansion by heat or warping of the framework.

(c) **Glass.** Glass, if used in ventilators, must be protected against falling on the stage. A wire screen, if used under the glass, must be so placed that if clogged it cannot reduce the required ventilating area or interfere with the operating mechanism or obstruct the distribution of water from the automatic sprinkler systems.

(d) **Design.** Ventilators, penthouses and supporting framework shall be designed in accordance with Chapter 23.

(e) **Automatic Openings.** Each ventilator shall be arranged to open automatically after the outbreak of fire by the use of an approved automatic closing device as defined in Chapter 43. The fusible link and operating cable shall hold each door closed against a minimum 30-pound counterforce exerted by springs or

counterweights. This minimum counterforce shall be exerted on each door through its entire arc of travel and for a minimum 115 degrees. A manual control shall be provided.

(f) **Spring Actuation.** Springs, when employed to actuate ventilator doors, shall be capable of maintaining full required tension indefinitely. Springs shall not be stressed more than 50 percent of their rated capacity and shall not be located directly in the air stream, nor exposed to the elements.

(g) **Location of Fusible Links.** A fusible link shall be placed in the cable control system on the underside of the ventilator at or above the roof line, or as approved by the building official, and shall be so located as not to be affected by the operation of sprinkler systems.

(h) **Control.** Remote, manual or electrical control shall provide for both opening and closing of the ventilator doors for periodic testing and shall be located at a point on the stage designated by the building official. When remote control of ventilator is electrical, power failure shall not affect its instant operation in the event of fire. Hand winches may be employed to facilitate operation of manually controlled ventilators.

(i) **Curb Construction.** Curbs shall be constructed as required for the roof.

Gridirons

Sec. 3902. Gridirons, fly galleries and pinrails shall be constructed of non-combustible materials, and fire protection of steel and iron may be omitted.

The head block well must be provided with an adequate strongback or lateral brace to offset torque.

Rooms Accessory to Stage

Sec. 3903. In buildings having a stage, the dressing room sections, workshops and storerooms shall be located on the stage side of the proscenium wall and shall be separated from each other and from the stage by not less than a one-hour fire-resistive occupancy separation, as defined in Chapter 5.

Proscenium Walls

Sec. 3904. A stage as defined in Section 420 shall be completely separated from the auditorium by a proscenium wall of not less than two-hour noncombustible construction. The proscenium wall shall extend not less than 4 feet above the roof over the auditorium.

Proscenium walls may have, in addition to the main proscenium opening, one opening at the orchestra pit level and not more than two openings at the stage floor level, each of which shall be not more than 25 square feet in area.

All openings in the proscenium wall of a stage shall be protected by a fire assembly having a one and one-half-hour fire-resistive rating. The proscenium opening, which shall be the main opening for viewing performances, shall be provided with a self-closing fire-resistive curtain as provided in U.B.C. Standard No. 6-1.

Stage Floors

Sec. 3905. All parts of stage floors shall be of Type 1 construction except the part of the stage extending back from and 6 feet beyond the full width of the proscenium opening on each side, which may be constructed of steel or heavy timbers covered with a wood floor of not less than 2-inch nominal thickness. No part of the combustible construction except the floor finish shall be carried through the proscenium opening. All parts of the stage floor shall be designed to support not less than 125 pounds per square foot.

Openings through stage floors shall be equipped with tight-fitting trap doors of wood of not less than 2-inch nominal thickness.

Platforms

Sec. 3906. (a) **Ventilators.** Enclosed platforms shall be provided with one or more ventilators conforming to the requirements of Section 3901. When more than one ventilator is provided, they shall be so spaced as to provide proper exhaust ventilation.

Ventilators shall not be required for enclosed platforms having a floor area of 500 square feet or less.

(b) **Construction.** Walls and ceiling of an enclosed platform in an assembly room shall be of not less than one-hour fire-resistive construction.

Any usable space having headroom of 4 feet or more under a raised platform of an assembly room shall be of not less than one-hour fire-resistive construction.

(c) **Accessory Rooms.** In buildings having an enclosed platform, the dressing room section, workshops, and storerooms shall be separated from each other and from the rest of the building by not less than a one-hour fire-resistive occupancy separation as defined in Chapter 5, except that a chair-storage area having headroom of not more than 4 feet need not be so separated.

Stage Exits

Sec. 3907. At least one exit not less than 36 inches wide shall be provided from each side of the stage opening directly or by means of a passageway not less than 36 inches in width to a street or exit court. An exit stair not less than 2 feet 6 inches wide shall be provided for egress from each fly gallery. Each tier of dressing rooms shall be provided with at least two means of egress each not less than 2 feet 6 inches wide and all such stairs shall be constructed as specified in Chapter 33. The stairs required in this section need not be enclosed.

Miscellaneous

Sec. 3908. A protecting hood shall be provided over the full length of the stage switchboard.

Requirements for Aisle and Seat Spacing

Aisles

Sec. 3315. (a) **General.** Aisles leading to required exits shall be provided from all portions of buildings.

(b) **Width.** Aisle widths shall be provided in accordance with the following:

1. In assembly occupancies with fixed seats.

A. With standard seating, every aisle shall be not less than 3 feet when serving seats on only one side and not less than 42 inches wide when serving seats on both sides. Such minimum width shall be measured from the point furthest from the exit, cross aisle or foyer and such minimum width shall be increased by 1-1/2 inches for each 5 feet of length toward the exit, cross aisle or foyer.

(c) **Distances to Nearest Exit.** In areas occupied by seats and in Group A Occupancies without seats, the line of travel to an exit door by an aisle shall be not more than 150 feet. Such travel distance may be increased to 200 feet if the building is provided with an approved automatic sprinkler system.

(d) **Aisle Spacing.** With standard seating, aisles shall be so located that there will be not more than six intervening seats between any seat and the nearest aisle.

(e) **Cross Aisles.** Aisles shall terminate in a cross aisle, foyer or exit. The width of the cross aisle shall be not less than the sum of the required width of the widest aisle plus 50 percent of the total required width of the remaining aisles leading thereto. In Groups A and E Occupancies, aisles shall not have a dead end greater than 20 feet in length.

(f) **Vomitories.** Vomitories connecting the foyer or main exit with the cross aisles shall have a total width not less than the sum of the required width of the widest aisle leading thereto plus 50 percent of the total required width of the remaining aisles leading thereto.

(g) **Slope.** The slope portion of aisles shall be not steeper than 1 vertical in 8 horizontal, except as permitted in Section 3307(c).

(h) **Steps.** Steps shall not be used in an aisle when the change in elevation can be achieved by a slope conforming to Section 3315(g). A single step or riser shall not be used in any aisle. Steps in aisles shall extend across the full width of the aisle and shall be illuminated. Treads and risers in such steps shall comply with Section 3306(c).

Seat Spacing

Sec. 3316. (a) **Standard Seating.** With standard seating, the spacing of rows of seats shall provide a space of not less than 12 inches from the back of one seat to the front of the most forward projection of the seat immediately behind it as measured horizontally between vertical planes. ⁶

Zoning Ordinance Summary

Zoning surrounding Veteran's Park includes both residential and commercial districts. The following is a short description of neighboring land uses:

LB/ Local Business District allows the development of community shopping centers and limited automobile services.

