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U.S. Department of the Interior

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McLean, Virginia

Glen Echo Park:
Spanish Ballroom
Historic Structure Report • 2023
Volume Two

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Front cover: Spanish Ballroom, rendering by Edward Schoeppe, c. 1933. National Park Service, George Washington Memorial Parkway, McLean, Virginia.

Historic Structure Report

Glen Echo Park: Spanish Ballroom

Volume Two

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Title Page: Spanish Garden Ballroom postcard, c. 1933. Collection of Building Conservation Associates, Inc.

Preface

The following Historic Structure Report for the Spanish Ballroom at Glen Echo Park represents a synthesis of all research and analysis performed for this project. This includes two specific research topics requested by National Park Service staff: Glen Echo Park within the context of segregation and the Civil Rights Movement (presented as a context within the Developmental History), and the historical context and treatment recommendation for the swastika floor tiles in the lobby (presented as a memo in Appendix L).

HARMFUL LANGUAGE NOTICE

Please note that due to the subject matter of this report, some referenced and quoted archival documents contain culturally insensitive, offensive, or harmful language that reflects racism, anti-semitism, and other biases. In recognition of how harmful this language is, the author has chosen not to fully transcribe specific words in quotations.

Table of Contents

Volume One

Preface v
Harmful Language Notice v

Table of Contents vi

List of Maps ix

List of Figures xi

Study Summary xxxi
Investigation History and Methodology xxxi
Major Research Findings xxxii
Proposed Treatment and Use xxxiii
Limitations and Recommended Areas of Further Study xxxiv

Project Data xxxv
Administrative Data xxxv
Project Team and Acknowledgements xxxvi
Related Studies xxxvii

Definitions xxxviii

List of Acronyms xxxix

Maps xl

Glen Echo Boat Song lxxviii

PART I: DEVELOPMENTAL HISTORY 1

Glen Echo Park Historical Overview 2
Overview of the Pre-Contact Era in the Chesapeake Bay and Potomac Valley (Pre-1631) 3
Colonial Settlement of Maryland (1632-1775) 4
Montgomery County in the 18th Century and 19th Centuries (1776-1887) 8
The Baltzleys and Glen Echo on the Potomac (1888-1890) 17
National Chautauqua of Glen Echo (1891-1896) 46
Rebranding Glen Echo (1897-1899) 77
Development as an Amusement Park (1900-1910) 84
Leonard Schloss Takes Charge (1911-1920) 100
Height of Popularity (1921-1959) 121
Civil Rights Demonstrations and Drop in Popularity (1960-1966) 170
Proposals for Acquisition and Redevelopment (1967-1969) 200
National Park Service Management (1970-1999) 212
Partnership and Renovation (2000-Present) 234

Architect Edward Schoeppe and the Spanish Colonial Revival Design 237
Personal Life and Education 237
Architecture Career 249
Spanish Colonial Revival Style 292
Schoeppe and Spanish Colonial Revival 325
Schoeppe's Art Deco Details at Glen Echo Park 334

Glen Echo Park Within the Context of Segregation and the Civil Rights Movement 345
Racial Segregation of Recreation in the United States 348

Racial Segregation in Montgomery County, Maryland 352
The Civil Rights Movement Preceding the Glen Echo Park Protests 354
Acknowledgement of Glen Echo Park Segregation 356
Implicit Segregationist Advertising 358
Approaching the Glen Echo Park Protests 361
Impact of the Glen Echo Park Protests 362

Dance Halls in Amusement Parks 376
Dancing Pavilions 376
Ballrooms 378

Chronology of Development and Use 402
Pre-1921: Open-Air Dancing Pavilions 402
1921: First Ballroom 406
1925: Crystal Ballroom 409
1933: Spanish Ballroom 417

Physical Description 582
Site and Landscape Features 588
Form and Massing 588
Roofing 589
Exterior Materials and Color Scheme 612
Interior Materials and Color Scheme 664

Evaluation of Significance 783
Prior Evaluations 783
National Register Evaluation 784

Condition Assessment 789
Methodology 789
Extant Historic Materials and Character-Defining Features 790
Conditions of Specific Architectural Features 793
Acoustics 838
Climate and Humidity Control 838
Code Compliance/Systems Improvements 839
Hazardous Materials Survey 839
Structural System 840
Mechanical System 841
Electrical System 842
Plumbing System 843
Fire Protection System 844

PART II: TREATMENT AND WORK RECOMMENDATIONS 845

Historic Preservation Objectives and Treatment Philosophy 846

Requirements For Work 847
Applicable Laws and Regulations 847

Work Recommendations and Alternatives 851
Treatment of Specific Architectural Features 851
Architectural Features Maintenance Recommendations 854
Use and Code Compliance 855
Universal Accessibility 857
Climate Control and Acoustics 858

Lift Shaft 860
Hazardous Materials 860
Structural System 862
Mechanical System 862
Electrical System 863
Plumbing System 864
Fire Protection System 865

BIBLIOGRAPHY 866
Archives Consulted 867
Books and Scholarly Articles 867
Government Reports and Documents 872
Newspapers, Magazines, and Websites 875
Legislation/Legal Proceedings 879
Correspondence and Miscellaneous 880

ENDNOTES 887

Volume Two

APPENDICES 915

Appendix A: Glen Echo Park Partial Site Plan 916

Appendix B: Digitized Selected Original Construction Drawings 920

Appendix C: Existing Conditions Drawings 924

Appendix D: Existing Conditions Photographs Key Plans 930

Appendix E: 1981 Existing Conditions Survey Report — Spanish Ballroom/Jungleland Section 938

Appendix F: 1987 Historic Structure Report — Spanish Ballroom Section 944

Appendix G: 1998 Historic American Buildings Survey Drawings 974

Appendix H: 1999 Stabilization and Rehabilitation Plan — Spanish Ballroom Section 990

Appendix I: Edward Schoeppe Amusement Park and Pool Projects 1004

Appendix J: Performers at the Spanish Ballroom Between 1933 and 1968 1010

Appendix K: Consultant Reports 1016
Hazardous Materials (Arc Environmental) 1018
Structural System (Keast & Hood) 1050
Mechanical System (Henry Adams) 1060
Electrical System (Henry Adams) 1076
Plumbing System (Henry Adams) 1098
Fire Protection (GHD) 1106

Appendix L: Memo on Swastika Floor Tiles 1120

Appendices

Appendix A: Glen Echo Park Partial Site Plan (NPS, GWWO, and BCA)

GLEN ECHO PARK (PARTIAL) SITE PLAN (2000)

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GLEN ECHO PARK ANNOTATED AERIAL PHOTOGRAPH (2023)

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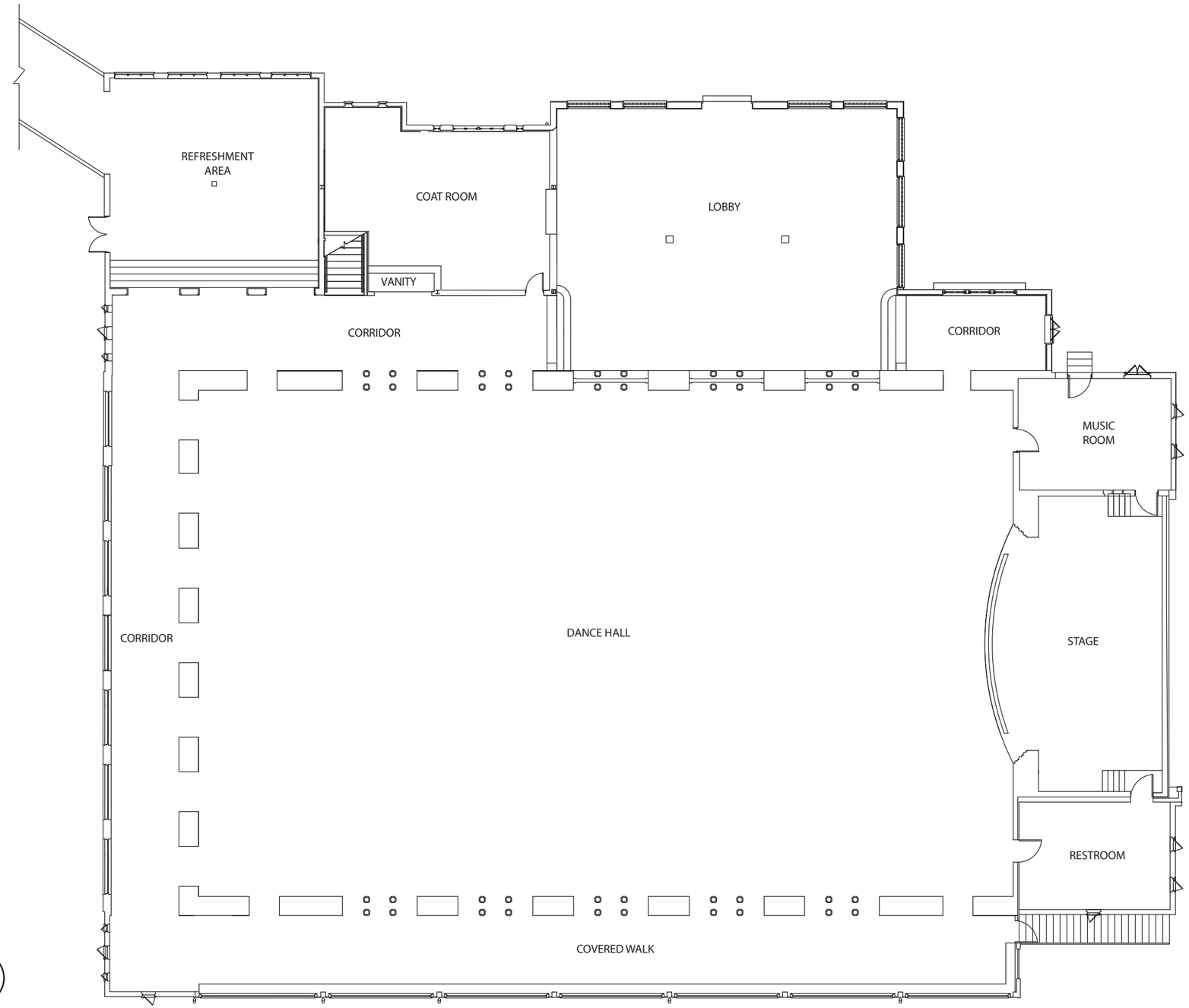
Appendix B: Digitized Selected Original Construction Drawings (GWWO)



SPANISH BALLROOM GROUND FLOOR PLAN - HISTORIC

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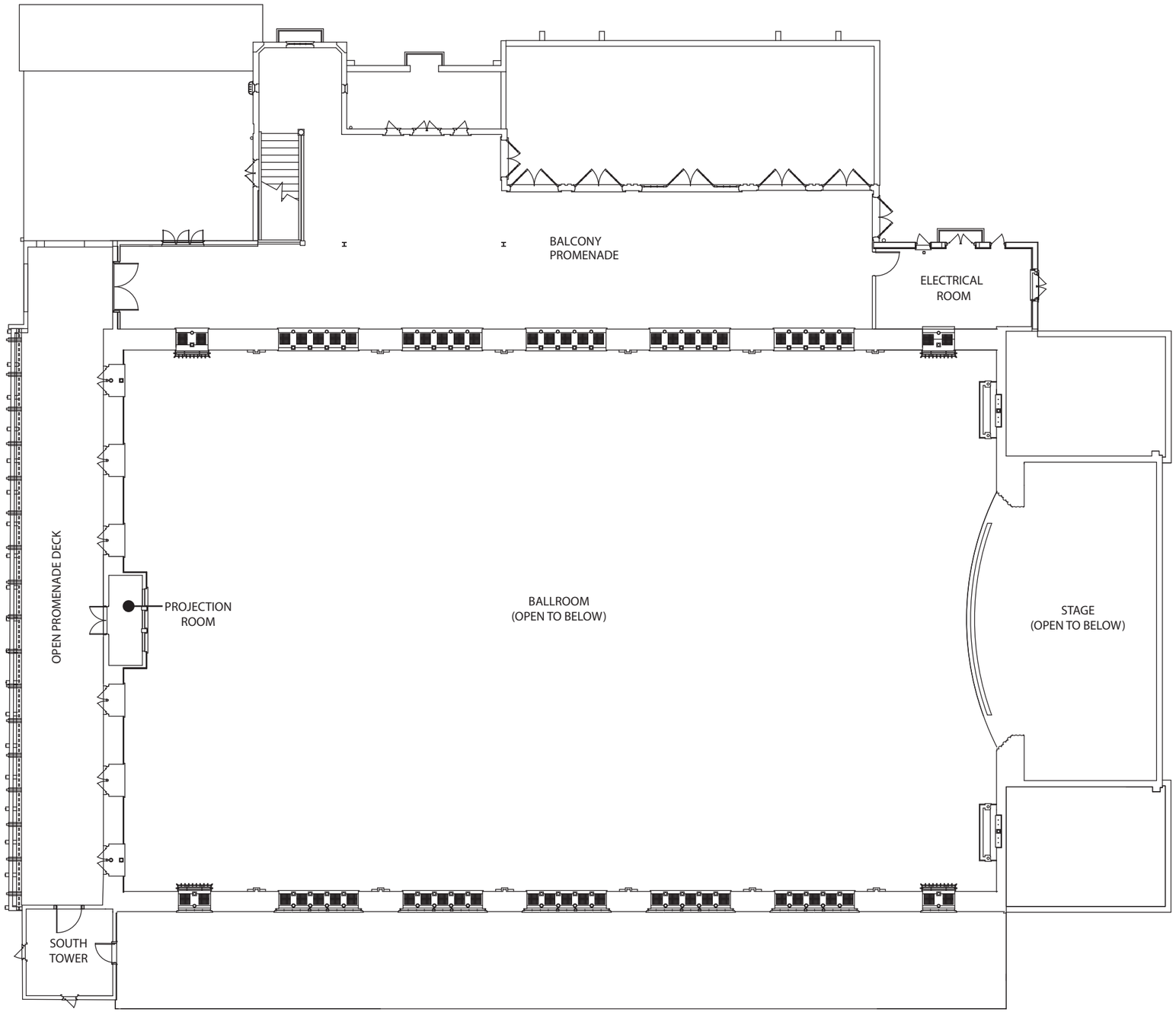

SPANISH BALLROOM MEZZANINE PLAN - HISTORIC

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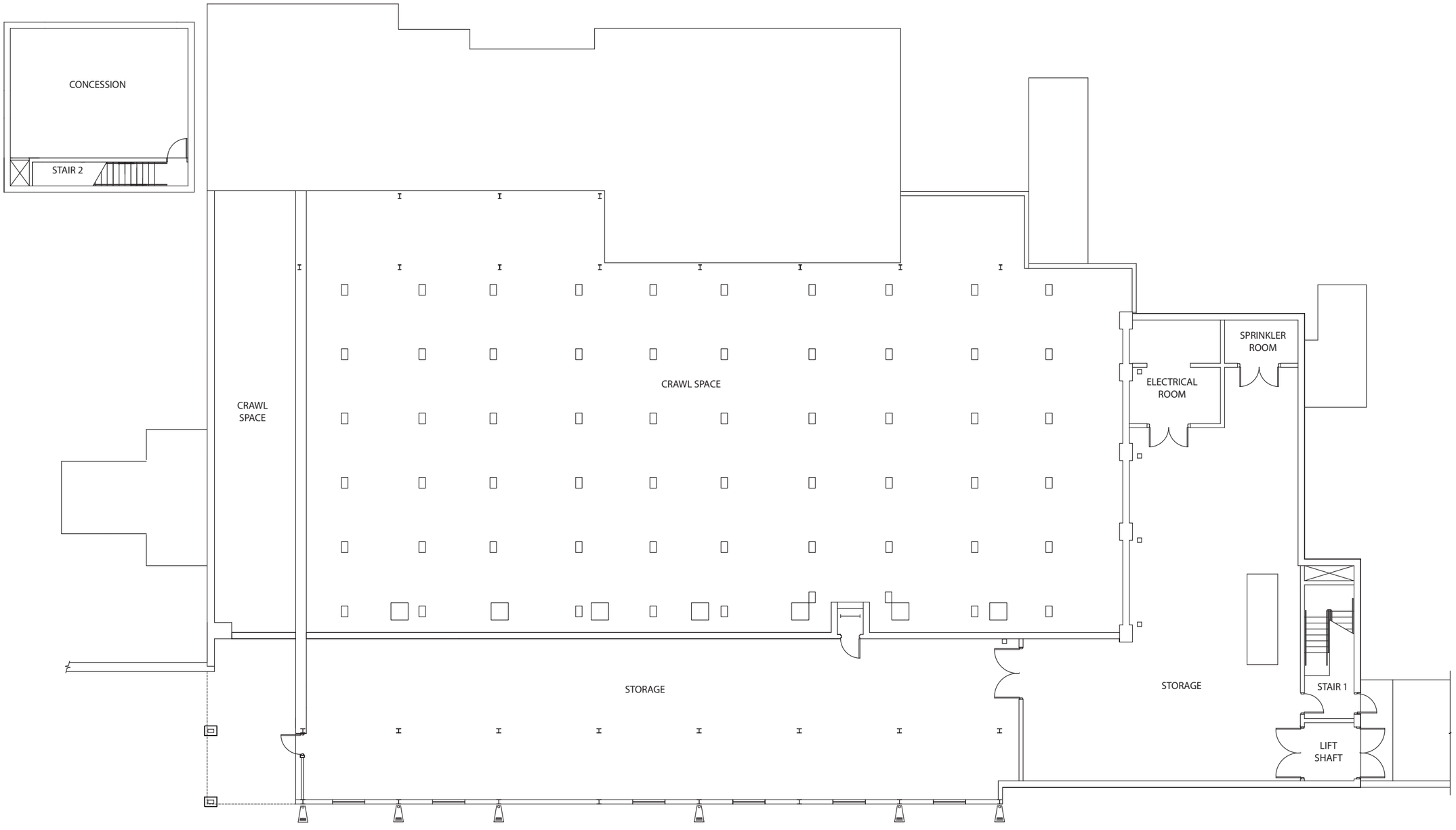
Appendix C: Existing Conditions Drawings (GWWO)



SPANISH BALLROOM BASEMENT PLAN - EXISTING

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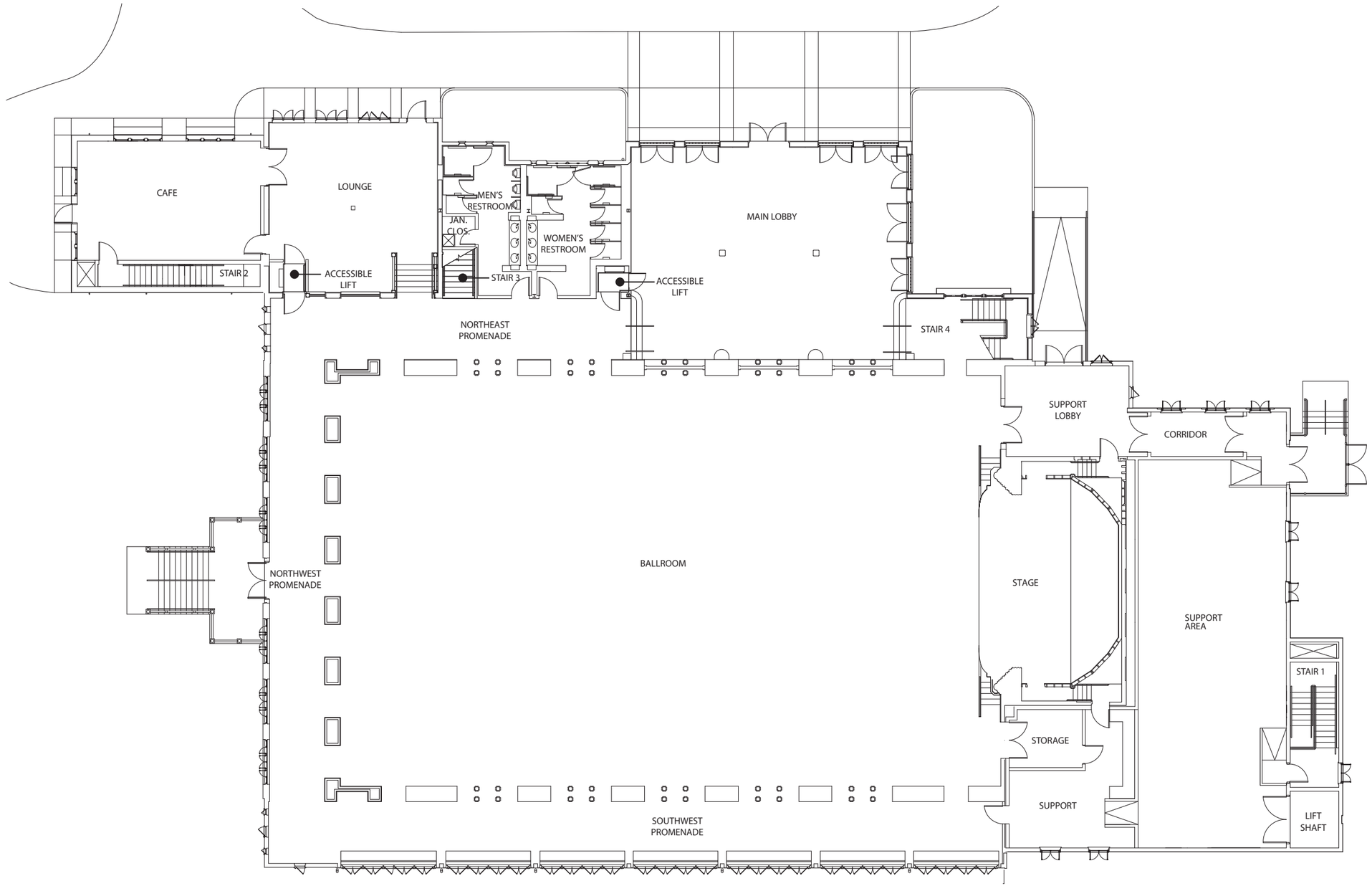

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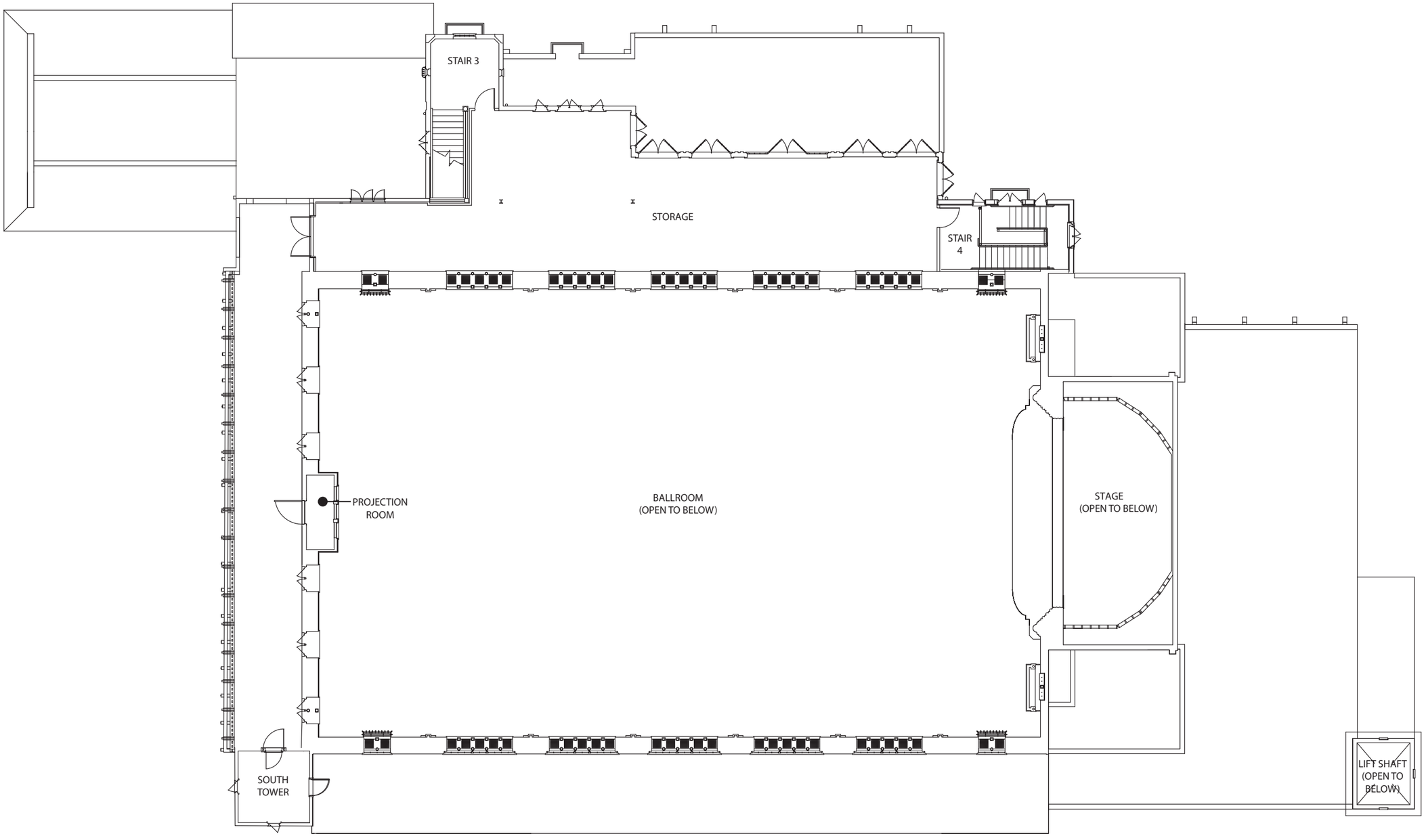

SPANISH BALLROOM MEZZANINE PLAN - EXISTING

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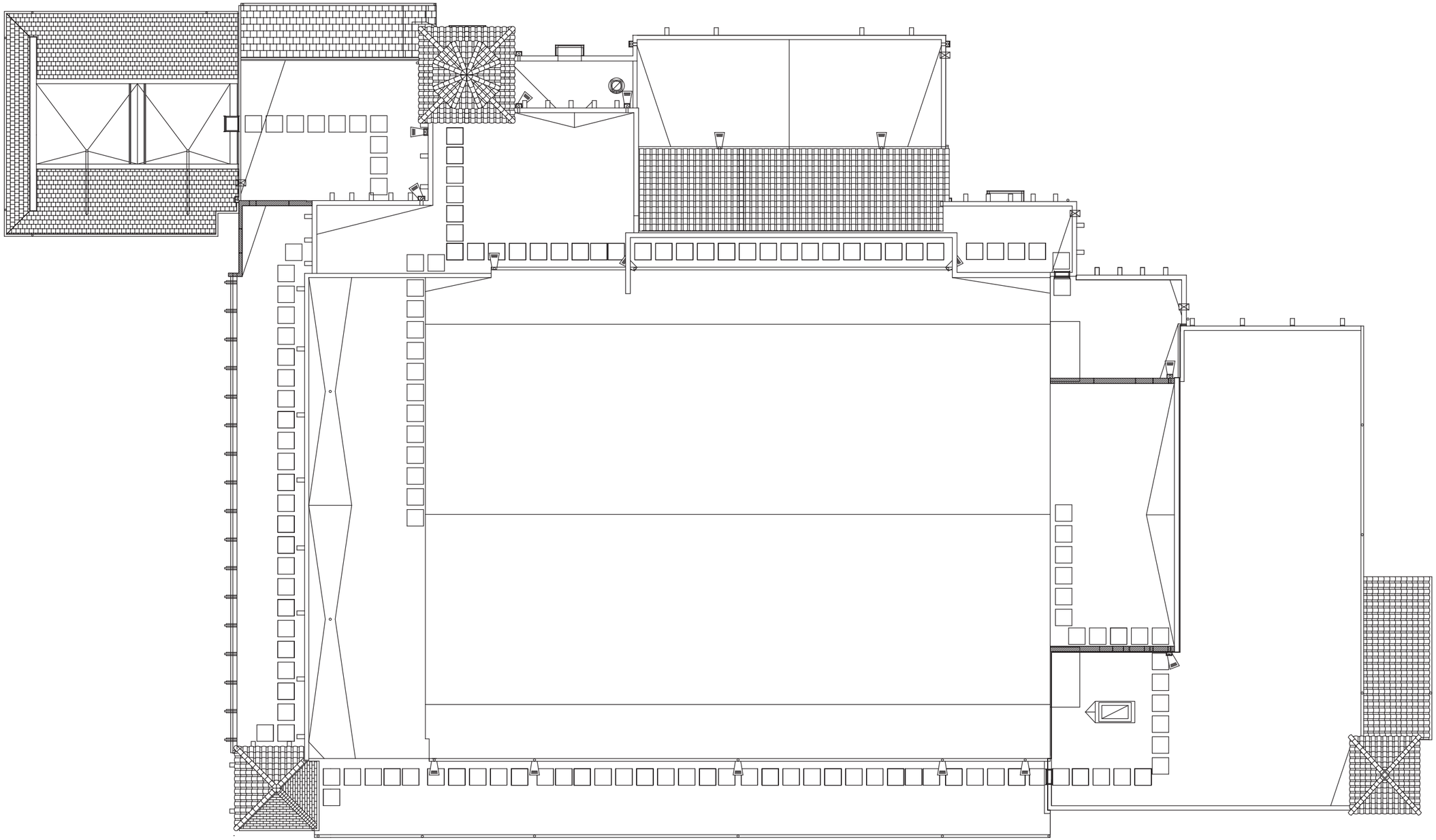

SPANISH BALLROOM ROOF PLAN - EXISTING

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Appendix D: Existing Conditions Photographs Key Plans (BCA)

SPANISH BALLROOM SITE - KEY PLAN

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SPANISH BALLROOM SITE - KEY PLAN

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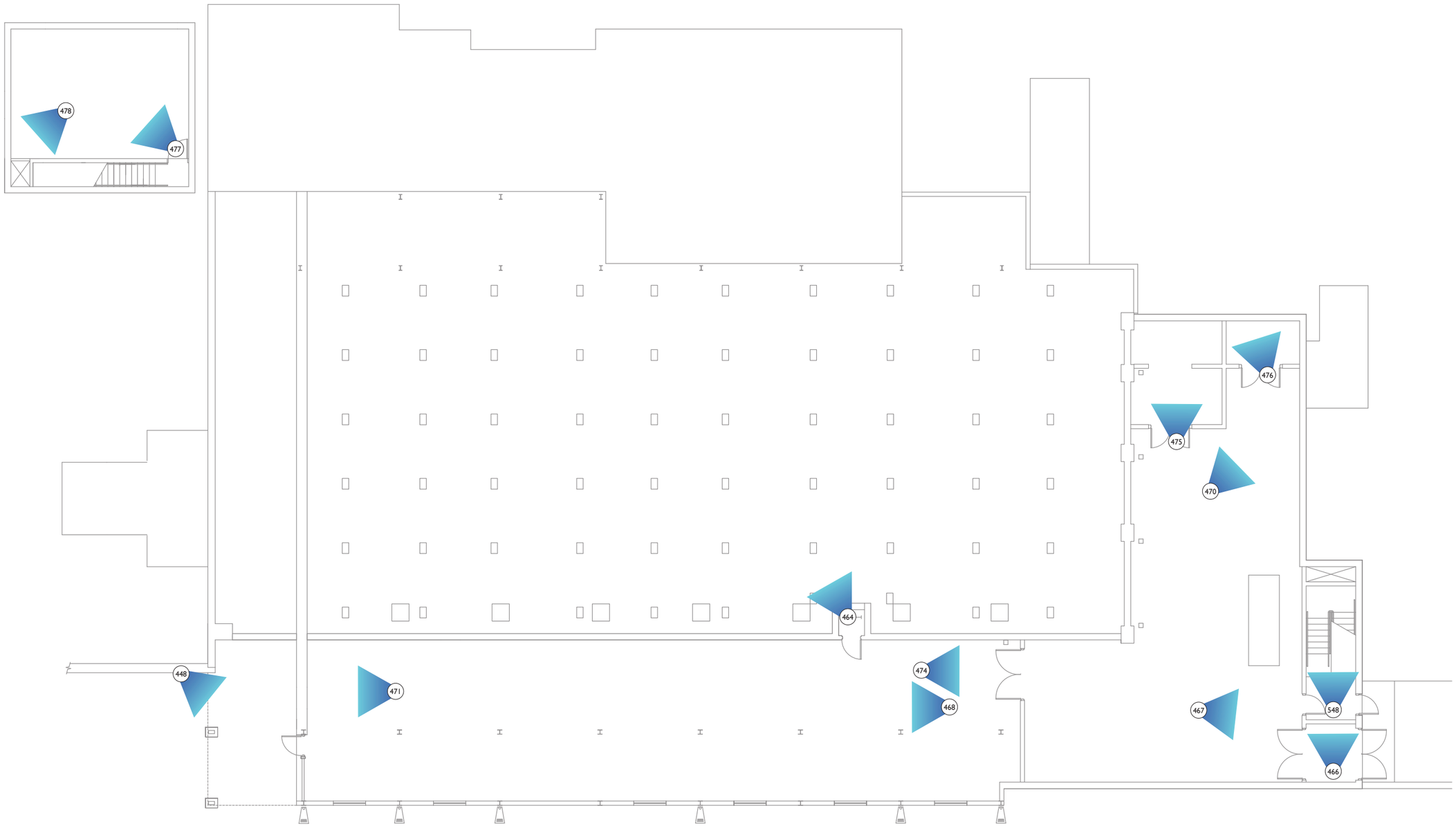

SPANISH BALLROOM BASEMENT - KEY PLAN

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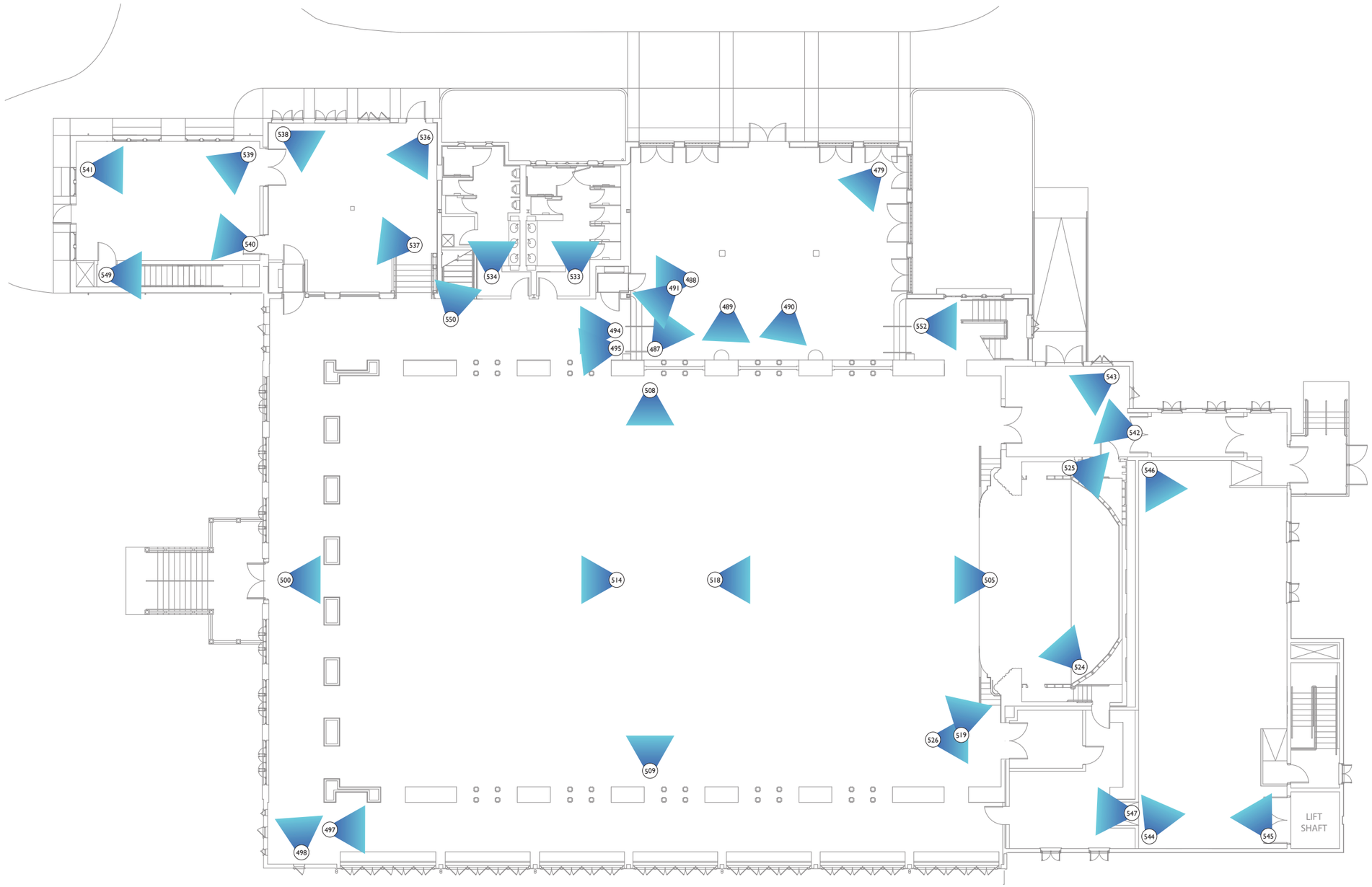

SPANISH BALLROOM GROUND FLOOR - KEY PLAN

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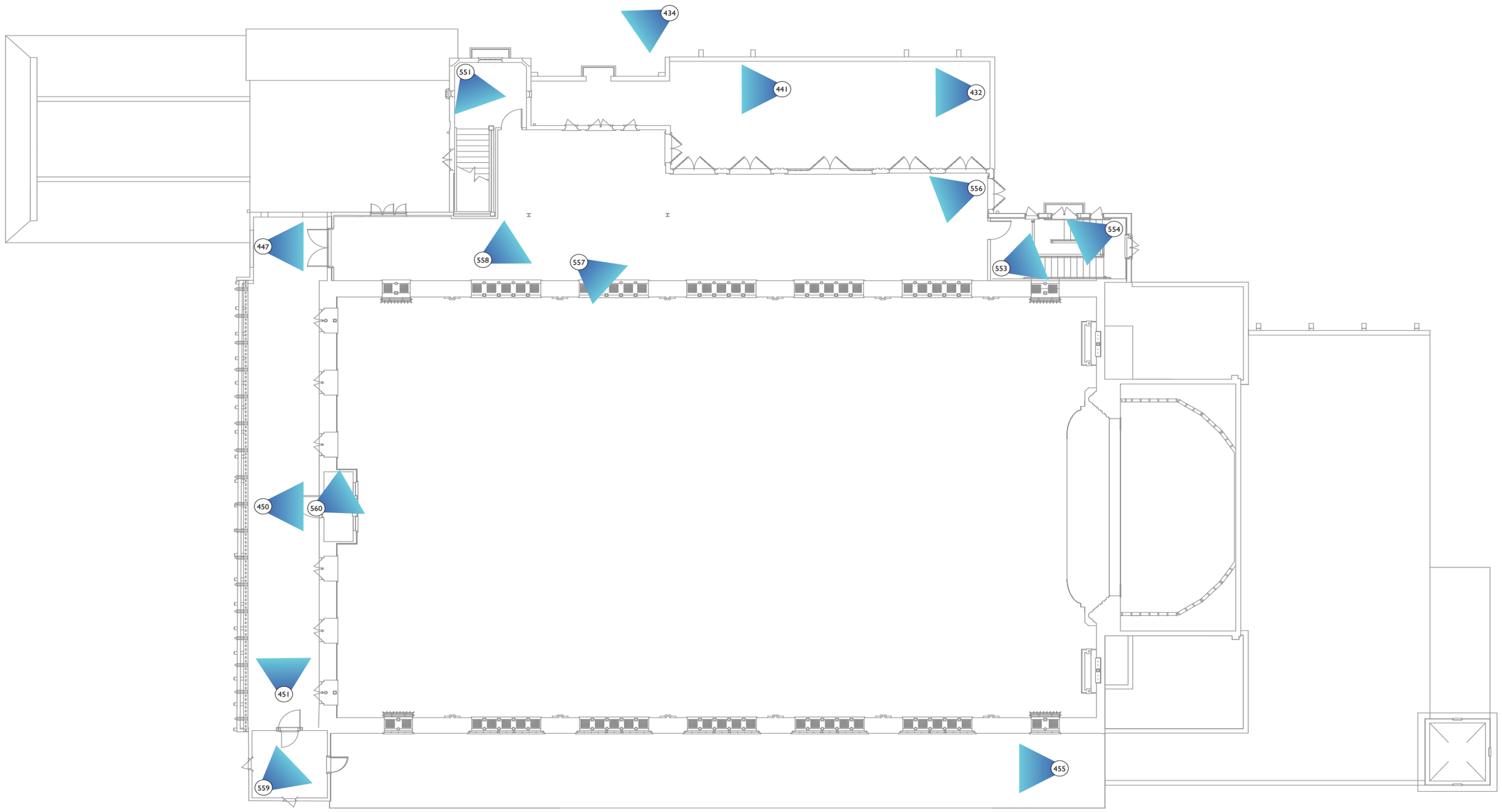

SPANISH BALLROOM MEZZANINE - KEY PLAN

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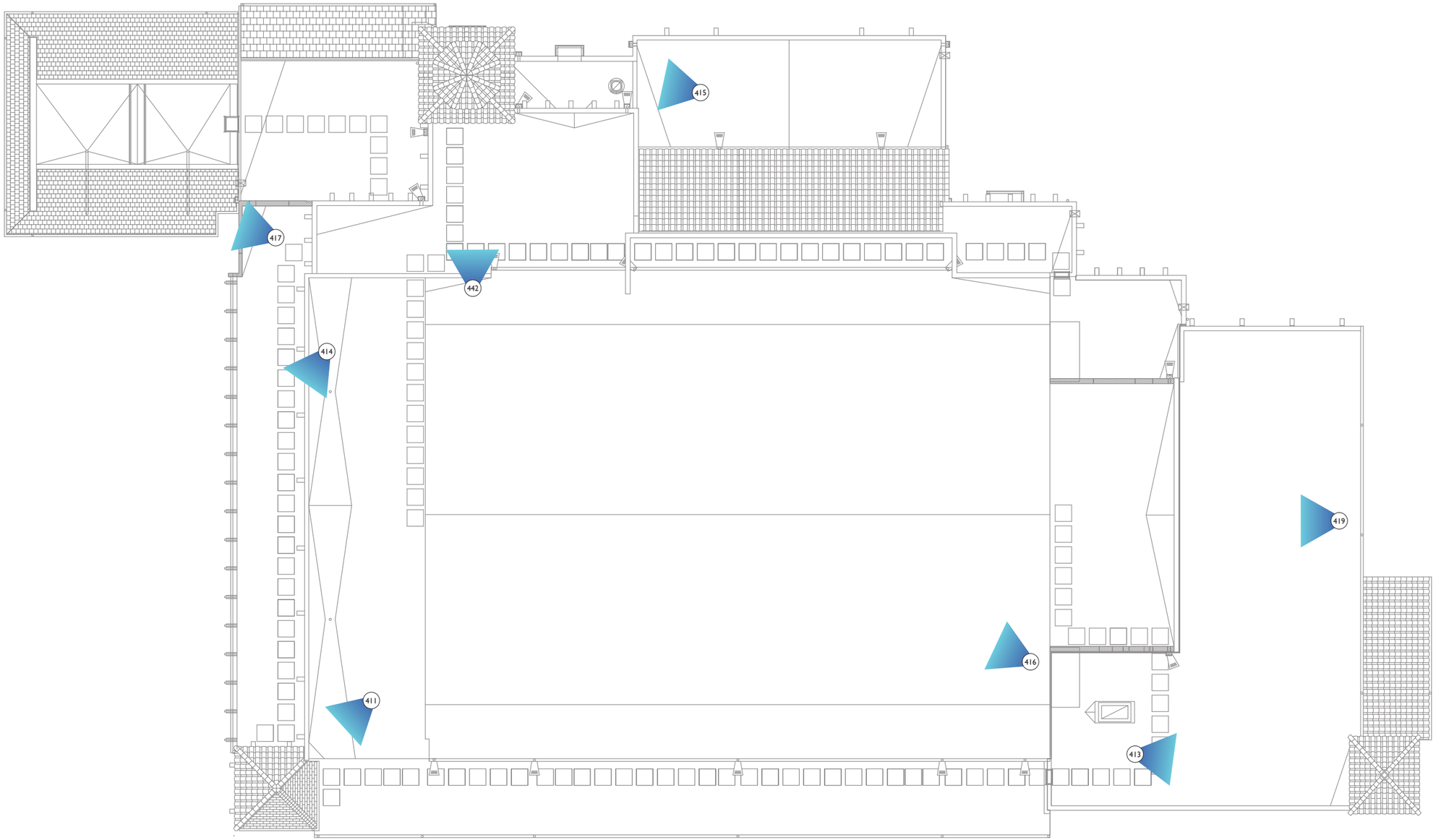

SPANISH BALLROOM ROOF - KEY PLAN

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Appendix E: 1981 Existing Conditions Survey Report — Spanish Ballroom/Jungleland Section (NPS)

Mechanical System
Used mainly during the summer months, this building contains no provisions for heating, ventilating or air conditioning.