A-2/ Medium Density Multi Family District accommodates multifamily dwellings and townhouses.

R/ Single Family District includes single family dwellings on large or intermediate sized lots. Within an R Dwelling District, other public related services are allowed; including churches, schools, and public facilities such as parks or community centers.

Veterans Park is located within an R Dwelling District. Therefore, the maximum height permitted for a non residential structure is 75 feet, provided that a minimum setback requirements are increased one foot for each foot of height that the building exceeds over thirty-five feet. Setbacks for the R District are 20 feet for the minimum side setback (15 feet on the corner), and a minimum rear setback of five feet. No minimum lot area or lot with is required for non-residential uses.⁷

DESIGN ISSUES

Assuing the mutual endorsement of the Performing Arts Coalition and the city of Arlington for the planning, funding, and construction of a performing arts center located within Veterans Park, the following design issues should be addressed:

Contextural Issues

In the future, the proposed site will be a centralized city park surrounded by medium density and single family residential areas. Therefore, the use of Veteran's Park requires a master plan for the interface of park and residential areas.

Due to the proximity of Veteran's Park and Elkins Lake in Dalworthington Gardens, linkage between the two parks should be established.

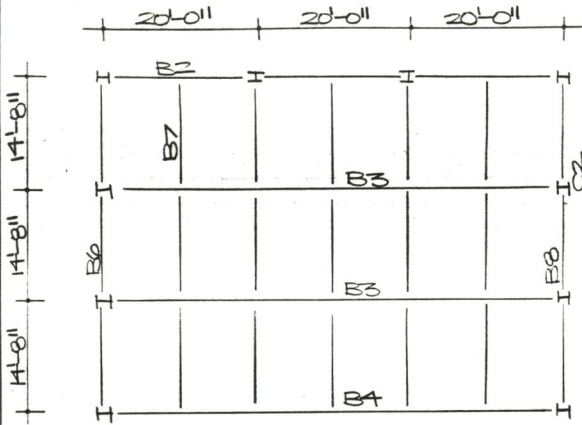
Landscape/Built Form Concepts

The building organization should aknowledge two systems: 1) the axial alignment of existing site vegetation 2) the intervention of the city grid on Veteran's Park.

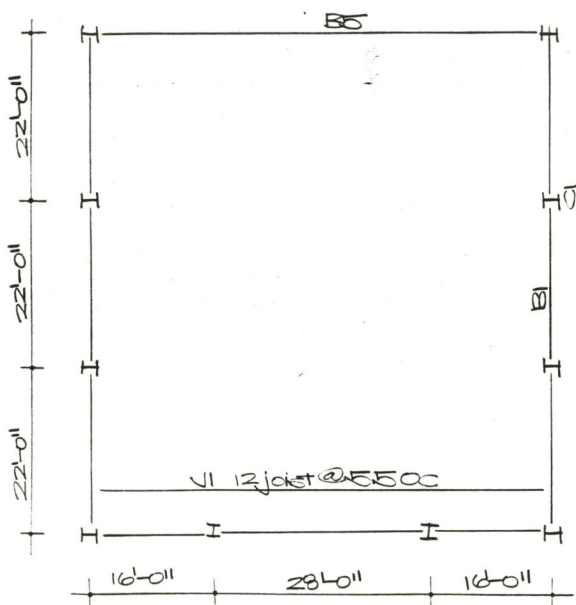
Existing pathways through the site should be reinforced with a system of landmarks, establishing a spatial sequence with landscape elements.

The architectural solution should extend performance areas into the landscape. Provisions for outdoor performances, such as the sesquicentennial amphitheater, should support other performance areas within the park.

STRUCTURAL CALCULATION



ROOF FRAMING
PLAN/STAGE



AUDITORIUM
ROOF FRAMING

Structural Calculations Limited to Main Auditorium

36ksi steel used for all structural member

Δ of primary beams not to exceed 1.5"

Loading, as follows.

Roof Load

Stage Area

	Live Load	16
	Roofing	6
(USE 1/2" MD)	Insulation	2
	Metal Deck	1
	Beams	4
	Truss	10
	Equipment	200
		<u>239</u> psf

Auditorium

	Live Load	16
	Roofing	6
(USE 3" MD)	Insulation	2
	Metal Deck	1
	Joists	4
	Beams	2
	Mechanical	2
	Ceiling	2
		<u>35</u> psf

AUDITORIUM STAGE

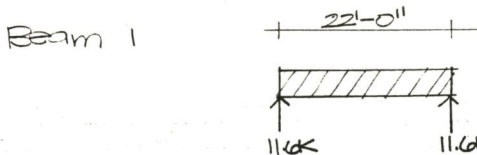
J1: Joists: 12 joists, 5'5" O.C. span = 60ft

$$TL = (35 - 2)(5.5') = 181.5 \text{ lb/ft}$$

$$LL = 14 \text{ psf}(5.5) = 88 \text{ lb/ft}$$

Select 32LH06

$$R_j = 181.5 \text{ lb/ft} \times \frac{60}{2} = 5.4 \text{ K}$$



$$W = 35 \text{ psf} \times 30' = 1050 \text{ \#}/\text{ft}$$

$$R = \frac{22 \times 1050 \text{ \#}/\text{ft}}{2} = 11.6 \text{ K}$$

$$M = \frac{1.05(22)^2}{8} = 63.5 \text{ ft}\cdot\text{K}$$

$$URL = 5.5$$

Select W12 x 26 $I = 204 \text{ in}^4$

$$I_{\text{required}} = \frac{63.5(22')}{5.36} = 260.6 \text{ in}^4 \text{ Fails}$$

Select W16 x 26 $I = 301 \text{ in}^4$

$$\frac{22 \times 12}{360} \geq \frac{63.5(22)^2}{161(301)}$$

$$.73 \geq .63$$

Column 1

$$\text{Load on column} = R_B + R_B + R_j$$

$$= 2(11.6) + 5.4$$

$$= 23.2 \text{ K} + 5.4$$

$$= 28.6 \text{ K}$$

check 14×18 $A = 14.1$

$$K_L x = 32$$

$$K_L y = \frac{32}{2}$$

$$F_A = \frac{P}{A} = \frac{28.6}{14.1} = 2.03$$

$$\frac{K_L x}{r} = \frac{32 \times 12}{5.8} = 66.2$$

$$\left[\begin{array}{l} 300 = \frac{r_x}{r_y} \\ \text{if } r_x = 1.71, r_y = 5.3 \end{array} \right]$$

$$\frac{K_L y}{r_y} = \frac{32 \times 12}{2(1.71)} = 100.5$$

$$F_A = 12.92$$

$$F_A(A) = P, 12.92(14.1) = 182K \quad 182K > 28.6K$$

Beam 5

$$W = 35 \#/\text{ft} \times 5.5 \text{ ft} = 192.5 \#/\text{ft}$$

$$R = \frac{60 \times 192}{2} = 5.76 K$$

$$M = \frac{.193(60)^2}{8} = 86.9 \text{ ft} \cdot K$$

$$\text{SELECT } W16 \times 31 \quad I = 375$$

$$I_{req} = \frac{ML}{5.36} = \frac{86.9(60)}{5.36} = 972.8 \text{ in}^4 \text{ Fails}$$

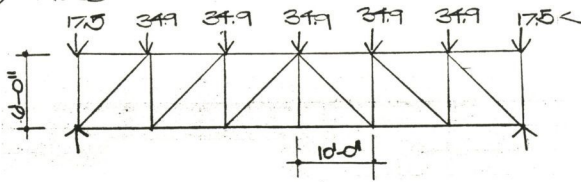
$$\text{TRY } W24 \times 55 \quad I = 1350$$

$$\text{Actual } \Delta = \frac{ML^2}{161 I} = \frac{86.9(60)^2}{161(1350)} = 1.44$$

$$\text{Allowable } \Delta \leq 1.5 \text{ in}$$

STAGE DESIGN

B3/TRUSS



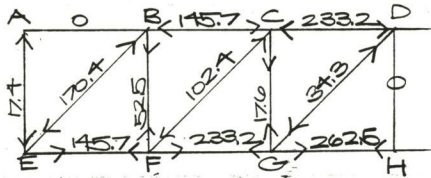
Convert 239 pcf to panel point loads

$$14.6 \times 239 \times 10' = 34.9$$

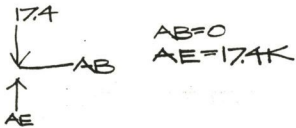
$$14.6 \times 239 \times 5' = 17.5$$

$$\sum F \downarrow = 209.5$$

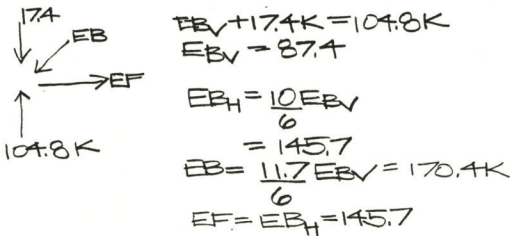
$$R_L = R_R = \frac{209.5}{2} = 104.8$$



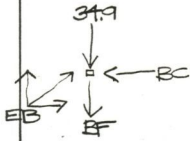
Panel Point A



Panel Point E



Panel Point B



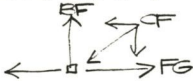
$$EB_H = BC = 145.7$$

$$EB_V = 34.9 + BF$$

$$BF = 87.4 - 34.9$$

$$= 52.5$$

Panel Point F



$$BF = CF_V = 52.5$$

$$CF_H = \frac{10}{6} CF_V$$

$$= 87.5$$

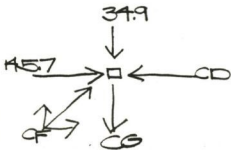
$$CF = \frac{11.7}{6} (CF_V)$$

$$= 102.4$$

$$87.5 + 145.7 = FG$$

$$FG = 233.2$$

Panel Point C



$$145.7 + CF_H = CD$$

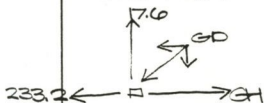
$$145.7 + 87.5 = CD$$

$$CD = 233.2$$

$$CF_V - 34.9 = CG$$

$$CG = 17.6$$

Panel Point G



$$17.6 = GD_V$$

$$GD_H = \frac{10}{6} (17.6)$$

$$= 29.3$$

$$GD = \frac{11.7}{6} (17.6) = 34.3$$

$$GH = 233.2 + 29.3$$

$$= 262.5$$

Member ABCD/Compression

$$K_{Lx} = 10'$$
$$K_{Ly} = 0$$
$$P = 233.2$$

USE $5 \times 5 \times \frac{3}{8}$ WT = 51.5

Member EFGH/Tension

$$F_t = .60(F_y)$$
$$= .60(36)$$
$$= 21.6$$

$$21.6 = \frac{P}{A}$$

USE $5 \times 5 \times \frac{3}{4}$ WT = 47.2

USE $8 \times 6 \times \frac{1}{2}$ WT = 40.0

$$21.6 = \frac{262.5}{A}$$

$$A = 12.2$$

Member EB/Compression

$$K_{Lx} = 11.7$$
$$K_{Ly} = 11.7$$
$$P = 170.4$$

USE $5 \times 5 \times \frac{3}{4}$
USE $6 \times 6 \times \frac{1}{2}$

WT = 47.2
WT = 39.2

Member EF/Tension

$$F = \frac{P}{A} \quad A = \frac{P}{F} \quad A = \frac{525}{21.6} = 243$$

USE $3 \times 3 \times \frac{1}{4}$ WT = 9.8
USE $2 \times 2 \times \frac{3}{8}$ WT = 9.4

Member CF/Compression

$$K_{Lx} = 11.7'$$
$$K_{Ly} = 11.7'$$
$$P = 102.4$$

USE $5 \times 5 \times \frac{1}{2}$ WT = 32.4
USE $4 \times 4 \times \frac{5}{8}$ WT = 31.4

Member CG/Tension

$$A = \frac{P}{F} \quad A = \frac{17.6}{21.6} = .81$$

USE $2 \times 2 \times \frac{1}{8}$

Member GD

$$K_{Lx} = 11.7'$$
$$K_{Ly} = 11.7'$$
$$P = 34.3$$

USE $3/2 \times 3/2 \times 5/16$
USE $4 \times 3 \times 1/2$

WT = 14.4
WT = 11.6

Bracing Member DH

$$K_{Lx} = 0$$
$$K_{Ly} = 0$$

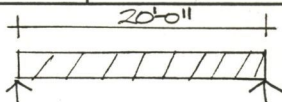
$$K_{Lx} = \frac{0}{\sqrt{.625}} = 0$$

USE $2 \times 2 \times \frac{1}{8}$

WT = 3.30

$$K_{Ly} = \frac{0}{\sqrt{.625}} = 0$$

B2



$$w = 239 \text{ psf} \times 10' = 2390 \text{ \#/ft}$$

$$R = \frac{20' \times 2390 \text{ \#/ft}}{2} = 2390 \text{ K}$$

$$M = \frac{2390 (20)^2}{8} = 119.5 \text{ ft-K} \quad \text{UBL} = 10'$$

SELECT W10x40 $I = 518 \text{ in}^4$

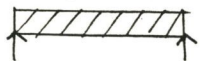
$$I_{\text{required}} = \frac{ML}{E\Delta} = \frac{119.5 (20)}{5.36} = 445.9 \text{ in}^4 \quad \text{OK.}$$

$$\text{Actual } \Delta = \frac{ML^2}{161 I} = \frac{119.5 (20)^2}{161 (518)} = 0.57$$

$$\text{Allowable } \Delta_{TL} = \frac{1}{180} \times 20 \times 12 = 1.3$$

$$1.3 > 0.57 \quad \text{OK.}$$

14'8"