Safety Issues
Upon completion of the roof repairs in progress, the structure will be in satisfactory condition.

BUILDING NO. 7---SPANISH CRYSTAL BALLROOM AND JUNGLELAND

Structural and Architectural Features
Building No. 7 consists of two contiguous, yet autonomous, areas called Jungleland and the Spanish Ballroom. Because of its run-down condition, access points into Jungleland have been boarded up to restrict public entry. The Spanish Ballroom, on the other hand, remains one of the focal points of Glen Echo Park's summer program.

Jungleland consists of large, partially covered lobby area at ground level and a long, narrow room, directly adjacent to the Spanish Ballroom at the second story level. A considerable amount of damage has already been sustained in the upper level as a result of leaks in the roof. This includes rotting of joists, floor planking, roof sheathing and rafters, peeling of paint, and deterioration of plaster surfaces. The steel beam and column framework, however, which supports the second story floor system and the roofs at both levels, is in serviceable condition, as is the tile floor in the lobby area and the concrete slab floor in the old "coat room".

The elevated wood platform and steps in the southwest corner of Jungleland, which in the past provided access to the Spanish Ballroom, as well as the majority of wood framing members and floor boards on the second story of Jungleland, should be removed as rotting has progressed to an unsafe level.

Presently, a contract is being negotiated by NCR Contracting Division to correct many of these deficiencies, complete the replacement of the roof cover over the Spanish Ballroom, and upgrade the general appearance of the entire complex. Specifically, the work to be performed under this contract will include roof repair and replacement, reglazing, clean-up, restoration of interior and exterior finishes, and painting. The intent of this effort is to make Jungleland less of a safety hazard and eyesore and to provide additional space for outdoor park activities. This project will not, however, provide for a more active use of the second story of Jungleland as no provisions for structural repairs to the floor were made.

Other restoration contracts pending include: 1.--painting the exterior of the north, east, and west sides of the entire building, and 2.--stabilization of the floor on the east side of the Spanish Ballroom where leaks in the roof have caused rotting of the floor boards and floor and wall framing members. The extent of the latter repair effort will be limited by the availability of funds.

The Spanish Crystal Ballroom consists of a large, open assembly room bounded by two lobbies and Jungleland on its north side, a stage and sound equipment storage room on its east side, and hallways on its south and west sides. The corridor on the south side of Building No. 7 which overlooks the GWMP and the C & O Canal NHP provided access to the now abandoned basement-level public restrooms. The east hallway is a gallery whose arched openings (both sides) are boarded up to prevent public entry and air infiltration.

Most of the built-up tar and gravel roof on the Spanish Ballroom has, along with the damaged sheathing, been recently repaired. The major remaining area in need of roof repair is on the building's south side, where roof leaks and broken windows allow water to enter the building causing rotting of rafters, floor boards, joists and wall framing members. Resulting structural damage in this area to date has not been widespread with the major areas of concern being where rotted floor boards have given way and the floor openings remain uncovered. As mentioned earlier, however, a contract is presently being negotiated which calls for the repair of the roof over this portion of Building No. 7. Reglazing and replacement of rotted wood members should follow this effort.

Roof leaks have also caused substantial damage to the building's floor system at various points on the east side of the Spanish Ballroom. For the most part, the openings in the roof have been repaired and the floor boards and joists that have been affected by rotting have been reinforced, shored, or covered with plywood. These measures, however, are only temporary and have not resolved the problem completely. Additional stabilization is especially necessary at the southern end of this wall where a major beam and the connecting joists are supported by a combination of wood and steel shoring members. Splits in the wood joists (possibly incurred during the installation of the shoring), rotting of floor boards, joist ends, and the beam, as well as settlement and rotting of the frame wall directly above this problem area causing cracks in the plaster evidence a need for a concentrated stabilization effort. In addition, rainwater continues to enter the building through openings in the roof just north of the stage, thus exposing wall framing and floor members to damaging conditions. Correction of this problem should be undertaken as soon as possible to avoid duplication of the problems existing on the south side of the stage.

Miscellaneous repairs to interior and exterior architectural features and precautionary measures beyond what has been identified by the various pending contracts are also required. These include: the scraping and painting of the entire south side of the building's exterior, patching a water-damaged wall area in the main assembly room where efforescence and spalling of plaster has occurred (see Phot 46), glazing the windows in the southern corridor and refurbishing their metal frames, replacing the deteriorated building skirt around the crawl space on the east side, initiating a program to prevent further damage to wood members by insects and moisture, and painting the interior walls and ceilings in the dance hall. This last item will require a significant amount of scraping and plastering as peeling paint and cracks in the walls are common.

Cost estimate

Jungleland:

Rehabilitate second story "balcony promenade" and "electric room"	$175,000

Spanish Crystal Ballroom:

Scrape and paint siding on south side	$ 25,000
Refurbish windows on south side	$ 12,500
Repair damaged floor areas on east side of building	$ 8,000
Patch area on west side where efforescence and spalling of plaster has occurred	$ 1,000
Repair water damaged floor on south side corridor	$ 2,000
Refurbish dance hall (Patch cracks in plaster, paint walls, ceiling and trim)	$ 40,000

Electrical System

This building is supplied power by a 600 ampere fused switch panel. The lighting for the ballroom is provided by cord connected incandescent spot lamps and other temporary special lighting as needed. The incandescent lamp wall fixtures in the unused areas adjacent to the main ballroom are in need of rewiring. Since the building is used for functions that represent a heavy occupancy load, complete electrical renovation is needed for the following electrical items:

a. Permanent lighting systems now used. The permanent lighting systems should include repair and renovation of the wall fixtures in the unused areas.

b. Emergency and exit lighting.

c. New service and feeders.

d. Fire alarm and detection system.

Jungleland contains abandoned wiring and equipment that should be removed. Should a more active use of this area be desired, a major rewiring effort would be necessary.

Estimate (net construction)

Lighting systems including ballroom and stage lighting, emergency, and exit lighting	$50,000
Service and Feeders	20,000
Fire alarm and detection system	15,000
Devices and connections necessary to complete renovation	40,000
Rewire all of Jungleland	8,500

Mechanical System

Designed for seasonal use only, this building contains no provisions for heating. The ventilation system within the Spanish Ballroom consists of two propeller type exhaust fans --one in need of service and repairs, the other not in operating condition. Both these fans are not easily accessible and should be replaced.

Cost Estimate (net construction)

2 propeller fans (10,000 CFM each) with shutters and controls	$2,000

Safety Issues

A. 29 CFR 1910.309(b) NEC Section 110-22--Disconnecting means required by the National Electric Code for motor appliances and each service feed or branch circuit at the point where they originate are not located, arranged and legibly identified so that their purpose is evident. Branch circuits located throughout the Spanish Ball Room do not indicate the operation each switch controls.

Corrective action--Mark the intent of each branch circuit or breaker within the panel box.

B. 29 CFR 1910.5(a)(1)--The entire electrical system in the Spanish Ball Room is in need of rewiring to insure compliance with the National Electric Code. Common code violations encountered include:
1. Open ground
2. Junction boxes not covered
3. Flexible cable used as substitute for fixed wiring
4. Exposed live parts.

Corrective action--A complete electrical survey should be undertaken to determine the total extent of the problems.

C. 29 CFR 1910.24(b)--Fixed stairs are not provided for access to and from the basement of the Spanish Ball Room.

D. 29 CFR 1910.22(a)(3)--The floors and passageways throughout the Spanish Ball Room are not kept free of protruding nails, splinters, holes, and loose boards. The periphery floor areas have rotted. The basement and porch areas are overrun with debris. The basement has become infested by insect vectors, other animal vectors, and pests.

Corrective action--A continuing and effective extermination program must be instituted.

E. 29 CFR 1910.5(a)(1) General Duty--The entire stage area is in need of major repair and should not be used by the general public until some of the major repairs are made.

F. 29 CFR 1910.5(a)(1) General Duty--The upper level of Jungleland is also in need of major repair. The floor has been burned through, and the structural integrity of the floor joists is questionable.

Corrective action--A study should be undertaken to determine the structural integrity.

G. NFPA 105 Life Safety Code Section 5-9.1.1--Emergency lighting facilities for means of egress are not provided for the Spanish Ball Room.

Corrective action--Emergency lighting system should be installed to meet the requirements of section 5.9.2.3 of NFPA 105 Life Safety Code.

H. 29 CFR 1910.5(a)(1)--The ceiling of the Spanish Ball Room is in need of repair. There are large holes and cracks throughout the ceiling.

Corrective action--All holes and cracks in the ceiling should be repaired before the ballroom is used by the public.

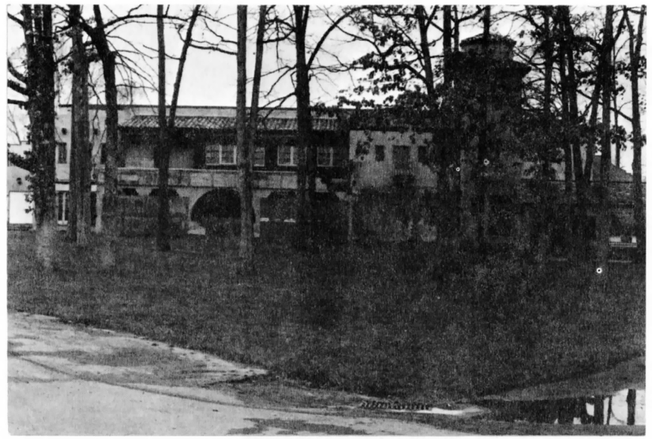
BUILDING NO. 8---POTTERY KILN SHEDS

Structural and Architectural Features

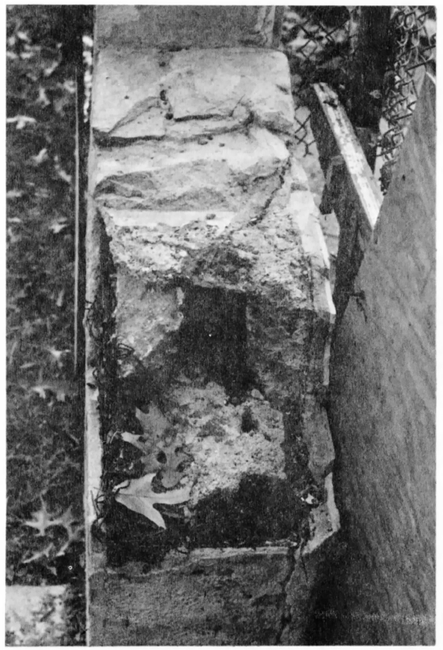
These are a series of interconnected structures built in a random and "make-do" manner and altered throughout their history to enable new uses and correct past deficiencies. The materials and construction methods used seem to vary, not only from shed to shed, but within the sheds themselves, making building patterns difficult to determine and therefore difficult to analyze structurally. Therefore, in the structural and architectural section of this report, the building will be broken up and discussed as four separate areas. (See Figure 1.)

Area "A" is presently used as a work and storage shed by the potters. The walls are of frame construction but built in a sloppy and careless manner. The structural problems in this area include rotting of the studs and siding, excessive sagging of the wood beams, and rusting of the (steel) channel beam. The cause of the prevalent rotting is that wood members were installed to rest on the dirt and gravel floor, thus making them more susceptible to water intrusion. This situation is aggravated by the numerous openings and uncovered windows which allow precipitation to enter the building. The other structural problem is one of poor material selection and installation methods. First of all, the rafters in this area are not of sufficient size to support the expected loads. The excessive deflection which has resulted is noticeable even to the naked eye. In addition, the head piece of the north wall (consisting of two 2x4s) is seriously overloaded above the windows. (See Photo 113.)

The architectural elements of area "A"-windows, doors, siding, etc.--are either non-existent, damaged, or poorly maintained. The roof, which has a rolled asphalt cover and is built with a slight slope, has an incomplete



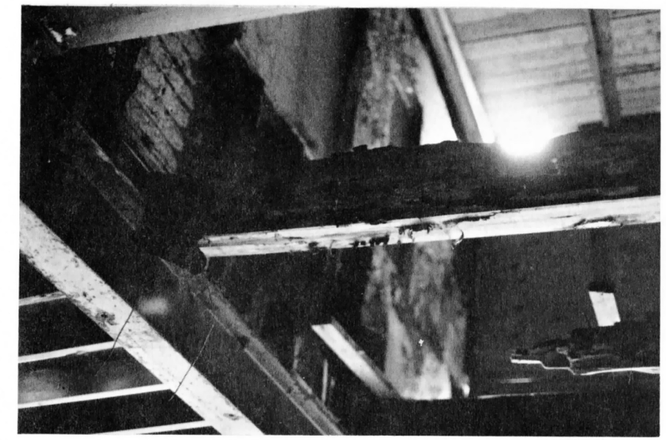
34. Bldg. 7 - The Spanish Crystal Ballroom and Jungleland
Bldg. 9 - The Ballroom Cafe



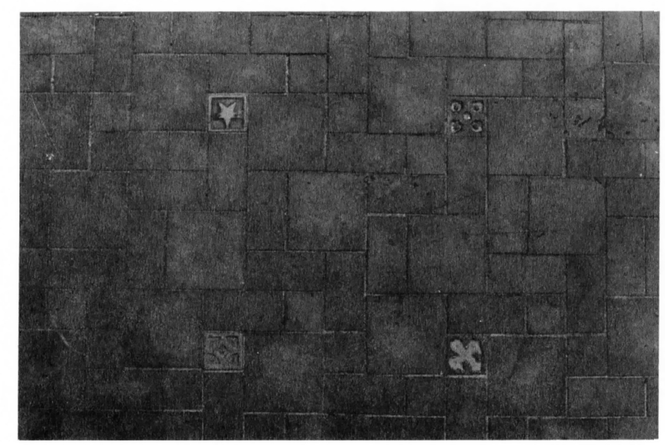
35. Deterioration of stucco finish and rusting of steel column encased in concrete. (Typical of the condition of architectural and structural elements, Jungleland)

36. "Open Atrium"/ old "Lobby", Jungleland. (Note: tile floor cover is in good condition.)

37. Open Atrium, Jungleland



38. Lobby roof beams (rotting) and 2nd floor joists supported by steel I-beam.



39. Floor tile pattern in old "Lobby", Jungleland (See Plate 36)

40. Bldg. 9 - The Ballroom Cafe

41. Bldg. 9 - The Ballroom Cafe and the entrance to the Spanish Crystal Ballroom

Appendix F: 1987 Historic Structure Report — Spanish Ballroom Section (NPS)

F. SPANISH BALLROOM

1. Architectural Data

a. Architectural Summary

The Spanish ballroom, designed by Alexander, Becker and Schoeppe, Inc., of Philadelphia and built in 1933, is an example of mission style architecture (see photograph 106). The ballroom includes several typical features of this style, such as low pitched tile roofs, flat roofs hidden by parapets, arched openings, railings, towers, balconies, twisted iron rods in windows, and arcaded windows with wood columns.

The interior of this building is also considered historically significant. The Spanish motif was continued on the interior; in addition to this, there is art deco ornamentation around the stage (see photograph 110).

b. Historical Use/Appearance

The 1933 construction drawings provide information on the original appearance and use of the ballroom.[1] The room titles on the drawings indicate how the various rooms in the building were used:

Room Number on Existing Conditions Drawings)	Title of Room According to 1933 Construction Drawings
First Floor	
101	Dance Hall
102	Music Room
103, 104, 105, 107	Stage (the original drawings show no indication of partitions dividing this area)
106	Rest Room
108, 109	Covered Walk
110-114, 117, 120	Corridors
115, 116	Refreshment Area
118	Vanity Room
119	Coat Room/Lobby
Second Floor	
201, 203, 204	Balcony Promenade
205	Electrical Room
206	Not Designated
207	Projection Room

1. Information about the original floor plans and room finishes obtained from the 1933 drawings is included in the drawings for this report. See sheet S17.

Door 117 was the main entrance to the building. Through this door people entered the lobby, or that portion of room 119 that now has a ceramic floor (see photograph 127). This floor is probably original. According to the construction drawings, the walls of the lobby had tile wainscotting with plaster above. Wooden seats were along the north and east sides. On the south side there were two mirrors; each one was surrounded by tile and had a light above. Photograph 128 shows what remains of this feature today. On the west wall there was an opening with a counter where people could check their coats. The coat room located behind this counter included that portion of the present-day room 119 that has a concrete floor. According to the drawings, this room was left unfinished, just as it is today.

From the lobby people could view the dance floor through openings in the south wall. The steps at the southeast and southwest corners of the lobby led people up to the corridors and covered walk which wrapped around three sides of the dance floor and provided easy access to it. The covered walk and most of the corridors were lined with benches, as can be seen in photographs 111, 113, and 114. Photographs 111-113 show the dance hall with its wood, tile, and metal ornamentation and

plaster walls, and photographs 109 and 110 show the art deco stage at the east end of the hall. Photograph 115 provides a view of the dance hall filled with people during the amusement park era. As can be seen in these photographs, the larger openings on the north and south sides of room 101, between room 101 and surrounding rooms 108, 109, 114, 117 and 119, originally contained decoratively painted wood columns.

Refreshments could be obtained at the northwest corner of the building in the same area that houses the refreshment room (room 116) today. Just as it is today, the floor level of the refreshment area was three feet lower than the adjacent cooridor, room 114. According to the drawings, there originally were openings in the common wall between rooms 114 and 116, and there were stairs in rooom 116 along the entire length of the common wall, apparently allowing people to move back and forth between the corridor and refreshment area. Although the original drawings do not show any wood or metal railings blocking these openings, a wood railing is visible at the far right in photograph 113 taken in 1933. Thus, perhaps all or some of the openings were partially blocked by the wood railings and also, perhaps, by the iron gates that are there now.

The construction drawings indicate that this refreshment area was somehow connected to another refreshment stand which was part of the Crystal Pool facilities (see photograph 106). Only the basement of this refreshment stand still exists. It is located under the concrete slab at the northwest corner of the Spanish ballroom and is accessible only through the two-foot round access hole in the slab.

According to the plans, emergency exits from the first floor were provided by door 114, door 107, and a now nonextant opening along the east wall of the lobby (room 119).

On the second floor, the dance hall could be viewed from the balcony promenade and the open promenade deck. The balcony promenade included rooms 201, 203, and 204. Openings in the south wall of these rooms provided people with a view down onto the dance floor. Door 201

provided access to the open promenade deck. Photograph 108 shows how this deck looked when the building first opened. From here people had views of the dance floor through windows 210-215 as well as views of other parts of Glen Echo Park. This deck also provided access to the projection room (room 207, see photographs 113 and 126) and the south tower (room 206).

The stairs in room 201 were, according to the construction drawings, the only access to the second floor. The stairs which now connect rooms 120 and 205 are not on the 1933 drawings.

Being designed for seasonal use only, the Spanish ballroom had many screened openings and was never heated or air conditioned. In the dance hall, light troughs located along the sills of the second level openings and along the perimeter of the ceiling provided indirect light.

The Spanish ballroom was not the first dance hall built at Glen Echo. In 1911 an outdoor dancing pavilion with a capacity for more than 600 people was constructed (see history data, pages III-63 to III-75). A balcony was added, and the pavilion was enclosed with screens in 1921 (see history data, pages III-90 to III-93). Then in 1925 the enclosed pavilion was replaced by another dance hall (see history data, page III-99). Photograph 103 shows the interior of this ballroom, and photographs 104 and 105 show partial views of the west elevation. It is not known for sure why, but eight years later another "new" larger ballroom was constructed on the same site. According to the construction documents, some of the foundations of the 1925 building were reused when the larger 1933 ballroom was constructed. This "new" ballroom was advertised as able to accommodate 1,800 dancers (see history data, pages III-105 and III-106).

The exterior of the Spanish ballroom has experienced many changes over the years. In 1964 the front, or north, section was converted to a fun house ride known as Jungleland (see photograph 89). In recent years, remants of Jungleland have been removed, and there has been an attempt to restore the building to its original appearance. It is now as it was originally: a stucco building with metal and wood casement windows,

wood ornamentation, parapets, mission tile roofs, and towers. Photographs 120-124 are recent pictures of some of these features. However, comparing the building as it exists now with the 1933 photographs and construction drawings indicates that some deviations from its original appearance still remain:

- The patches of plywood in room 119 were originally windows secured only by wood railings and benches which lined the exterior walls. Some of the photographs indicate, however, that when the ballroom was actually built these openings might have been secured by ironwork rather than the wood railings (see photographs 106, 107 and 119).

- The boarded openings along the west wall of rooms 110-113 were enclosed only by screens and wood railings. Benches also lined this wall (see photograph 114).

- Metal casement windows 109-115, which are along the south wall of rooms 108 and 109, are not original. This part of the south wall consisted of screens and wood railings interrupted only by columns. Against the railings were a line of benches (see photograph 111).

- There is no indication on the construction drawings that any of the basement level was originally enclosed. The basement toilets were probably a later addition, since a rest room was located on the first floor, next to the stage, and there were no stairs down to the basement.

- Door 112 was a window; room 115 was part of the refreshment room (see photograph 107).

- Door 103 was a smaller arched door and window 101 was larger (see photograph 116).

- The original balconies outside windows 218 and 231 were different from those now on the building (see photographs 116-118 and 122).

- Room 202 is a later addition. This area can be seen today on the north and west elevations; it is the area covered with plywood instead of stucco. Before room 202 was constructed, window 216 was larger and there was an approximately seven-foot wide window along the north wall of room 203 (see photographs 106 and 107.)

- Bars originally covered the windows 126, 127, 129, 217, and 219 (see photograph 107). Only window 217 still has these original bars.

- On the north elevation above door 117 and the semicircular stucco opening was a Ball Room sign, and below this sign on either side of the opening were lights (see photograph 107).

- There originally was another window next to and similar to window 126 (see photograph 117).

- All but one of the wood ornaments have been removed from the exterior of the north wall of room 203 and are laying on the roof below. They are visible in the 1933 photograph (see photograph 107).

- The parapet above door 117 is now only about ten inches tall; originally, it was three feet tall and lined up with the adjacent parapet to the west (see photograph 107).

- There originally were wooden stairs outside door 107.

- One of the boarded openings along the east side of room 119 was an emergency exit.

- Formstone has been added to parts of the exterior of the refreshment stand.

- Two windows similar to window 125 were located where window 124 is now.

- There originally were flagpoles on the front and west sides of the buildings (see photographs 107 and 108).

c. Existing Conditions/Use

Today dances are still held in the dance hall, and room 114 remains a refreshment area. The north section of the building, which once housed Jungleland, is closed to the public and is used for storage. Also, the rest rooms are no longer functioning.

The existing conditions of the Spanish ballroom vary. Much work has been done on the exterior of the ballroom to restore it, and thus the north, east, and west elevations are generally in good condition. The south elevation, however, has been largely ignored. The siding, windows, and downspouts are in poor condition. On the west elevation, parts of the railing along the lower roof have rotted and need to be replaced.

The roof needs to be repaired. Leaks were noted in the rear of the stage and in rooms 101, 110, 114, and 117. The roof at the northeast corner of the building does not drain properly: water sits on the roof rather than entering the outlet to the downspout. On the tar and gravel roofs that have no parapets, the gravel stops are either too low or are nonexistant. This condition allows gravel to roll down the roof and collect in the gutter.

There are severe leaks at the southwest tower. The deterioration of a column supporting this tower has caused the tower to rotate away from the main portion of the building. While the column has been repaired and the tower appears to have stabilized, gaps remain in the wall finishes.

On the interior, the north section of the building, which once housed Jungleland, is in poor condition and needs repair. Openings for the ride still exist in the second-level floor. Original wall finishes have been allowed to deteriorate or were covered over to meet the needs of the Jungleland ride. In contrast, the dance hall, or south section of the building, is in better condition, and most of the original finishes still exist. Photograph 125 shows a recent view of the stage. There are, however, problems at the southwest tower where the interior finishes are in poor condition due to the severe leaks mentioned above. Also, in the dance hall, lights have been added in an attempt to compensate for an inadequate lighting system. Included with these lights is a series of unsightly wires draped along the walls.

Nearly all of the staircase to the basement is missing, and the toilets in the basement are no longer functioning.

d. Recommendations

(1) In room 119 remove the plywood from the stucco openings. Either keep the existing wood railings or replace the wood railings with ironwork similar to that visible in photograph 119. For climate control, install glass in the openings behind the wood railings or ironwork.
(2) Make door 117 the main entrance: install a glass double door with lights on both sides of the door. If ironwork is restored to other openings in room 119, then restore ironwork to the doorway as well.
(3) Restore the metal casement window which originally was adjacent to and similar to window 126.
(4) Replace door 112 with a metal casement window matching window 125; remove the adjacent brick walls and patch the stucco.
(5) If room 116 is retained as a refreshment area, and serving windows are needed, keep windows 123 and 124 as serving windows and repair the serving counters. If room 116 is converted to another use, replace window 124 with a metal casement window to match

window 125. Window 123 is located where the nonextant Crystal Pool refreshment stand was once attached to the ballroom. This window could either be eliminated or converted to a metal casement window to match window 125.

(6) Remove the formstone from the north and west elevations; patch the wall with stucco.

(7) Replace door 103 with a smaller arched batten door and enlarge window 101.

(8) Restore the original height of the parapet above room 119. Move up the wood ornaments, and restore the Ball Room sign and flagpoles.

(9) Install metal bars on windows 126, 127, 129, 219, and on the window restored next to window 126. The metal bars should match those on window 217.

(10) Room 202, the plywood-covered addition, is not original and may be removed. If it is removed, install a 6-foot, 10-inch metal casement window (similar to window 216, but with four sashes) in the north wall of room 203. Enlarge window 216 to match, patch the walls with stucco, and install the missing wood ornaments.

(11) In rooms 110-113, remove the plywood from the stucco openings but, where they exist, keep the wood railings. For climate control, install glass in all of these openings. Keep door 110 as an emergency exit; the boarded opening in room 113 could also be used as an exit, if needed.

(12) Restore the stone paving on the open promenade deck on the roof above rooms 110-114.

(13) Replace the missing and rotted sections of railing along the open promenade deck.

(14) Install a double door to the projection room similar to door 114.

(15) Restore the flagpoles along the open promenade deck.

(16) Replace window 122A with a metal casement window matching window 125.

(17) In rooms 108 and 109 do not restore the larger original openings along the south wall. Instead repair the existing metal casement and fixed glass windows (windows 109-115).

(18) Remove the vegetation growing along the west end of the south wall.

(19) Repair the wood siding on the south elevation.

(20) On the south elevation, install new sections of downspouts where indicated on the drawings (sheet S20) and drain the water away from the building.

(21) On the south elevation, repair the cracks in the foundation wall.

(22) Repair doors 2, 107, 201, 202B, 203 and 204.

(23) Repair the gaps in the exterior wall finishes at the southwest tower.

(24) Repair the existing windows.

(25) Repair or replace the leaking roofs; replace the broken or missing tiles on the clay tile roofs.

(26) Remove the nonhistoric lights from the exterior of the building.

(27) Restore the original indirect lighting in the dance hall.

(28) Restore the original interior finishes.

2. Structural Data

a. Structural Description

The footprint of the Spanish ballroom is essentially rectangular, being approximately 124 feet wide by 144 feet long. The building's structural system consists of a reinforced concrete and concrete block foundation and wood and steel-framed floors, walls, and roofs.

The north, east, and west foundation walls are reinforced concrete, and the south foundation wall is concrete block. Steel columns and wood floor beams bear on reinforced concrete piers.

The first floor framing beneath the main portion of the ballroom consists of 2-by-12 joists, 16 inches on center. These joists span 12 feet, 6 inches and bear on wood beams. Each wood beam is made up of four 2-by-10s spanning 10 feet.

The first floor framing beneath the south side of the ballroom consists of 2-by-12 joists at 12 inches on center, spanning 15 feet, 6 inches. These joists are supported by steel beams.

The stage floor framing (which is not shown on the drawings) consists of 2-by-6 joists, 16 inches on center. The joists span 6 feet, 6 inches and are supported by 2-by-4 stud walls.

The second floor framing consists of wood beams spanning between steel beams. The various sizes and spacing of these wood beams are shown on the "Framing at Second Floor Level Plan" (see sheet S15 of the drawings). Spanning the wood beams is 2-inch tongue and groove floor decking. The steel beams are supported by steel columns.

The lower roof framing along the north, east, and west sides of the building varies and is shown on the "Roof Framing Plan" (see sheet S16 of the drawings).

The roof framing over the main portion of the ballroom consists of steel trusses 15 feet, 6 inches on center. These trusses span 72 feet and are supported by steel columns. Spanning the trusses are 2-by-10 purlins, 16 inches on center.

The gravity support system consists of steel columns and bearing walls.

The west stairway framing consists of 3-by-12 stringers, 20 inches on center. The treads are 8 inches wide and 3/4 of an inch thick.

The underground vault at the northwest corner of the ballroom is a remnant of the old refreshment stand. It has a reinforced concrete roof slab supported by steel beams and wood framing. The walls of the vault are mortared stone. Utility piping and conduit run through the vault.

b. Existing Structural Conditions

Generally, the foundation is in good condition. One problem area, however, is the south foundation wall. Sections of the downspouts along this wall are missing, causing erosion of the soil. This erosion has caused movement in the south foundation wall, as evidenced by the numerous cracks.

The first floor framing and stage floor framing are in good condition. The second floor framing, however, is in poor condition, with several of the wood floor beams and much of the floor decking being damaged. In addition, there are three large openings in the second-level floor.

Generally, the roof framing in all areas is in good condition. One exception is the northeast corner of the stage where a leak has caused a small portion of the stage roof and west wall framing to decay.

Generally, the walls and gravity support system are in good condition. A portion of the second story north wall framing is decayed. The roof leak which caused this damage has been repaired.

The tower at the southwest corner of the ballroom is in fair condition. A decayed wood column has caused the tower to rotate away from the main portion of the building. Although the decayed portion of the column has been replaced, the tower is not plumb.

The west stairway framing is in good condition, but the stairway at the northeast corner of the ballroom is in poor condition. The wall, floor, and stair framing of this stairway are decayed.

The underground vault is in poor condition. Reinforcing steel in the roof slab is exposed in some locations and rusted. The steel beams are exfoliated and the wood framing is decayed. There are stalagtites on the ceiling of the vault, and the utility piping and conduit are rusted.

Overall, the ballroom is in good structural condition.

c. Load Bearing Analysis

Minimum floor and roof live loads from the 1984 BOCA Basic National Building Code will be used for comparison.

Location	Proposed Use or Occupancy	Minimum Live Load (psf)
First Floor	Public	100
Stage Floor	Stage	150
Second Floor	Public	100
West Stairway		100
Main Roof		16
North Lower Roof		20
North Upper Roof		20
West Lower Roof	Balcony	100
South Lower Roof		20
Sound Room Roof		20
Music Room Roof		20
Stage Roof		20
Tower Roof		20

The floor and roof load analysis is summarized in the table below:

Floor and Roof Load Analysis
Spanish Ballroom

Location	Allowable Total Load (psf)	Existing Dead Load (psf)	Allowable Live Load (psf)
First Floor	82	15	67
Stage Floor	140	5	135
Second Floor	99	5	84
West Stairway	55	10	45
Main Roof	31	19	12
North Lower Roof	41	11	30
North Upper Roof	35	11	24
West Lower Roof	114	12	102
South Lower Roof	68	15	53
Sound Room Roof	80	13	67
Music Room Roof	80	13	67
Stage Roof	125	15	110
Tower Roof	55	12	43

Note: Wood members were identified as southern pine by the Forest Products Laboratory, and the current allowable stresses for southern pine were used in the load bearing analysis.

The following conclusions can be made by comparing the allowable live loads with the minimum live load requirements:

(1) The first floor framing does not meet the minimum live load requirement. The wood floor beams are inadequate by today's design standards.

(2) The stage floor framing does not meet the minimum live load requirement. The wood floor joists are inadequate by today's design standards.

(3) The second floor framing does not meet the minimum live load requirement. Beam B5 is inadequate by today's design standards. All other second floor framing is adequate.

(4) The west stairway framing does not meet the minimum live load requirement. The stairway stringers are inadequate by today's design standards.

(5) All roof framing meets the minimum live load requirements.

d. Recommendations

Based on the existing structural condition of the ballroom, the following recommendations are made:

(1) Stabilize the south foundation wall by installing downspouts with extensions at the ground level to carry the roof runoff away from the building. Repair the cracks in the foundation wall by grouting.

(2) Repair the second level framing. Install new wall framing as well as new floor framing and decking to replace that which is damaged or missing. The open areas in the second floor are a safety hazard, and handrails should be installed around these openings. Also, temporary shoring should be installed to support the severely damaged floor beams. Do not place heavy items on the second floor until repairs have been made.

(3) Repair the leaky roof at the northeast corner of the stage roof and replace the decayed framing.

(4) Replace the decayed wall, floor, and stair framing in the stairway at the northeast corner of the ballroom (rooms 120 and 205). Entrances to the stairway should be blocked until the repairs are made.

(5) Grout the underground vault full. Determine if the utility and electrical lines running through the vault are inactive. If the lines are active, they should be rerouted around the vault prior to grouting. Do not park vehicles on or drive vehicles over the vault.

(6) Monitor the southwest tower. If new or enlarged gaps appear in the walls, additional stabilization work will be required.

Based on the load bearing analysis, the following recommendations are made:

(1) Based on the past performance of the first floor, and the fact that the use of the floor will not change, the allowable live load of 67 psf is considered adequate. Therefore, no strengthening is required.

(2) Based on the past performance of the stage floor, and the fact that the use of the floor will not change, the allowable live load of 135 psf is considered adequate. Therefore, no strengthening is required.

(3) Strengthen the second floor framing by removing beam B5 and installing an adequately sized beam in its place. All other second floor framing is adequate and no strengthening is required.

(4) Strengthen the west stairway stringers by installing columns beneath the stringers to reduce the span.

(5) All roof framing is adequate and no strengthening is required.

(6) The support system for the lights that are suspended from the ceiling of the dance hall was not analyzed; this system requires further study.