B7

$$w = 239 \text{ psf} \times 10' = 2390 \text{ \#/ft}$$

$$R = \frac{14.6' \times 2.39 \text{ K/ft}}{2} = 17.4 \text{ K}$$

$$M = \frac{2.39 (14.6)^2}{8} = 63.7 \text{ ft-K} \quad \text{UBL} = 14.6'$$

SELECT W12x26 $I = 204 \text{ in}^4$

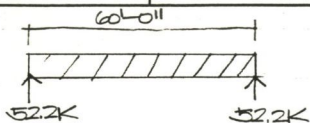
$$I_{\text{required}} = \frac{ML}{E\Delta} = \frac{63.7 (14.6)}{5.36} = 173.5 \text{ in}^4$$

$$\text{Actual } \Delta = \frac{ML^2}{161 I} = \frac{63.7 (14.6)^2}{161 (204)} = 0.41$$

$$\text{Allowable } \Delta_{TL} = \frac{1}{180} \times 14.6 \times 12 = .97$$

$$.97 > 0.41$$

B7



$$W = 239 \text{ pcf} \times 7.3' = 1744.7 \text{ #/ft}$$

$$R = \frac{60' \times 1.74 \text{ K/ft}}{2} = 52.2 \text{ K}$$

$$M = \frac{1.74 (60)^2}{8} = 783 \text{ ft K} \quad \text{URL} = 10'$$

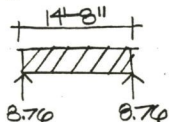
SELECT W23x120 $I = 6710 \text{ in}^4$

$$I_{\text{req}} = \frac{ML}{536} = \frac{783(60)}{536} = 8745 \text{ in}^4 \text{ Fails}$$

TRY W36x150 $I = 9040$

$$\text{Actual } \lambda = \frac{ML^2}{161I} = \frac{783(60)^2}{161(9040)} = 1.94$$

B8



$$W = 239 (5') = 1.2 \text{ K/ft}$$

$$R = 14.6' \times 1.2 \text{ K/ft} = 8.76 \text{ K}$$

$$M = \frac{1.2 (14.6)^2}{8} = 32.0 \text{ ft K}$$

TRY W12x16 $I = 103 \text{ in}^4$

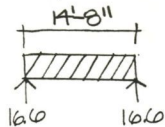
$$I_{\text{req}} = \frac{ML}{536} \quad I_{\text{req}} = \frac{32(14.6)}{536} = 87.2 \text{ in}^4$$

$$\frac{14.6 \times 12}{180} \geq \frac{32 (14.6)^2}{161 (103)}$$

$$.97 \geq .41$$

Bm 8/Brace Beam

- supports H' Wall
- Limit Δ to $\frac{1}{480}$ span



$$W = 120 \frac{\text{#}}{\text{SF}} \times 14' = 2.28 \text{ KAF}$$

$$R = \frac{14.6 \times 2.28}{2} = 16.6 \text{ K}$$

$$M = \frac{2.28 (14.6)^2}{8} = 60.8 \text{ ATK}$$

$$\text{TRY } W16 \times 30 \quad I = 448$$

$$\frac{L}{r_y} \leq 300 \quad \frac{14.6}{1.52} \leq 300$$

$$\text{Actual } \Delta = \frac{ML^2}{161I} = \frac{60.8 (14.6)^2}{161 (448)} = .20$$

$$\text{Allowable } \Delta = \frac{1}{360} \times 14.6 \times 12 = .49$$

$$\Delta_L = \frac{16}{239} (.20) = 0.01$$

$$\Delta_{LL} \text{ Allowable } \Delta = \frac{1}{480} \times 14.6 \times 12 = .37$$

Column 2

$$F = 4R_{28} + R_{33} + 2R_{36}$$

$$= 4(16.0) + 104.8 + 2(8.76)$$

$$= 66.4 + 104.8 + 17.52$$

$$= 188.72$$

$$K_L y = 11 \text{ in}$$

SELECT W10x49

Allowable \Rightarrow Axial \neq 10.4 = 2.5E

PROFESSIONAL EXAMINATION

Advertisement for Bids

Arlington Center for the Performing Arts
Veteran's Park
Arlington, Texas

Sealed bids for the construction of the above project will be received by the office of Rebecca Boles and Associates, 1112 Forrest Drive, Arlington, Texas, until 1:30 P.M., May 25, 1984, and at 2:00 P.M. publicly opened and read. Bids submitted after this time will be returned unopened.

The project is a three story theater complex, of approximately 57,000 square feet, with a steel structural system. Exterior materials are to be masonry and limestone.

The contract documents may be examined in the office of Rebecca Boles and Associates after 10:00 A.M., May 3, 1984. General Contractors may obtain complete sets of the contract documents (3 sets maximum) upon a deposit of \$50.00 per set payable to the Architect. The full amount will be refunded, providing the documents are returned in good condition, within ten(10)days after the opening of bids. Contractors who do not bid will be refunded \$30.00 per returned set in good condition.

Bid security, in the form of a bid Bond or certified check, must accompany the bid, the amount not less than five percent of the total bid submitted. No Bidder may withdraw his bid within 30 days after the actual date of bid opening. The Performing Arts Coalition reserves the right to reject any or all bids.

Issued by: Cliff Redd
Chairman, Performing Arts Coalition
Executive Director
Theatre Arlington, 1130 W. Division

Date: May 1, 1984

UNIT IN PLACE COST ANALYSIS
SUMMARY

1.0 FOUNDATION

1.1 FOOTINGS & FOUNDATIONS = \$29,598.00
1.9 EXCAVATION & BACKFILL = \$41,713.00

2.0 SUBSTRUCTURE

2.1 SLAB ON GRADE = \$83,884.00

3.0 SUPERSTRUCTURE

3.1 COLUMNS = \$120,072.00
FIREPROOFING = \$33,311.00

3.5 FLOORS = \$146,664.00

3.7 ROOF STRUCTURE = \$98,274.00

3.9 STAIRS = \$39,730.00

4.0 EXTERIOR CLOSURE

4.1 WALLS = \$371,203.00

4.6 DOORS = \$19,910.00

4.7 WINDOWS = \$40,395.00

5.0 ROOFING

5.1 ROOF COVERS = \$59,478.00

6.0 INTERIOR CONSTRUCTION

6.1 PARTITIONS = \$86,424.00

6.4 INTERIOR DOORS = \$25,340.00

6.5 PARTITION FINISHES = \$66,445.00

6.6 FLOOR FINISHES = \$196,094.00

6.7 CEILING FINISHES = \$55,855.00

8.0 MECHANICAL	
8.1 PLUMBING	= \$90,447.00
8.2 FIRE PROTECTION	= \$73,976.00
8.3 HVAC SYSTEMS	= \$262,755.00
9.0 ELECTRICAL	= \$334,311.00
11.0 SPECIAL CONSTRUCTION	= \$93,241.00
12.0 SITEWORK	= \$72,436.00
SUBTOTAL	= \$2,441,556.00
+15% GENERAL CONDITIONS	= \$ 366,233.00
+ 5% MISCELLANEOUS	= \$ 122,078.00
+ 7% ARCHITECTS FEES	= \$ 170,909.00
TOTAL BUILDING COST	= \$3,100,776.00
LOCATION ADJUSTMENT FACTOR (.96)	= \$2,945,737.00