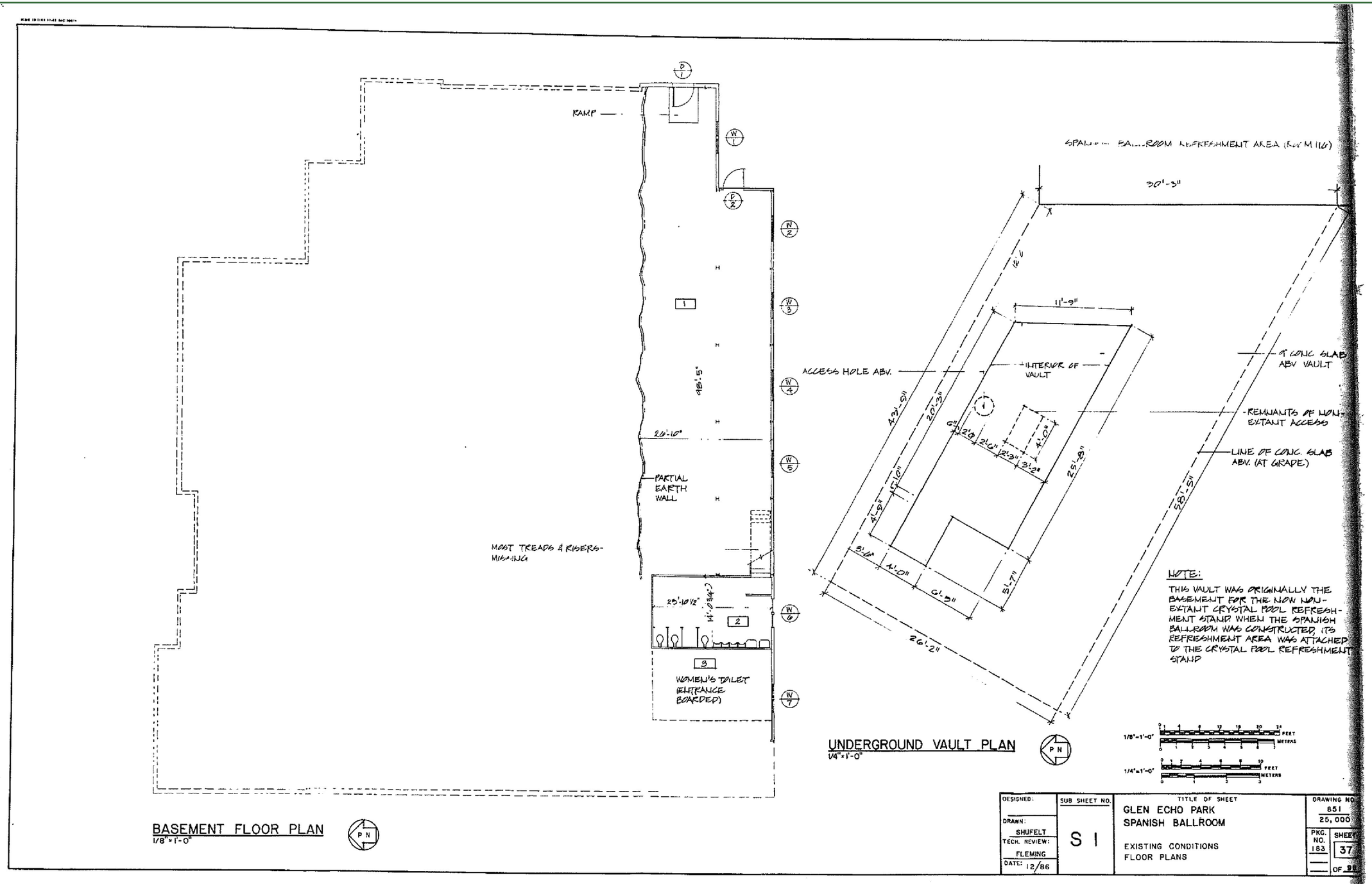
e. Cost Estimate

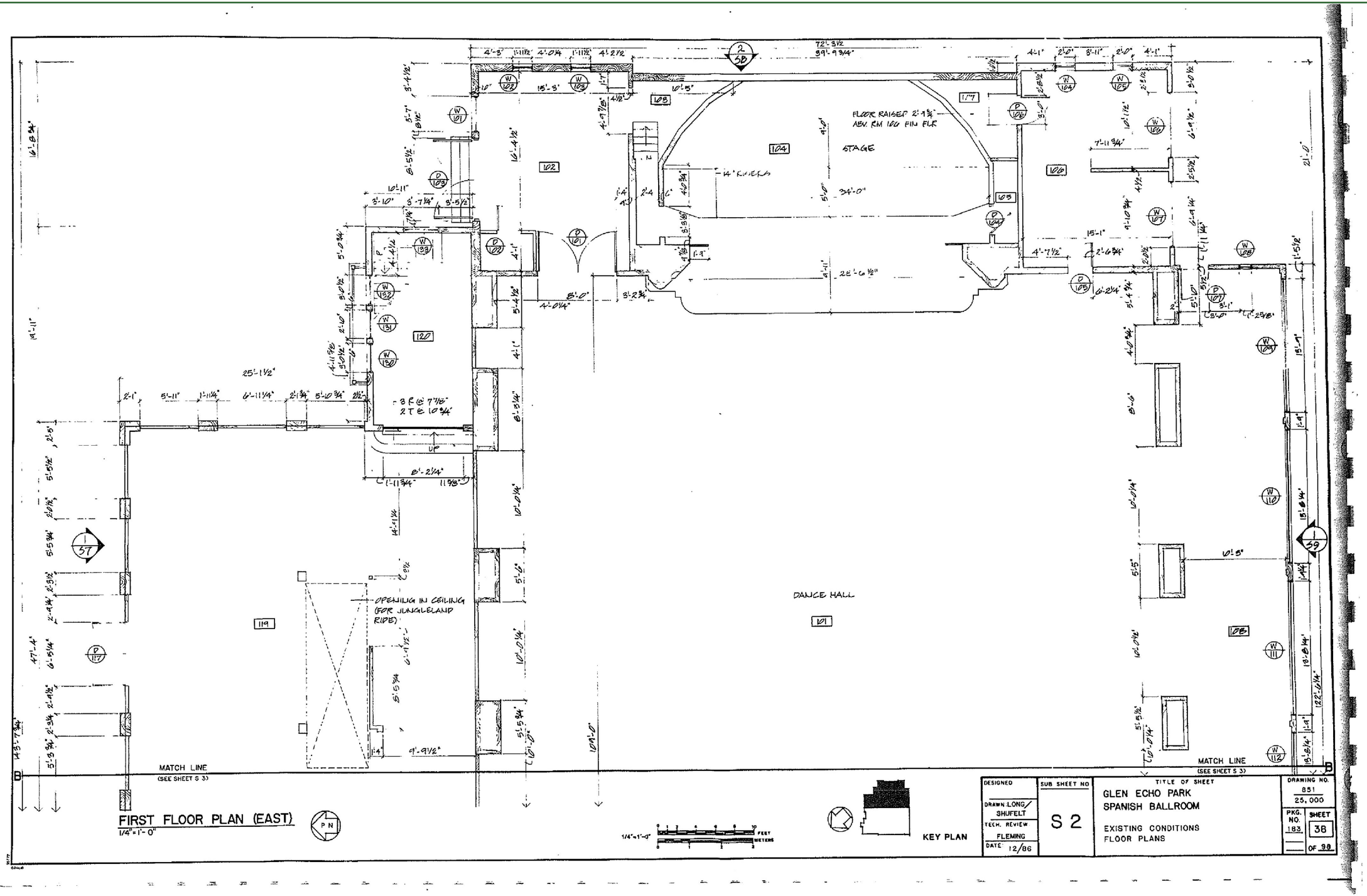
Class "C" Construction Cost Estimate
Structural Rehabilitation

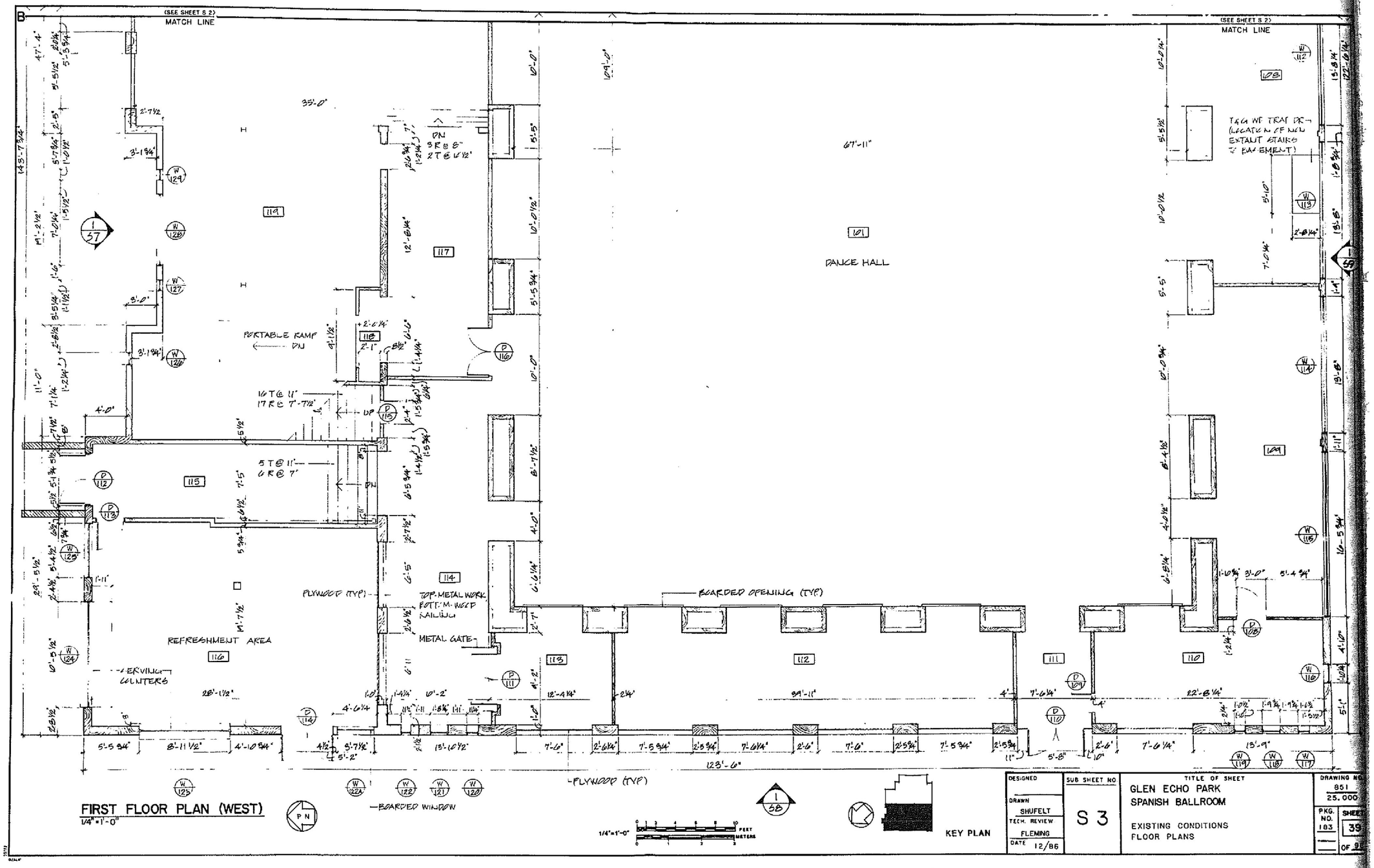
Spanish Ballroom
February 1986

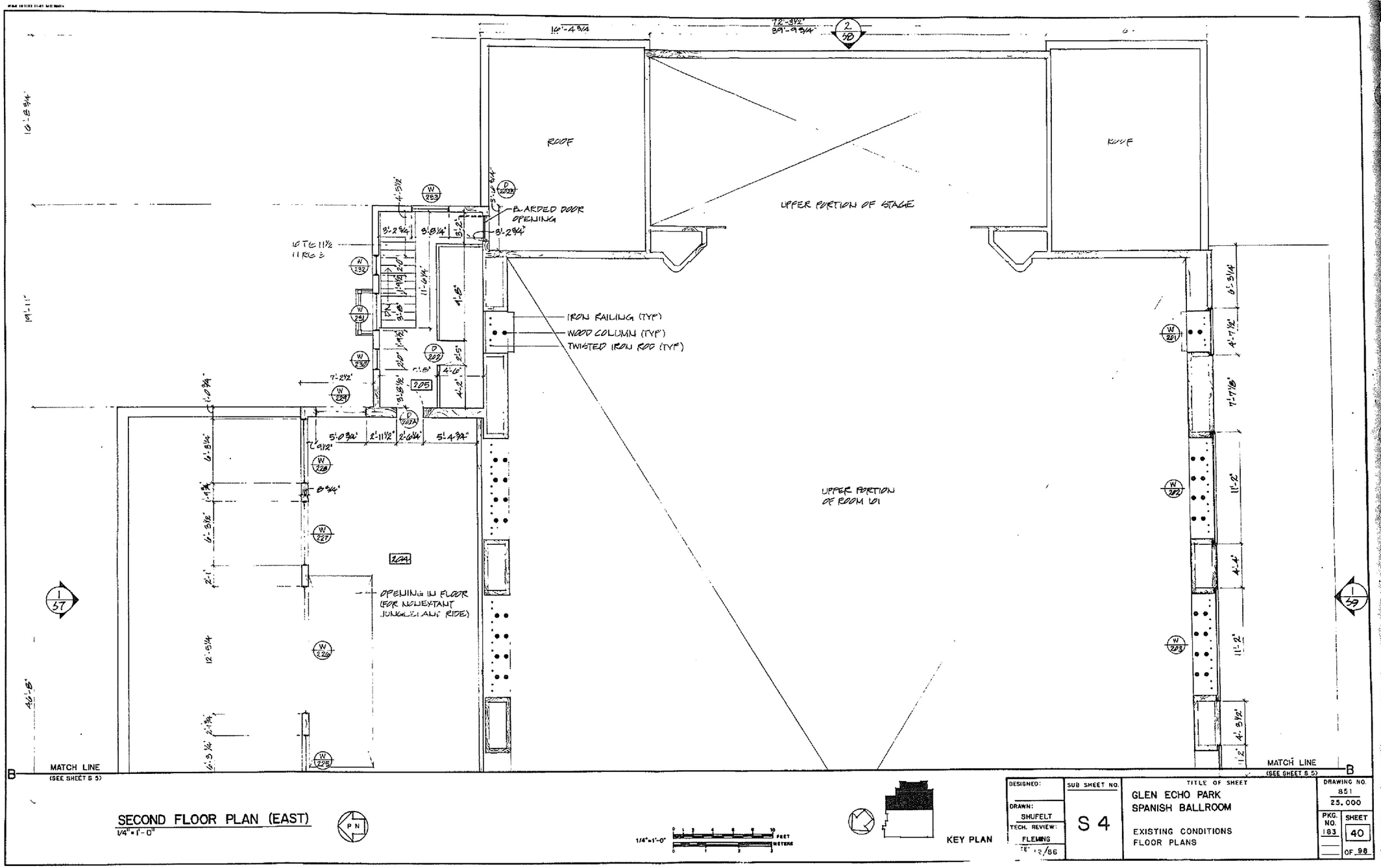
	Item	Quantity	Unit Cost	Amount
1.	Repair South Foundation Wall	LS		$ 3,000
2.	Repair Second Floor Framing	700 SF	$ 15	10,000
3.	Repair Stage Roof Leak and Replace Framing	LS		5,000
4.	Replace Northeast Stair Framing and Floors	LS		15,000
5.	Fill Underground Vault with Earth*	80 CY	20	1,600
6.	Strengthen Second Floor Framing (New Steel Beam)	LS		2,000
7.	Install Columns Beneath West Stairway	4 EA	200	800
8.	New Downspouts	40 LF	10	400
	SUBTOTAL			$38,300
	20% Contingencies			7,700
Total (FY 86 Construction)				$46,000

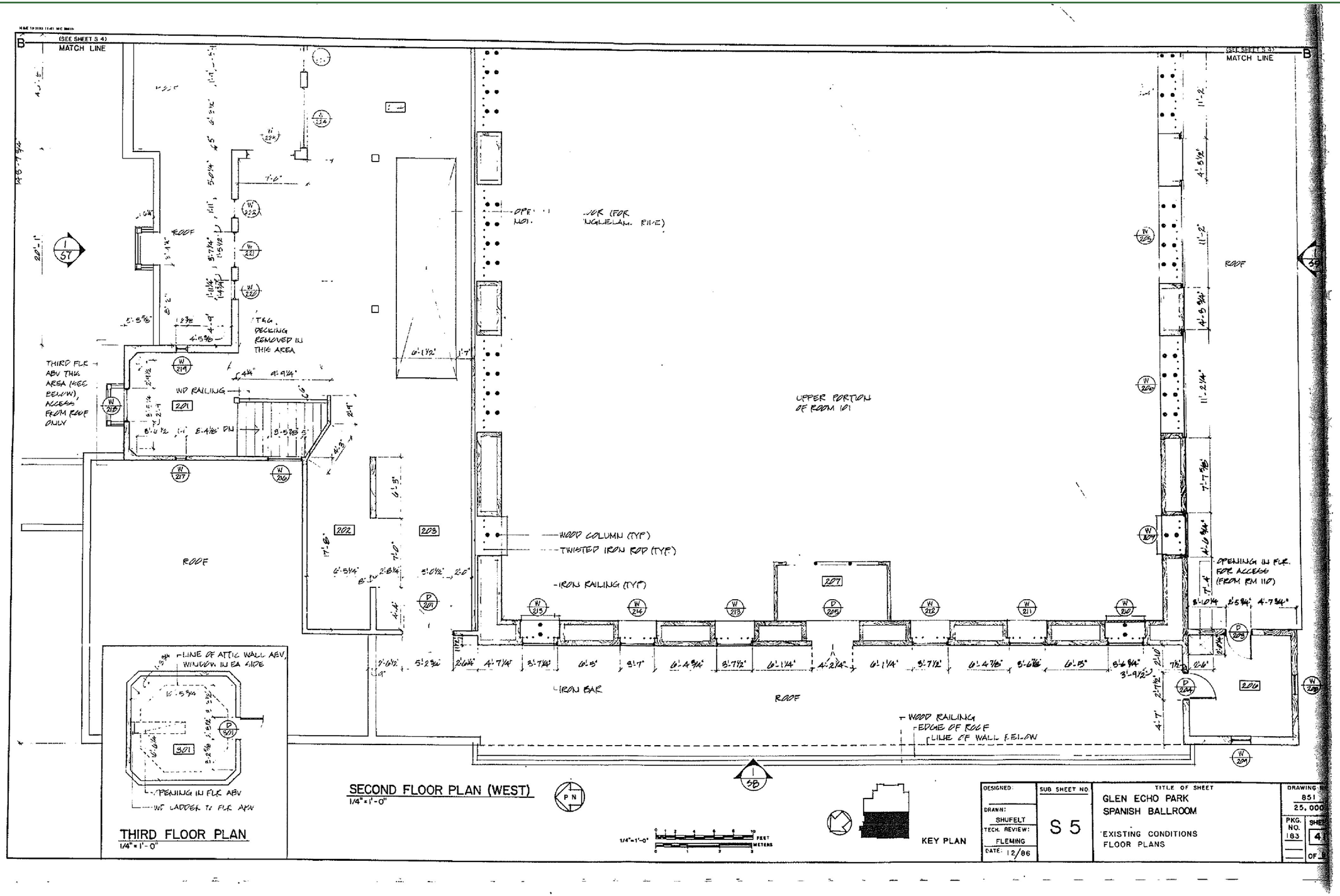
*This cost will be higher if utility lines need to be rerouted.

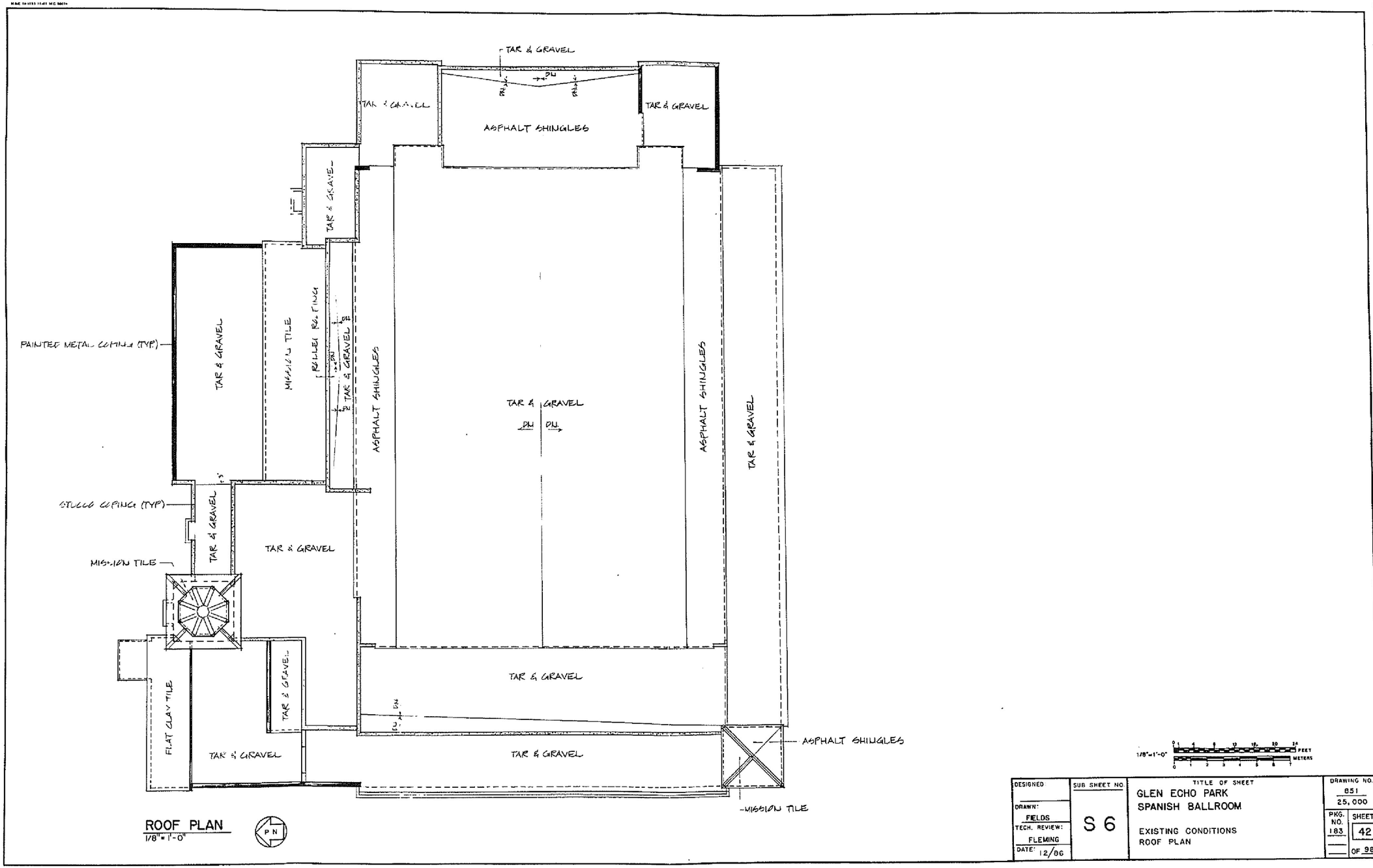

RAMP
PARTIAL EARTH WALL
MOST TREADS & RISERS MISSING
WOMEN'S TOILET (ENTRANCE BOARDED)
BASEMENT FLOOR PLAN
1/8"=1'-0"
SPANISH BALLROOM REFRESHMENT AREA (NOW MIG)
30'-3"
11'-9"
ACCESS HOLE ABV.
INTERIOR OF VAULT
4" CONC. SLAB ABV VAULT
REMNANTS OF NON-EXTANT ACCESS
LINE OF CONC. SLAB ABV. (AT GRADE)
NOTE:
THIS VAULT WAS ORIGINALLY THE BASEMENT FOR THE NOW NON-EXTANT CRYSTAL POOL REFRESHMENT STAND WHEN THE SPANISH BALLROOM WAS CONSTRUCTED, ITS REFRESHMENT AREA WAS ATTACHED TO THE CRYSTAL POOL REFRESHMENT STAND
UNDERGROUND VAULT PLAN
1/4"=1'-0"
1/8"=1'-0"
1/4"=1'-0"
DESIGNED:
DRAWN: SHUFELT
TECH. REVIEW: FLEMING
DATE: 12/86
SUB SHEET NO.
S 1
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
EXISTING CONDITIONS
FLOOR PLANS
DRAWING NO.
851
25,000
PKG. NO. 183
SHEET 37
OF 98

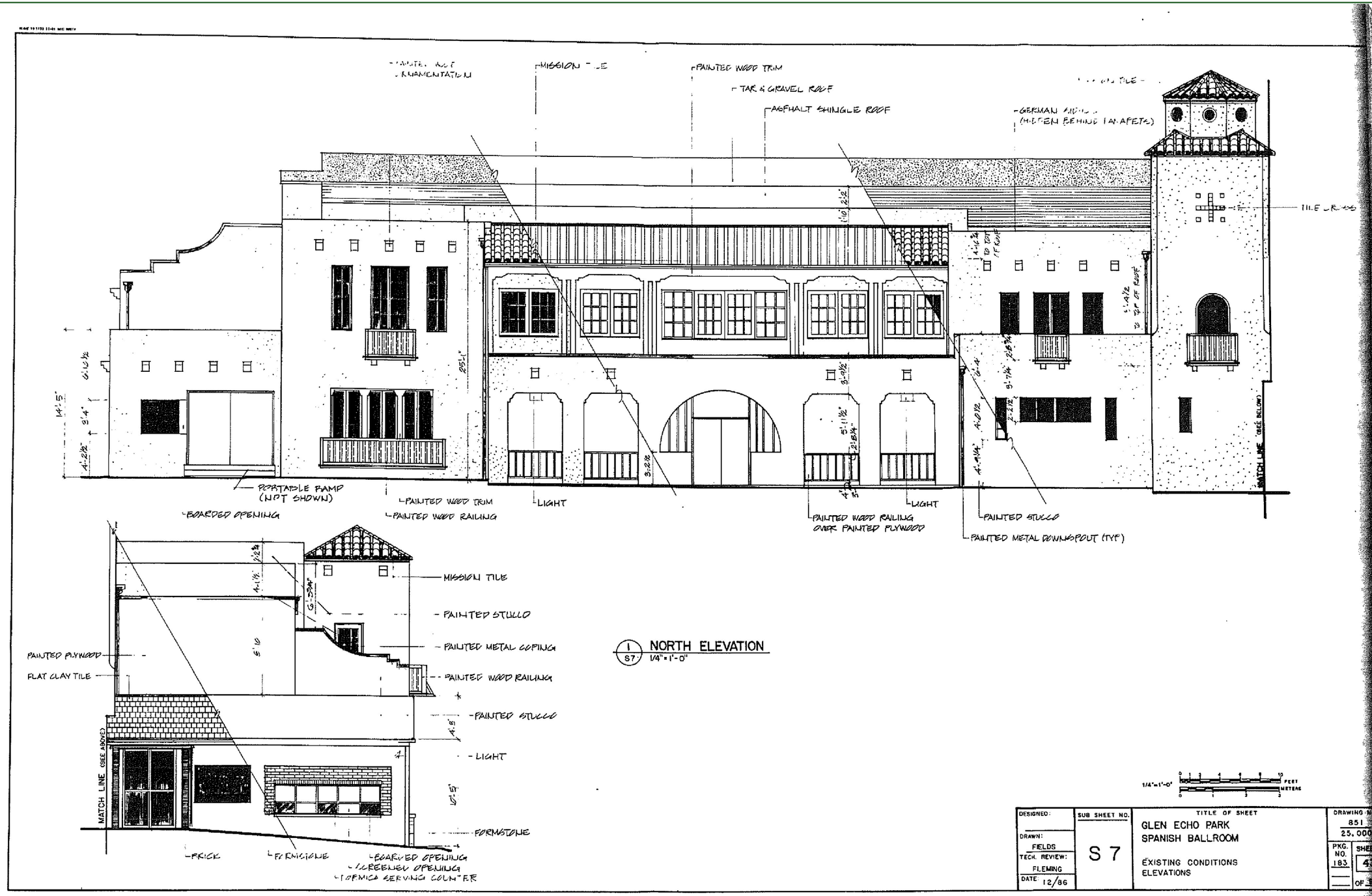

FIRST FLOOR PLAN (EAST)
1/4"=1'-0"
STAGE
DANCE HALL
FLOOR RAISED 2'-9 3/4" ABV. RM 100 FIN FLR
14" RISERS
OPENING IN CEILING (FOR JUNGLELAND RIDE)
MATCH LINE (SEE SHEET S 3)
KEY PLAN
DESIGNED
DRAWN LONG/SHUFELT
TECH. REVIEW FLEMING
DATE 12/86
SUB SHEET NO
S 2
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
EXISTING CONDITIONS
FLOOR PLANS
DRAWING NO.
851
25,000
PKG. NO. 183
SHEET 38 OF 98


(SEE SHEET S 2)
MATCH LINE
DANCE HALL
PORTABLE RAMP
REFRESHMENT AREA
SERVING COUNTERS
PLYWOOD (TYP)
BOARDED OPENING (TYP)
BOARDED WINDOW
METAL GATE
123'-0"
67'-11"
35'-0"
FIRST FLOOR PLAN (WEST)
1/4"=1'-0"
KEY PLAN
DESIGNED
DRAWN SHUFELT
TECH. REVIEW FLEMING
DATE 12/86
SUB SHEET NO
S 3
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
EXISTING CONDITIONS
FLOOR PLANS
DRAWING NO
851
25,000
PKG. NO. 183
SHEET 39
OF 91


ROOF
ROOF
UPPER PORTION OF STAGE
BLARDED DOOR OPENING
IRON RAILING (TYP)
WOOD COLUMN (TYP)
TWISTED IRON ROD (TYP)
205
204
OPENING IN FLOOR (FOR NONEXTANT JUNGLE LAND RIDE)
UPPER PORTION OF ROOM 101
MATCH LINE (SEE SHEET S 5)
MATCH LINE (SEE SHEET S 5)
SECOND FLOOR PLAN (EAST)
1/4" = 1'-0"
KEY PLAN
DESIGNED:
DRAWN: SHUFELT
TECH. REVIEW: FLEMING
SUB SHEET NO. S 4
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
EXISTING CONDITIONS
FLOOR PLANS
DRAWING NO. 851 25.000
PKG. NO. 183
SHEET 40 OF 98

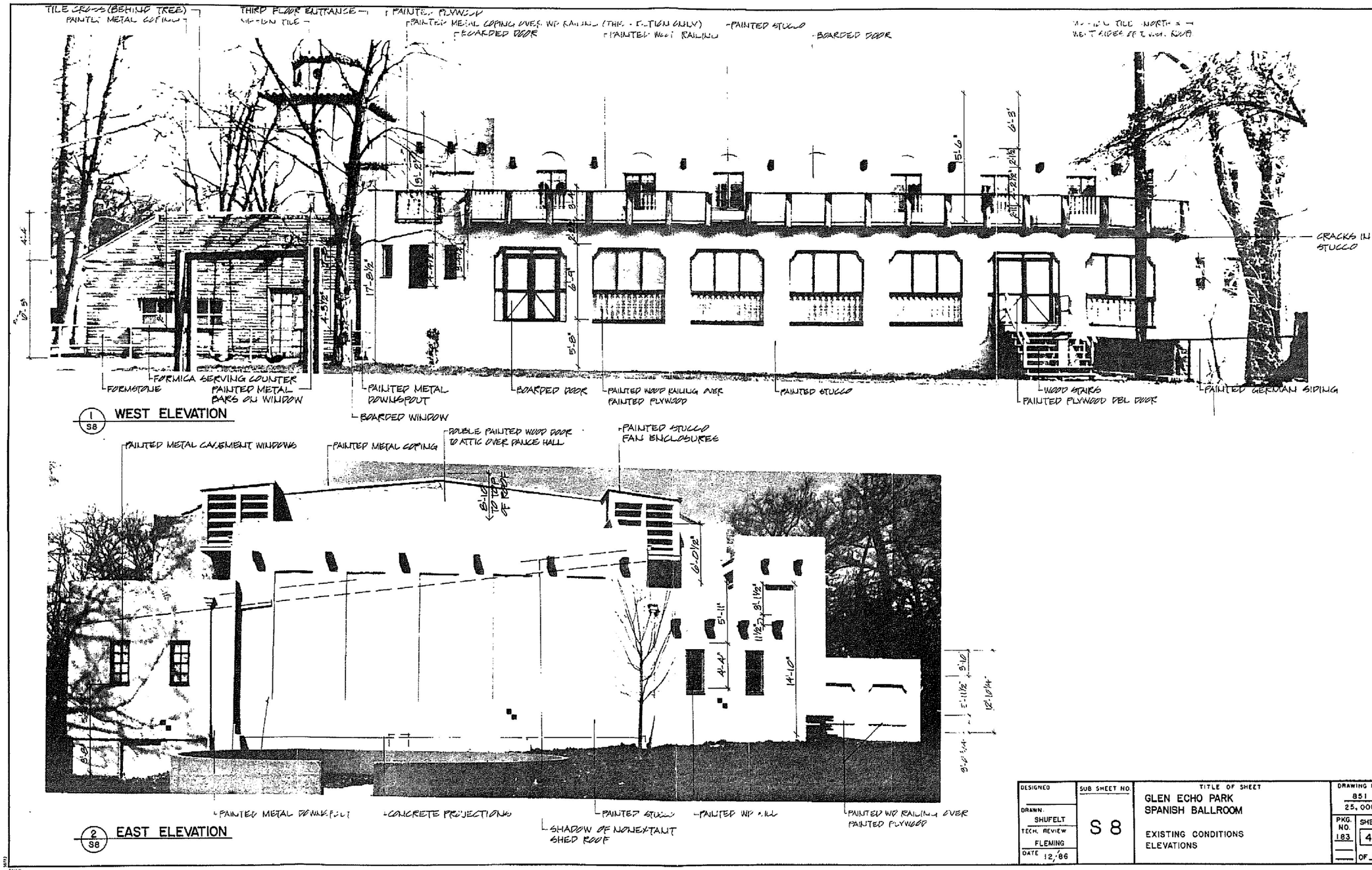

MATCH LINE
(SEE SHEET S 4)
ROOF
T&G DECKING REMOVED IN THIS AREA
THIRD FLR ABV THIS AREA (SEE BELOW), ACCESS FROM ROOF ONLY
WD RAILING
201
202
203
207
206
UPPER PORTION OF ROOM 101
WOOD COLUMN (TYP)
TWISTED IRON ROD (TYP)
IRON RAILING (TYP)
IRON BAR
WOOD RAILING
EDGE OF ROOF
LINE OF WALL BELOW
OPENING IN FLR. FOR ACCESS (FROM RM 110)
LINE OF ATTIC WALL ABV, WINDOW IN EA SIDE
OPENING IN FLR ABV
WD LADDER TO FLR ABV
301
THIRD FLOOR PLAN
1/4" = 1'-0"
SECOND FLOOR PLAN (WEST)
1/4" = 1'-0"
KEY PLAN
DESIGNED:
DRAWN: SHUFELT
TECH. REVIEW: FLEMING
DATE: 12/86
SUB SHEET NO
S 5
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
EXISTING CONDITIONS
FLOOR PLANS
DRAWING NO
851
25,000
PKG. NO. 183
SHEET 4 OF 8


TAR & GRAVEL
ASPHALT SHINGLES
TAR & GRAVEL
TAR & GRAVEL
TAR & GRAVEL
PAINTED METAL COPING (TYP)
TAR & GRAVEL
MISSION TILE
ROLLED ROOFING
TAR & GRAVEL
ASPHALT SHINGLES
TAR & GRAVEL
DN
DN
ASPHALT SHINGLES
TAR & GRAVEL
STUCCO COPING (TYP)
TAR & GRAVEL
TAR & GRAVEL
MISSION TILE
TAR & GRAVEL
FLAT CLAY TILE
TAR & GRAVEL
TAR & GRAVEL
TAR & GRAVEL
ASPHALT SHINGLES
MISSION TILE
ROOF PLAN
1/8" = 1'-0"
PN
1/8"=1'-0"
FEET
METERS
DESIGNED:
DRAWN: FIELDS
TECH. REVIEW: FLEMING
DATE: 12/86
SUB SHEET NO.
S 6
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
EXISTING CONDITIONS
ROOF PLAN
DRAWING NO.
851
25,000
PKG. NO.
183
SHEET
42
OF 98

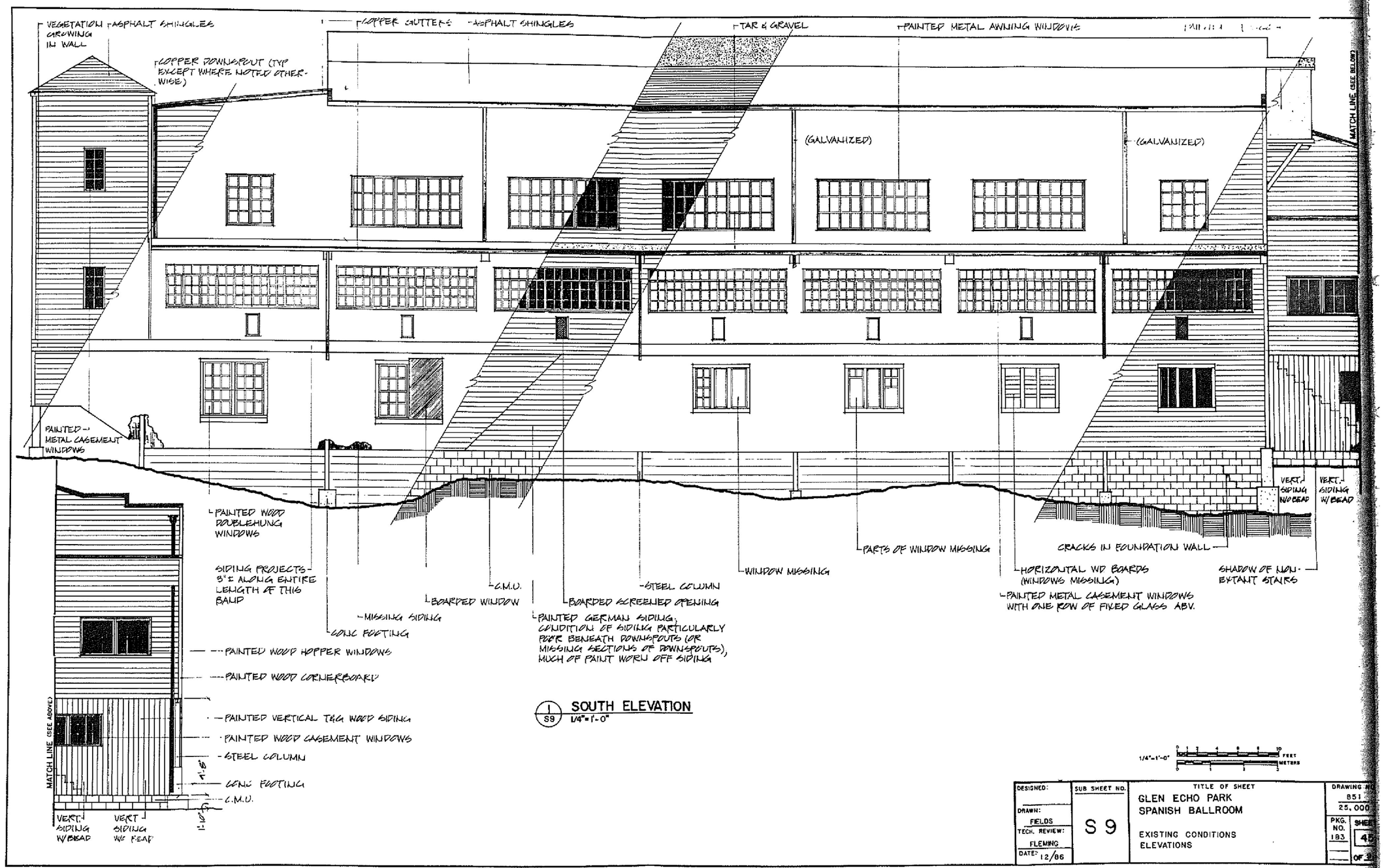


1 / S7 NORTH ELEVATION
1/4"=1'-0"

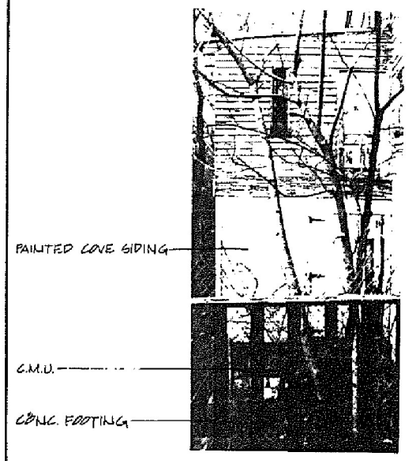
DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: FIELDS TECH. REVIEW: FLEMING DATE: 12/86	S 7	GLEN ECHO PARK SPANISH BALLROOM EXISTING CONDITIONS ELEVATIONS	851 25,000 PKG. NO. 183 SHEET 4 OF 3



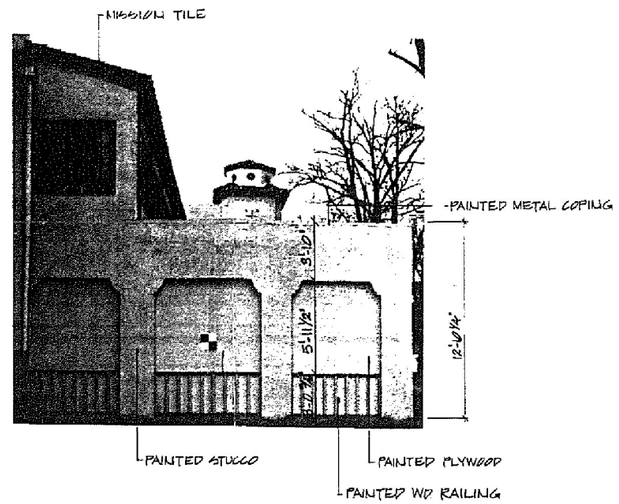
DESIGNED	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN. SHUFELT	S 8	GLEN ECHO PARK SPANISH BALLROOM EXISTING CONDITIONS ELEVATIONS	851 25,000
TECH. REVIEW FLEMING			PKG. NO. 183 / SHEET 44
DATE 12/86			OF 98



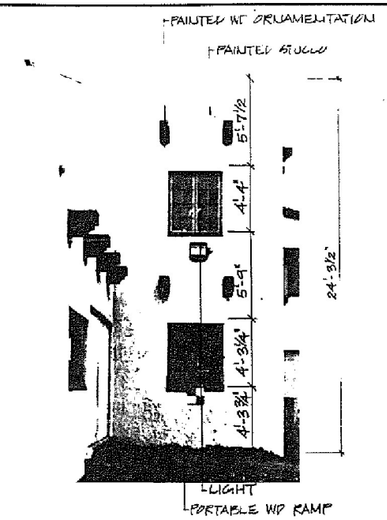
1 / S9 SOUTH ELEVATION
1/4"=1'-0"



1 / S10 EAST ELEVATION



2 / S10 EAST ELEVATION



3 / S10 EAST ELEVATION

ROOM FINISH SCHEDULE

BLDG.	FLOOR	ROOM	FLOOR MAT.	FLOOR FIN.	WALLS NORTH MAT.	WALLS NORTH FIN.	WALLS EAST MAT.	WALLS EAST FIN.	WALLS SOUTH MAT.	WALLS SOUTH FIN.	WALLS WEST MAT.	WALLS WEST FIN.	CEILING MAT.	CEILING FIN.	CEILING HGT.	BASE MAT.	BASE FIN.	BASE HGT.	ARCHITRAVE MAT.	ARCHITRAVE FIN.	ARCHITRAVE SIZE	DOORS NOS	DOORS FRAME/DOOR MAT.	DOORS FRAME/DOOR FIN.	DOORS DOOR SIZE	WINDOWS NOS	WINDOWS FRAME/SASH MAT.	WINDOWS FRAME/SASH FIN.	REMARKS
SPANISH BALLROOM	BASEMENT	1	DIRT	NONE	DIRT, CONC. PIERS, CRAWL SPACE	NONE	C.M.U.	NONE	WD. STUDS OVER HORIZ. WD SIDING	NONE	C.M.U.	NONE	EXP. WD. & STEEL FRAMING	NONE	VARIES 8'-7 TO 8'-2 (TO BT. BM.)	NONE	—	—	NONE	—	—	D1	HOLLOW METAL	PAINT	3'-11 3/4" x 5'-11 1/8"	W1-5	WD CASEMENT	PAINT	W1 HAS 4 PANELS, EACH WITH 6 LIGHTS. W2-W5 HAVE 8 PANELS, EACH WITH 8 LIGHTS; DOOR 2 HAS 2 DOORS IN OPENING
																						D2	BATTEN/ PANEL	PAINT (EXT. ONLY)	4'-2 3/4" x 7'-8 1/2"				
		2	CONC.	NONE	CONC.	PAINT	5 1/2" x 3/4" BEADED T&G WD. PANELING	PAINT	CONC.	PAINT	CONC.	PAINT	CONC.	PAINT	9'-2"	NONE	—	—	WOOD	PAINT	7/16" x 3 3/4"; 7/8" x 5"	NONE	—	—	—	W6	WOOD DOUBLE HUNG 6 OVER 6	PAINT	BEADED T&G WD. TOILET PARTITIONS. DOORS & PART OF ONE PARTITION MISSING
		3																								W7	WOOD DOUBLE HUNG - 6 OVER 6	PAINT	ACCESS TO THIS ROOM HAS BEEN BOARDED
	FIRST	101	2 1/4" T&G WOOD	NONE	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	ACOUS. TILE	PAINT	21'-10" ±	WOOD	PAINT	7 5/8"	WOOD	PAINT	1" (D 105); 3" (D 101)	D 101 (DBL)	WOOD	PAINT	3'-11 5/8" x 6'-11 1/2 (EA PAIR)	W201-209 & W210-216	METAL CASEMENT & AWNING	PAINT	WINDOWS AT UPPER PORTION OF ROOM
																						D 105	WOOD	NONE	(DOES NOT FIT OPENING)				
		102	3 1/4" T&G WOOD	NONE	DRYWALL	PAINT	DRYWALL	PAINT	DRYWALL	PAINT	DRYWALL	PAINT	EXP. WD FRAMING	NONE	SLOPES 10'-6 1/4" TO 11'-2 1/2" N	NONE	—	—	NONE	—	—	D 101 (DBL)	WOOD	PAINT	5'-11 5/8" x 6'-11 1/2 (EA PAIR)	W 101-103	METAL CASEMENT	PAINT	CLOSET INT.: UNFIN WD STUDS OVER PLYWD. CLOSET EXT: PAINTED PLYWOOD. CLOSET DOES NOT EXTEND TO CLG OF RM. 102; CLOSET CONTAINS ELECTRICAL PANELS
																						D 102	WOOD	PAINT	2'-5 3/8" x 6'-8"				
																						D 103 (DBL)	METAL	PAINT	4' x 6'-6 3/4"				
		103	3 1/4" & 2 1/4" x 3/4" T&G WD.	NONE	WD STUDS OVER FIBERBD & DRYWALL	NONE	WOOD STUDS OVER BOARDS	NONE	WOOD STUDS OVER	NONE	WOOD FRAMING	NONE	EXP WD FRAMING	NONE	SLOPES (SEE REMARKS)	NONE	—	—	NONE	—	—	NONE	—	—	—	NONE	—	—	OPEN WD STAIRS: 5 R (7"), 4 T (9 3/4"); STAGE FLR 2'-10 1/2" ABV RM. 102 FLR.; CLG HGT TO TOP OF STAIRS - (5'-3 1/2" & TO RM. 102 FLR. LEVEL - 15'-11 1/2"

DESIGNED	SUB SHEET NO	TITLE OF SHEET	DRAWING NO
DRAWN: SHUFELT TECH. REVIEW: FLEMING DATE: 12/86	S 10	GLEN ECHO PARK SPANISH BALLROOM EXISTING CONDITIONS ELEVATIONS / ROOM FINISH SCHEDULE	851 25,000 PKG. NO. 183 SHEET 46 OF 98

ROOM FINISH SCHEDULE

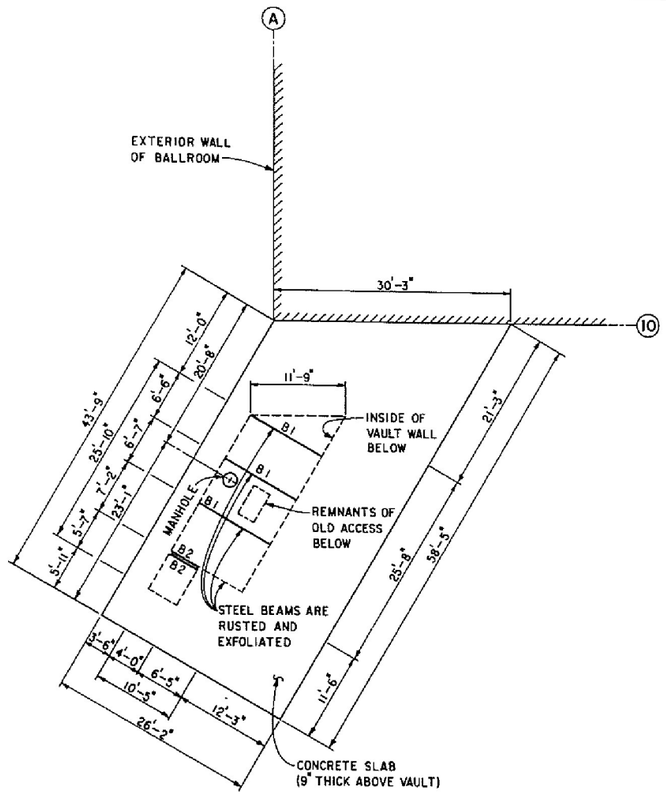
BLDG	FLOOR	ROOM	FLOOR MAT.	FLOOR FIN.	WALLS NORTH MAT.	WALLS NORTH FIN	WALLS EAST MAT.	WALLS EAST FIN.	WALLS SOUTH MAT.	WALLS SOUTH FIN.	WALLS WEST MAT.	WALLS WEST FIN.	CEILING MAT.	CEILING FIN.	CEILING HGT.	BASE MAT.	BASE FIN.	BASE HGT.	ARCHITRAVE MAT.	ARCHITRAVE FIN.	ARCHITRAVE SIZE	DOORS NOS	DOORS FRAME/DOOR MAT.	DOORS FRAME/DOOR FIN	DOORS DOOR SIZE	WINDOWS NOS	WINDOWS FRAME/SASH MAT.	WINDOWS FRAME/SASH FIN	REMARKS
SPANISH BALLROOM	FIRST	104	2 3/8" T&G WOOD	NONE	FIBERBD	PAINT	PLYWOOD	PAINT	FIBERBD	PAINT	FIBERBD	PAINT	FIBERBD.	PAINT	VARIES (8'-3½" AT TOP STEP	NONE	—	—	NONE	—	—	D104	METAL	PAINT	3'x 7'-1¼" (OPENING ADJUSTED)	NONE	—	—	FLOOR HAS 2 RISERS AT 1'-2" EA.
		105																											ROOM LOCKED. EQUIPMENT STORAGE
		106	T&G WOOD	NONE	½" PLYWD	NONE	PLYWOOD / DRYWALL	PAINT / PAINT	DRYWALL	PAINT	PLYWOOD / DRYWALL	PAINT (PARTIAL) / PAINT	DRYWALL	NONE	10'-7"	WOOD (E, S)	NONE	9¾" (x ¾")	WOOD	NONE	1½"	D106 / D105	H.C. WOOD / H.C. WOOD	NONE / NONE	3'-0" x 6'-8" / 2'-6" x 6'-8"	W104, 105 / W 106, 107	BOARDED / METAL HOPPER	/ PAINT	SECTIONS OF CEILING MISSING, PLYWOOD PATCH IN FLOOR, EVIDENCE OF WATER DAMAGE, PAINTED PLYWOOD PARTITION DIVIDING RM
		107	PLYWOOD	NONE	PLYWOOD	NONE	PLYWOOD	NONE	PLYWOOD	NONE	PLYWOOD	NONE	PLYWOOD & WD. JOISTS	NONE	9'-8	NONE	—	—	NONE	—	—	D106	H.C WOOD	NONE	3'-0" x 6'-8"	NONE	—	—	CEILING HEIGHT TO RAISED PLATFORM - 6'-0¼"
		108	2 3/8" T&G WOOD	NONE	PLASTER	PAINT	HORIZ. BDS.	PAINT	5 5/8" WD. STUDS OVER HORIZ BOARDS	PAINT	PLYWOOD	PAINT	EXP. WD. FRAMING	NONE	8'-0½" (N) 7'-4½" (S)	WOOD (N)	PAINT	7¼"	NONE	—	—	D107	6 PANEL WOOD	PAINT	2'-11¾" x 7'-0"	W 108 / W 109-113	METAL CASE. / METAL CASEMENT & FIXED GLASS	PAINT / PAINT	
		109	2 3/8" T&G WOOD	NONE	PLASTER	PAINT	PLYWOOD / CHAIN LINK	NONE / NONE	5 5/8" WD STUDS OVER HORIZ. BOARDS	PAINT	PLYWOOD	PAINT	EXP. WD. FRAMING	NONE	8'-1" (N) 7'-4¼" (S)	WOOD (N)	PAINT	7"	NONE	—	—	D108	PLYWOOD	PAINT	3'-0" x 6'-7"	W 114, 115	METAL CASEMENT & FIXED GLASS	PAINT	
		110	T&G WOOD	NONE	STUDS OVER PLYWOOD	NONE	PLASTER / PLYWOOD	PAINT / PAINT	PLASTER	PAINT	PLASTER	PAINT	EXP. WD. FRAMING	NONE	9'-3" (E) 9'-1" (W)	WOOD	PAINT	7"	NONE	—	—	D108 / D109	PLYWOOD / PLYWOOD	NONE / NONE	3'-0" x 6'-7" / 2'-0" x 6'-11¾"	W 116-119	METAL CASEMENT	PAINT	OPENING IN CEILING FOR ACCESS TO TOWER. IT WALL DOES NOT EXTEND UP TO CLG., STAIRS DOWN TO RESTROOMS COVERED WITH WOOD BOX; BOARDED OPENINGS - EAST & WEST WALLS
		111	T&G WOOD	NONE	PLYWOOD	PAINT	PLASTER	PAINT	PLYWOOD	PAINT	PLASTER	PAINT	EXP. WD. FRAMING	NONE	9'-2¼" (E) 9'-1½" (W)	WOOD (E)	PAINT	7½"	NONE	—	—	D110 (DBL.) / D109	WOOD / PLYWOOD	PAINT / PAINT	2'-10" x 6'-9" (EA PANEL) / 2'-0" x 6'-11¾"	NONE	—	—	PAINTED PLYWOOD AROUND D110 TO MAKE ORIGINAL OPENING SMALLER)
		112	T&G WOOD	NONE	PLYWOOD	PAINT	PLASTER	PAINT	PLYWOOD	NONE	PLASTER	PAINT	EXP. WD. FRAMING	NONE	9'-1½" (E) 9'-0" (W)	WOOD (E, W)	PAINT	7¼"	NONE	—	—	NONE	—	—	—	NONE	—	—	OPENINGS IN WEST WALL COVERED WITH PAINTED PLYWOOD (OPENINGS 7'-5½" WIDE BY 7'-5" TALL), OPENINGS TO RM. 101 BOARDED
		113	T&G WOOD	NONE	PLYWOOD	PAINT	PLASTER	PAINT	STUDS OVER PLYWOOD	NONE	PLASTER	PAINT	EXP. WD. FRAMING	NONE	9'-2" (E) 9'-1" (W)	WOOD (E, W)	PAINT	7¼" (x 1")	NONE	—	—	D111 (DBL.)	H.C. FIBERBOARD & METAL GATE	NONE / PAINT	2'-0" x 6'-8" (EA. PANEL)	NONE	—	—	OPENINGS IN WEST & EAST WALLS BOARDED
		114	T&G WOOD	NONE	PLASTER	PAINT	PLYWOOD	PAINT	PLASTER	PAINT	PLASTER	PAINT	EXP. WD. FRAMING	NONE		WOOD (N, W)	PAINT	5¾"	NONE	—	—	D113 / D111 (DBL.)	PLYWOOD / FIBERBD & METAL GATE	PAINT / NONE	2'-4" x 6'-8" / 2'-6" x 6'-8 (EA PANEL)	W 112-122	METAL CASEMENT	PAINT	APPROX. 4' x 8' PLYWD. PATCH IN FLR.; PAINTED PLYWD. AROUND D111 & 113 (TO MAKE ORIGINAL OPENINGS SMALL OPENINGS BTWN. RMS 114 & 116 BLOCKED BY PAINTED PLYWD., WD. RAILINGS & METAL GATE. PLYWD PATCH IN CLG
		115	T&G WOOD	NONE	PLASTER	PAINT	PLASTER	PAINT	PLASTER	PAINT	PLYWOOD / PINE PANELING	PAINT / VARNISH	EXP. WD. FRAMING	NONE	9'-8½" (N WALL) 12'-8" (S)	WOOD (E)	PAINT	5¾"	WOOD	VARNISH	2¼"	D112 (DBL.) / D113	ALUM. & GLASS / H.C WOOD	NONE / NONE	2'-5 5/8" x 6'-8" (EA PANEL) / 2'-8" x 6'-8"	NONE	—	—	NORTH 7' OF CLG SLOPES DOWN (CLG HGT. - 12'-11" TO 9'-2", WD STAIRS: 6R (7") & 5T (12") WITH PAINTED WD. HANDRAIL, METAL RAILING EXTENDING N 7'-11½" FROM EDGE OF STAIRS ON W WALL
		116	CONC. SLORED 2' O.C.	PAINT	PLASTER	PAINT	PLYWOOD	PAINT	PLASTER	PAINT	PLASTER	PAINT	2'x4' ACOUS. TILE / 2'x4' INSUL. PANELS	NONE / NONE	8'-6½"	VINYL (N, E, & W)	NONE	4"	WOOD	PAINT	7/8" x 4½"	D115 / D114	H.C. WOOD / WOOD W/ 15 LIGHTS	NONE / PAINT	2'-8" x 6'-8" / 2'-5¾" x 6'-11" (EA. PANEL)	W 123, 124 / W 125	HINGED PLY-WD WOODEN / METAL CASEMENT	PAINT / PAINT	W122A BOARDED, 8" PAINTED WOOD OR CONC. BASE BEHIND VINYL BASE
		117	PLYWOOD (OVER T&G WD. FLR.)	NONE	PLASTER	PAINT	PLASTER	PAINT	PLASTER / DRYWALL / PLYWOOD	PAINT / NONE / NONE	DRYWALL	NONE	EXP. WD. FRAMING	NONE	9'-0¾"	WOOD (N, S)	PAINT	7½"	NONE	—	—	D116 (DBL.)	H.C. WOOD	PAINT	2'-8" x 6'-8" (EA PANEL)	NONE	—	—	PLASTER COMING OFF N & E WALLS REVEALING WOOD FRAMING
		118	PLYWOOD (OVER T&G WD. FLR.)	NONE	WD STUDS PARTIALLY COVERED W/ PLASTER	PAINT (PLASTER ONLY)	PLASTER	PAINT	PLASTER	PAINT	WD. STUDS	NONE	PLASTER	PAINT	8'-8¾"	WOOD	PAINT	7½"	NONE	—	—	NONE	—	—	—	NONE	—	—	PLASTER COMING OFF WALLS REVEALING WOOD FRAMING
		119	CONCRETE / CERAMIC TILE	NONE / NONE	WD FRAM / FIBERBD. / CER TILE / PLASTER	NONE / PAINT / NONE / PAINT	WD FRAM. / CER. TILE / PLASTER	NONE / PAINT / PAINT	WD. STUDS OVER DRYWALL / CER TILE / PLASTER	NONE / NONE / PAINT	WD. STUDS OVER DRYWALL	NONE	EXP. WD & STEEL FRAMING / FIBERBD.	PAINT (PART.)	10'-0" TO STEEL BM.)	NONE	—	—	NONE	—	—	D117 (DBL)	WOOD	PAINT	3'-0" x 6'-8"	W 126-129	METAL CASEMENT & FIXED GLASS	PAINT	WD. FRAM. ON N & E WALLS CONSISTS OF WD. STUDS & PLYWD, SOME CERAMIC TILE ON WALLS IS PAINTED, CLG FIBERBD. & DRYWALL ALSO ON S WALL, ORIGINAL OPENINGS IN N. & E. WALLS - BOARDED
		120	T&G WOOD	NONE	WD STUDS OVER SHEATH / FIBERBD	NONE / PAINT	PLASTER	PAINT	PLASTER / PLYWOOD (OVER OPENING)	PAINT / PAINT	PLASTER / PLYWOOD (OVER OPENING)	PAINT / NONE	EXP. WD. FRAMING	PAINT	9'-2½"	WOOD (S, E)	PAINT	8½"	NONE	—	—	NONE	—	—	—	W 130 / W 130-132	METAL CASEMENT / WD CASEMENT	PAINT / PAINT	W 130-132 SIM. TO DBL. PR. (1'-5½" x 7'-0" W/ 5 LIGHTS EA PANEL), BUT NO ACCESS TO EXTERIOR BECAUSE OF WOOD RAILING

DESIGNED	SUB SHEET NO	TITLE OF SHEET	DRAWING
DRAWN: SHUFELT TECH. REVIEW: FLEMING DATE: 12/86	S 11	GLEN ECHO PARK SPANISH BALLROOM EXISTING CONDITIONS ROOM FINISH SCHEDULE	851 25,000 PKG. NO. 183 SHEET 4 OF

ROOM FINISH SCHEDULE

BLDG.	FLOOR	ROOM	FLOOR MAT.	FLOOR FIN	WALLS NORTH MAT.	WALLS NORTH FIN.	WALLS EAST MAT.	WALLS EAST FIN.	WALLS SOUTH MAT.	WALLS SOUTH FIN.	WALLS WEST MAT.	WALLS WEST FIN.	CEILING MAT.	CEILING FIN.	CEILING HGT.	BASE MAT.	BASE FIN.	BASE HGT.	ARCHITRAVE MAT.	ARCHITRAVE FIN.	ARCHITRAVE SIZE	DOORS NOS.	DOORS FRAME/DOOR MAT.	DOORS FRAME/DOOR FIN.	DOORS DOOR SIZE	WINDOWS NOS.	WINDOWS FRAME/SASH MAT.	WINDOWS FRAME/SASH FIN.	REMARKS
SPANISH BALLROOM	SECOND	201	2 7/16" T&G WOOD	NONE	PLASTER WD STUDS OVER DIAG. BDS.	PAINT NONE	PLASTER	PAINT	WD STUDS	NONE	PLASTER VERTICAL BOARDS	PAINT PAINT	PLASTER EXP. WOOD FRAMING	PAINT NONE	9'-5 1/2" TO PLAS. 8'-6 3/4" TO WD. BM.	WOOD (L,E,W)	PAINT	7 3/4"	NONE	—	—	NONE	—	—	—	W 216, 217 W 218 W 219	BOARDED WD. FIXED MTL. FIXED	PAINT PAINT-EXT. STAIN-INT. PAINT	
		202	PLYWOOD	NONE	PLYWOOD	PAINT	—	—	PLYWOOD	PAINT	PLYWOOD	PAINT	PLYWOOD	PAINT	7'-9 1/2"	NONE	—	—	NONE	—	—	NONE	—	—	—	NONE	—	—	
		203	T&G WOOD	NONE	PLASTER	PAINT	—	—	DRYWALL	PAINT	PLASTER	PAINT	EXP. WOOD FRAMING	PAINT	SEE REMARKS	WOOD (W)	PAINT	7 3/4"	NONE	—	—	D 201 (DBL)	WOOD & GLASS	PAINT	2'-6" x 6'-9 3/4" (EA. PAN.)	NONE	—	—	SLOPED CLG. - HGT TO WD. BEAM (N) 8'-3 3/4", TO DECKING (N) 9'-11 1/2", TO DECKING (S) 10'-4 1/2". D 201 OPENING BOARDED - MOST OF DR. MISSING, BEHIND S WALL - PLASTER WALL W/ WD BASE
		204	T&G WOOD	NONE	PLASTER	PAINT	PLASTER	PAINT	DRYWALL	PAINT	—	—	EXP. WOOD FRAMING	PAINT (PARTIAL)	7'-11 1/4" TO BM. AT W225	WOOD (E,N)	PAINT	7 1/8"	WOOD	PAINT	3 7/8"	NONE	—	—	—	W 220-222 W 223-229	METAL CASEMENT WOOD CASEMENT	PAINT PAINT	LARGE HOLES IN FLOOR, AREAS OF PLASTER & DRY-WALL REMOVED
		205	2 3/8" T&G WOOD	NONE	DRYWALL	PAINT	DRYWALL	PAINT	FIBERBD. PLYWOOD	NONE NONE	FIBERBD. DRYWALL	PAINT (PARTIAL) PAINT (PARTIAL)	WOOD BOARDS	NONE	9'-6"	NONE	—	—	WOOD	PAINT		D 202 D 202 A D 202 B	WD. W/ 15 LIGHTS (MISSING) (BOARDED)	PAINT	2'-6 3/4" X 6'-8 1/2"	W 230 233	METAL CASE-MENT	PAINT	D 202 - GLASS BROKEN, W 233 COVERED W/ DRYWALL, N WALL AREAS OF DRYWALL & WD. SHEATHING GONE LEAVING STUDS & STUCCO; UTILITY RM - ONLY WD STUDS LEFT FOR E, N WALLS
		206	T&G WOOD	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	EXP. WD. FRAM-ING	NONE	13'-7 1/4"	NONE	—	—	NONE	—	—	D 204 D 203	WD. W/ 15 LIGHTS WD. W/ 12 LIGHTS	PAINT PAINT	2'-7 1/2" X 7'-0" 2'-5 3/4" X 7'-0"	W 208 & 209	METAL CASE-MENT	PAINT	
	THIRD	301	5 1/4" T&G WOOD	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	WD. STUDS OVER DIAG. BOARDS	NONE	EXP. WD. FRAM-ING	NONE	4'-11 1/2"	NONE	—	—	NONE	—	—	D 301	WD. PANEL	PAINT	2'-1 3/4" X 5'-10 3/4"	NONE (SEE REMARKS)	—	—	B. BOUND WD. & FIXED GLASS WINDOWS IN ATTIC MEN.

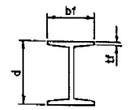
DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: SHUFELT	S 12	GLEN ECHO PARK SPANISH BALLROOM EXISTING CONDITIONS ROOM FINISH SCHEDULE	851 25,000
TECH. REVIEW: FLEMING			PKG. NO. 183 — SHEET 48 OF 98
DATE: 12/86			



VAULT PLAN

8 0 8 16

SCALE OF FEET

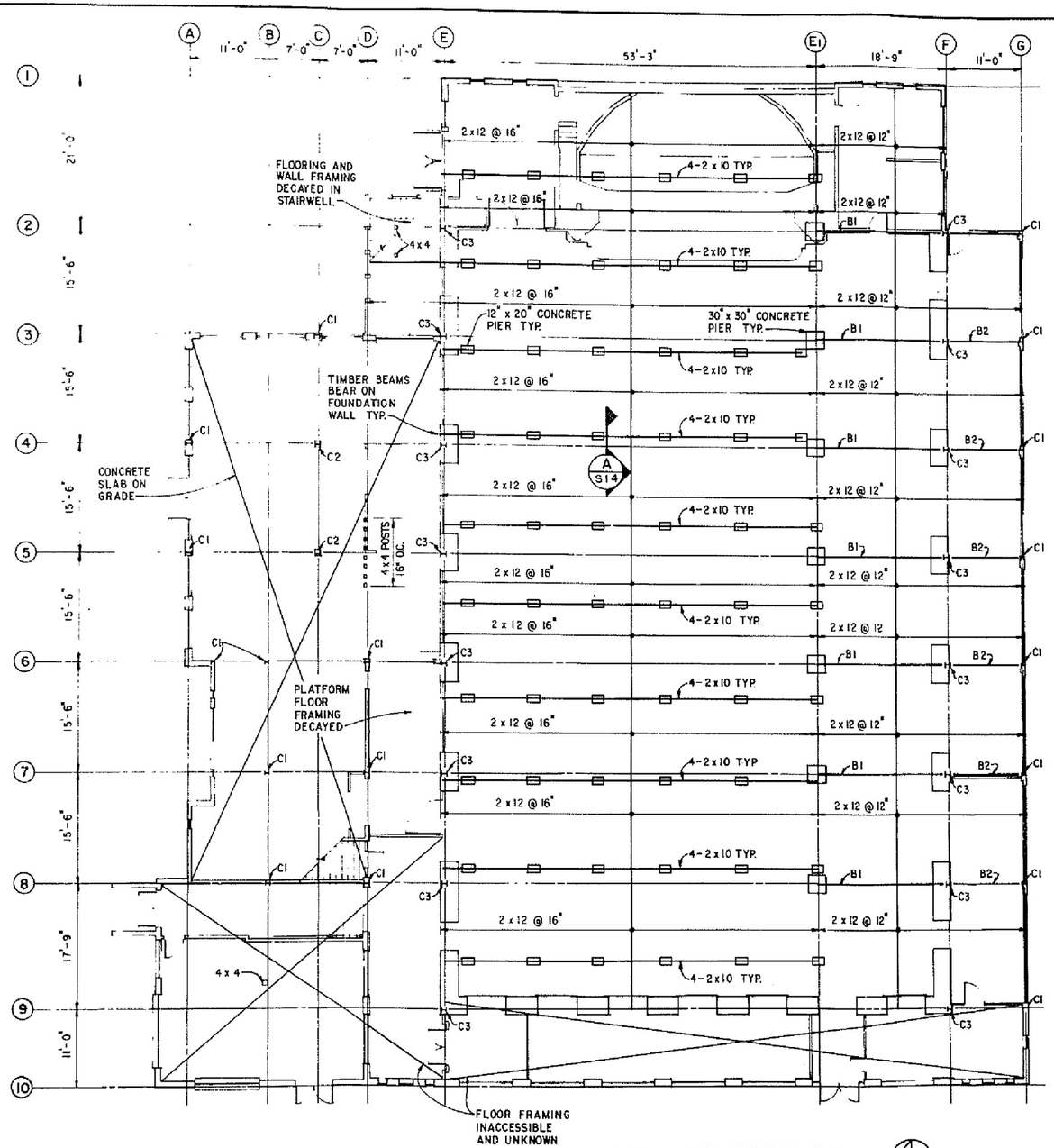


BEAM SCHEDULE				
BEAM	d	bf	tf	DESIGNATION
B1	8"	5 1/2"	1/8"	8I17.5
B2	4"	2"	1/4"	4I7.75

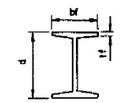
NOTE

DESIGNATIONS BASED ON FIELD MEASUREMENTS AND DRAWING NO. 851/82,681 SHEET 4 OF 14. DESIGNATIONS USED ARE THE ORIGINAL DESIGNATIONS.

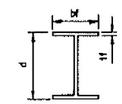
DESIGNED: REYNOLDS	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN:	S 13	GLEN ECHO PARK SPANISH BALLROOM EXISTING CONDITIONS STRUCTURAL PLANS	851 25,000
TECH. REVIEW: M. PAUL			PKG. NO. 183
DATE: 12/86			SHEET 4 OF 5



FIRST FLOOR FRAMING PLAN
SCALE (A)



I-SECTION



H-SECTION

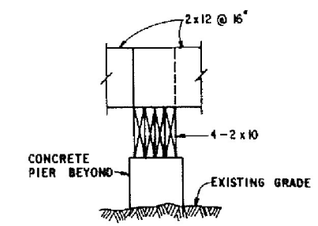
BEAM SCHEDULE				
BEAM	d	bf	tf	DESIGNATION
B1	16"	7 1/4"	1/4"	16I35
B2	10"	5 7/8"	1/4"	10I21

COLUMN SCHEDULE				
COLUMN	d	bf	tf	DESIGNATION
C1	6"	6"	3/8"	6H20
C2	6 3/8"	6 1/8"	7/16	6H24
C3	8"	8"	3/8"	8H32

NOTE

DESIGNATIONS BASED ON FIELD MEASUREMENTS AND DRAWING NO. 851/82,683. DESIGNATIONS USED ARE THE ORIGINAL DESIGNATIONS.

WOOD MEMBER SCHEDULE	
NOMINAL SIZE	ACTUAL SIZE
2 x 10	2" x 9 1/4"
2 x 12	1 3/4" x 11 1/2"
4 x 4	3 1/2" x 3 1/2"

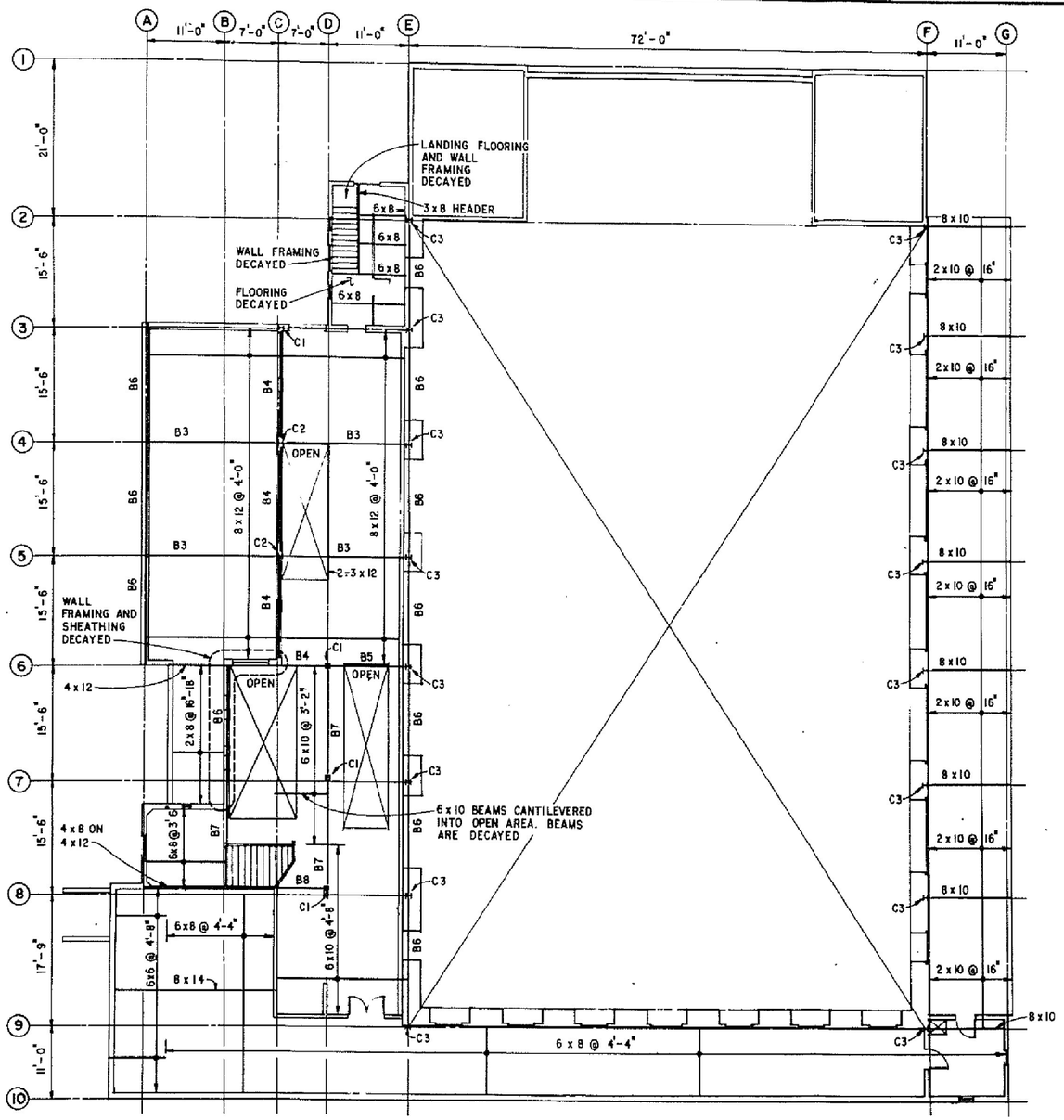


SECTION (A/S14)
SCALE (B)

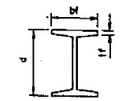
SCALE (B) 1 0 1 2 SCALE OF FEET

SCALE (A) 8 0 8 16 SCALE OF FEET

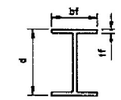
DESIGNED: L. REYNOLDS	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: Sodesberg	S 14	GLEN ECHO PARK SPANISH BALLROOM	851 / 25,000
TECH. REVIEW: W. PAUL		EXISTING CONDITIONS STRUCTURAL PLANS	PKG. NO. 183 / SHEET 50 OF 98
DATE: 12/86			



FRAMING AT SECOND FLOOR LEVEL



I-SECTION



H-SECTION

BEAM SCHEDULE				
BEAM	d	bf	tf	DESIGNATION
B3	9"	5 1/2"	1/4"	9I20.5
B4	15"	6 3/4"	3/8"	15I36
B5	6"	3 3/8"	1/4"	6I12.5
B6	12"	6"	3/8"	12I25
B7	14"	6 3/4"	1/4"	14I30
B8	7"	3 5/8"	1/4"	7I15.3

COLUMN SCHEDULE				
COLUMN	d	bf	tf	DESIGNATION
C1	6"	6"	3/8	6H20
C2	6 5/8"	6 1/8"	7/16	6H24
C3	8"	8"	3/8	8H32

NOTE

DESIGNATIONS BASED ON FIELD MEASUREMENTS AND DRAWING NO. 851/82.863. DESIGNATIONS USED ARE THE ORIGINAL DESIGNATIONS.

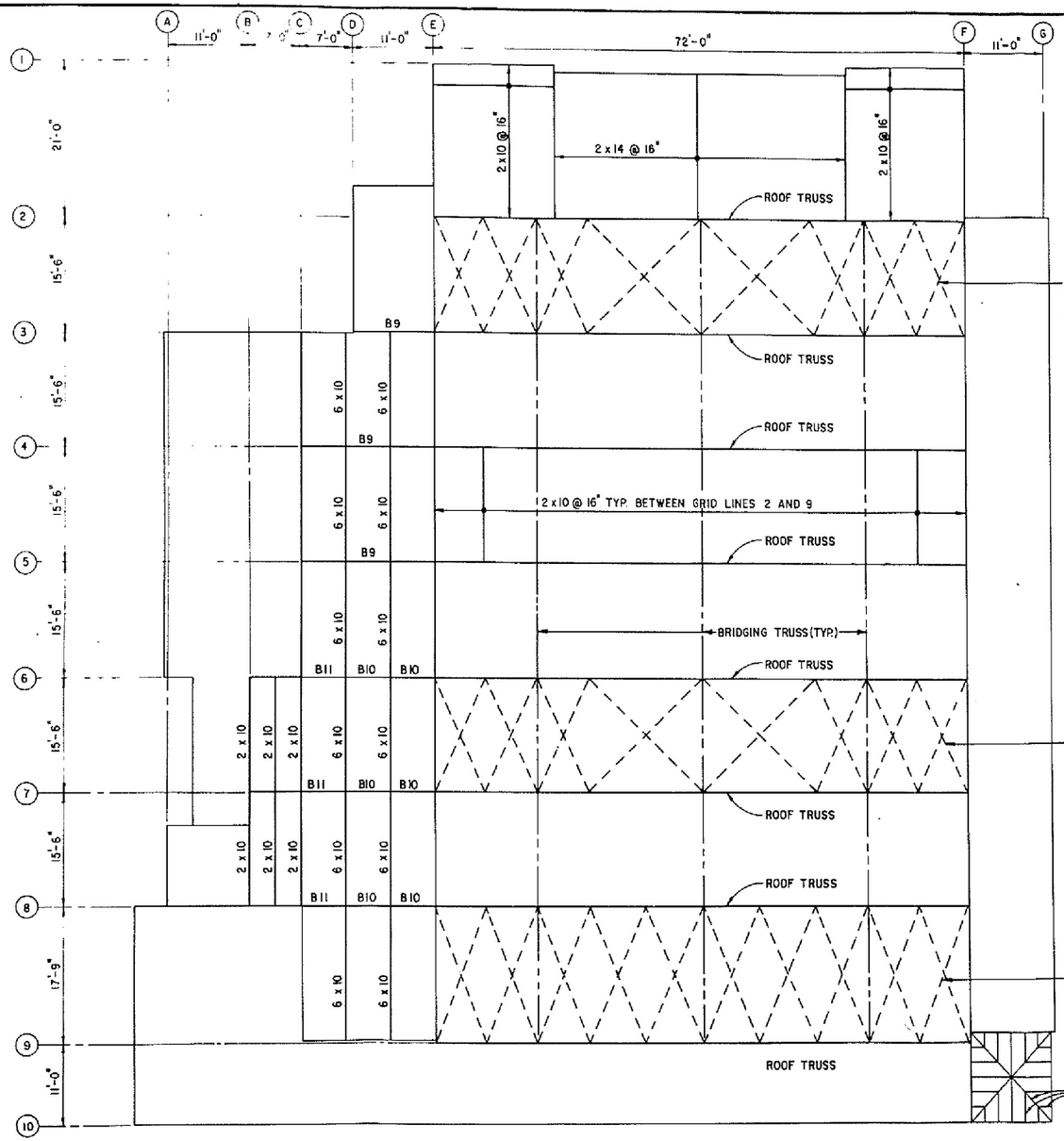
WOOD MEMBER SCHEDULE	
NOMINAL SIZE	ACTUAL SIZE
2 x 8	1 5/8" x 7 1/2"
2 x 10	1 3/4" x 9 1/4"
3 x 8	3" x 7 1/2"
3 x 12	2 3/4" x 11 3/4"
4 x 8	3 7/8" x 8"
4 x 12	3 7/8" x 12"
6 x 6	5 3/4" x 5 3/4"
6 x 8	5 3/4" x 7 1/2"
6 x 10	5 3/4" x 9 1/4"
8 x 10	7 1/4" x 9 1/4"
8 x 12	8" x 12"
8 x 14	8" x 13 1/2"

NOTE

1. 1" NOMINAL WOOD DECKING SPANS BETWEEN TIMBER BEAMS.

8 0 8 16
SCALE OF FEET

DESIGNED: L. REYNOLDS	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRAWN: Sadashang TECH. REVIEW: M. PAUL DATE: 12/86	S 15	GLEN ECHO PARK SPANISH BALLROOM EXISTING CONDITIONS STRUCTURAL PLANS	851 25,000 PKG. NO. 183 SHEET 5 OF 5



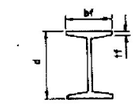
ROOF FRAMING PLAN
SCALE (A)

WOOD MEMBER SCHEDULE	
NOMINAL SIZE	ACTUAL SIZE
2 x 6	1 5/8" x 5 3/4"
2 x 10	1 5/8" x 9 1/2"
2 x 14	1 5/8" x 13 1/2"
6 x 10	5 3/4" x 9 3/4"

ROOF TRUSS SCHEDULE		
MEMBER	MEMBER SIZE	FORCE
L0 — L1	2 — L 6x3x3/8 JL LLV	35.3 k T
L0 — U1	2 — L 6x3x3/8 ⅂L LLV	39.5 k C
L1 — U1	2 — L 3 1/2 x 3 1/2 x 3/8	9.6 k T
L1 — U2	2 — L 3 1/2 x 3 1/2 x 3/8	18.2 k C
L1 — L2	2 — L 6x3x3/8 JL LLV	50.8 k T
U1 — U2	2 — L 6x3x3/8 ⅂L LLV	35.6 k C
L2 — U2	2 — L 3 1/2 x 3 1/2 x 3/8	3.9 k T
L2 — U3	2 — L 2 1/2 x 2 1/2 x 3/8	6.5 k C
L2 — L3	2 — L 6x3x3/8 JL LLV	56.1 k T
U2 — U3	2 — L 6x3x3/8 ⅂L LLV	51.2 k C
L3 — U3	2 — L 2 1/2 x 2 1/2 x 3/8	0.7 k C
L3 — U4	2 — L 2 1/2 x 2 1/2 x 3/8	1.1 k T
L3 — L4	2 — L 6x3x3/8 JL LLV	55.3 k T
U3 — U4	2 — L 6x3x3/8 ⅂L LLV	56.5 k C
L4 — U4	2 — L 2 1/2 x 2 1/2 x 3/8	4.2 k C
L4 — U5	2 — L 2 1/2 x 2 1/2 x 3/8	6.9 k T
L4 — L5	2 — L 6x3x3/8 JL LLV	50.3 k T
U4 — U5	2 — L 6x3x3/8 ⅂L LLV	55.6 k C
L5 — U5	2 — L 2 1/2 x 2 1/2 x 3/8	0.0

BRIDGING TRUSS SCHEDULE	
MEMBER	MEMBER SIZE
L1B-U2B	L 3x3x3/8
U1B-U2B	SEE TOP CHORD DETAIL
L1B-L2B	2 — L 3 1/2 x 3 1/2 x 1/4
U2B-L2B	L 3x3x3/8
U2B-U3B	SEE TOP CHORD DETAIL
L2B-U3B	L 3x3x3/8
L2B-L3B	2 — L 3 1/2 x 3 1/2 x 1/4
L3B-U3B	L 3x3x3/8
U3B-U4B	SEE TOP CHORD DETAIL

BEAM SCHEDULE				
BEAM	d	bf	tf	DESIGNATION
B9	12"	6"	5/8"	12 I 25
B10	6"	3 5/8"	1/4"	6 I 12.5
B11	8"	4"	1/4"	8 I 18



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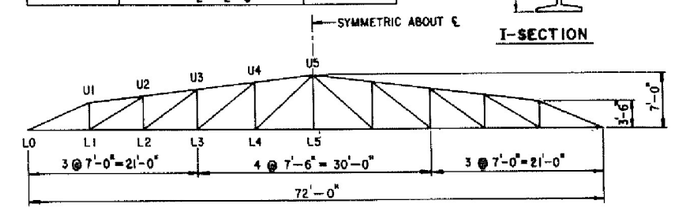
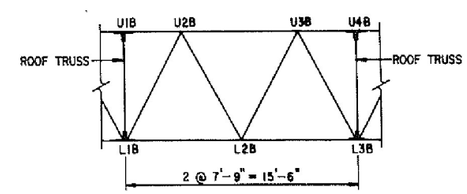
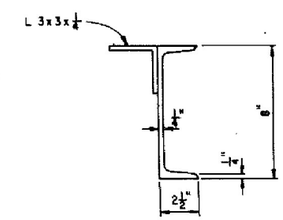


ROOF TRUSS
SCALE (A)



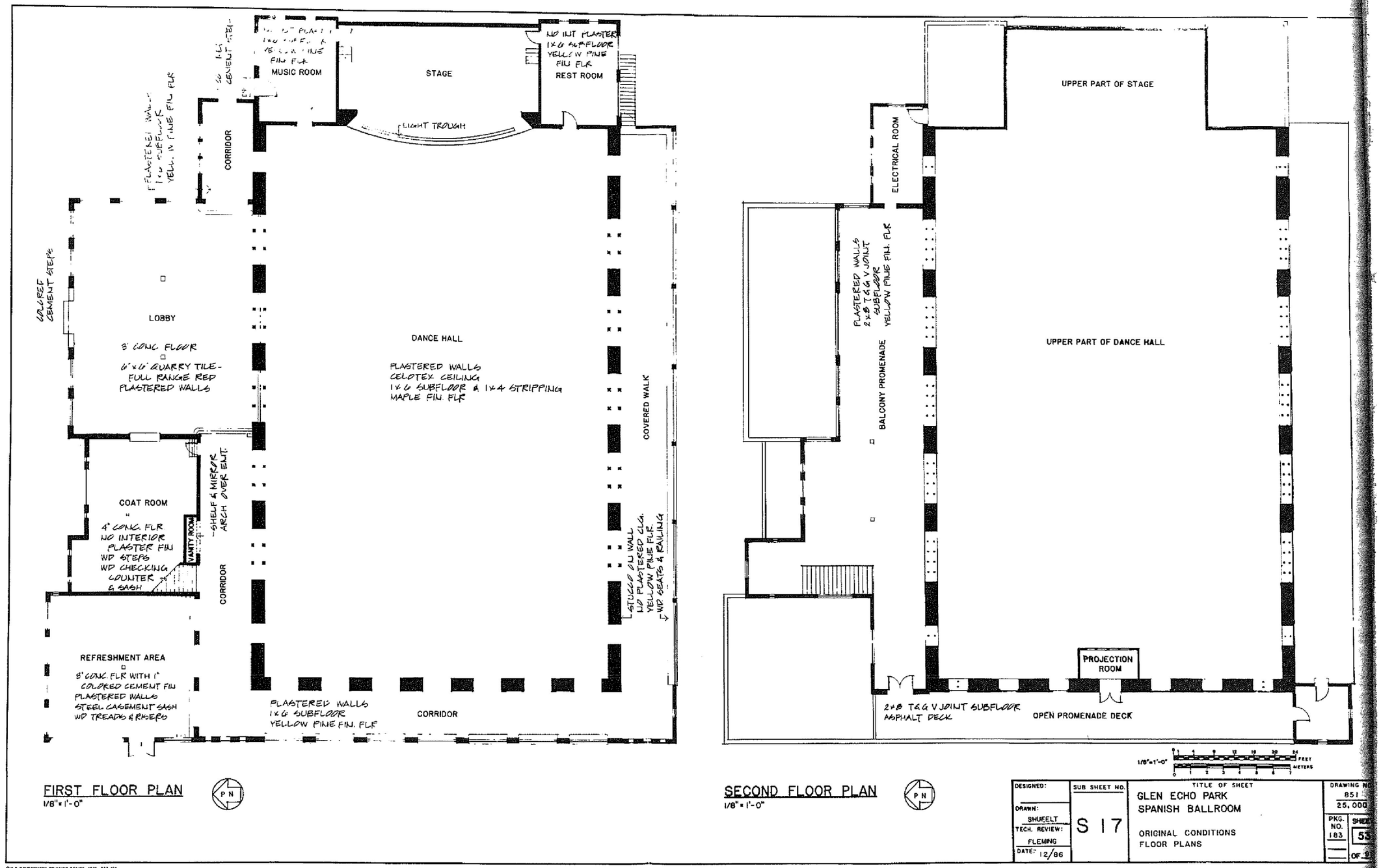
BRIDGING TRUSS DETAIL
TYP. EACH BAY
SCALE (B)