1.0 FOUNDATION

1.1 FOOTINGS & FOUNDATIONS

Strip footings around 813' perimeter

Select 24 x 12' footing with reinforcing @ \$22.70/LF

813 LF x \$22.70 = \$18,455/00

Waterproofing

813 LF x \$4.39 = \$3,569.00

Spread Footings

8 footings @ \$350.00 = \$2,800.00

62 footings @ \$77.00 = \$4,774.00 = \$7,574.00

1.9 EXCAVATION & BACKFILL

6552 SF (5' deep) x \$0.88/SF = \$5,766.00

4060 SF (8' deep) x \$2.18/SF = \$10,813.00

4312 SF (14' deep) x \$5.83/SF = \$25,134.00

TOTAL = \$41,713.00

2.0 SUBSTRUCTURE

2.1 SLAB ON GRADE

Light industrial, 4" thick, reinforced

31,300 SF x \$2.68/SF = \$83,884.00

3.0 SUPERSTRUCTURE

3.1 COLUMNS

Steel columns, 18" 8" wide flange

12 columns x 57' x \$80.00/VLF = \$54,720.00

8 columns x 32' x \$80.00/VLF = \$20,480.00

12 columns x 43' x \$60.00/VLF = \$24,480.00

21 columns x 28' x \$14.28/VLF = \$8,397.00

20 columns x 42' x \$14.28/VLF = \$11,995.00

TOTAL = \$120,072.00

FIREPROOFING

Gypsum board, 1/2" fire rated, 2 layers

For 8" columns:

20 columns x 42' x \$11.61/VLF = \$9,752.00

21 columns x 28' x \$11.61/VLF = \$6,827.00

12 columns x 57' x \$12.42/VLF = \$8,495.00

12 columns x 34' x \$12.42/VLF = \$5,057.00

8 columns x 32' x \$12.42/VLF = \$3,130.00

TOTAL = \$33,311.00

3.5 FLOORS

Steel joists and concrete slab on steel columns and beams

16828 SF @ \$6.00/SF = \$100,968.00

7616 SF @ \$6.00/SF = \$45,696.00

TOTAL = \$146,664.00

3.7 ROOF STRUCTURE

Steel columns, beams and deck, using open web steel joists and
1 1/2" galvanized metal deck.

27,879 SF x \$2.43/SF = \$67,746.00

Stage load in excess of 200 psf, therefore stage structure requires:

784 SF x \$12.00/SF = \$9,408.00

2640 SF x \$8.00/SF = \$21,120.00

TOTAL = \$93,274.00

3.9 STAIRS

Steel, cement fill metal pan and picket rail

4 flights of 24 risers : 4 x \$5,020/flight = \$20,080.00

3 flights of 12 risers : 3 x \$2,050/flight = \$6,150.00

1 flight of 12 risers (w/o landing) = \$2,970.00

Steel, grate type w/ hosings and rail

3 flights of 20 risers, with landing

3 x \$3,510/flight = \$10,530.00

TOTAL = \$39,730.00

4.0 EXTERIOR CLOSURE

4.1 WALLS

Indiana limestone, 2" thick, metal stud backup, 24" O.C.

North wall: 2420 SF x .85(% wall) = 2,057 SF

South wall: 3168 SF x .85 = 2,693 SF

East wall : 1792 SF x .90 = 1,613 SF

6363 SF x \$22.80/SF = \$145,076.00

Brick Veneer wall w/ metal stud backup, 24" stud spacing

North wall: 5,196 SF x .83 = 4,313 SF

South wall: 7,748 SF x .90 = 6,973 SF

East wall : 4,864 SF x .90 = 4,378 SF

West wall : 5,112 SF x .90 = 4,600 SF

20,264 SF x \$10.73/SF = \$217,433.00

Class Block, 12"x 12" plain, under 1000 SF
North wall : 216 SF
South wall : 36 SF
West wall : 216 SF

504 SF x \$17.25 = \$8694.00

TOTAL = \$371,203.00

4.6 DOORS

Aluminum and glass, w/o transom, 6'-0" x 7'-0", dbl door hardware
7 doors x \$1465/door = \$10255

Steel, rolling overhead, 10'-0" x 10'-0"
1 door x \$1250/door = \$1250

Steel, 18 ga hollow metal door w/ frame, 3'-0" x 7'-0"
1 door x \$815/door = \$815

Steel, 18 ga., hollow metal, 2 doors w/ frame, 3'-0" x 7'-0"
4 doors x \$1625/door = \$6500

Aluminum and glass, w/o transom, full vision, 3'-0" x 7'-0"
1 door x \$1090/door = \$1090

TOTAL = \$19,910.00

4.7 WINDOWS

North wall:

Steel, horz. pivoted, 3' x 3' glass
32 windows x \$203/window = \$6496

Steel, picture window, 3' x 3', std. glass
48 windows x \$150/window = \$7200

Curtain wall
2 panels 28' x 56', 1 panel 28' x 44'
4363 SF x \$2.05/SF = \$8954

Steel, picture window, 4' x 6', std glass

South wall:

Steel, picture window, 3' x 3', std glass
40 windows x \$150 = \$6000

East Wall:

Steel, horz pivoted, 3'x3', std glass
13 windows x \$203/window = \$2639

Steel, picture window, 3' x 3', std glass
3 windows x \$150/window = \$1,200

West wall:

Steel, picture window, 6' x 4'.
2 windows x \$400 = \$800.00

Steel, horz pivoted, 3' x 3', std, glass
20 windows x \$203/window = \$4,060.00

Steel, picture window, 3' x 3', std glass
16 windows x \$150/window = \$2,400.00

TOTAL = \$40,395.00

5.0 ROOFING

5.1 ROOF COVERS

Built up tar and gravel on 1" fiberboard
31,303 SF x \$1.90/SF = \$59,473.00

6.0 INTERIOR CONSTRUCTION

6.1 PARTITIONS

5/8" gyp bd each side, 25 ga NLB 3 5/8" metal stud, 24" O.C.
17,220 SF x \$2.02/SF = \$34,780.00

5/8" gyp bd each side, 1/4" sound bd on 16 ga LB 3 5/8" stud, 24" O.C.
18,312 SF x \$2.82/SF = \$51,640.00

TOTAL = \$86,424.00

6.4 INTERIOR DOORS

Single leaf, hollow metal, 3'-0" x 7'-0" x 1 3/8"
30 doors x \$347/opening = \$10,710.00

Double leaf, hollow metal, (2) 3'-0" x 7'-0" x 1 3/8"
16 dprs x \$810/opening = \$12,960.00

Double leaf, hollow metal, 6'-0" x 10'-0" opening
2 doors x \$835/opening = \$1,670.00

TOTAL = \$25,340.00

6.5 PARTITION FINISHES

Painted dry wall. / Paint, primer, & 2 coats

35532SF x \$1.87/SF = \$66,445.00

6.6 FLOOR FINISHES

Concrete topping, granolithic concrete 1" thick, added color and dustproofing

36197SF x \$3.57/SF = \$129,223.00

Ceramic tile, natural clay

17,324 SF x \$3.86/SF = \$66,871

TOTAL = \$196,094.00

6.7 CEILING FINISHES

1/2" FR gypsum board, painted, on resilient furring channels, 24" O.C.
13520 SF x 2.26/SF = \$30555

Acoustical ceiling, 5/8" fiberglass board, tee grid system, 24" x24"
4284 SF x \$1.41/SF = \$6040

Performance area, acoustical panels, 4" thick
6420 SF x \$10.00/SF = \$64200

TOTAL = \$55,355.00

8.0 MECHANICAL

8.1 PLUMBING

57245SF x \$1.58/SF = \$90,447.00

8.2 FIRE PROTECTION

31,000 SF x \$1.40/ SF = \$43400

16800 SF x \$1.22/ SF = \$20496

8000 SF x \$1.26/ SF = \$10080

TOTAL = \$73,976.00

8.3 HEATING, VENTILATING, & AIR CONDITIONING

57245 SF x \$4.59/SF = \$262,755.00

9.0 ELECTRICAL

57245 SF x \$5.84/SF = \$334,311.00

11.0 SPECIAL CONSTRUCTION

Seating, Auditorium chair, upholstered spring seat.
550 seats x \$110./seat= \$60,500

Stage equipment, curtain track, heavy duty
70 ft x \$40.40 /LF = \$2828

Stage equipment, curtains, velour, medium weight
1540 SF x \$10.92/SF = \$16816

Stage border lights
70 ft x \$138.50/LF = \$9695

Refrigerator, no frost, 10 to 12 CF ,economy
2 units x \$411 = \$822

Dishwasher, built in, 2 cycles, economy
2 units x \$425 = \$850

Range, cook top, single 30" oven
2 units x \$865 = \$1730

TOTAL = \$ 93241.00

12.0 SITEMORK

12.5 ROADS AND PARKING

Parking Lot Pavement for 157 cars:90 degree angle parking,
4" bituminous paving, 6" gravel base

157 cars x \$ 460 = \$72,220

Roadway Pavement : Bituminous concrete paving 3" thick, 20' wide
400 ft x \$54/ Lf = \$216.00

TOTAL = \$72436.00

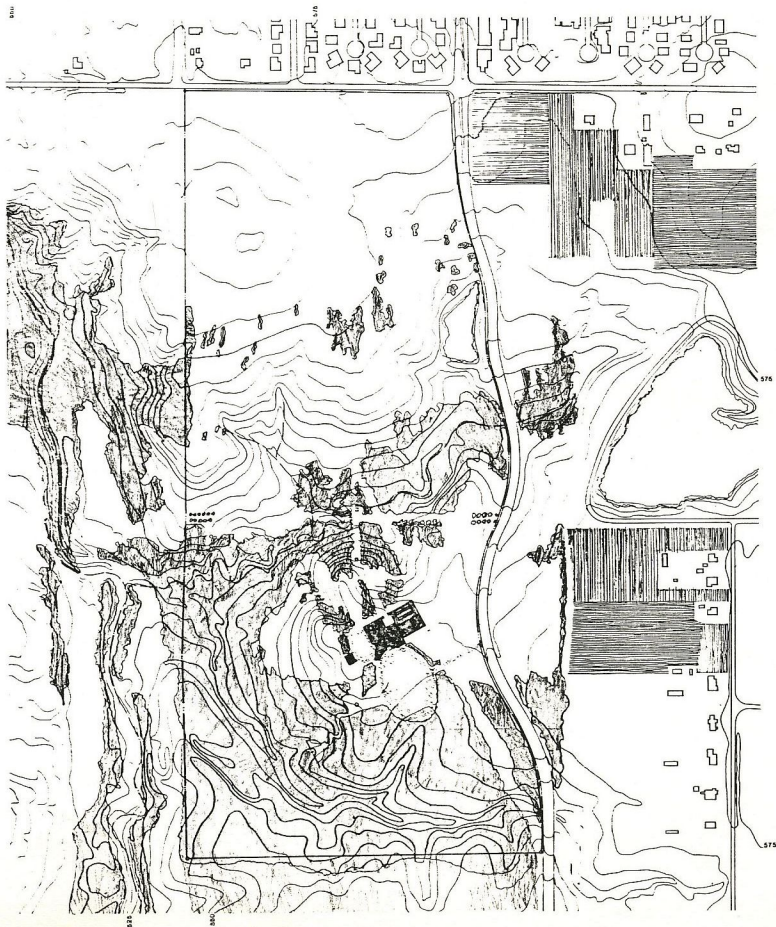
FOOTNOTES

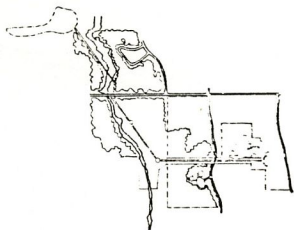
- 1 Haynes Johnson, "Arlington Foundation: Concrete and Change," Ft. Worth Star Telegram, August 15, 1983, p. 7.
- 2 Sharon Egiebor, "State of the Arts," Dallas Times Herald, September 11, 1983, p. MCI.
- 3 Margarete Baur-Heinhold, The Baroque Theatre: A Cultural History of the 17th and 18th Centuries (New York: McGraw-Hill, 1967), p. 124.
- 4 Ibid, p. 7.
- 5 Ibid, p. 123.
- 6 International Conference of Building Officials, Uniform Building Code (Whittier, California: 1982).
- 7 City of Arlington, Zoning Ordinance of the City of Arlington (Arlington, Texas: 1983).

BIBLIOGRAPHY

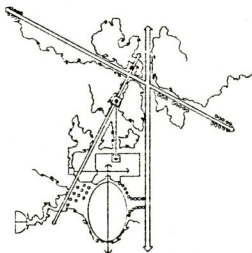
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ARLINGTON
CENTER
FOR
THE
PERFORMING
ARTS

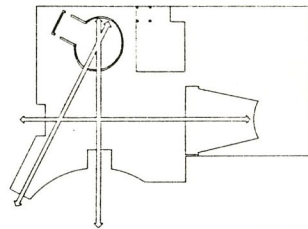




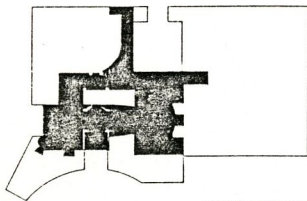
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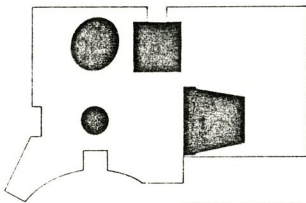
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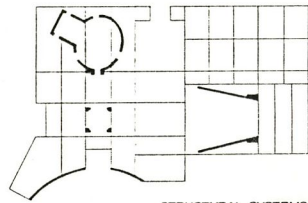
BUILDING