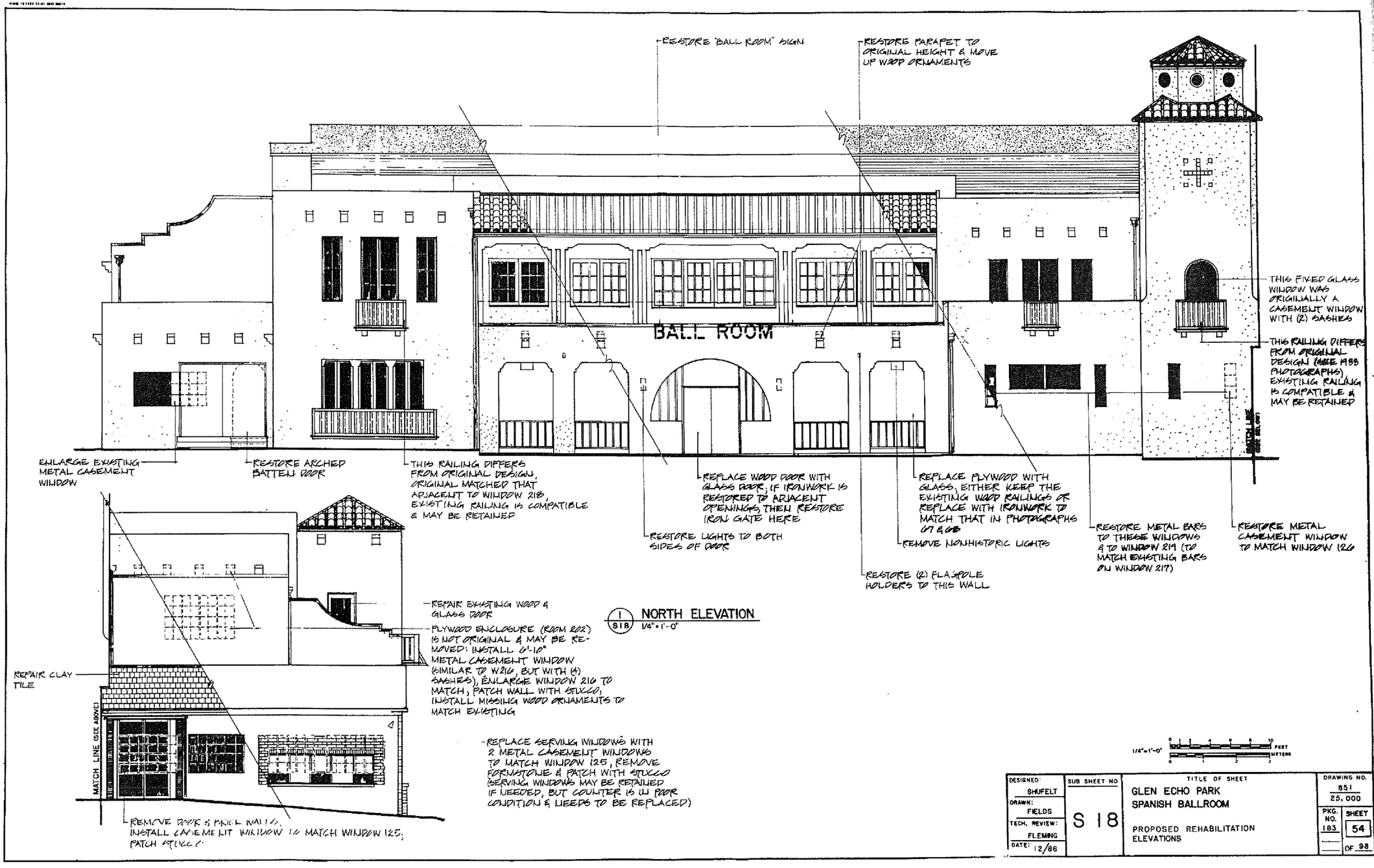


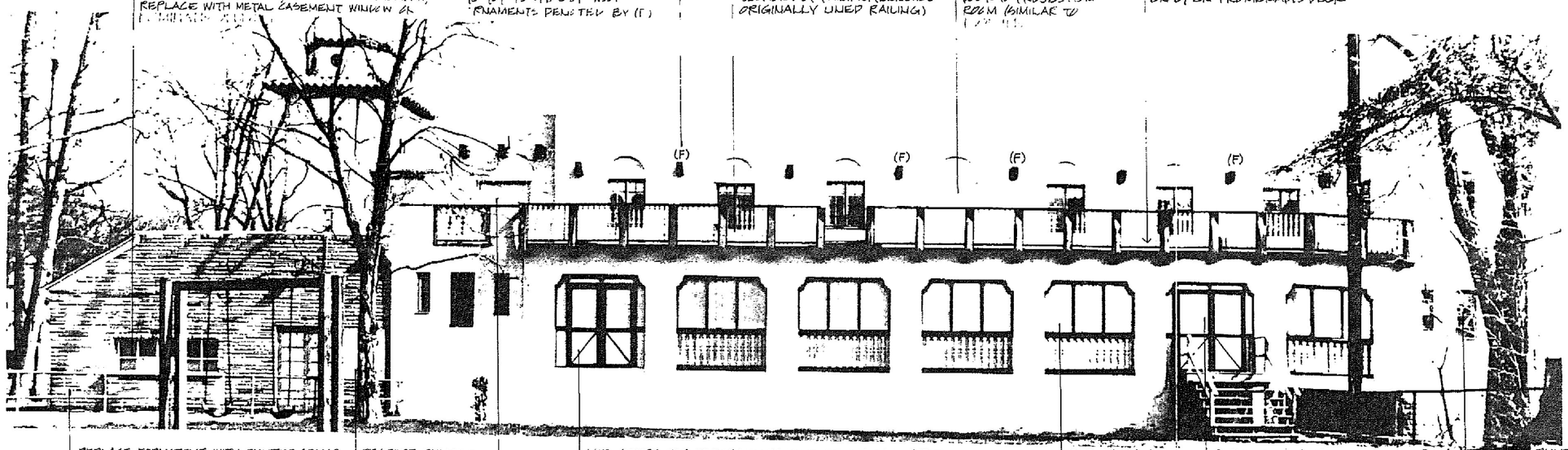
TOP CHORD DETAIL
SCALE (C)

SCALE (A) 8 0 8 16 SCALE OF FEET
SCALE (B) 4 0 4 8 SCALE OF FEET
SCALE (C) 6 3 0 6 SCALE OF INCHES

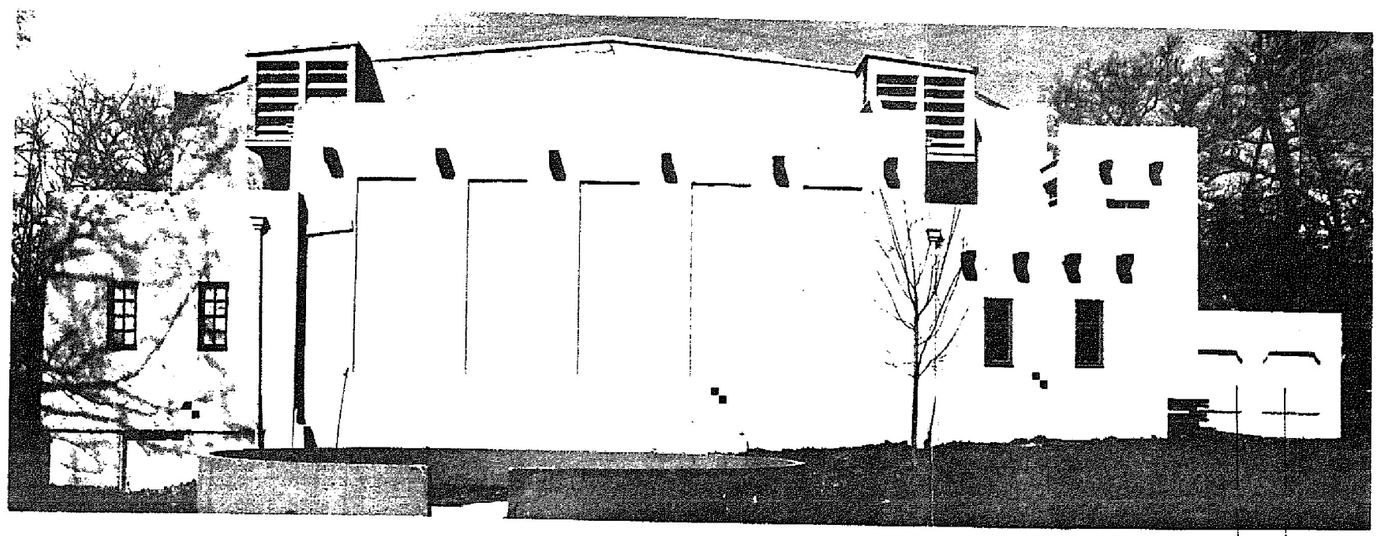
DESIGNED: L. REYNOLDS	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO. 851 25,000
DRAWN: SRC.	S 16	GLEN ECHO PARK SPANISH BALLROOM	PKG. NO. 183
TECH. REVIEW: M PAUL		EXISTING CONDITIONS STRUCTURAL PLANS	SHEET 52 OF 98
DATE: 12/86			


MUSIC ROOM
FIN FLR
STAGE
NO INT PLASTER
1x6 SUBFLOOR
YELLOW PINE
FIN FLR
REST ROOM
LIGHT TROUGH
CORRIDOR
COLORED CEMENT STEPS
LOBBY
3" CONC FLOOR
6"x6" QUARRY TILE-
FULL RANGE RED
PLASTERED WALLS
DANCE HALL
PLASTERED WALLS
CELOTEX CEILING
1x6 SUBFLOOR & 1x4 STRIPPING
MAPLE FIN. FLR
COVERED WALK
COAT ROOM
4" CONC. FLR
NO INTERIOR
PLASTER FIN
WD STEPS
WD CHECKING
COUNTER
& SASH
VANITY ROOM
SHELF & MIRROR
ARCH OVER ENT.
CORRIDOR
STUCCO ON WALL
NO PLASTERED CLG.
YELLOW PINE FLR.
NO SEATS & RAILING
REFRESHMENT AREA
3" CONC. FLR WITH 1"
COLORED CEMENT FIN
PLASTERED WALLS
STEEL CASEMENT SASH
WD TREADS & RISERS
PLASTERED WALLS
1x6 SUBFLOOR
YELLOW PINE FIN. FLR
CORRIDOR
UPPER PART OF STAGE
ELECTRICAL ROOM
PLASTERED WALLS
2x8 T&G V JOINT
SUBFLOOR
YELLOW PINE FIN. FLR
BALCONY PROMENADE
UPPER PART OF DANCE HALL
PROJECTION
ROOM
2x8 T&G V JOINT SUBFLOOR
ASPHALT DECK
OPEN PROMENADE DECK
1/8"=1'-0"
FEET
METERS
FIRST FLOOR PLAN
1/8" = 1'-0"
PN
SECOND FLOOR PLAN
1/8" = 1'-0"
PN
DESIGNED:
DRAWN: SHUFELT
TECH. REVIEW: FLEMING
DATE: 12/86
SUB SHEET NO.
S 17
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
ORIGINAL CONDITIONS
FLOOR PLANS
DRAWING NO.
851
25,000
PKG. NO.
183
SHEET
53
OF


RESTORE "BALL ROOM" SIGN
RESTORE PARAPET TO ORIGINAL HEIGHT & MOVE UP WOOD ORNAMENTS
BALL ROOM
THIS FIXED GLASS WINDOW WAS ORIGINALLY A CASEMENT WINDOW WITH (2) SASHES
THIS RAILING DIFFERS FROM ORIGINAL DESIGN (SEE 1988 PHOTOGRAPHS) EXISTING RAILING IS COMPATIBLE & MAY BE RETAINED
ENLARGE EXISTING METAL CASEMENT WINDOW
RESTORE ARCHED BATTEN DOOR
THIS RAILING DIFFERS FROM ORIGINAL DESIGN, ORIGINAL MATCHED THAT ADJACENT TO WINDOW 218, EXISTING RAILING IS COMPATIBLE & MAY BE RETAINED
REPLACE WOOD DOOR WITH GLASS DOOR; IF IRONWORK IS RESTORED TO ADJACENT OPENINGS, THEN RESTORE IRON GATE HERE
RESTORE LIGHTS TO BOTH SIDES OF DOOR
REPLACE PLYWOOD WITH GLASS, EITHER KEEP THE EXISTING WOOD RAILINGS OR REPLACE WITH IRONWORK TO MATCH THAT IN PHOTOGRAPHS 67 & 68
REMOVE NONHISTORIC LIGHTS
RESTORE (2) FLAGPOLE HOLDERS TO THIS WALL
RESTORE METAL BARS TO THESE WINDOWS & TO WINDOW 219 (TO MATCH EXISTING BARS ON WINDOW 217)
RESTORE METAL CASEMENT WINDOW TO MATCH WINDOW 126
1 S18 NORTH ELEVATION
1/4"=1'-0"
REPAIR EXISTING WOOD & GLASS DOOR
PLYWOOD ENCLOSURE (ROOM 202) IS NOT ORIGINAL & MAY BE REMOVED: INSTALL 6'-10" METAL CASEMENT WINDOW (SIMILAR TO W216, BUT WITH (4) SASHES), ENLARGE WINDOW 216 TO MATCH, PATCH WALL WITH STUCCO; INSTALL MISSING WOOD ORNAMENTS TO MATCH EXISTING
REPAIR CLAY TILE
MATCH LINE (SEE ABOVE)
REPLACE SERVING WINDOWS WITH 2 METAL CASEMENT WINDOWS TO MATCH WINDOW 125, REMOVE FORMSTONE & PATCH WITH STUCCO (SERVING WINDOWS MAY BE RETAINED IF NEEDED, BUT COUNTER IS IN POOR CONDITION & NEEDS TO BE REPLACED)
REMOVE DOOR & PATCH WALL; INSTALL CASEMENT WINDOW TO MATCH WINDOW 125; PATCH STUCCO
1/4"=1'-0"
FEET
METERS
DESIGNED: SHUFELT
DRAWN: FIELDS
TECH. REVIEW: FLEMING
DATE: 12/86
SUB SHEET NO. S 18
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
PROPOSED REHABILITATION ELEVATIONS
DRAWING NO. 851 25,000
PKG. NO. 183
SHEET 54 OF 98



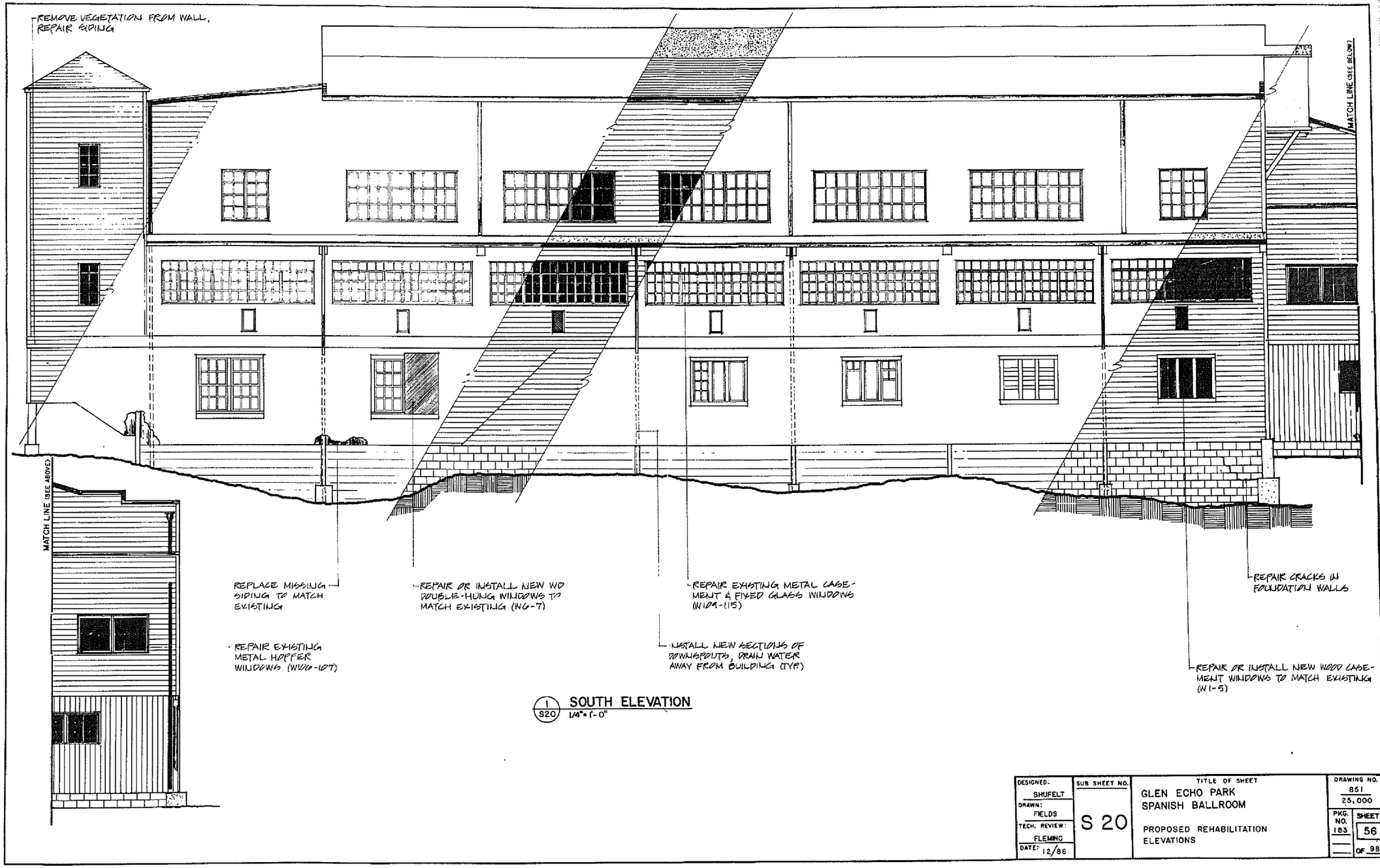
1/S19 WEST ELEVATION



2/S19 EAST ELEVATION

REPLACE PLYWOOD WITH GLASS, EITHER KEEP THE EXISTING WOOD RAILINGS OR REPLACE WITH IRONWORK TO MATCH THAT IN PHOTOGRAPH W1&2E

DESIGNED: SHUFELT	SUB SHEET NO.	TITLE OF SHEET	DRAWING: 851 25,000
DRAWN: SHUFELT	S 19	GLEN ECHO PARK SPANISH BALLROOM	PKG. NO. 183
TECH. REVIEW: FLEMING		PROPOSED REHABILITATION ELEVATIONS	SHEET 5 OF
DATE: 12/86			


REMOVE VEGETATION FROM WALL, REPAIR SIDING
MATCH LINE (SEE BELOW)
MATCH LINE (SEE ABOVE)
REPLACE MISSING SIDING TO MATCH EXISTING
REPAIR EXISTING METAL HOPPER WINDOWS (W106-107)
REPAIR OR INSTALL NEW WD DOUBLE-HUNG WINDOWS TO MATCH EXISTING (W6-7)
REPAIR EXISTING METAL CASEMENT & FIXED GLASS WINDOWS (W104-115)
INSTALL NEW SECTIONS OF DOWNSPOUTS, DRAIN WATER AWAY FROM BUILDING (TYP)
REPAIR CRACKS IN FOUNDATION WALLS
REPAIR OR INSTALL NEW WOOD CASEMENT WINDOWS TO MATCH EXISTING (W1-5)
1 S20 SOUTH ELEVATION
1/4"= 1'-0"
DESIGNED: SHUFELT
DRAWN: FIELDS
TECH. REVIEW: FLEMING
DATE: 12/86
SUB SHEET NO. S 20
TITLE OF SHEET
GLEN ECHO PARK
SPANISH BALLROOM
PROPOSED REHABILITATION ELEVATIONS
DRAWING NO. 851 25,000
PKG. NO. 183
SHEET 56 OF 98

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Appendix G: 1998 Historic American Buildings Survey Drawings (NPS)

STAGE DETAILS

3/4"=1'-0" 1:16

0 1 2 3 4 5 FEET 3/4"=1'-0"

0 50 100 150 CENTIMETERS 1:16

THE TOWN OF GLEN ECHO BEGAN AS A SUBDIVISION AND SUMMER RESORT DEVELOPED BY BROTHERS EDWIN AND EDWARD BALTZLEY, WHO PURCHASED THE ATTRACTIVE SITE, ON THE HIGH GROUND ALONG THE POTOMAC RIVER UPSTREAM FROM WASHINGTON DC, IN 1888. IN 1891, IN AN EFFORT TO PROMOTE THE SALE OF LOTS, THE BALTZLEYS HELPED ESTABLISH A CHAUTAUQUA AT GLEN ECHO. ALTHOUGH A NUMBER OF SUBSTANTIAL BUILDINGS WERE CONSTRUCTED AND A TROLLEY LINE BUILT TO THE SITE, WITHIN A FEW YEARS THE CHAUTAUQUA HAD FAILED, AND BY 1899 THE SITE WAS BEING USED AS AN AMUSEMENT PARK. IN 1911 THE SITE WAS PURCHASED BY THE WASHINGTON RAILWAY AND ELECTRIC COMPANY, OWNERS OF THE TROLLEY LINE, AND THE DEVELOPMENT OF THE AMUSEMENT PARK AT GLEN ECHO BEGAN IN EARNEST.

AMONG THE STRUCTURES ERECTED FOR THE 1911 SEASON WAS AN "OPEN-AIR DANCING PAVILION." DANCING SOON BECAME ONE OF THE MOST POPULAR ACTIVITIES AT GLEN ECHO, AND BY THE 1912 SEASON THE PARK EMPLOYED A RESIDENT ORCHESTRA. IN 1921 THE PAVILION WAS SUBSTANTIALLY TRANSFORMED, HAVING BEEN CONVERTED INTO A SCREENED BALLROOM WITH INDIRECT LIGHTING THROUGH SILK COVERINGS AND WITH A BALCONY FOR ONLOOKERS. THIS PAVILION WAS DEMOLISHED AND A NEW BALLROOM CONSTRUCTED, AT A COST OF $10,000, IN 1925. THIS THIRD BALLROOM WAS, IN TURN, DEMOLISHED AFTER THE 1932 SEASON, AND THE PRESENT SPANISH BALLROOM BUILT ON ITS SITE IN 1933, AT A COST OF $50,000. THE SPANISH BALLROOM WAS DESIGNED BY THE PHILADELPHIA ARCHITECTURAL FIRM OF ALEXANDER, BECKER AND SCHOEPPE, A FIRM WHICH SPECIALIZED IN RECREATIONAL STRUCTURES AND WHICH DESIGNED A NUMBER OF OTHER BUILDINGS AT GLEN ECHO.

THE SPANISH BALLROOM WAS DESIGNED IN THE SPANISH COLONIAL MISSION REVIVAL STYLE, AS EMPHASIZED BY THE BUILDING'S PICTURESQUE MASSING, AS WELL AS BY ITS ECLECTIC USE OF MATERIALS, INCLUDING TILE FLOORS, STUCCO AND PLASTER WALLS, CLAY TILE ROOFS, ORNAMENTAL WROUGHT-IRON BALCONIES, APPLIED CERAMIC TILE ORNAMENT, AND FALSE WOOD "VIGAS." THE ORNAMENT SURROUNDING THE STAGE, THE EXTERIOR BALCONY RAILINGS, AND THE BUILDING'S VIBRANT COLOR SCHEME ALSO ALLUDE TO THE THEN-POPULAR ART DECO STYLE. THE BUILDING'S PLAN IS FOCUSED ON THE LARGE, RECTANGULAR (APPROXIMATELY 68' x 109'), TWO-STORY DANCE HALL SPACE, DESIGNED AS AN EVOCATION OF A SPANISH PLAZA. THE STAGE, FLANKED BY SPACES ORIGINALLY LABELED AS A MUSIC ROOM AND A REST ROOM, OCCUPIES THE SOUTHEAST END OF THE DANCE HALL. THE OTHER THREE WALLS OF THE DANCE HALL ARE ARCADED AT THE FIRST-FLOOR LEVEL, LEADING TO SURROUNDING PROMENADE CORRIDORS. ENTRANCE TO THE SPANISH BALLROOM WAS ORIGINALLY THROUGH A LARGE LOBBY ALONG THE NORTHEAST SIDE OF THE BUILDING. ADJACENT TO THE LOBBY WERE A COAT ROOM AND REFRESHMENT AREA. THE SECOND FLOOR CONSISTS OF A PROMENADE SPACE WHICH OVERLOOKS THE DANCE HALL THROUGH OPENINGS ALONG ITS NORTHEAST WALL, AND AN EXTERIOR BALCONY WHICH OVERLOOKED THE THEN-ADJACENT CRYSTAL POOL.

THE FOUNDATIONS OF THE SPANISH BALLROOM, AS CONSTRUCTED, CONSIST OF A COMBINATION OF POURED CONCRETE WALLS AND PIERS, AND CONCRETE BLOCK WALLS. THE FLOOR OF THE DANCE HALL IS SUPPORTED BY 2 x 12 WOOD JOISTS AT 16" ON CENTER, WHICH IN TURN REST ON SUBSTANTIAL COMPOSITE WOOD BEAMS. THE FLOOR ITSELF IS MADE OF 2 1/4" WIDE MAPLE BOARDS, ON TWO LAYERS OF WOOD SUBFLOOR. THE WALLS OF THE SPANISH BALLROOM ARE CONSTRUCTED TYPICALLY OF 2 x 6 WOOD STUDS SHEATHED WITH 3/4" DIAGONAL BOARDS, AND FINISHED WITH PLASTER OR STUCCO ON WIRE LATH. THE SOUTHWEST (REAR) EXTERIOR WALLS ARE SHEATHED WITH HORIZONTAL, SHIP-LAPPED WOOD SIDING. THE CEILING AND ROOF ABOVE THE DANCE HALL ARE SUPPORTED BY SEVEN STEEL TRUSSES, 15'-6" APART, RESTING ON 8" STEEL COLUMNS. THE TRUSSES SPAN 72'-8 1/2" AND ARE 7' TALL IN THE CENTER. STEEL COLUMNS AND BEAMS ALSO SUPPORT THE FLOOR OF THE SOUTHWEST PROMENADE, AND THE SECOND FLOOR AND ROOF ABOVE THE ORIGINAL LOBBY. THE CEILING OF THE DANCE HALL IS A GRID OF 2' SQUARE CELOTEX PANELS, WITH APPLIED WOOD ORNAMENT. THE ROOF IS SUPPORTED BY 2 x 10 WOOD JOISTS AT 16" ON CENTER, LAID PERPENDICULAR TO THE ROOF SLOPE. MISSION TILE ROOFS ARE FOUND ABOVE THE TWO TOWERS AND ABOVE PART OF THE SECOND STORY PROMENADE, AND FLAT CLAY TILES WERE USED ABOVE PART OF THE REFRESHMENT AREA. THE REMAINING ROOFS ARE ASPHALT SHINGLE OR ASPHALT MEMBRANE.

THE SPANISH BALLROOM HAS UNDERGONE NUMEROUS ALTERATIONS OVER THE YEARS. WITHIN A FEW YEARS OF ITS CONSTRUCTION, THE EXTERIOR ARCADED OPENINGS, ORIGINALLY SCREENED, WERE ENCLOSED, WITH METAL CASEMENT WINDOWS INSTALLED IN THE SOUTHWEST PROMENADE OPENINGS. LIKEWISE, MENS' AND WOMENS' TOILETS WERE INSTALLED IN THE BASEMENT, EACH WITH ITS OWN STAIRCASE LEADING DOWN FROM THE SOUTHWEST PROMENADE. ALSO AT AN EARLY DATE, THE ORIGINAL ORNAMENTAL OPENINGS FLANKING THE STAGE AT THE SECOND-STORY LEVEL WERE REPLACED WITH FALSE BALCONIES. IN THE DANCE HALL, THE FOUR WOOD COLUMNS IN EACH OF THE LONG SIDE ARCADE OPENINGS WERE REMOVED, AND OTHER EXISTING OPENINGS WERE ALTERED TO ACCOMMODATE FIRE EXITS. IN 1964 A FUN HOUSE RIDE KNOWN AS JUNGLELAND WAS INSTALLED IN THE SECOND-STORY PROMENADE AREA. BY THE LATE 1960s, THE DANCE HALL WAS BEING USED AS A ROLLER SKATING RINK. IN 1970 GLEN ECHO PARK WAS ACQUIRED BY THE FEDERAL GOVERNMENT, WHICH TRANSFERRED JURISDICTION TO THE NATIONAL PARK SERVICE. IN 1989 A PUPPET THEATER WAS INSTALLED IN THE ORIGINAL LOBBY AND COAT ROOM AREA. DESPITE THE ALTERATIONS AND CHANGES, HOWEVER, THE SPANISH BALLROOM CONTINUES TO PERFORM ITS ORIGINAL FUNCTION, SERVING AS THE PREEMINENT LOCATION FOR SOCIAL DANCING IN THE WASHINGTON REGION.

DOCUMENTATION OF THE SPANISH BALLROOM AT GLEN ECHO PARK (GLEC) WAS UNDERTAKEN BY THE HISTORIC AMERICAN BUILDINGS SURVEY / HISTORIC AMERICAN ENGINEERING RECORD (HABS/HAER) DIVISION OF THE NATIONAL PARK SERVICE (NPS), E. BLAINE CLIVER, CHIEF. THE PROJECT WAS SPONSORED BY THE NATIONAL CAPITAL AREA SYSTEM SUPPORT OFFICE, NPS, JOSEPH LAWLER, SUPERINTENDENT; AND BY THE GEORGE WASHINGTON MEMORIAL PARKWAY (GWMP), NPS, AUDREY CALHOUN, SUPERINTENDENT. PROJECT PLANNING WAS COORDINATED BY PAUL DOLINSKY, CHIEF, HABS; BY ROBERT ARZOLA, HABS ARCHITECT; BY CATHERINE LAVOIE, HABS HISTORIAN; AND BY TIM BUEHNER, GWMP HISTORICAL ARCHITECT. THE FIELD RECORDING WAS CONDUCTED AND THE DRAWINGS WERE PRODUCED BY HABS ARCHITECTS MARK SCHARA AND RAUL VAZQUEZ. THE HISTORICAL REPORT WAS WRITTEN BY HABS HISTORIAN VIRGINIA B. PRICE. ASSISTANCE WAS PROVIDED BY BRUCE WEISMAN, MUSEUM AND ARCHAEOLOGY REGIONAL RESEARCH STORAGE FACILITY, NPS; BY FRAN NORTON, GWMP CULTURAL RESOURCE UNIT MANAGER; AND BY THE STAFF OF GLEN ECHO PARK, ESPECIALLY GLEC SITE SUPERVISORS STEPHANIE GRAY AND KAREN PITTLEMAN, AND GLEC RANGERS SAM SWERSKY AND STAN FOWLER.

DRAWN BY: MARK SCHARA | RAUL VAZQUEZ

SPANISH BALLROOM PROJECT, 1998
HABS/HAER/HALS/HAER/HALS
UNITED STATES DEPARTMENT OF THE INTERIOR

GLEN ECHO PARK · SPANISH BALLROOM
MONTGOMERY COUNTY
GLEN ECHO
7300 MACARTHUR BOULEVARD
MARYLAND

SHEET 1 OF 5 SHEETS

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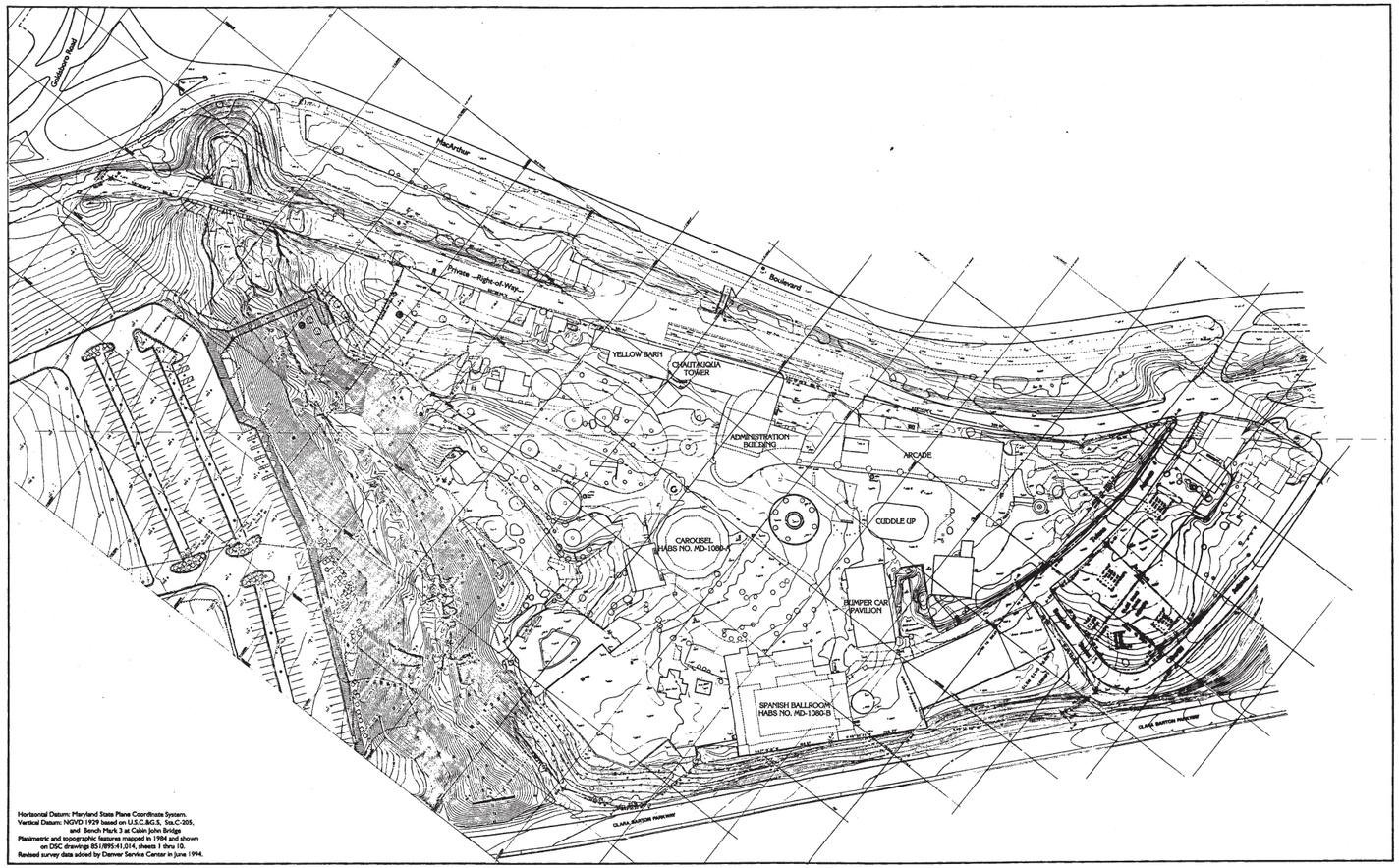

SITE PLAN

1"=50'-0" 1:600

0 50 100 150 FEET 1"=50'-0"

0 5 10 20 30 40 50 METERS 1:600

NOTE: THIS PLAN WAS ORIGINALLY PRODUCED BY THE DENVER SERVICE CENTER, NATIONAL PARK SERVICE

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NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

GLEN ECHO PARK · SPANISH BALLROOM

MONTGOMERY COUNTY

GLEN ECHO

7500 MACARTHUR BOULEVARD

MARYLAND

SHEET 2
OF 14 SHEETS

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BUILDINGS SURVEY
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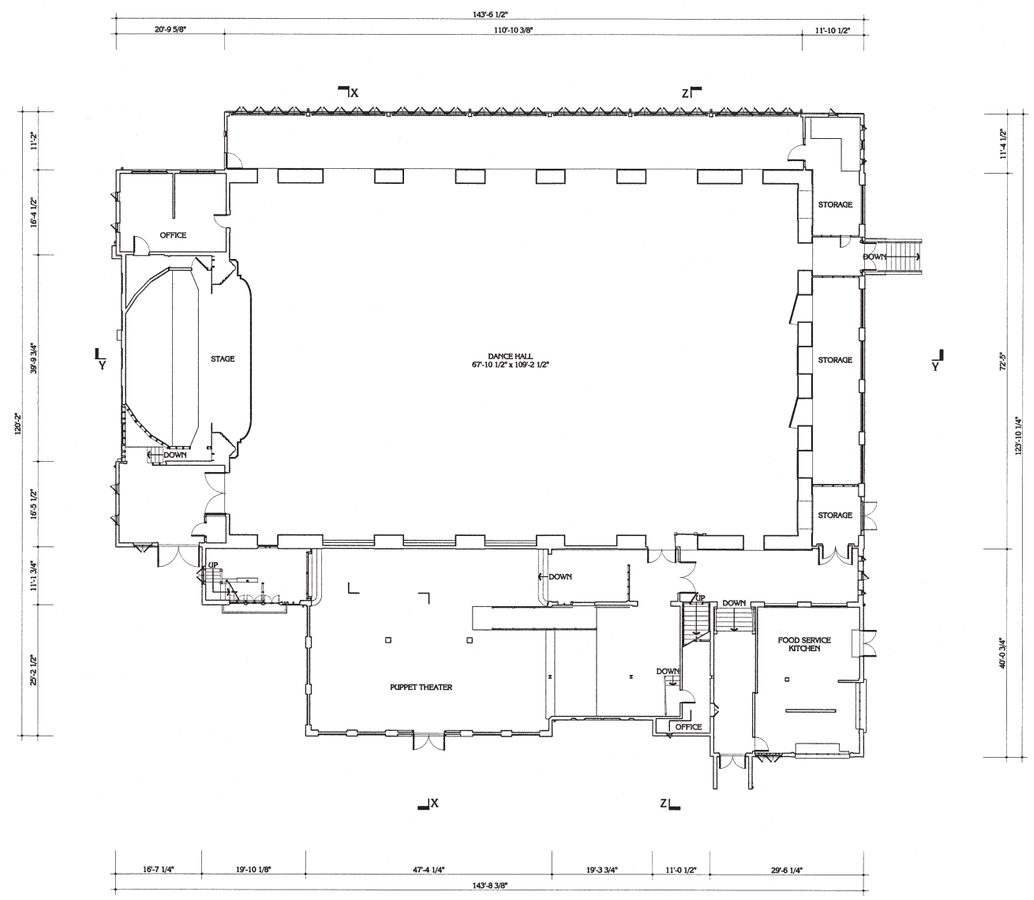


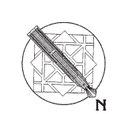
FIRST FLOOR PLAN

1/8"=1'-0" 1:96

0 5 10 15 20 25 30 FEET 1/8"=1'-0"

0 1 2 3 4 5 10 METERS 1:96

NOTES (TYPICAL ALL DRAWINGS):
ROOM NAMES REFLECT 1998 USES
BALCONIES AND VIGAS SHOWN RESTORED



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UNITED STATES DEPARTMENT OF THE INTERIOR