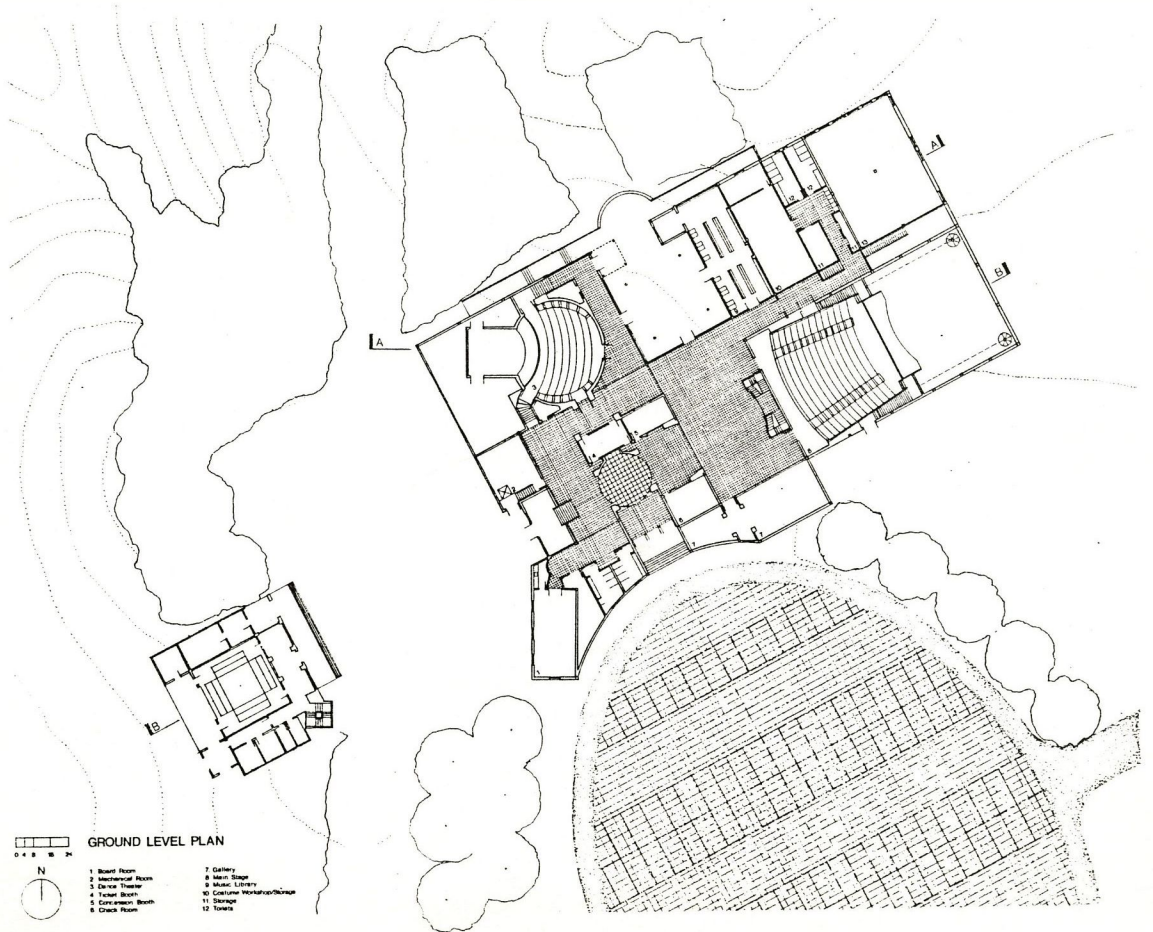
PUBLIC / PRIVATE



FIGURAL / RESIDUAL



STRUCTURAL SYSTEMS



GROUND LEVEL PLAN



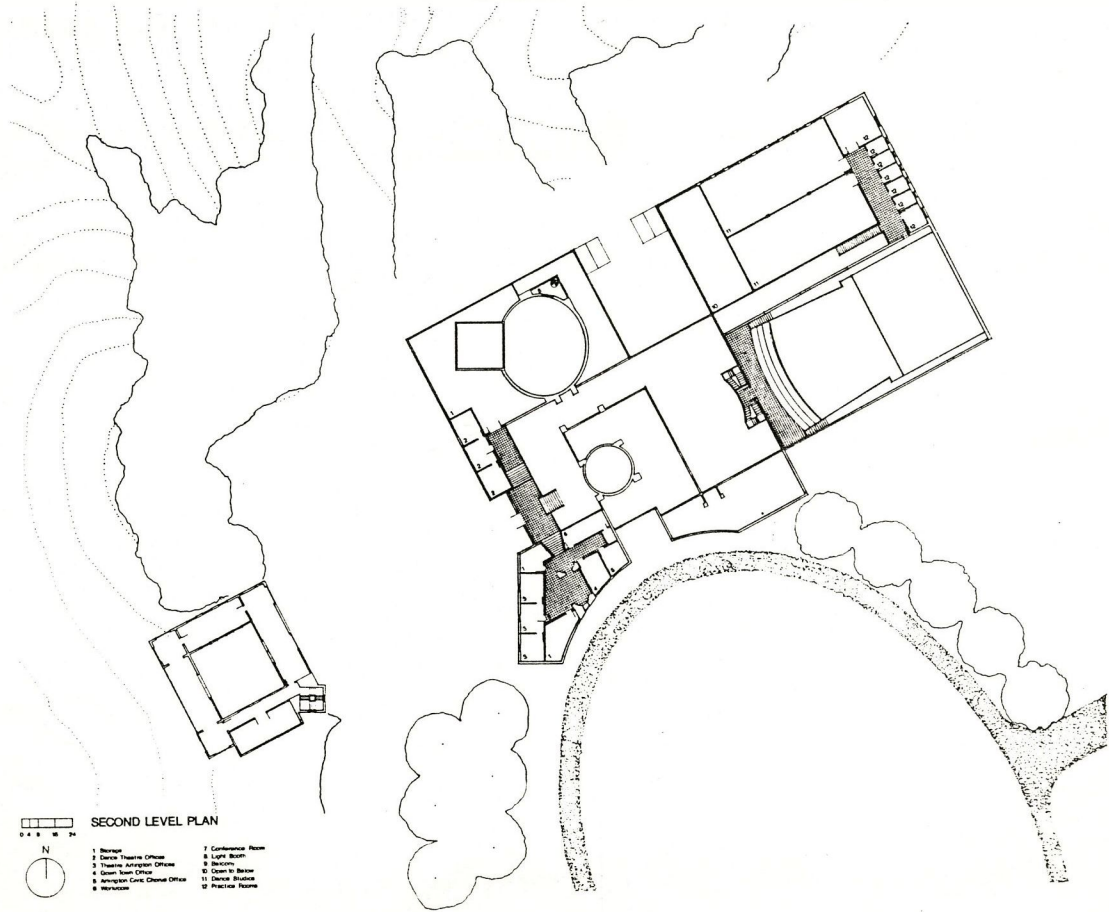
- 1 Board Room
- 2 Mechanical Room
- 3 Drive Theater
- 4 Ticket Booth
- 5 Concession Booth
- 6 Crack Room
- 7 Gallery
- 8 Main Stage
- 9 Music Library
- 10 Customer Workshop/Studio
- 11 Storage
- 12 Towers

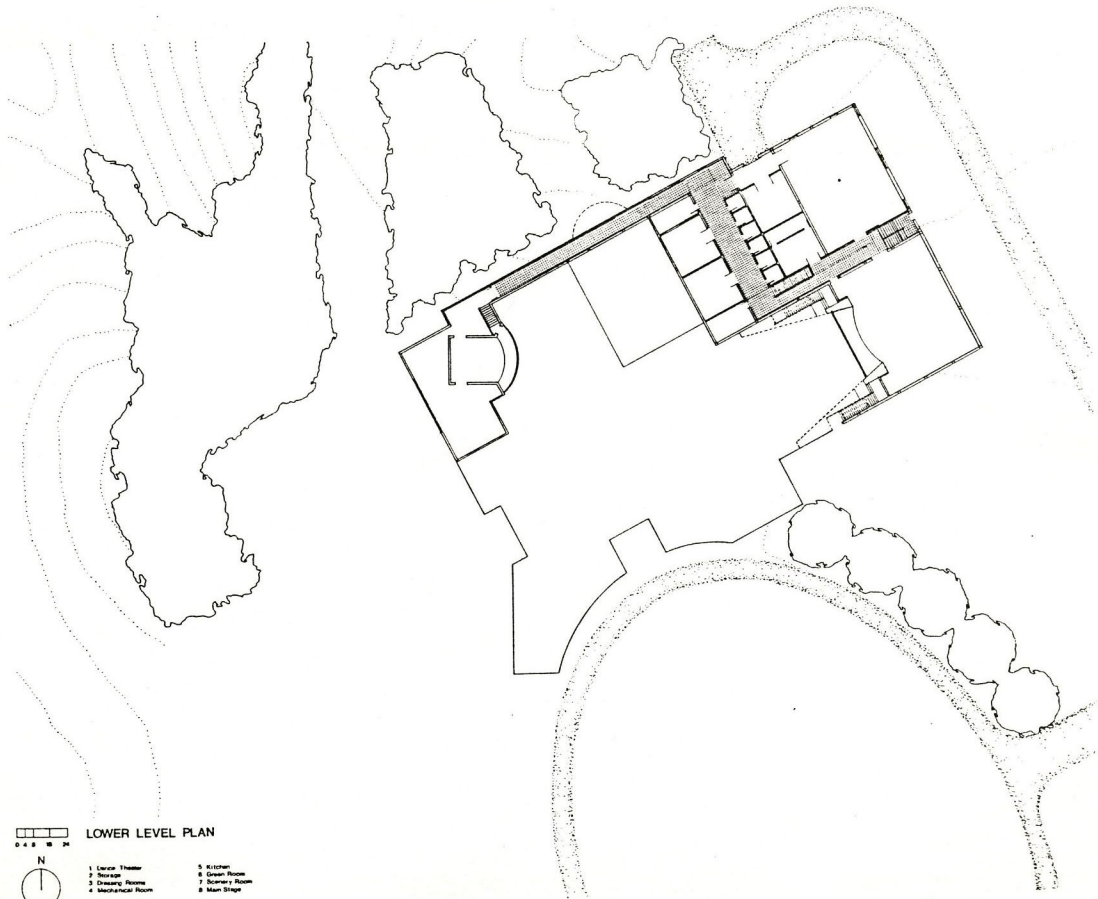


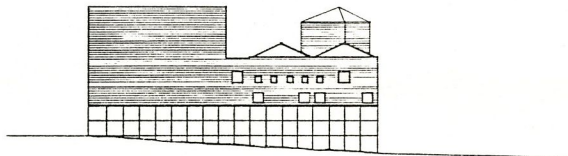
SECOND LEVEL PLAN



- | | |
|---------------------------------|---------------------|
| 1 Storage | 7 Conference Room |
| 2 Dance Theatre Office | 8 Light Booth |
| 3 Theatre Arlington Office | 9 Backlot |
| 4 Green Room Office | 10 Green R. Backlot |
| 5 Arlington Civic Center Office | 11 Dance Studio |
| 6 Warehouse | 12 Practice Rooms |







EAST ELEVATION



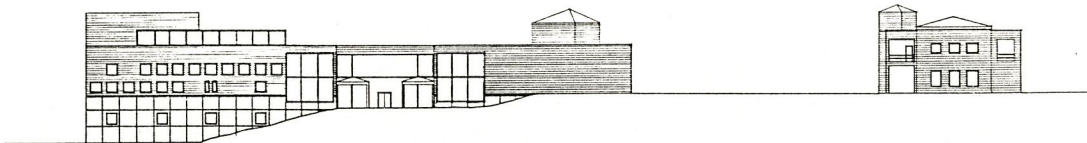
EAST ELEVATION



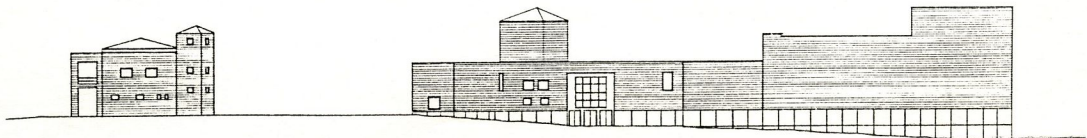
WEST ELEVATION



WEST ELEVATION

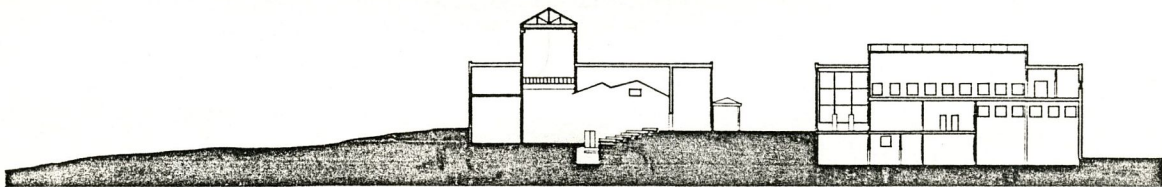


NORTH ELEVATION

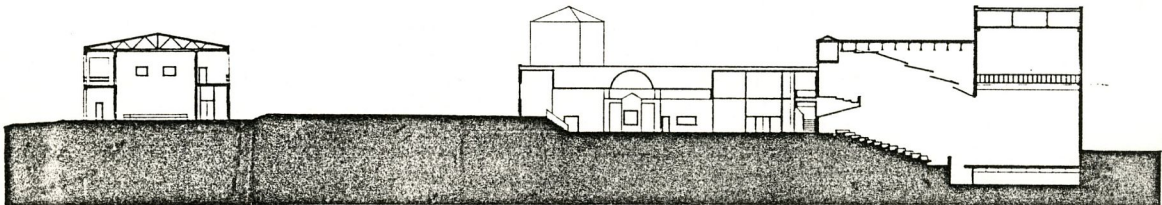


SOUTH ELEVATION





SECTION A-A



SECTION B-B