7200 MACARTHUR BOULEVARD

GLEN ECHO PARK - SPANISH BALLROOM

GLEN ECHO

MONTGOMERY COUNTY

MARYLAND

SHEET 3
OF 14 SHEETS

HISTORIC AMERICAN
BUILDINGS SURVEY
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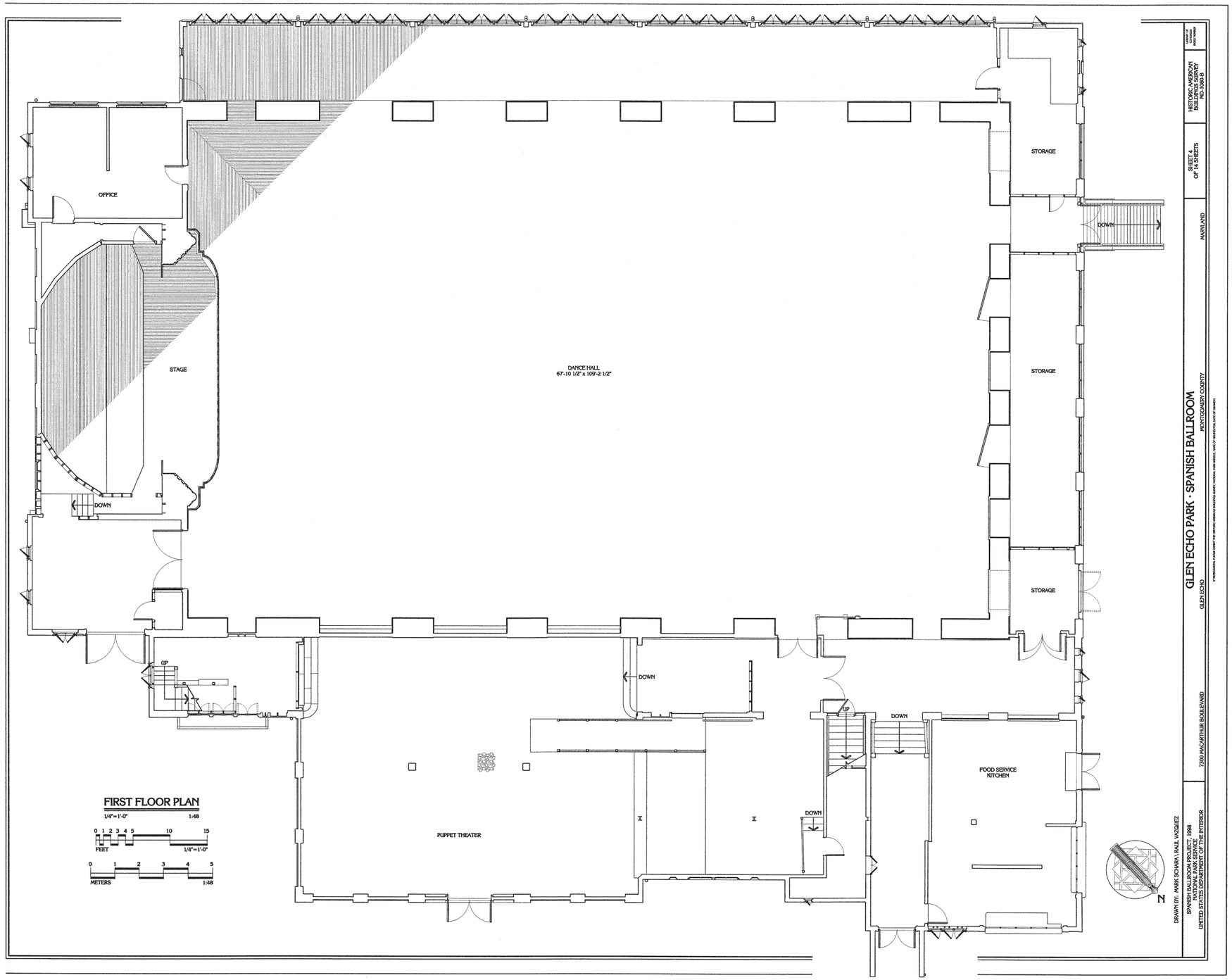
OFFICE
STAGE
DOWN
DANCE HALL
67'-10 1/2" x 109'-2 1/2"
STORAGE
STORAGE
DOWN
STORAGE
STORAGE
UP
DOWN
PUPPET THEATER
UP
DOWN
DOWN
FOOD SERVICE
KITCHEN
FIRST FLOOR PLAN
1/4"=1'-0"
1:48
0 1 2 3 4 5 10 15
FEET
1/4"=1'-0"
0 1 2 3 4 5
METERS
1:48
N
GLEN ECHO PARK - SPANISH BALLROOM
MONTGOMERY COUNTY
MARYLAND
SHEET 4
OF 14 SHEETS
HISTORIC AMERICAN
BUILDINGS SURVEY
HAB-1998-A3
7300 MACARTHUR BOULEVARD
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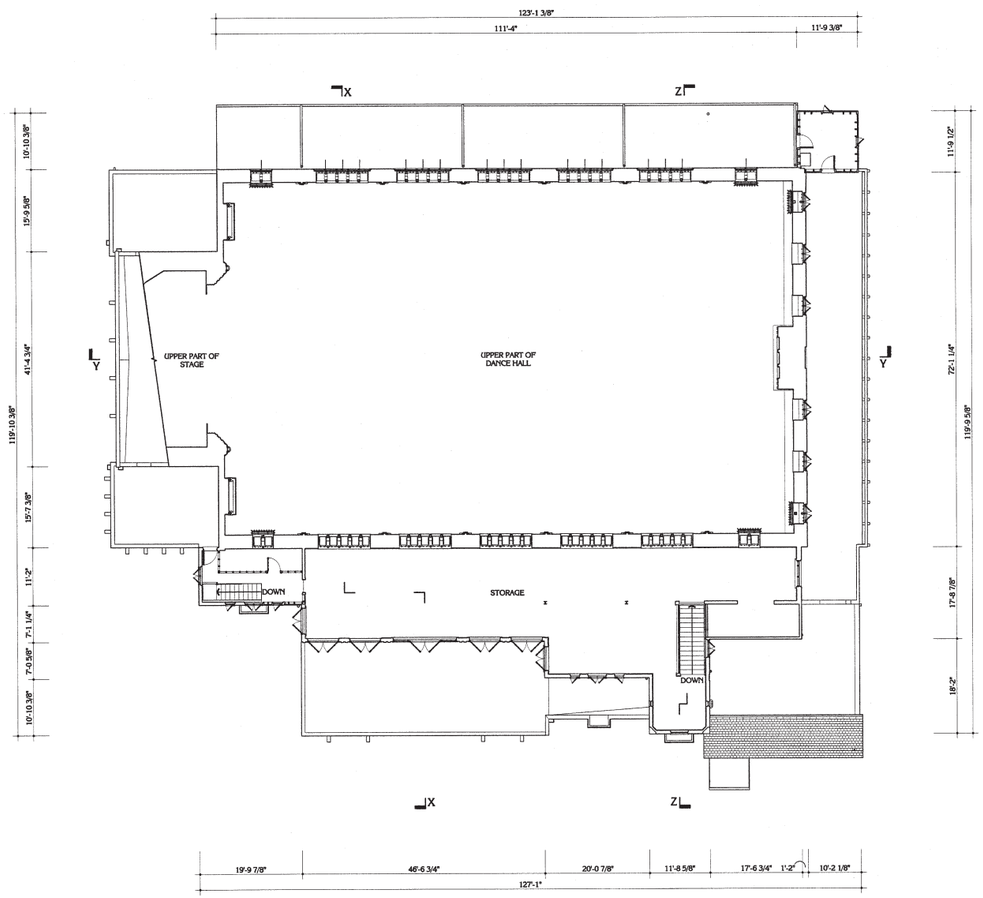
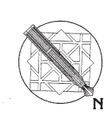


SECOND FLOOR PLAN

1/8"=1'-0" 1:96



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UNITED STATES DEPARTMENT OF THE INTERIOR

GLEN ECHO PARK · SPANISH BALLROOM
GLEN ECHO MONTGOMERY COUNTY MARYLAND

7300 MACARTHUR BOULEVARD

SHEET 2 OF 14 SHEETS

HISTORIC AMERICAN BUILDINGS SURVEY MD-1090-B

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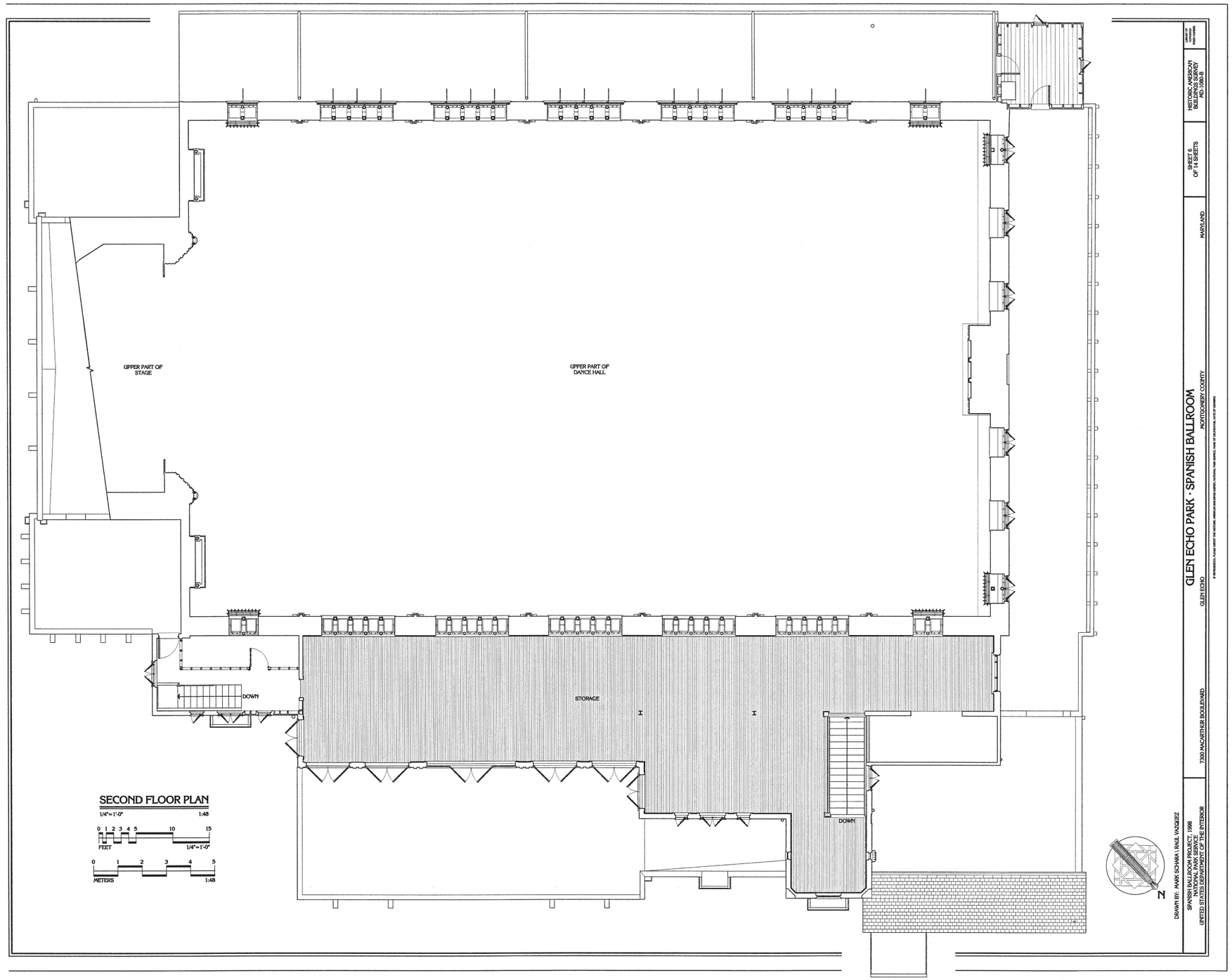
UPPER PART OF STAGE
UPPER PART OF DANCE HALL
STORAGE
DOWN
DOWN
SECOND FLOOR PLAN
1/4"=1'-0"
1:48
0 1 2 3 4 5 10 15
FEET
1/4"=1'-0"
0 1 2 3 4 5
METERS
1:48
N
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MONTGOMERY COUNTY
MARYLAND
7300 MACARTHUR BOULEVARD
GLEN ECHO
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OF 14 SHEETS
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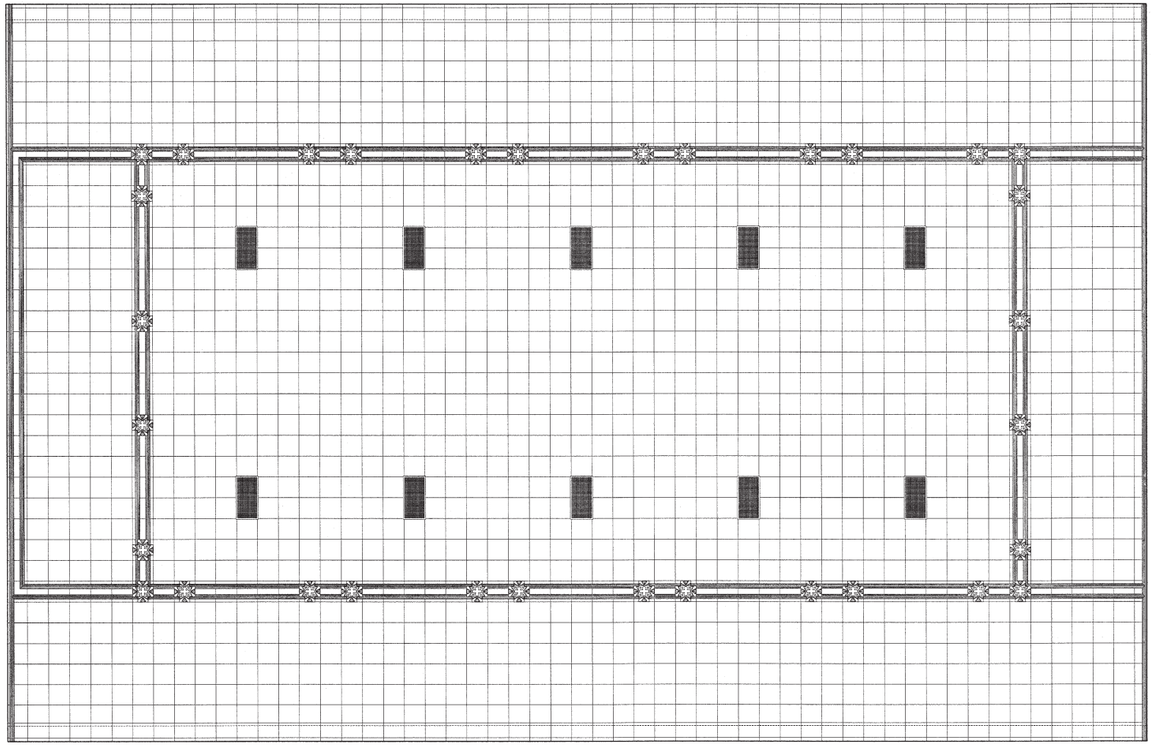

DANCE HALL REFLECTED CEILING PLAN

1/4"=1'-0" 1:48

0 1 2 3 4 5 10 15 FEET 1/4"=1'-0"

0 1 2 3 4 5 METERS 1:48

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GLEN ECHO MONTGOMERY COUNTY MARYLAND

SHEET OF 14 SHEETS

HISTORIC AMERICAN BUILDINGS SURVEY
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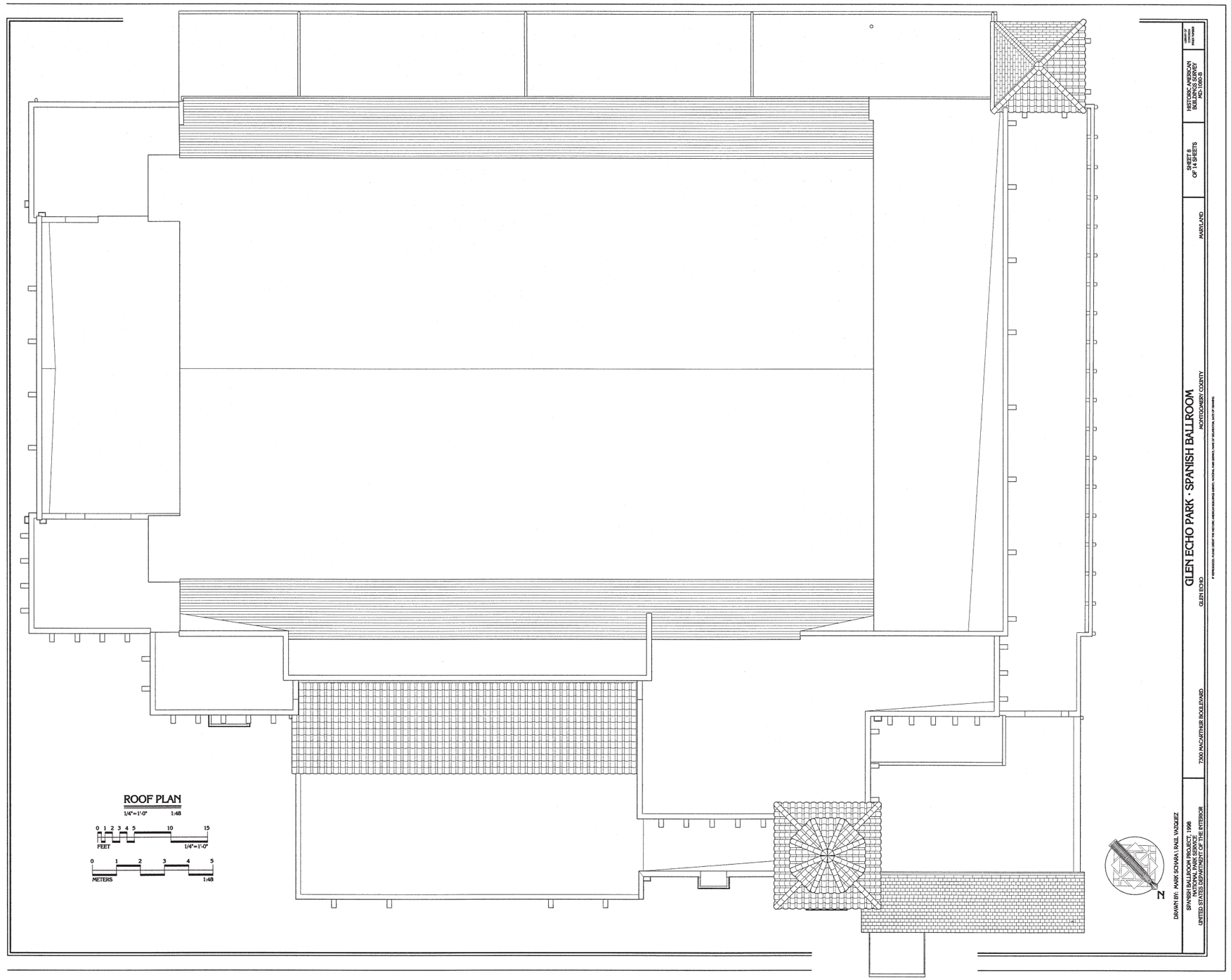
ROOF PLAN
1/4"=1'-0" 1:48
0 1 2 3 4 5 10 15
FEET
1/4"=1'-0"
0 1 2 3 4 5
METERS
1:48
N
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7300 MACARTHUR BOULEVARD
GLEN ECHO
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MONTGOMERY COUNTY
MARYLAND
SHEET 8
OF 14 SHEETS
HISTORIC AMERICAN
BUILDINGS SURVEY
HAB, TYPE 3
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PRINT ROOM

NORTHEAST ELEVATION

1/4" = 1'-0" 1:48

SOUTHEAST ELEVATION

1/4" = 1'-0" 1:48

0 1 2 3 4 5 10 15 FEET 1/4" = 1'-0"

0 1 2 3 4 5 METERS 1:48

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MONTGOMERY COUNTY

MARYLAND

SHEET 9 OF 14 SHEETS

HISTORIC AMERICAN BUILDINGS SURVEY
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SOUTHWEST ELEVATION
1/4"=1'-0"
1:48
PEAK OF TOWER ROOF
PEAK OF DANCE HALL ROOF
PEAK OF TOWER ROOF
TOP OF PARAPET
EDGE OF BALCONY
FLOOR OF ARCADE OPENING
BOTTOM OF DOOR OPENING
5'-2 1/2"
3'-6 7/8"
15'-9 1/4"
27'-3 1/2"
43'-0 3/4"
9'-10 5/8"
4'-1 1/4"
NORTHWEST ELEVATION
1/4"=1'-0"
1:48
0 1 2 3 4 5 10 15
FEET
1/4"=1'-0"
0 1 2 3 4 5
METERS
1:48
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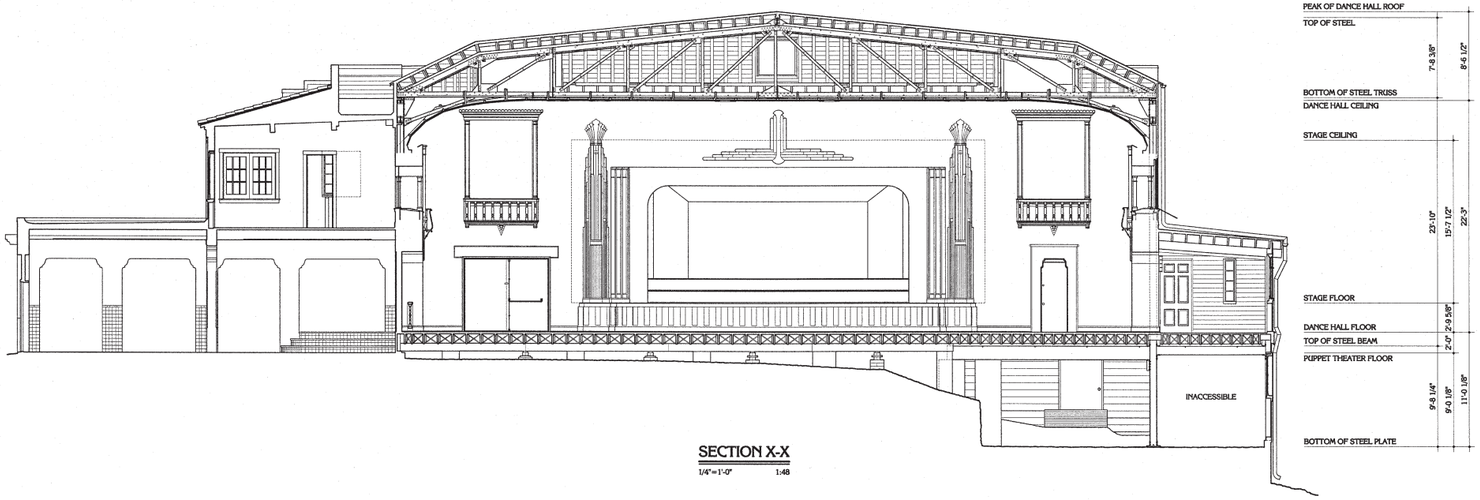
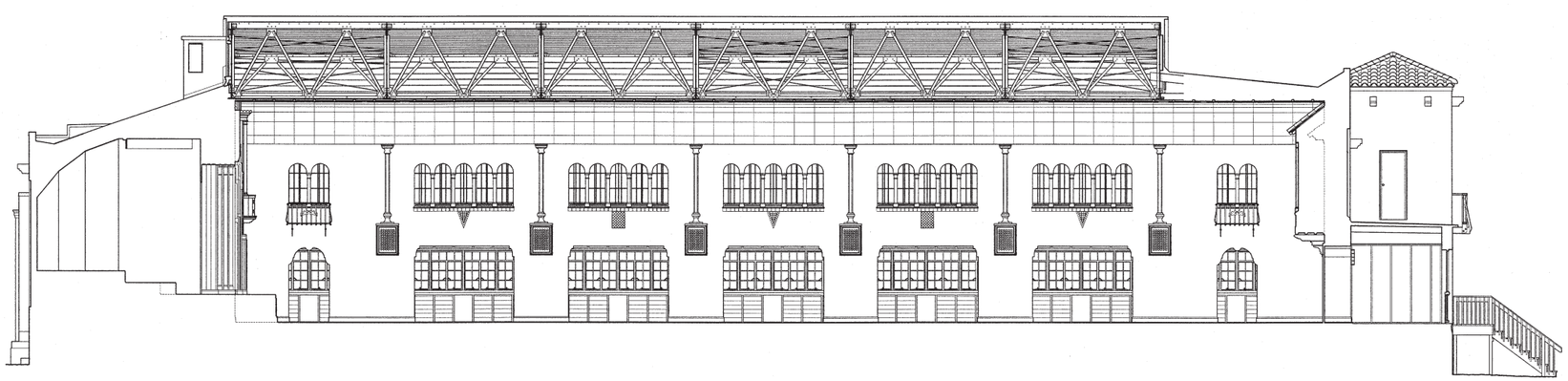
7300 MACARTHUR BOULEVARD
GLEN ECHO
MONTGOMERY COUNTY
MARYLAND
SHEET 10
OF 14 SHEETS
HISTORIC AMERICAN
BUILDINGS SURVEY
MD-1080-B



SECTION X-X

1/4"=1'-0" 1:48



SECTION Y-Y

1/4"=1'-0" 1:48

0 1 2 3 4 5 10 15 FEET 1/4"=1'-0"

0 1 2 3 4 5 METERS 1:48

HISTORIC AMERICAN BUILDINGS SURVEY MD-1065-B

SHEET 11 OF 18 SHEETS

MARYLAND

GLEN ECHO PARK · SPANISH BALLROOM

MONTGOMERY COUNTY

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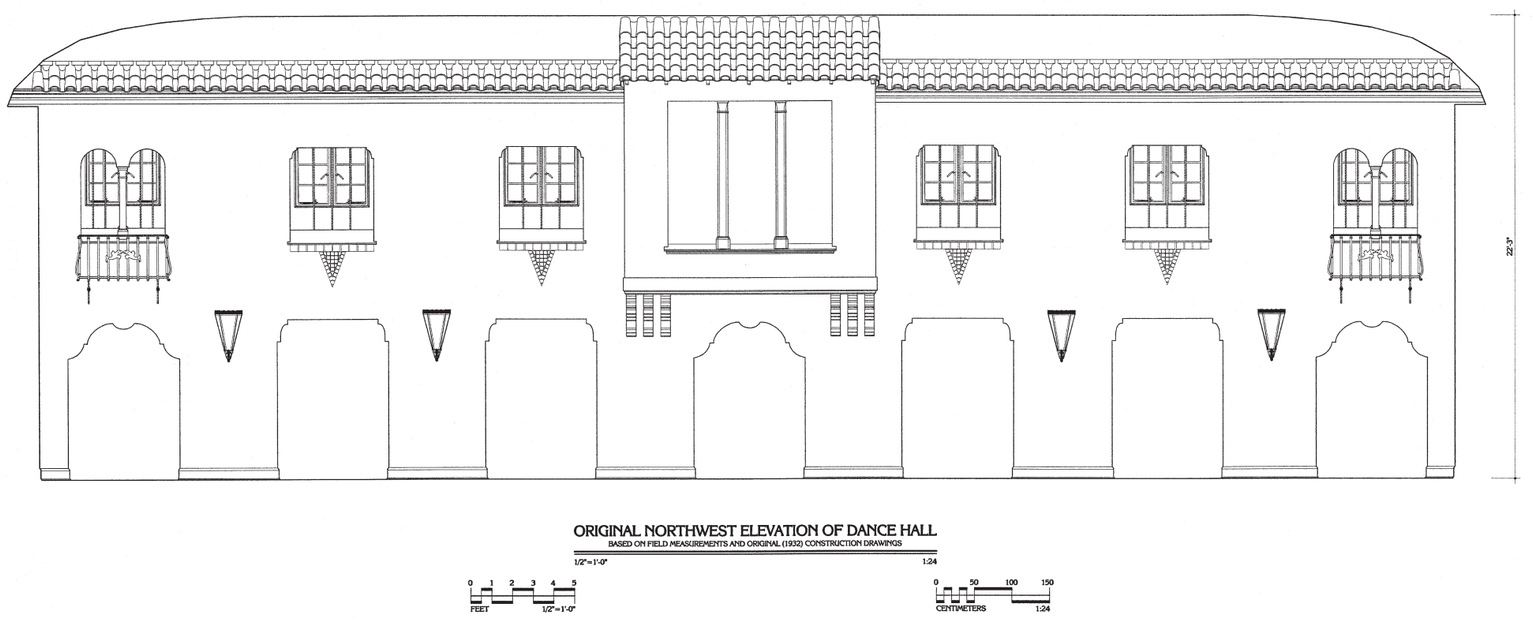
SECTION Z-Z

1/4"=1'-0" 1:48



ORIGINAL NORTHWEST ELEVATION OF DANCE HALL

BASED ON FIELD MEASUREMENTS AND ORIGINAL (1932) CONSTRUCTION DRAWINGS

1/2"=1'-0" 1:24

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GLEN ECHO

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MONTGOMERY COUNTY

MARYLAND

SHEET 12
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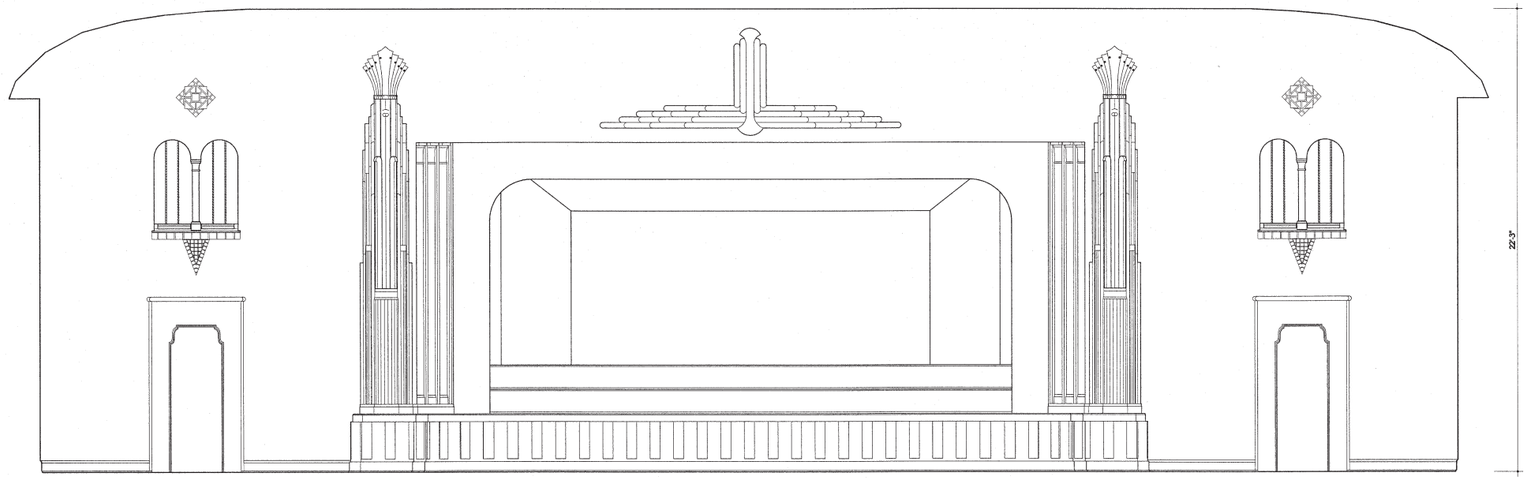
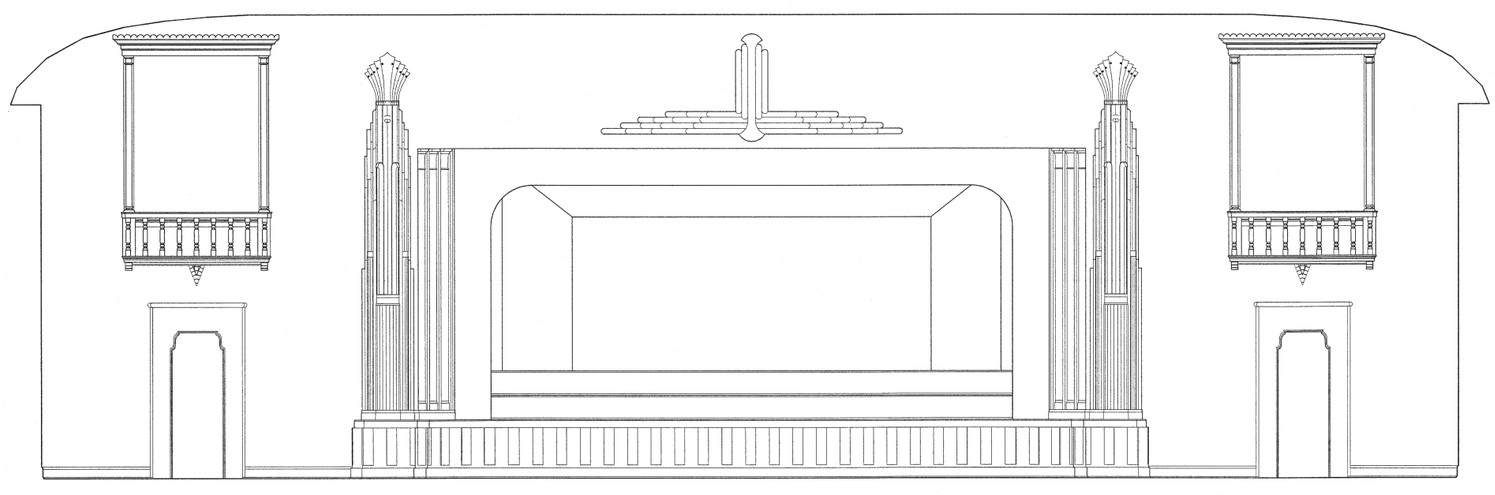


ORIGINAL SOUTHEAST ELEVATION OF DANCE HALL

BASED ON FIELD MEASUREMENTS AND ORIGINAL (1932) CONSTRUCTION DRAWINGS

1/2"=1'-0" 1:24



SOUTHEAST ELEVATION OF DANCE HALL AS REMODELED

BASED ON FIELD MEASUREMENTS AND ORIGINAL (1932) CONSTRUCTION DRAWINGS

1/2"=1'-0" 1:24

0 1 2 3 4 5 FEET 1/2"=1'-0"

0 50 100 150 CENTIMETERS 1:24

DRAWN BY: MARK SCHARA \ RAÚL VÁZQUEZ

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7300 MACARTHUR BOULEVARD

GLEN ECHO

GLEN ECHO PARK · SPANISH BALLROOM

MONTGOMERY COUNTY

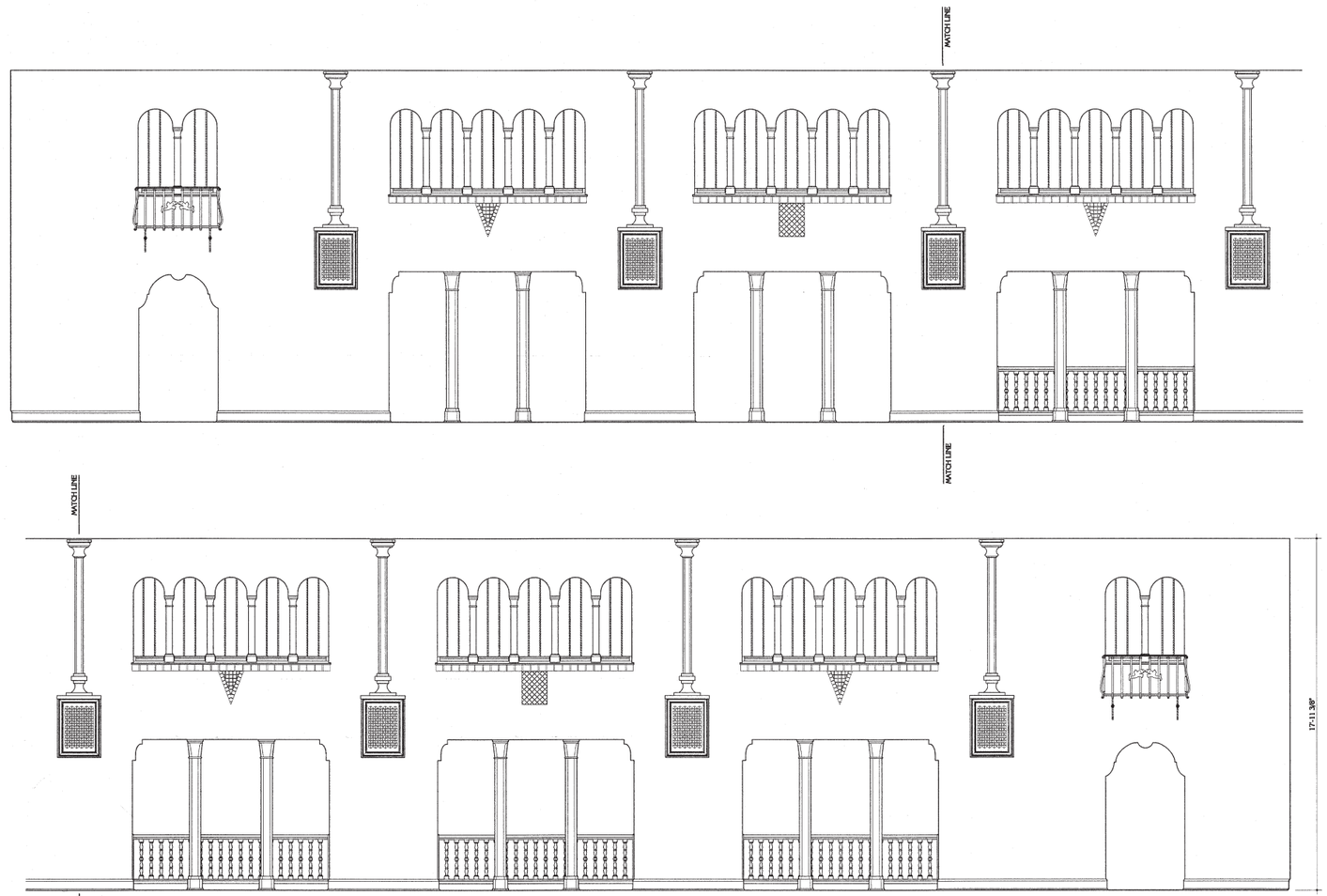
MARYLAND

SHEET 13 OF 14 SHEETS

HISTORIC AMERICAN BUILDINGS SURVEY

MD-1065-S

ORIGINAL 17" X 22" PLOT PAPER



ORIGINAL NORTHEAST ELEVATION OF DANCE HALL

BASED ON FIELD MEASUREMENTS AND ORIGINAL (1932) CONSTRUCTION DRAWINGS

1/2" = 1'-0" 1:24

0 1 2 3 4 5 FEET 1/2" = 1'-0"

0 50 100 150 CENTIMETERS 1:24

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SPANISH BALLROOM PROJECT, 1998
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

7200 MACARTHUR BOULEVARD

GLEN ECHO PARK · SPANISH BALLROOM

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GLEN ECHO

MARYLAND

SHEET 14
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HISTORIC AMERICAN
BUILDINGS SURVEY
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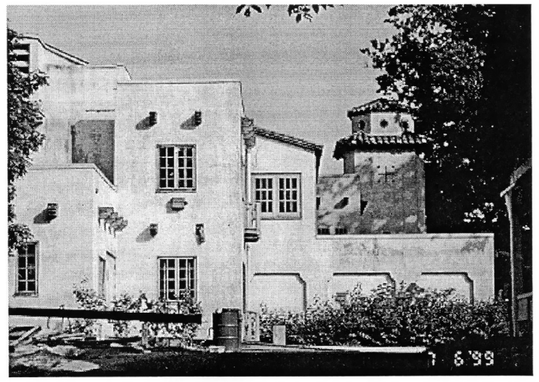
Appendix H: 1999 Stabilization and Rehabilitation Plan — Spanish Ballroom Section (NPS)

13. SPANISH BALLROOM

USE: Dance Hall / Meeting Space and Concessions



1. HISTORICAL IMPORTANCE

Contributing

2. PRIORITY

High

3. ARCHITECTURAL

- **Exterior Recommendations:**
  - Tower: Cut siding, provide shoring and jack tower structure upright. Work has been reviewed and estimated by International Chimney Corporation.

    International Chimney Corporation will perform structural and architectural repairs to the tower as follows:

    - All work will be done by craftspeople who are experienced in this type of construction, including the lifting and relocation of buildings and towers.
    - The work area will be barricaded, as necessary, to prevent unauthorized personnel from entering.
    - Shop drawings of the raising plan, stamped by an in house engineer, will be generated and submitted for approval.
    - Structural supports will be installed under the tower and jacked so that the load is removed from the two existing wood columns.
    - The existing stairway will be removed, along with the associated framing, other deteriorated framing, sub-flooring and flooring. New floor joists, sub-flooring and flooring will be installed to match the existing as closely as possible.

- All areas that were previously patched, due to the shifting of the tower, will be removed, as necessary, in order to allow for the free movement of the tower back to a plumb position. Other components of the tower and/or the main building may be removed in order to facilitate this repair. These include, but are not limited to roofing, sheathing, flashing, roof joists, siding, stucco, trim and wall studs. (The tower is approximately 1'0" out of plumb and appears to be leaning south and west from the main building)
- A reinforced concrete footing and pier will be installed at the northwest corner of the tower where the tower and the porch support columns meet.
- The tower will be raised to as plumb, level and square a position as is possible without adversely effecting the architectural and structural condition of the connecting building.
- New support columns will be installed at the southwest and northwest corners of the tower. The tower jacking system will then be removed.
- All previously patched and other areas that were removed, or otherwise altered, will be repaired back to original condition or better, using new materials. These areas include, but are not limited to, roofing, sheathing, flashing, roof joists, siding, stucco, trim and wall studs.
- Upon completion the work areas will be cleaned to a "broom clean" condition.
- No provisions are included for the handling or disposal of materials that may be classified as hazardous.

Note: NPS shall remove the brush and undergrowth in the immediate work area. NPS shall remove the exit stair and the fence section adjacent to the building. NPS shall provide a power source and allow the use of on site sanitary facilities.

- Roof:
  - Over historic entrance and bier garden (north side, main asphalt shingle roof area), provide new exterior gutters and leader, discharge to grade; cap existing interior drain and leader.
  - Install 3 new 4'x4' skylights in roof for new toilet rooms & lounge below.
  - Provide all new roof over stage area.
  - Replace individual broken clay tiles on various roof areas (estimate 100 tiles).
  - Replace coping at stepped sidewalls.
- Walls:
  - Remove 1960's entrance addition and canopy. Restore to original appearance. Provide new entry with wood and glass doors for egress.
  - Repair rotted sheathing at Tower.

- Remove existing vigas, repair damaged and deteriorated stucco and attach new vigas, as required. New vigas to be fiberglass reproductions glued to existing stucco surface to reduce existing water infiltration problems.
- Stucco:
  - Repair stucco by Tower on west wall side.
  - Remove formstone at snack bar area sand repair with new stucco to match existing.
  - Repair stucco at Tower.
  - Finish second floor storage enclosure on NW side with stucco to match existing, and repair stucco at roof.
  - Re-coat entire exterior stucco with paint and mineral coating.
- Wood Siding:
  - Remove and replace approximately 100 SF of siding on tower and east side of building.
  - Perform spot repairs on south façade as required.
  - Scrape and repaint all wood siding.
- Storefronts:
  - Remove infill area at Puppet Company and install glazed storefront system in 7 openings (2 include exit doors with 3'x5' glazed panels).
- Doors:
  - Remove existing circular water ride remnants (concrete pan and curb) at east side of building, excavate area down to create larger door opening to lower level; install new hollow metal double door, frame and hardware.
  - Install new wood door at Tower.
  - Remove attic access door and frame, install new hollow metal double door, frame and hardware.
  - Remove exterior closure panel and restore exterior wood door to lighting control room.
  - Install new wood doors from mezzanine to overlook.
  - Install new wood doors to match existing in north stair adjacent to restored entrance.
- Windows:
  - Remove all steel windows; sandblast clean, glaze and paint. Refurbish window hardware as required. Provide insect screens. Reinstall windows.
  - Provide new window screens and hardware on remaining windows as required..
  - Repair wood windows on second floor, replacing sills and frames as required.
  - Repair wood rot on six lower level wood windowsills. Use heavy mesh and paint patching.
- ALTERNATES:

  - Concession Alternate: Remove existing snack bar/concessions area from current location within historic lounge. Repair existing exterior slab, construct new fire wall and construct new snack bar structure on west side of building. Construct new interior stair and ramp to refreshment area. Restore and repaint interior finishes and trim.
  - Support Alternate: Construct storage addition and loading dock on east side with new lower level entrance on the west side facing the Crystal Pool. Also include demolition of existing office area adjacent to stage for construction of freight size elevator shaft. *Note: freight elevator to be part of tenant or cooperator fit out. Elevator is not part of Rehabilitation Project.*

Interior Recommendations:

- General:
  - Rebuild north stairs up to mezzanine area.
- Puppet Company Area:
  - Relocate Puppet Company to new Administration Building and construct new toilet rooms and lounge in reclaimed area (see plan).
  - New toilet room to include 13 WC's, 3 urinals, 9 lavatories, and 1 janitor's floor sink.
  - Lounge are to include 2 new drinking fountains (provide 2 additional drinking fountains at other side of Ballroom, at ambulatory area).
- Finishes:
  - Re-coat all interior stucco with new paint or mineral coating.
  - Remove existing ballroom ceiling and replace with new concealed spline acoustical ceiling. Retain existing ornamental ceiling frame.
  - Paint all interior decorative architectural elements (columns, stage proscenium, fan housings, etc.)
  - Fabricate, install and paint new wood columns at first floor arcade as per original design. (2 columns per arched opening, 40 columns total).
  - Rebuild and repair band shell as required.

4. STRUCTURAL

Basic Structural System:

Floor construction includes areas of concrete slab-on-grade and wood joists supported by a combination of steel and wood beams. Roof framing includes wood joist framing supported by a combination of steel and wood beams. Roof framing over the ballroom includes longspan steel trusses with wood joists.

Assumptions/Exclusions:

Access along the southwest side of the building (facing the Clara Barton Parkway) was not possible during this site visit. The foundation/lower level framing of the northwest tower was not observed. *Northwest tower is part of International Chimney Report/Recommendation.*

The *Historic Structure Report* indicates that the floor framing in the Ballroom does not meet current building design live load requirements. NPS has

provided additional support; however a complete inspection and analysis is required to fully assess the situations.

Structural Comments:

- Miscellaneous areas of raised wood platform framing displayed signs of deterioration. Repair/replacement of the wood platform framing and subfloor should be anticipated (assume 300 S.F.).
- A localized area of the first and second floor framing at the southeast corner of the building sustained significant water damage. Complete replacement of the floor framing and repair of the wall framing is anticipated (assume 300 S.F.).
- The low wood framed roof along the northwest end of the ballroom sustained moderate water damage. Shoring of the existing low roof and selective repair/replacement of the wood roof and wall framing should be anticipated.
- The southwest tower structure leans significantly away from the main building structure. Shoring of the existing tower structure, foundation stabilization, and repair/replacement of the wood wall and floor structure should be anticipated. Work in this area will be complicated due to the steep slope of the adjacent ground surface. *See International Chimney Recommendation under Architectural.*
- The steel column/beam framing along the southwest side of the building may exhibit signs of minor settlement. Shoring of the existing one story wood framing, and foundation stabilization should be anticipated. Work in this area may be complicated due to the steep slope of the adjacent ground surface.
- Based on the *Historic Structure Report*, reinforcement of the existing Ballroom floor framing should be anticipated (most likely with 'sistering' of the existing joists or the addition of new joists). Additional study is required.

5. MECHANICAL

A small vertical DX furnace cools the temporary location for the Puppet Company in the historic entrance. The Main Ballroom is neither heated nor cooled. Historically, the Spanish Ballroom was open air with no heating or cooling. The building contains no vapor barriers for modern system.

- Within the large truss area above ceiling, install acoustically-lined ventilation ductwork routed from new ceiling registers to new fans which replace two existing large fans at end of building. Ventilation sized at 3 cfm per square foot of dance floor area.
- Remove three existing heaters above platform area and miscellaneous heating elements along perimeter wall. Provide 12 new infrared heat lamps to be suspended along stage area and surrounding promenade areas.
- Provide 2 sidewall propeller fans with discharge louvers and 2 intake louvers with motorized dampers, with manual on/off switch to ventilate the attic space.
- Retain sidewall grilles at ballroom for means of air intake.

- Provide two electric cabinet unit heaters, exhaust registers, ductwork, fan for each of the additions (restroom, concession). Design systems for future air conditioning to be installed by cooperator or tenant fit out.

6. ELECTRICAL

Existing branch circuit wiring is suspect. Some elements remain from original installation.

- Remove existing branch circuit wiring. (Existing conduit shall remain and be re-used.)
- Replace historic wall lighting fixtures between arches.
- Replace exterior lighting fixtures.
- Replace the cove lighting fixtures on both sides of the ballroom.
- Replace the lighting fixtures on the columns.
- Provide high bay, surface mounted dimmable lighting fixtures on ballroom ceiling.
- Provide 10 exit signs throughout building.
- Replace 3 existing spotlights, shining on stage, with spotlights controlled via an automatic positioning system.
- Provide 4 pin spots and a motorized crystal ball..
- Provide new branch circuit wiring from new electrical panel to existing equipment; and new branch circuit wiring and conduit to new equipment.
- Add all new ballroom exhibition lighting.
- Add new sound system.

7. PLUMBING

No existing plumbing system, except in the concession area.

- Provide plumbing fixtures within new restroom addition. Fixture count shall be 13 water closets/urinals and 9 lavatories (based on 1400 people of which 1/3 are men, 2/3 are women), 1 janitor's sink, 4 drinking fountains, 1 floor drain in the kitchen/concession area.
- Heat trace the water supply pipe from the northeast corner of the Spanish Ballroom to the toilet rooms and concession area. (The toilet rooms and concession area will be heated.)

8. FIRE PROTECTION

Existing wood frame structure has no fire suppression system. This Group A-2 structure in excess of 5000 square feet requires an automatic fire suppression system to protect the occupants and the resource.

- Provide a dry-type sprinkler system to serve the main dance floor level, the mezzanine level, the space above the ceiling, and the level below the dance floor.
- Current code would require two stand pipe connections at either side of the stage, which in turn would require a fire pump. The applicability of this requirement should be discussed with the appropriate governing bodies.

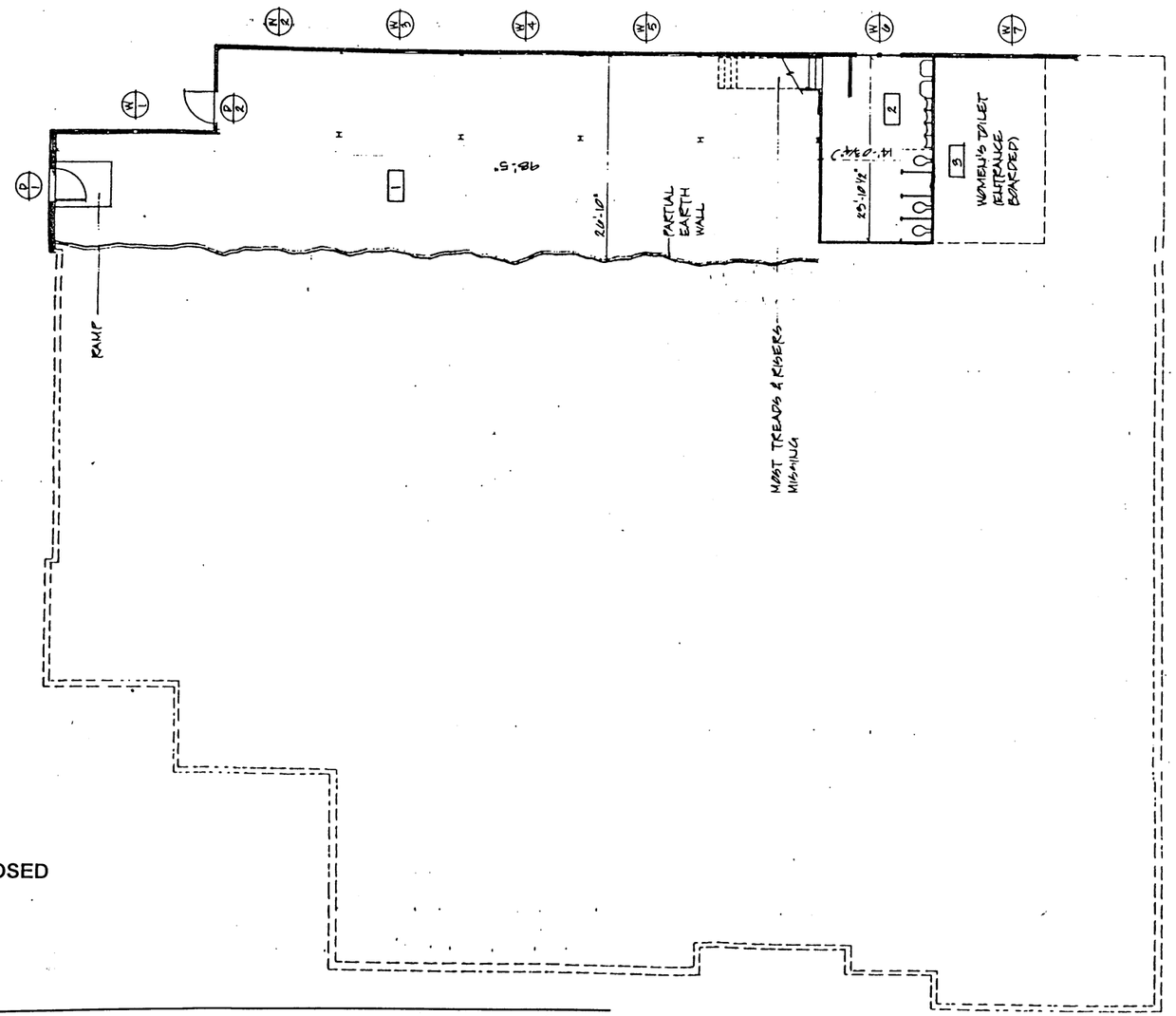
9. MISC. COMMENTS

A. FF&E

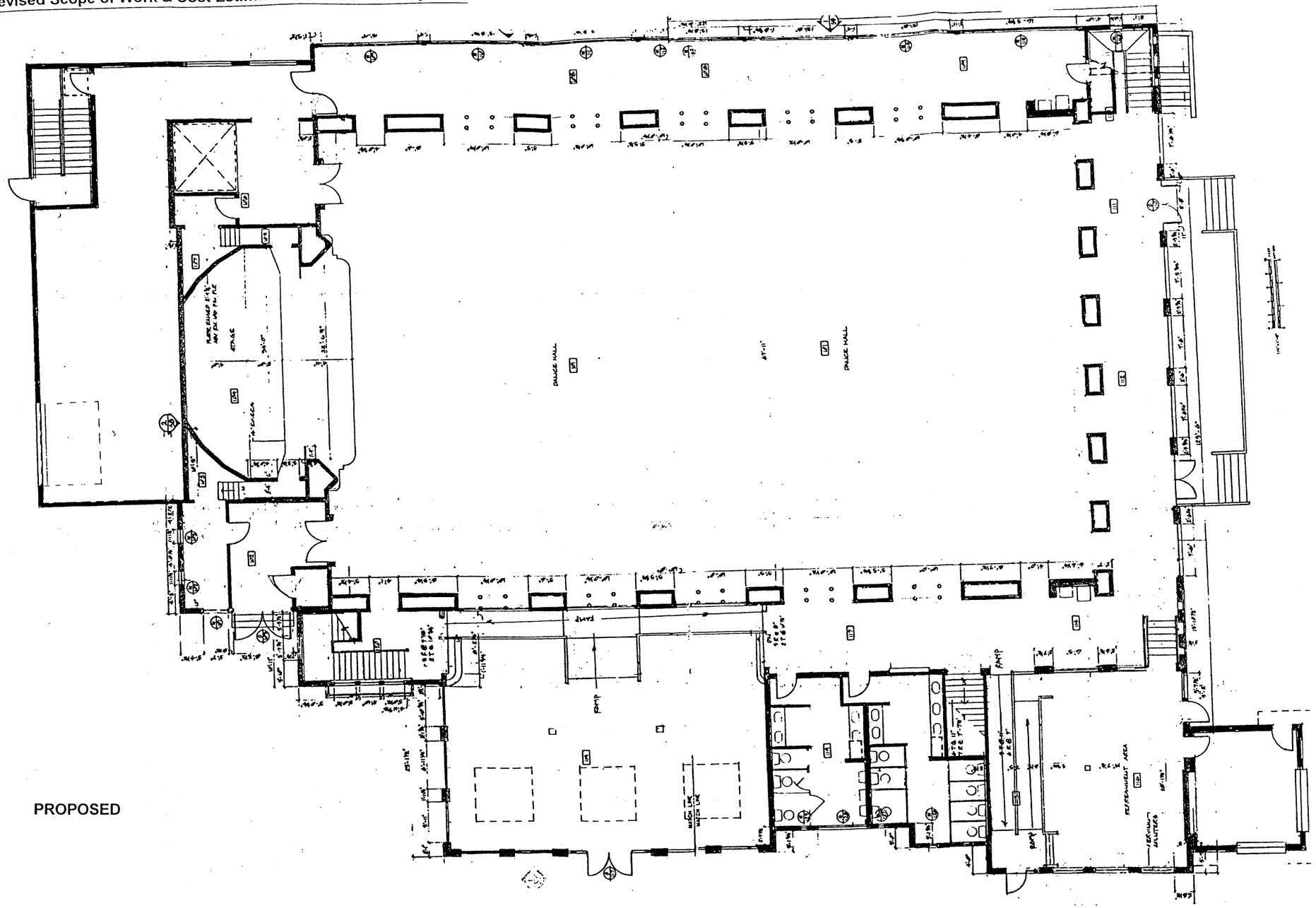
- Add sound equipment study. Equipment to be purchased by cooperators or provided by performers.

B. OTHER: Building programs must remain functional during construction. Dances may be relocated to the Bumper Car Pavilion during spring, summer, and fall. Interior work will require phasing..

Glen Echo Park Revised Scope of Work & Cost Estimate **July 1999**



Glen Echo Park Revised Scope of Work & Cost Estimate July 1999



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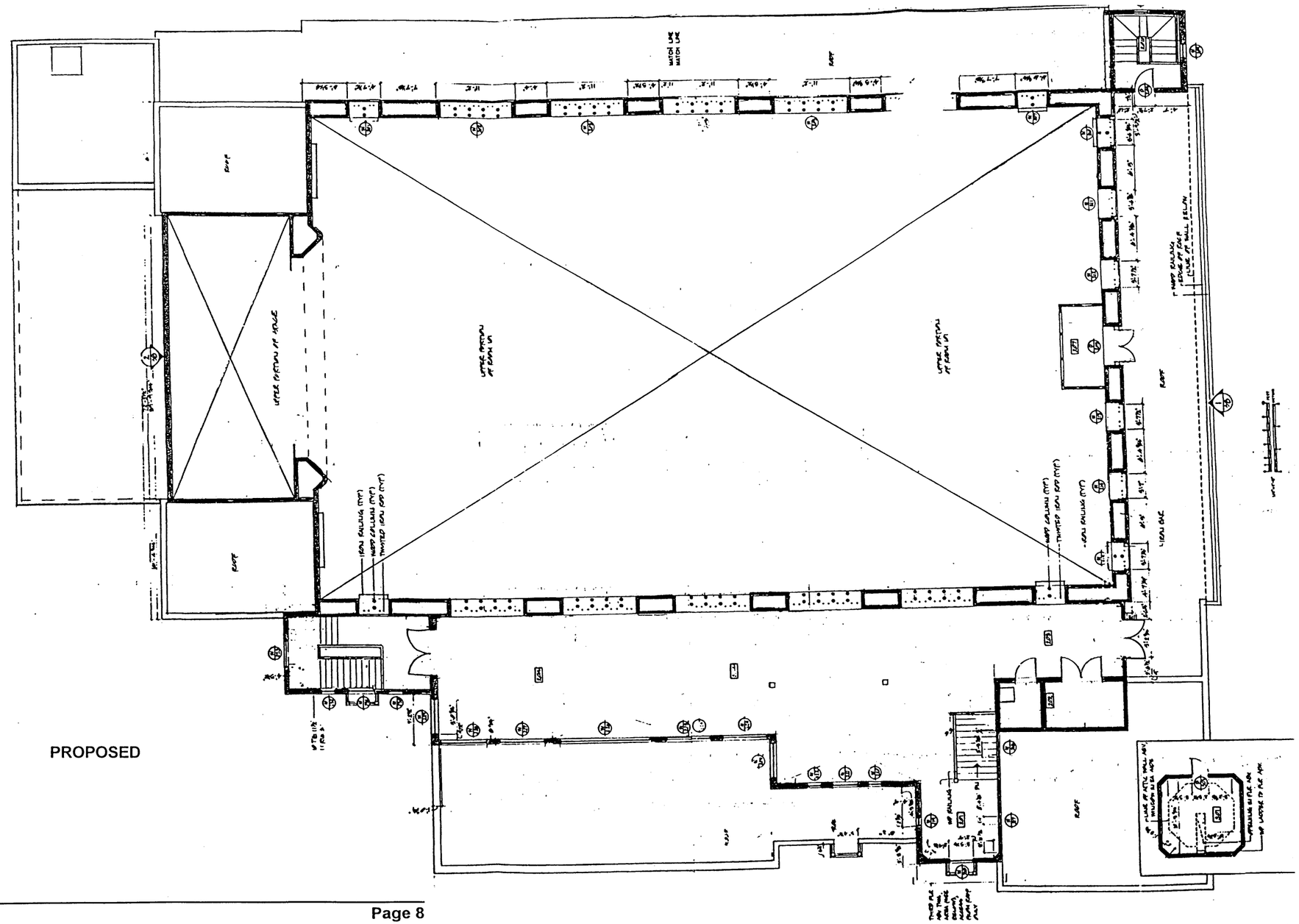
Glen Echo Park Revised Scope of Work & Cost Estimate **July 1999**



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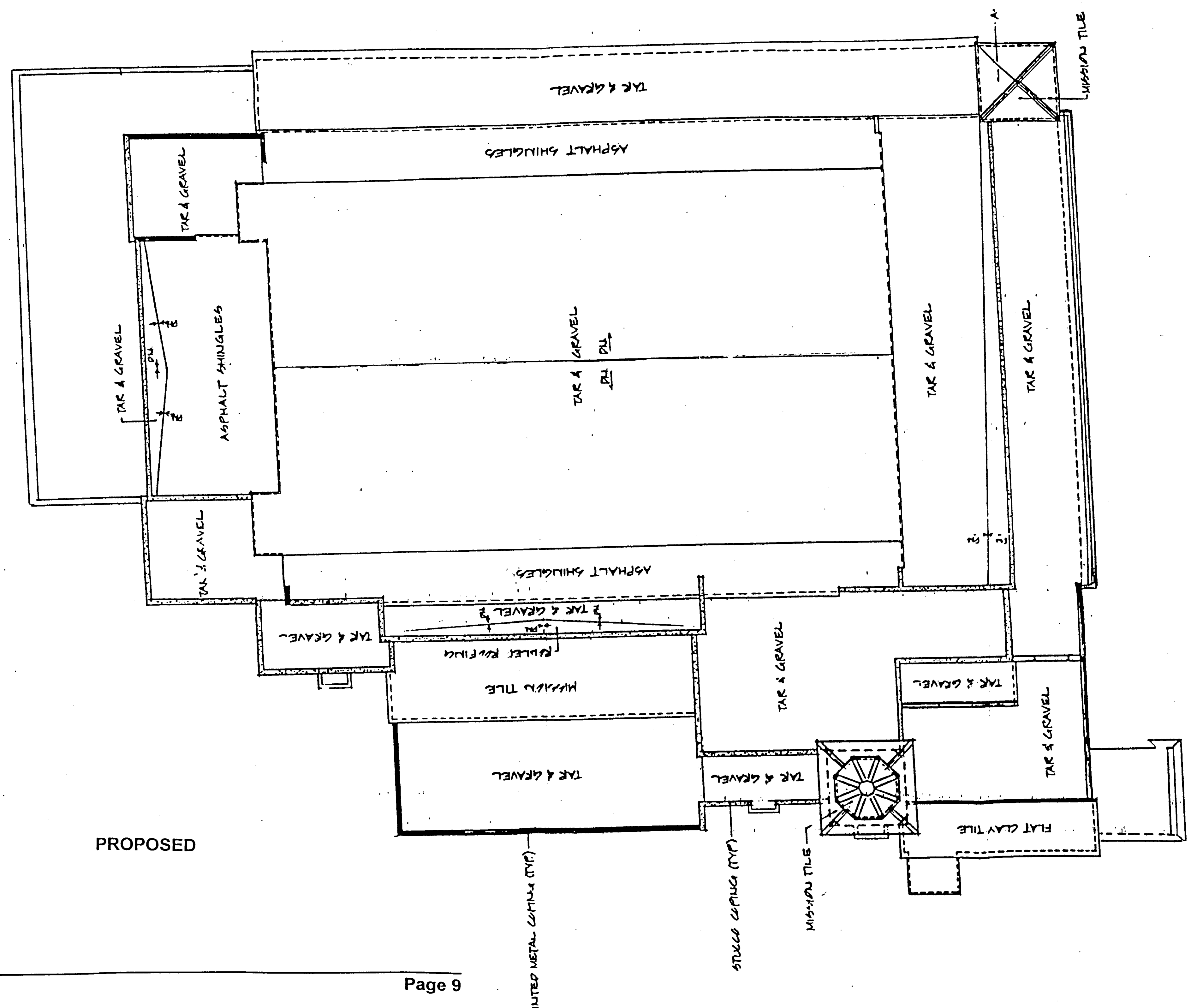
GLEC Spanish Ballroom **Page 8**

Glen Echo Park Revised Scope of Work & Cost Estimate July 1999



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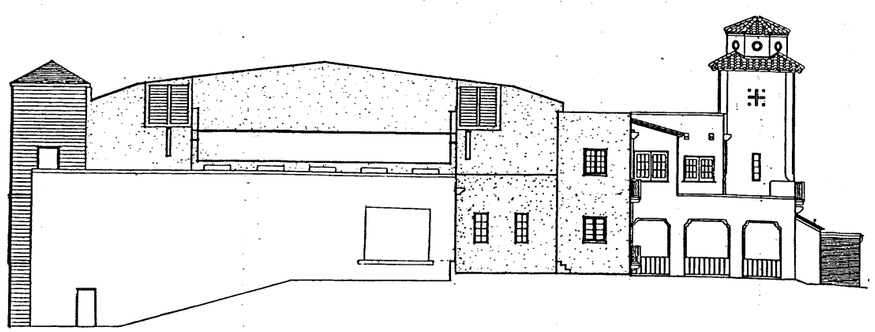

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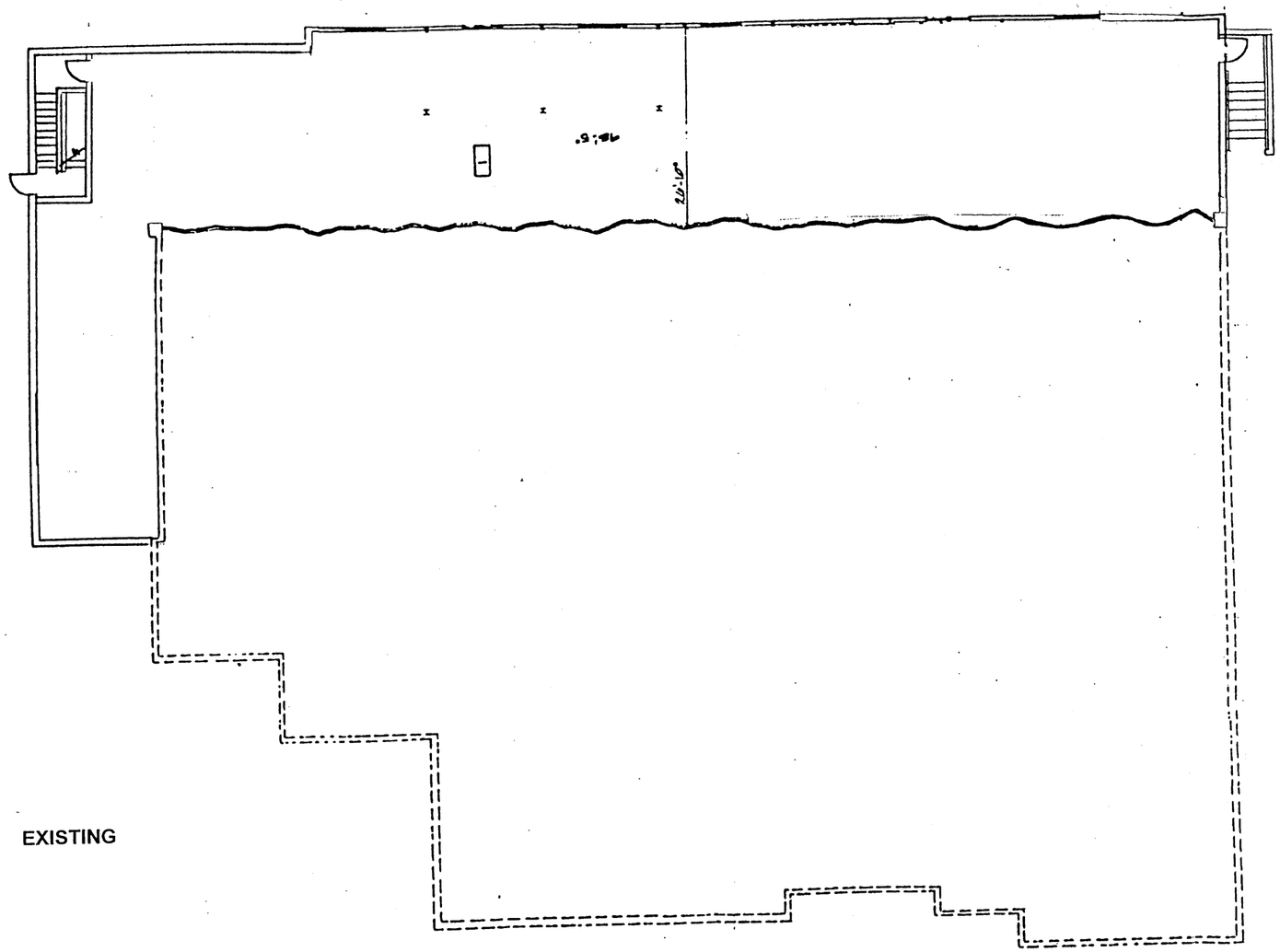
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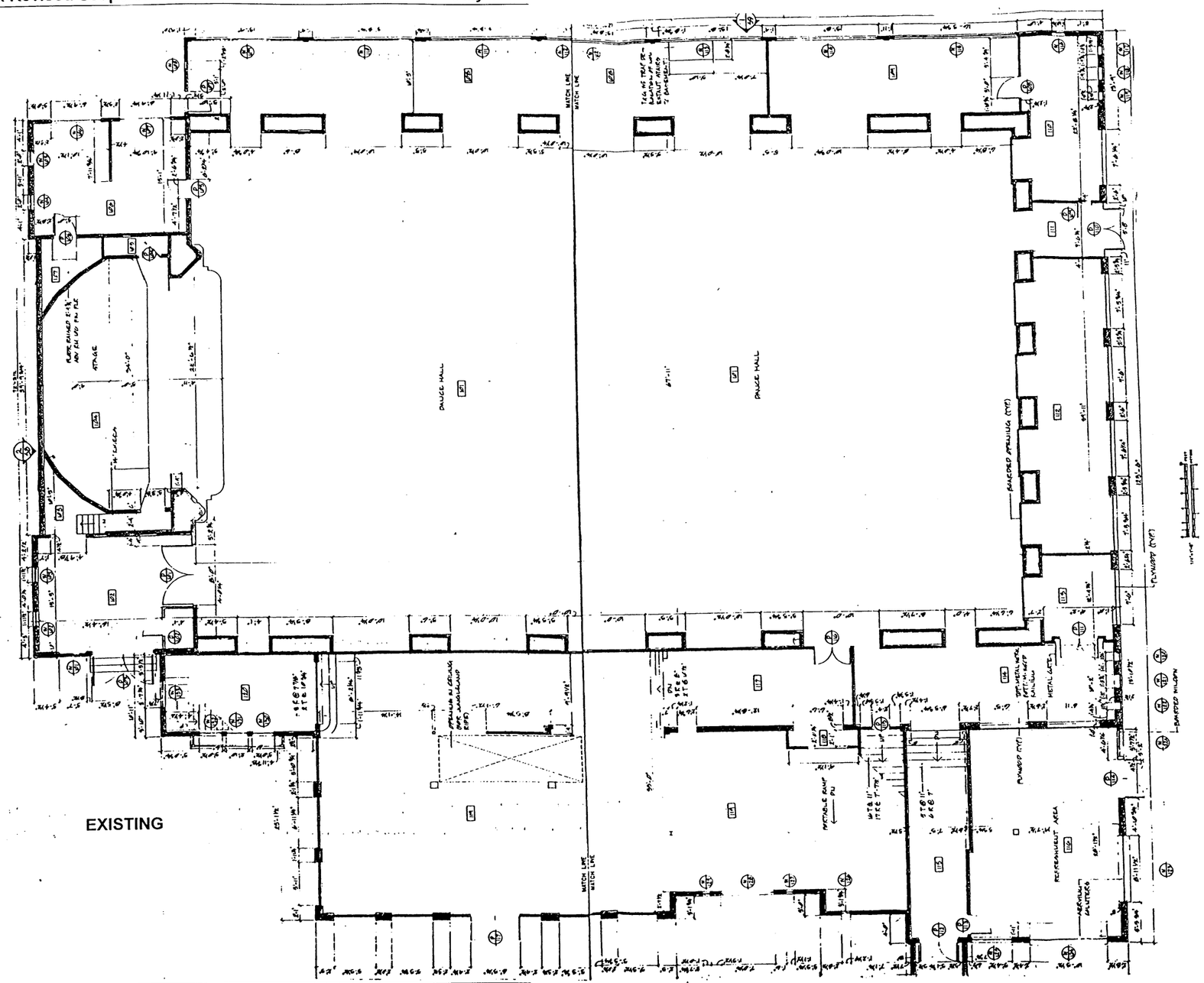

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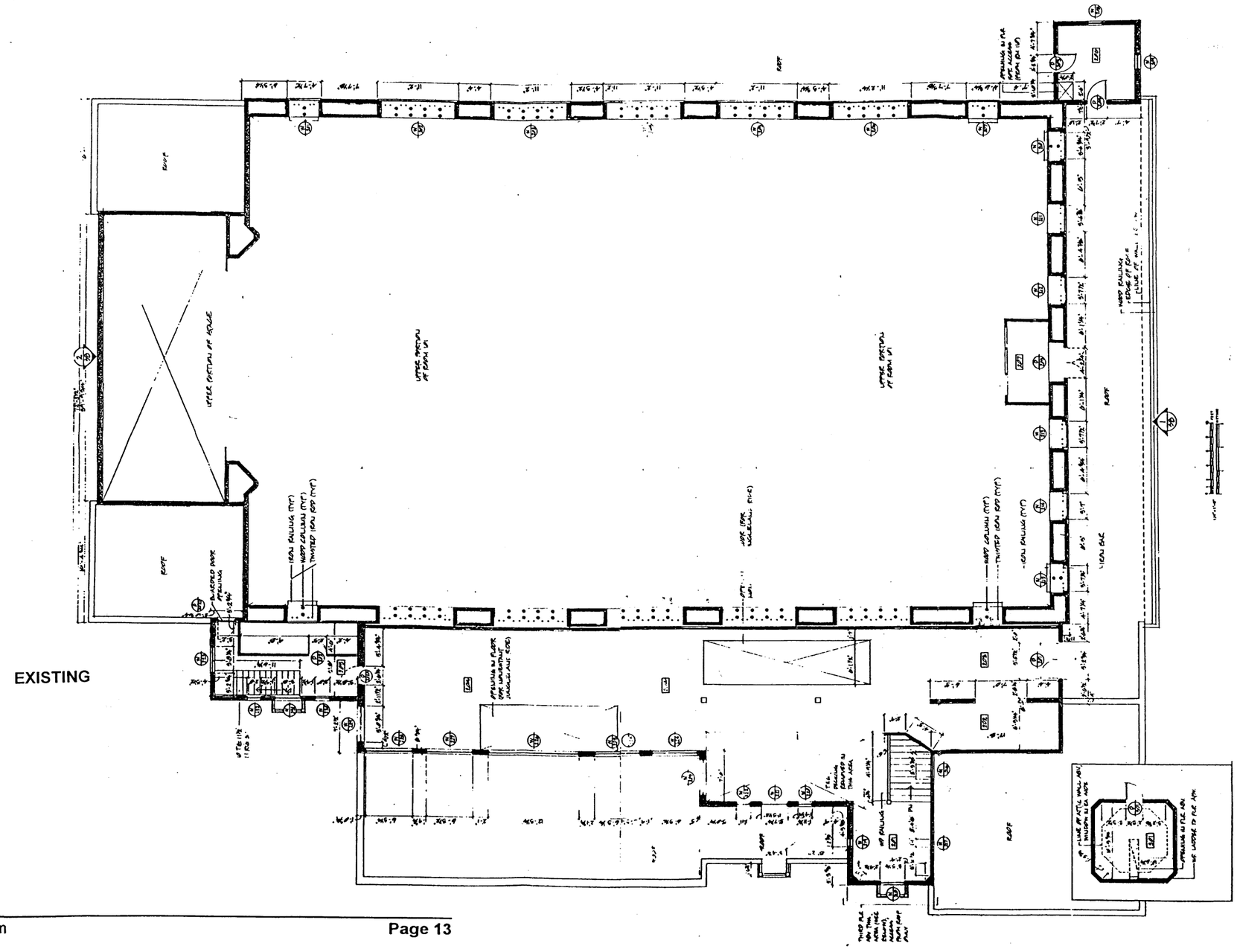

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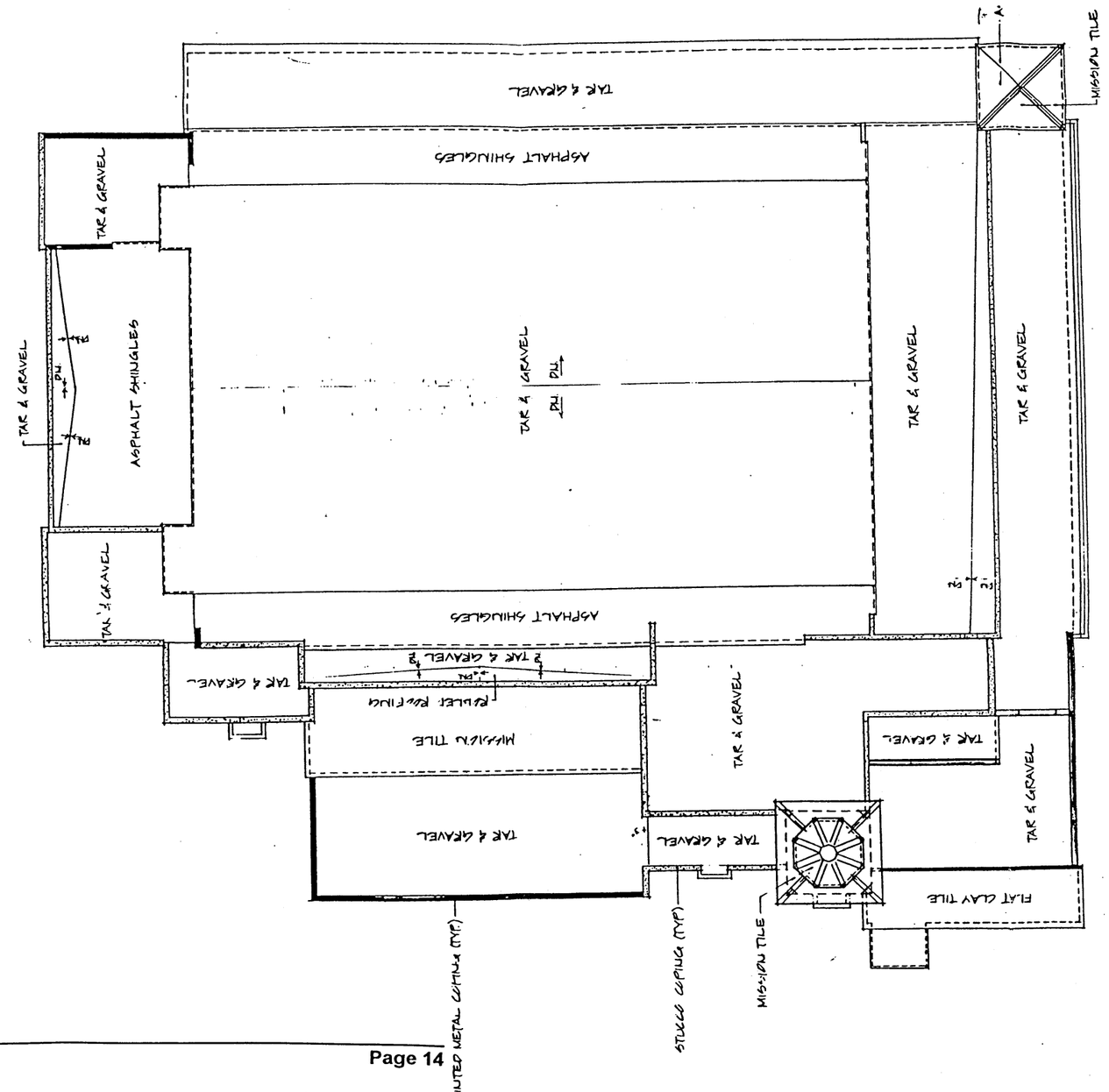

Appendix I: Edward Schoeppe Amusement Park and Pool Projects (BCA)

Date	Project	Location	Description	Cost	Contractor	Source	Extant?	Name Variant
1922, 11/11	Dance Hall (alterations)	Woodisde Park, Philadelphia, PA	F rame, 1 story, carpentry, mill work, general alterations.			PRERBG Vol. 37 (1922), 697	No	
1925, 7/29	Swimming Pool	North Philadelphia	Concrete, 200x200 feet.			PRERBG Vol. 40 (1925), 468	Unknown	
1925, 8/26	Swimming Pool and Buildings	Woodside Park, Philadelphia, PA	Pool, 220x165 feet, frame buildings, 15,000 square feet, electric light, cement floors, steel lockers.	$200,000		PRERBG Vol. 40 (1925), 531	No	
1925, 9/23	Swimming Pool	Woodside Park, Philadelphia, PA				PRERBG Vol. 40 (1925), 595	No	
1925, 12/2	Buildings	Woodside Park, Philadelphia, PA	Swimming pool building, filter building, 48x78 feet, 1 story, locker building, 1 story, 115x78 feet, office building, 2 stories, 48x20 feet, brick, stucco, slag and Spanish tile roof, cement and pine floors, rolled steel sash, bond, ornamental iron work.		George H. Evans, Inc.	PRERBG Vol. 40 (1925), 757	No	
1926, 5/19	New Swimming Pool	Willow Grove Park, Willow Grove, PA	Concrete, 6,700 square feet.			PRERBG Vol. 41 (1926), 314	No	
1926, 10/13	Swimming Pool (alterations and additions)	Woodside Park, Philadelphia, PA	New filter building, frame, 1 story, slag roof, cement floors, refreshment building, frame 2 story, tile roof, cement floors, store house, reinforced concrete, slag roof, cement floors, cement walks, pipe railings, piping, plumbing, concrete work.			PRERBG Vol. 41 (1926), 649	No	
1926, 11/3	Crystal Pool (alterations and additions)	Woodside Park, Philadelphia, PA	Carpentry and mill work, slag roof, sheet metal work, structural steel, hardware (painting and glazing, plumbing and drainage, concrete and excavation and foundations, electric work, iron rails all reserved).			PRERBG Vol. 41 (1926), 697	No	
1926, 12/24	Swimming Pool (alterations and additions)	Woodside Park, Philadelphia, PA	Carpentry and mill work, slag roof, sheet metal work, structural steel, hardware (painting and glazing, plumbing and drainage, concrete and excavation, foundations, electric work, iron rails all reserved).		Wintz Bros.	PRERBG Vol. 41 (1926), 747	No	
1927, 8/31	Swimming Pool	Boulevard Pools, Baltimore Pike, Delaware County, PA	Reinforced concrete pool, 45,000 square feet, sand beach, frame buildings, size of lot, 300x600 feet.			PRERBG Vol. 42 (1927), 559	No	E.A. Schoeppe
1927, 11/9	Swimming Pool	Lincoln Highway, Somerton (Bucks Co.), PA	Reinforced concrete, 75x100 feet, filters, lockers, etc.			PRERBG Vol. 42 (1927), 719	Unknown	E.A. Schoeppe
1927, 12/7	Swimming Pool	Lincoln Highway, Somerton (Bucks Co.), PA	Reinforced concrete, 75x100 feet, filters, lockers, etc.		Mason & Cullen	PRERBG Vol. 42 (1927), 784	Unknown	E.A. Schoeppe
1927, 12/21	Equipment for Pool	Lincoln Highway, Somerton (Bucks Co.), PA	Circulating equipment, consisting of circulating pipes for pool, filters, chlorinators, pumps and valves.			PRERBG Vol. 42 (1927), 814	Unknown	E.A. Schoeppe
1928, 1/4	Swimming Pool and Recreation Center	Boulevard Pools, Roosevelt Boulevard and Cottman St., Philadelphia, PA	Frame, stucco, 2 stories, 80x280 feet, tile roof, electric light, concrete and maple floors, concrete pool (45,000 square feet), concrete walks, wire fence, dance hall, café, laundry equipment, sand beach, refreshment booth, etc.			PRERBG Vol. 43 (1928), 3	No	E.A. Schoeppe
1928, 2/15	Picnic Pavilion	Woodside Park, Philadelphia, PA	Steel, frame, 1 story, 100x40 feet, stucco front, 2-inch plank, slag roof, cement floors, electric light.			PRERBG Vol. 43 (1928), 99	No	E. Schoeppe
1928, 2/15	Concrete Work, Swimming Pool	Boulevard Pools, Roosevelt Boulevard and Cottman St., Philadelphia, PA	Concrete pool and walks.		Holmesburg Concrete Co.	PRERBG Vol. 43 (1928), 106	No	E.A. Schoeppe
1928, 2/22	Swimming Pool and Recreation Center	Boulevard Pools, Roosevelt Boulevard and Cottman St., Philadelphia, PA	Filteration plant, including pumps, valves, gauges, alum and soda tanks, chlorination equipment.		Fred Wackenhunt	PRERBG Vol. 43 (1928), 122	No	E.A. Schoeppe
1928, 3/7	Swimming Pool	Baltimore Pike and Woodland Ave., South Springfield, PA	Reinforced concrete pool			PRERBG Vol. 43 (1928), 147	No	E.A. Schoeppe
1928, 3/7	Picnic Pavilion	Woodside Park, Philadelphia, PA	Frame, steel, stucco, 1 story, 140x100 feet, stucco front, cement floors, slag roof (plumbing, glazing, electric, reserved), emtal lath, rolled steel sash, iron work, hardware.		Wm. F. Koelle	PRERBG Vol. 43 (1928), 158	No	E. Schoeppe
1928, 3/14	Plumbing and Steel Lockers, Recreation Center	Boulevard Pools, Roosevelt Boulevard and Cottman St., Philadelphia, PA				PRERBG Vol. 43 (1928), 166	No	E.A. Schoeppe
1928, 3/14	Swimming Pool and Building	Boston, MA	Reinforced concrete pool, 100x200 feet, frame, stucco, 2 stories.			PRERBG Vol. 43 (1928), 175	Unknown	

Date	Project	Location	Description	Cost	Contractor	Source	Extant?	Name Variant
1928, 3/28	Buildings (recreation)	Boulevard Pools, Roosevelt Boulevard and Cottman St., Philadelphia, PA	Brick, steel, stucco, reinforced concrete, Spanish tile roof, built-up and canvas roof, cement and composition maple floors, rolled steel sash, fire doors, bond, iron stairs, ornamental iron work, cinder concrete block, architectural terra cotta, flagstone (plumbing, heating, electric, laundry equipment, steel lockers reserved by owners), main entrance building, 1 story, 273x80 feet, women's locker room, men's locker room, men's special locker room, filter building, 1 story, 84x40 feet.		George H. Evans, Inc.	PRERBG Vol. 43 (1928), 199	No	E.A. Schoeppe
1928, 3/28	Swimming Pool	Baltimore Pike and Woodland Ave., South Springfield, PA	Reinforced concrete, cement work, 250x125 feet, waterproofing.		Mason & Cullen	PRERBG Vol. 43 (1928), 206	No	E.A. Schoeppe
1928, 4/25	Recreation Building	Baltimore Pike and Woodland Ave., South Springfield, PA	Frame, 1 story, 300x60 feet.			PRERBG Vol. 43 (1928), 266	No	E.A. Schoeppe
1928, 4/25	Swimming Pool and Building	Revere Beach, Massachusetts	Reinforced concrete pool, 100x200 feet, frame, stucco, 2 stories.			PRERBG Vol. 43 (1928), 272	No	
1928, 6/13	Recreation Buildings	Baltimore Pike and Woodland Ave., South Springfield, PA	Asbestos board, steel, 1 story, balcony, 290x60 feet, slag roof, rolled steel sash (plumbing, heating, electric reserved), mill work, sheet metal, hardware, glazing.		Mason & Cullen	PRERBG Vol. 43 (1928), 381	No	E.A. Schoeppe
1928, 10/3	Recreation Center	Philadelphia (Germantown), PA	Reinforced concrete swimming pools, brick, concrete block, stucco, buildings, 1 and 2 stories, locker buildings, filtration building, grandstand, hand ball courts, sand beaches, refreshment building.	$100,000-$250,000		PRERBG Vol. 43 (1928), 627	Unknown	Edwin A. Schoeppe
1928, 10/3	Recreation Center	Hagerstown, MD	Reinforced concrete swimming pools, brick, concrete block, stucco, buildings, 1 and 2 stories, locker buildings, filtration building, grandstand, hand ball courts, sand beaches, refreshment building.	$100,000-$250,000		PRERBG Vol. 43 (1928), 627	Unknown	Edwin A. Schoeppe
1928, 10/3	Recreation Center	Williamsport, PA	Reinforced concrete swimming pools, brick, concrete block, stucco, buildings, 1 and 2 stories, locker buildings, filtration building, grandstand, hand ball courts, sand beaches, refreshment building.	$100,000-$250,000		PRERBG Vol. 43 (1928), 627	Unknown	Edwin A. Schoeppe
1928, 10/3	Recreation Center	Elizabeth, NJ	Reinforced concrete swimming pools, brick, concrete block, stucco, buildings, 1 and 2 stories, locker buildings, filtration building, grandstand, hand ball courts, sand beaches, refreshment building.	$100,000-$250,000		PRERBG Vol. 43 (1928), 627	Unknown	Edwin A. Schoeppe
1928, 10/3	Recreation Center	Dayton, OH	Reinforced concrete swimming pools, brick, concrete block, stucco, buildings, 1 and 2 stories, locker buildings, filtration building, grandstand, hand ball courts, sand beaches, refreshment building.	$100,000-$250,000		PRERBG Vol. 43 (1928), 627	Unknown	Edwin A. Schoeppe
1928, 10/3	Recreation Center	Cincinnati, OH	Reinforced concrete swimming pools, brick, concrete block, stucco, buildings, 1 and 2 stories, locker buildings, filtration building, grandstand, hand ball courts, sand beaches, refreshment building.	$100,000-$250,000		PRERBG Vol. 43 (1928), 627	Unknown	Edwin A. Schoeppe
1929, 1/9	Swimming Pool and Recreation Center	134th St. and Broadway, New York, NY	Reinforced concrete pool, 65x175 feet, locker house, capacity 3,000, sand beach, filtration plant, plumbing, sprinklers, recreation building, size of lot 100x375 feet, refreshment building.			PRERBG Vol. 44 (1929), 27	No	
1929, 7/31	Swimming Pool and Building	Kensington Ave. and Hunting Park Ave., Philadelphia, PA	Brick, structural steel, reinforced concrete, 3 stories (electric, plumbing reserved), Spanish tile roof, cement and maple floors, hollow tile, metal lath, terrazzo work, rolled steel sash, kalamein doors, ornamental iron work, flagstone floors, 40x64 feet, 78x114 feet, 40x195x25 feet.			PRERBG Vol. 44 (1929), 484	No	Edwin A. Schoeppe
1929, 12/4	Recreation Building	Woodside Park, Philadelphia, PA	Frame, steel and stucco, 1 story, 60x60 feet, pine and cement floors, vertical sliding doors.			PRERBG Vol. 44 (1929), 771	No	Edwin Schoeppe
1930, 1/8	Restaurant and Plaza	Woodside Park, Philadelphia, PA	Stone, frame, 1 story, 30x55 feet, plaza 100x250 feet, excavation, grading, plumbing, landscape gardening, soda fountain, electric fountain, tile work.			PRERBG Vol. 45 (1930), 19	No	Edwin Schoeppe
1930, 1/8	Recreation Building	Woodside Park, Philadelphia, PA	Frame, steel, stucco, 1 story, 60x60 feet, pine and cement floors, vertical sliding doors.		Edgar M. Wambold	PRERBG Vol. 45 (1930), 20	No	Edwin Schoeppe
1930, 1/22	Recreation Building	Woodside Park, Philadelphia, PA	Frame, stucco, 1 story, 53x22 feet, excavation, stone foundation, carpentry and mill work, iron work, painting and glazing, hardware, slag roof, Spanish tile roof. (Plumbing, heating, electric reserved).			PRERBG Vol. 45 (1930), 51	No	Edwin Schoeppe

Date	Project	Location	Description	Cost	Contractor	Source	Extant?	Name Variant
1930, 2/5	Refreshment Stand	Woodside Park, Philadelphia, PA	Frame, stucco, 1 story, 53x22 feet, excavation, stone foundation, carpentry and mill work, iron work, painting and glazing, hardware, slag roof, Spanish tile roof. (Plumbing, heating, electric reserved).		E.E. Hollenback, Inc.	PRERBG Vol. 45 (1930), 86	No	Edwin Schoeppe
1930, 2/12	Plaza	Woodside Park, Philadelphia, PA	Landscape work, concrete and stone work, cement curbs and walks, reinforced colored concrete, cut stone.			PRERBG Vol. 45 (1930), 99	No	Edwin S. Schoeppe
1930, 2/19	Japanese Rolling Ball Pavilion	Woodside Park, Philadelphia, PA	Steel, steel sidings, 20x24 feet, slag roof, cement and wood floors, ornamental Japanese finish.			PRERBG Vol. 45 (1930), 115	No	Edwin S. Schoeppe
1930, 3/5	Beach (alterations)	Staten Island, NY	Revamping swimming pool, filter plant, chlorination system, circulating piping, concrete work, concrete building, railing, electric work, diving boards, sand beach.			PRERBG Vol. 45 (1930), 157	Unknown	Edw. Schoeppe
1930, 3/19	Japanese Rolling Ball Pavilion	Woodside Park, Philadelphia, PA	Steel, steel sidings, 20x24 feet, slag roof, cement and wood floors, ornamental Japanese finish.			PRERBG Vol. 45 (1930), 181	No	Edwin S. Schoeppe
1930, 4/23	Building in Lake	Woodside Park, Philadelphia, PA	Frame, 1 story, 55x35 feet, asbestos shingle roof, stel sash, electric work, bulkheading around lake. Timber.	$5,000	Edgar M. Wambold	PRERBG Vol. 45 (1930), 261	No	Edwin Schoeppe
1930, 4/30	Pool Improvement	Lincoln Highway, Trevose, PA	Reinforced concrete, bulkhead, center island, pumping equipment, electric work, plumbing.			PRERBG Vol. 45 (1930), 280	No	Edwin Schoeppe
1930, 12/17	Swimming Pool, Beach, Recreation Building, etc.	Joliet, IL	Building, 1 and 2 stories, various sizes.	$80,000		PRERBG Vol. 45 (1930), 756	Unknown	Edwin Schoeppe
1930, 12/17	Swimming Pool, Building, etc. and Dance Hall (alterations)	Glen Echo Park, Glen Echo, MD	Pool 15,000 square feet, sand beach 10,000 square feet, recreation building, 1 and 2 stories, 50x300 feet, frame and concrete, steel sash, Spanish tile roof, grandstands and office, refreshment building and stand, alterations to present dance hall, filters, circulating piping, shower, steel lockers, etc.	$130,000		PRERBG Vol. 45 (1930), 756	No	Edwin Schoeppe
1931, 3/11	Swimming Pool, Building, etc. and Dance Hall (alterations)	Glen Echo Park, Glen Echo, MD	Pool 15,000 square feet, sand beach 10,000 square feet, recreation building, 1 and 2 stories, 50x300 feet, frame and concrete, steel sash, Spanish tile roof, grandstands and office, refreshment building and stand, alterations to present dance hall, filters, circulating piping, shower, steel lockers, etc.		Skinker & Garrett; William B. Scaife & Son (Filter Plant); Crockett (Plumbing)	PRERBG Vol. 46 (1931), 104	No	Edwin Schoeppe
1931, 8/26	Hotel (additions) and Swimming Pool	Coney Island, NY	Concrete, brick, 3 stories, 50x80 feet, tile roof, tile and terrazzo floors, indirect heating, tile work, hardwood floors. Pool add., 136x50 feet, vita glass, tile.			PRERBG Vol. 46 (1931), 300	No	Edwin A. Schoeppe
1931, 8/26	Amusement Building and Sea Wall	Blackpool Pleasure Beach, Blackpool, England	Amusement building, frame and glass, 1 story, 65x60 feet, sea wall in screen, 500 feet long, 30 to 50 feet high, concrete, brick and stucco.			PRERBG Vol. 46 (1931), 300	No	Edwin A. Schoeppe
1931, 9/30	Dance Hall (alterations)	Glen Echo Park, Glen Echo, MD	Steel construction, frame and stucco, 1 story, 90x160 feet, Spanish tile and asbestos roof, maple floors, concrete, ceiling lighting, plastering, stucco, plumbing work.			PRERBG Vol. 46 (1931), 340	Yes	
1931, 9/30	Swimming Pool, etc.	Brighton Beach, NY	Concrete, 1 story, 80x200 feet, 50x60 feet, grandstand, frame, filter shed, toilet facilities, hand ball court, wire fencing, railing, diving boards and playground equipment, tile work, chlorinator, filter pump, plumbing, floodlights, submarine lights.			PRERBG Vol. 46 (1931), 340	No	
1931, 12/16	Swimming Pool, etc.	Brighton Beach, NY	Concrete, 1 story, 80x200 feet, 50x60 feet, grandstand, frame, filter shed, toilet facilities, hand ball court, wire fencing, railing, diving boards and playground equipment, tile work, chlorinator, filter pump, plumbing, floodlights, submarine lights.			PRERBG Vol. 46 (1931), 427	No	
1931, 12/23	Swimming Pool, etc.	Brighton Beach, NY	Concrete, 1 story, 80x200 feet, 50x60 feet, grandstand, frame, filter shed, toilet facilities, hand ball court, wire fencing, railing, diving boards and playground equipment, tile work, chlorinator, filter pump, plumbing, floodlights, submarine lights.			PRERBG Vol. 46 (1931), 435	No	
1932, 1/27	Recreation Building	Webster Ave. and Boardwalk, Seaside Heights, NJ	Frame, 1 story, 40x90 feet, wing 30x30 feet, concrete footings.			PRERBG Vol. 47 (1932), 29	No	
1932, 3/2	Recreation Building	Webster Ave. and Boardwalk, Seaside Heights, NJ	Frame, 1 story, 40x90 feet, wing 30x30 feet, concrete footings.			PRERBG Vol. 47 (1932), 69	No	
1932, 3/16	Musical Tower	Woodside Park, Philadelphia, PA	Frame, non-rust steel, sheet metal, 16x16 feet, 48-foot spire, masonry.			PRERBG Vol. 47 (1932), 81	No	Edwin A. Schoeppe
1932, 3/23	Musical Tower	Woodside Park, Philadelphia, PA	Frame, non-rust steel, sheet metal, 16x16 feet, 48-foot spire.			PRERBG Vol. 47 (1932), 89	No	Edwin A. Schoeppe

Date	Project	Location	Description	Cost	Contractor	Source	Extant?	Name Variant
1932, 4/6	Musical Tower	Woodside Park, Philadelphia, PA	Frame, non-rust steel, sheet metal, 16x16 feet, 48-foot spire, masonry.		Haverstick & Borthwick Co.	PRERBG Vol. 47 (1932), 107	No	Edwin A. Schoeppe
1932, 4/6	Concrete Dam	Woodside Park, Philadelphia, PA	40 feet long, 10 feet high.		Haverstick & Borthwick Co.	PRERBG Vol. 47 (1932), 107	No	Edwin A. Schoeppe
1932, 4/6	Recreation Building	Webster Ave. and Boardwalk, Seaside Heights, NJ	Frame, 1 story, 40x90 feet, wing 30x30 feet, concrete footings.		Fred Reeger	PRERBG Vol. 47 (1932), 111	No	
1932, 6/1	Recreation Building and Swimming Pool	Church Rd. and Jenkintown Rd., Elkins Park, PA	Reinforced concrete swimming pool, 40x90 feet, 1 story, basement, building, frame, stone, wood roof, trusses, composition roof, electric, piping, ladders, diving boards, plumbing, showers, electric pump.			PRERBG Vol. 47 (1932), 172	No	
1932, 7/20	Swimming Pool	Elkins Park, PA	Reinforced concrete, 40x90 feet.			PRERBG Vol. 47 (1932), 228	No	
1932, 12/21	Dance Hall and Game Building (alterations)	Glen Echo Park, Glen Echo, MD	Structural steel frame, 150x90 feet, 1 story, frame and stucco covering, tile and terrazzo work, pine and maple floors, Spanish tile roof, built-up roof, concrete foorings, electric work, steel sash, ornamental iron work.			PRERBG Vol. 47 (1932), 406	Yes	
1933, 1/25	Dance Hall and Game Building (alterations)	Glen Echo Park, Glen Echo, MD	Smooth surface asphalt roof, promenade and Spanish tile, hardware, plastering.			PRERBG Vol. 48 (1933), 29	Yes	
1933, 3/29	Ball Room (alterations) and Sylvan Hall (alterations)	Woodside Park, Philadelphia, PA	Ball room and Sylvan Hall alterations.			PRERBG Vol. 48 (1933), 97	No	
1933, 3/29	Recreation Building	World's Fair, Chicago, IL	Steel, frame and stucco, 1 story, 65x137 feet, built-up roof, metal ceiling and floors, electric work.			PRERBG Vol. 48 (1933), 102	No	Edwin Schoeppe
1933, 4/12	Ball Room (alterations) and Sylvan Hall (alterations)	Woodside Park, Philadelphia, PA	Alterations to Sylvan Hall for motion pictures, painting and repairs, Sylvan Hall alterations.		Haverstick & Borthwick Co.	PRERBG Vol. 48 (1933), 113	No	
1933, 5/24	Amusement Building	Woodside Park, Philadelphia, PA	Tennis courts, basket ball and volley ball courts, Buckite or asphalt on stone or concrete base, backboard frame and steel, concrete curbs, grading, electric work, plumbing.		Edgar M. Wambold	PRERBG Vol. 48 (1933), 163	No	
1934, 2/21	Amusement Park (alterations and additions)	Unknown	Alterations to buildings, dance pavilion			PRERBG Vol. 49 (1934), 62	Unknown	
1934, 4/11	Auditorium (alterations)	Woodside Park, Philadelphia, PA	Acoustical board, papering, interior alterations.		E.E. Hollenback, Inc.	PRERBG Vol. 49 (1934), 115	No	Edwin A. Schoeppe
1934, 4/11	Building (alterations)	Woodside Park, Philadelphia, PA	New front, frame, stucco.		E.E. Hollenback, Inc.	PRERBG Vol. 49 (1934), 115	No	Edwin A. Schoeppe
1935, 2/6	Amusement Ride	Kennywood Park, Pittsburgh, PA	Steel plate floor, frame construction.			PRERBG Vol. 50 (1935), 38	Unknown	
1935, 3/4	Recreation Building	Dallas, TX	Frame and sheet metakl, 1 story, 50x125 feet, corrugated metal roof, concrete foundations, ornamental front, millwork, electric.			PRERBG Vol. 50 (1935), 28	Unknown	Edw. A. Schoeppe
1935, 3/11	Buildings (3)	Woodside Park, Philadelphia, PA	New fronts and repairs.		E.E. Hollenback, Inc.	PRERBG Vol. 50 (1935), 30	No	Edw. Schoeppe
1936, 5/13	Swimming Pool	Bala, PA	Reinforced concrete, 60x120 feet.		Frank G. Stewart	PRERBG Vol. 51 (1936), 67	No	Edwin Schoeppe & Norman Alexander
1938, 2/2	Women's Building (additions)	Woodside Park, Philadelphia, PA	Brick, frame, 2 and 1 story addition, 16x18 feet, steel sash, tin roof, tile floors, metal toilet partitions, concrete porches, new plumbing and fixtures.			PRERBG Vol. 53 (1938), 41	No	
1938, 2/16	Apartment Buildings (2) and Amusement Building	Seaside Heights, NJ	Frame, 2 stories, (apartment, 2 stories, 24x80 feet each), amusement building, 18 feet high, 60x90 feet, asphalt slate surface shingle roof, pine floors, electric work, plumbing, cement work.			PRERBG Vol. 53 (1938), 60	Unknown	Edw. Schoeppe
1938, 3/16	Apartment Buildings (2) and Amusement Building	Seaside Heights, NJ	Frame, 2 stories, (apartment, 2 stories, 24x80 feet each), amusement building, 18 feet high, 60x90 feet, asphalt slate surface shingle roof, pine floors, electric work, plumbing, cement work.		Fred Reeger	PRERBG Vol. 53 (1938), 76	Unknown	
1939, 3/29	Recreation Centre and Solidarity Pool	Warrington, PA	Concrete, 50x120 feet.			PRERBG Vol. 54 (1939), 50	Uknown	Alexander Beecker (*sic*) Schoeppe
1939, 4/5	Amusement Park	Gwynn Oaks Park, Baltimore, MD	Bingo building, frame, 33x60 feet.			PRERBG Vol. 54 (1939), 53	No	

Date	Project	Location	Description	Cost	Contractor	Source	Extant?	Name Variant
1939, 4/12	Outdoor Swimming Pool	The Arena, 4530 Market St., Philadelphia, PA	Reinforced concrete, 164x175			PRERBG Vol. 54 (1939), 57; "Plans Swimming Pool At 46th and Market," *The Philadelphia Inquirer* (April 9, 1939), 74	No	
1939, 4/19	Recreation Centre and Solidarity Pool	Doylestown, PA	Concrete, 50x120 feet.		Steel Bldg. and Cons. Co.	PRERBG Vol. 54 (1939), 62	Unknown	Alexander Becker & Schoeppe
1939, 11/8	Restaurant and Office Building	Glen Echo Park, Glen Echo, MD	Structural steel, masonry, stucco, 2 stories and basement, 105x50 feet, wing 40x64 feet, terrazzo floors, reinforced concrete floors, promenade tile roof, steel sash, screens, plumbing, steel tower, kitchen equipment, refrigerator room, steel tower.		Skinker and Garrett	PRERBG Vol. 54 (1939), 173	Yes	
1940, 2/28	Amusement Center (alterations)	Island Park, Sunbury, PA	Interior and exterior alterations, dance hall, restaurant and moving picture theatre.			PRERBG Vol. 55 (1940), 38	No	
1940, 4/10	Amusement Center (alterations and additions)	Island Park, Sunbury, PA	Interior and exterior alterations and additions, frame work, stucco, cinder block, slag roof, concrete and wood.			PRERBG Vol. 55 (1940), 50	No	
1941, 8/30	Enlarged Casino (alterations)	Palisades Amusement Park, Cliffside Park/Fort Lee, NJ	Elaborate plans for an enlarged casino.			Marion Cahn, "Palisades, N.J.," *The Billboard* (August 30, 1941), 61		Edwin Schoeppe

Appendix J: Performers at the Spanish Ballroom Between 1933 and 1968 (BCA)

DATE	PERFORMER(S)	ACCOMPANIMENT	MUSICAL STYLE[1029]	RACE	SOURCE	NOTES
1933	David McWilliams Orchestra		Big Band; Swing	White	"Ballroom at Glen Echo Park," *The Washington Post* (April 30, 1933), 54.	Band of 12. McWilliams also played in the Crystal Ballroom in 1931 and 1932.
1934	David McWilliams Orchestra	Dean Alexander (vocals); Wilbur May (whistling)	Big Band; Swing	White	"Glen Echo Put In Readiness To Open May 5," *The Washington Post* (April 22, 1934), AS2; "Outdoor Amusements," *The Evening Star* (July 8, 1934), 43; "Tonite at 10," *The Evening Star* (July 30, 1934), 30; "Amusements," *The Evening Star* (August 8, 1934), 18.	Under direction of Phil O'Brien. "Dave" and "Jerry," two English pit bull mascots.
1935	David McWilliams Orchestra		Big Band; Swing	White	"Leonard Schloss, in the Manner Of Years, Announces His Plans!" *The Washington Post* (April 14, 1935), SB2; "Al Fresco Fun Season Opens At Glen Echo," *The Washington Post* (April 28, 1935), SMB2.	Under direction of Phil O'Brien.
1936	David McWilliams Orchestra		Big Band; Swing	White	"Glen Echo Park Awaits Opening Saturday Noon," *The Washington Post* (April 12, 1936), AA2; "Glen Echo Park Catches Stride For Hot Season," *The Washington Post* (May 10, 1936), AA2; "Glen Echo Park Provides Swing Dance Melodies," *The Washington Post* (May 17, 1926), AA2.	Under direction of Phil O'Brien.
1937	David McWilliams Orchestra	Kitty Simmons (vocals) (Figure 608); Melvin Henderson (electrically operated steel guitar)	Big Band; Swing	White	"Glen Echo Park Will Inaugurate Season Saturday," *The Washington Post* (April 11, 1937), TR2.	Under direction of Phil O'Brien.
1938	"Little" Joe Hart		Big Band; Swing	White	"Opens Park," *The Evening Star* (April 3, 1938), 40.	1938 was the first year that "traveling name bands" performed rather than a house orchestra. "Little" Joe Hart was known for radio work and personal appearances.
1938	Ray Herbeck	Shirley Martin (Figure 609); Joe Martin; Three Top Hatters	Big Band; Lombardo style	White	"Glen Echo Park Brings in Name Band This Week," *The Washington Post* (May 8, 1938), TT4; "Glen Echo Park Has a New Band," *The Washington Post* (May 15, 1938), TT3.	Ray Herbeck opened the 1935 California Pacific International Exposition.
1938	Henry Halstead	Margaret Reed (vocals)	Big Band; Suave rhythm	White	"Glen Echo Park Will Open Pool Saturday Noon," *The Washington Post* (May 22, 1938), TS3; "Halstead at Park," *The Evening Star* (May 24, 1938), 18.	Billed as "California's Greatest Dance Attraction" or "The Aristocrat of the Supper Club."
1938	Tom Gentry	Jeanne Carroll (Figure 610)	Jazz	White	"Glen Echo Park Introduces New Ballroom Band," *The Washington Post* (June 5, 1938), TT3; "Glen Echo's Next," *The Evening Star* (May 31, 1938), 50.	Billed as "Radio's Royalty of Rhythm."
1938	Larry Funk and his "Band of Thousand Melodies"	Helen O'Connell (Figure 611)	Jazz	White	"Glen Echo Park Offers Popular New Dance Band," *The Washington Post* (June 19, 1938), TS3.	
1938	Howard Becker	Mac Harris; Bob Stall	Big Band	White	"Glen Echo Park Ready to Serve Holiday Crowds," *The Washington Post* (July 3, 1938), TT3.	
1938	Herbie Holmes	Nancy Hutson (Figure 612)	Big Band	White	"Glen Echo Park Brings in New Dance Orchestra," *The Washington Post* (July 17, 1938), TT4.	Herbie Holmes was known as "Mississippi's Famous Musical Merchant."
1938	David McWilliams	Larry Hendrick (organist); Jack Schaeffer (trumpet, vocals); Jimmy Bright (vocals)	Big Band; Swing	White	"Glen Echo Park Offers Favorite Band This Week," *The Washington Post* (July 31, 1938), TT4; "Glen Echo Park Will Entertain In Its Ballroom," *The Washington Post* (August 21, 1938), TT4.	
1938	"Little" Joe Hart	Art Lund	Big Band; Swing	White	"Glen Echo Park To Hear Hart's Music Tuesday," *The Washington Post* (September 4, 1938), TT4.	
1939, 4/15	Herbie Holmes	Nancy Hutson	Big Band	White	"Glen Echo Park Opens Season On April 15," *The Washington Post* (April 9, 1939), A4; "Sings With Park's First Band," *The Washington Post* (April 4, 1939), 8.	
1939, 5/15	Cecil Golly	Nancy Gay (vocals) (Figure 613); Gene Eyman (scat)	Big Band	White	"Glen Echo Park Brings Back Popular Band," *The Washington Post* (September 3, 1939), A4.	"Music by Golly"
1939, 6/3	Lawrence Welk	Mildred Stanley; Jules Heerman; Jerry Burke; Walter Bloom; Parnell Grinna	"Sweet" Dance; "Champagne Music"	White	"Lawrence Welk Brings His Band To Glen Echo," *The Washington Post* (May 28, 1939), TT4.	
1939, 6/5	Wally Stoeffler	Thelma Mitchell (vocals) (Figure 614); Houston Davis (drums)	Swing	White	"New Orchestra Takes Over at Glen Echo Park," *The Washington Post* (June 4, 1939), A4.	
1939, 6/19	Lang Thompson and his Swing Specialists		Swing	White	"Glen Echo Park Books Hit Band For Fortnight," *The Washington Post* (June 18, 1939), TS4.	

DATE	PERFORMER(S)	ACCOMPANIMENT	MUSICAL STYLE[1029]	RACE	SOURCE	NOTES
1939, 7/3	"Little" Joe Hart	N/A	Big Band; Swing	White	"Glen Echo Park Prepares for Holiday Crowds," *The Washington Post* (July 2, 1939), A4.	
1939, 7/17	Carl Lorch	Shirley Dean (Figure 615)	Jazz	White	"Glen Echo Park Offers New Band Tomorrow Night," *The Washington Post* (July 16, 1939), L4.	
1939, 7/31	"Tiny" Hill	Allan DeWitt (vocals); "Ozzie" Osborne (vibraharp)	Big Band	White	"Glen Echo Park Offers Tiny Hill In Ballroom," *The Washington Post* (July 30, 1939), A4.	
1939, 8/14	Jimmy Livingston	Nolan Canova (tenor); Jack Crawley (baritone)	Dance; swing	White	"Glen Echo Park Brings in New Dance Band," *The Washington Post* (August 13, 1939), L4.	
1939, 8/21	Wally Stoeffler	Thelma Mitchell (vocals); Houston Davis (drums)	Swing	White	"Glen Echo Park Brings Back Popular Band," *The Washington Post* (August 20, 1939), AM4.	
1939, 8/28	"Little" Joe Hart	N/A	Big Band; Swing	White	"Glen Echo Park Rebooks Noted Dance Orchestra," *The Washington Post* (August 27, 1939), A4.	
1939, 9/4	Cecil Golly	Nancy Gay (vocals); Gene Eyman (scat)	Big Band	White	"Glen Echo Park Brings Back Popular Band," *The Washington Post* (September 3, 1939), A4.	"Music by Golly"
1940	Paul Kain Orchestra	Adele Van (vocals) (Figure 616); Gary Stevens (vocals); Lonny Wolfong (piano); Jim Fitzpatrick (tenor, saxophone); Ken "Dick" Foy (drums); Lee "Pinkey" Hardesty (clarinet); Bill Gibson (guitar); Bob Holben, Jimmy Torregrossa, Joe Garbelman, Dick Leith, Sammy Ferro, George Smith	Big Band; Swing	White	"Glen Echo Park Opening Set For April 13," *The Washington Post* (March 31, 1940), F2; "After Dark," *The Evening Star* (June 13, 1940), 36; "After Dark," *The Evening Star* (June 20, 1940), 34; "After Dark," *The Evening Star* (July 25, 1940), 36; "After Dark," *The Evening Star* (August 1, 1940), 30; "Season's End Approaches at Glen Echo Park," *The Washington Post* (September 1, 1940), A2.	New house band Paul Kain Orchestra; more popular than rotating bands.
1941	Paul Kain Orchestra	Adele Van	Big Band; Swing	White	"Glen Echo Will Open April 12," *The Washington Post* (March 30, 1941), L2; "Glen Echo Park, After 32 Years, Knows Bands," *The Washington Post* (April 27, 1941), L2.	
1942	Paul Kain Orchestra	Iris O'Brien (vocals) (Figure 617); Don Lamond (drums); Bill Gibson (Electric Harp)	Big Band; Swing	White	"Glen Echo Park Opens Season Next Saturday," *The Washington Post* (March 29, 1942), L2; "Glen Echo Park Opens Its Gates For the Season," *The Washington Post* (April 5, 1942), A2; "Glen Echo Park Is at the Peak Of Its Midsummer Popularity," *The Washington Post* (August 16, 1942), L3; "Glen Echo Park Faces Puzzles In Public Taste," *The Washington Post* (August 23, 1942), L3.	
1943	Paul Kain Orchestra	Joan Ritter (vocals); Monty Emerson (trombone); Don Lamond (drums); Harry Klee (saxophone)	Big Band; Swing	White	"Glen Echo Park Opens Season Saturday at 1," *The Washington Post* (April 4, 1943), L2; "Glen Echo Park Lays Stress on Its Dance Band," *The Washington Post* (April 18, 1943), L2; "Up and Coming Musicians At Glen Echo," *The Washington Post* (May 9, 1943), L2.	
1944	Paul Kain Orchestra	Sharron Terry	Big Band; Swing	White	"Glen Echo Park Sets Fast Pace," *The Washington Post* (April 30, 1944), S6; "Only 2 Weeks Left in Season At Glen Echo," *The Washington Post* (August 27, 1944), S5.	
1945	Paul Kain Orchestra		Big Band; Swing	White	"Opportunity Knocks For Actress-Singers; Notes of the Theater," *The Washington Post* (April 2, 1945), 9.	
1946	Jack Corry Orchestra	Kay Linton (vocals)	Big Band; Swing	White	"Glen Echo Park To Open Saturday," *The Washington Post* (April 7, 1946), S8; "Jack Corry," *The Evening Star* (April 30, 1946), 28.	New house band Jack Corry Orchestra.
1947	Jack Corry Orchestra	Mildred Kirke (vocals)	Big Band; Swing	White	"Comes Spring And Glen Echo!" *The Washington Post* (March 30, 1947), S6.	
1948	Paul Kain Orchestra	Helen Martin (vocals); Jimmy Nichols (vocals)	Big Band; Swing	White	"Glen Echo Opens Saturday, 1 P.M." *The Washington Post* (April 4, 1948), L1.	
1949	George Towne Orchestra		Big Band; Swing	White	"Glen Echo," *The Evening Star* (April 10, 1949), 59.	
1949	Gene Williams and his "Television Boys"	Robin Scott	Big Band; Jazz	White	"Pool Opens May 28 At Glen Echo Park," *The Washington Post* (May 8, 1949), L2.	
1949	The Three Suns		Big Band; Jazz	White	Richard L. Coe, "Now What Became Of That Auditorium?" *The Washington Post* (May 15, 1949), L1.	
1949, 5/23-5/27	Skitch Henderson		Jazz	White	"Glen Echo," *The Evening Star* (May 24, 1949), 35.	
1949, 5/28	Victor Lombardo		Big Band	White	"Glen Echo," *The Evening Star* (May 24, 1949), 35.	
1949, 5/30-6/3	Louis Prima		Big Band; Swing	White	"Glen Echo," *The Evening Star* (May 24, 1949), 35.	

DATE	PERFORMER(S)	ACCOMPANIMENT	MUSICAL STYLE[1029]	RACE	SOURCE	NOTES
1950	Sammy Ferro Orchestra		Big Band	White	"After Dark," *The Evening Star* (March 21, 1950), 31; "Ferro and His Orchestra Open Saturday at Glen Echo," *The Washington Post* (April 2, 1950), L2.	Sammy Ferro Orchestra to be house band for the entire season; rotating bands abandoned. Sammy Ferro formerly in Paul Kain Orchestra.
1950	Ralph Case	Sammy Ferro Orchestra temporarily renamed "Kountry Kousins"	Square dancing	White	"Glen Echo Park Opens Saturday For 40th Season," *The Washington Post* (April 7, 1950), C9.	"Square Dance Night" on Thursdays
1951, 4/7	Sam Donahue		Jazz	White	"Glen Echo," *The Evening Star* (April 6, 1951), 61.	For opening night only
1951	Sammy Ferro Orchestra		Big Band	White	Richard L. Coe, "Here's a Way To Run Out Your Holiday," *The Washington Post* (July 1, 1951), L1.	House band; Square dancing on Thursdays
1951, 7/25	Vaughan Monroe		Big Band	White	Richard L. Coe, "Here's a Way To Run Out Your Holiday," *The Washington Post* (July 1, 1951), L1; "Glen Echo Ballroom Presents," *The Evening Star* (July 22, 1951), 57.	
1951, 9/7	Tommy Dorsey		Big Band; Swing	White	Paul Herron, "On the Town," *The Washington Post* (August 29, 1951), B13.	
1952	Sammy Ferro Orchestra		Big Band	White	"Glen Echo Closes Tonight," *The Washington Post* (September 7, 1952), L5.	
1952	Connie B. Gay	Curley Smith and the boys, with Speedy Tolliver	Square dancing	White	"Glen Echo," *The Evening Star* (April 4, 1952), 35; "Glen Echo Closes Tonight," *The Washington Post* (September 7, 1952), L5.	Square dancing on Wednesdays
1952, 4/5	Tom Darlington Orchestra		Big Band	White	"Glen Echo," *The Evening Star* (April 4, 1952), 35	
1953	Tom Darlington Orchestra		Big Band	White	Paul Herron, "On the Town," *The Washington Post* (April 3, 1953), 44.	
1953, 4/15	Toby Tyler Orchestra		Big Band	White	Paul Herron, "On the Town," *The Washington Post* (April 15, 1953), 10.	
1953	Freddie Shaffer		Big Band	White	Paul Herron, "On the Town," *The Washington Post* (April 29, 1953), 22.	All-female orchestra formerly known as the "Victory Sweethearts"
1953	Stan Kenton		Jazz	White	Paul Herron, "On the Town," *The Washington Post* (April 29, 1953), 22.	
1953	Billy May		Big Band	White	Paul Herron, "On the Town," *The Washington Post* (April 29, 1953), 22.	
1953, 8/4	Ray Anthony		Big Band; Jazz	White	Paul Herron, "On the Town," *The Washington Post* (April 29, 1953), 22; Paul Herron, "On the Town," *The Washington Post* (August 3, 1953), 8.	Known as "The Young Man With a Horn"
1953	Buddy Morrow		Big Band; Swing	White	Paul Herron, "On the Town," *The Washington Post* (April 29, 1953), 22.	
1953	Mercury Record Orchestra		Big Band	White	Paul Herron, "On the Town," *The Washington Post* (July 8, 1953), 13.	Under direction of Ralph Marterie; Called the "man born for the horn."
1953, 9/12	Johnny Long	Barbara Hammond (vocals)	Big Band	White	Paul Herron, "On the Town," *The Washington Post* (September 11, 1953), 37.	
1954, 4/3	Ben Worth & His Orchestra		Big Band	White	"Glen Echo," *The Evening Star* (April 1, 1954), 33.	1954 season managed for Glen Echo Park by William Weinberg (WAPO 9/17/1954)
1954	Roy Stevens		Jazz	White	Paul Herron, "On the Town," *The Washington Post* (April 16, 1954), 57; "Glen Echo," *The Evening Star* (May 14, 1954), 41.	"Design for Dancing" orchestra
1954, 6/2	Ray Anthony	Marcie Miller (vocals); Tommy Mercer; The Skyliners; the Anthony Choir; "Brother" Lee Roy (baritone saxophone)	Big Band; Jazz	White	Paul Herron, "On the Town," *The Washington Post* (June 2, 1954), 43.	Called "probably the top band in the Nation;" Lee Roy was Ray's younger brother.
1954	Mercury Record Orchestra		Big Band	White	Paul Herron, "On the Town," *The Washington Post* (August 13, 1954), 25.	Under direction of Ralph Marterie
1954	Dorsey Brothers	Lynn Roberts (vocals)	Big Band; Swing	White	Paul Herron, "On the Town," *The Washington Post* (September 3, 1954), 26.	Tommy ("That Sentimental Gentleman of Swing" and Jimmy "The World's Greatest Saxophonist"
1955, 4/2, 4/9-4/12	Johnny Power and His Glen Echo Serenaders		Big Band	White	"Glen Echo," *The Evening Star* (March 31, 1955), 4.	
1955	Jimmy Dean and his Texas Wildcats		Country	White	Paul Herron, "On the Town," *The Washington Post* (April 27, 1955), 54.	Every Friday night beginning May 6.
1955	Washie Bratcher Orchestra		Big Band	White	Richard L. Coe, "You'll Jump Another Way," *The Washington Post* (May 14, 1955), 4.	Saturday night "Sweet 'n' Swing" series
1955	Johnny Power		Big Band	White	Richard L. Coe, "You'll Jump Another Way," *The Washington Post* (May 14, 1955), 4.	Wednesday and Thursday nights

DATE	PERFORMER(S)	ACCOMPANIMENT	MUSICAL STYLE[1029]	RACE	SOURCE	NOTES
1955, 5/25	Ralph Flanagan Orchestra		Big Band; Jazz	White	Paul Herron, "On the Town," *The Washington Post* (May 25, 1955), 29.	Called "America's Number One dance band."
1955, 6/9	Woody Herman and the Third Herd	Lea Matthews (vocals)	Jazz	White	Paul Herron, "On the Town," *The Washington Post* (June 8, 1955), 25.	
1955	Tony Messina		Jazz	White	Paul Herron, "On the Town," *The Washington Post* (June 20, 1955), 25.	
1955, 7/14	Art Mooney and his "Honey Babe" Orchestra		Big Band	White	Paul Herron, "On the Town," *The Washington Post* (July 8, 1955), 28.	
1955, 7/29	Webb Pierce and his Wondering Boys		Country; Honky Tonk	White	Paul Herron, "On the Town," *The Washington Post* (July 29, 1955), 49.	Webb Pierce "is the only man in the history of his craft to have nineteen straight song hits in a row with fourteen of them occupying Number One position on the Hillbilly Hit Parade."
1955, 8/16	Ray Anthony	Marcie Miller (vocals); Tommy Mercer; The Skyliners; the Anthony Choir; "Brother" Lee Roy (baritone saxophone)	Big Band; Jazz	White	Paul Herron, "On the Town," *The Washington Post* (August 10, 1955), 23; Paul Herron, "On the Town," *The Washington Post* (August 15, 1955), 21.	
1955, 8/26	Ernest Tubb and his Texas Troubadors		Country; Honky Tonk	White	Bill Sachs, "Folk Talent & Tunes," *The Billboard* (July 23, 1955), 22.	
1955, 9/5	Bill Haley and his "Comets"		Rock & Roll	White	"Haley to Play At Glen Echo," *The Washington Post* (September 4, 1955), H6.	Made famous by their songs Rock Around the Clock (1954) and Shake, Rattle, and Roll (1954).
1956	Variety Troubadors		Big Band	Unknown	Paul Herron, "On the Town," *The Washington Post* (June 1, 1956), 21.	In the Bamboo Room, not the Spanish Ballroom after ballroom converted to roller skating rink.
1956	Jimmy Dean and his Texas Wildcats		Country	White	Paul Herron, "On the Town," *The Washington Post* (July 11, 1956), 21; "Glen Echo," *The Evening Star* (July 15, 1956), 20.	Stars of Town & Country Jamboree; Thursday nights.
1956	Eddie Pierce Orchestra		Big Band	White	"Glen Echo," *The Evening Star* (July 15, 1956), 20.	Wednesday nights.
1957, 6/16	Carl Smith and the "Philip Morris Country Show"		Country	White	Richard L. Coe, "Setting Shines Bright in 'Sun'," *The Washington Post* (June 15, 1957), B6.	Unknown if this was in the Spanish Ballroom.
1958, 5/30	Billy Clifton and the Dixie Mountain Boys		Country	White	Bill Sachs, "Folk Talent & Tunes," *The Billboard* (May 26, 1958), 47.	
1958, 6/7	Terry and the Pirates		Rock & Roll	White	"Sox Hop," *The Evening Star* (June 6, 1958), 46.	Sox Hop, MC Don Dillard.
1959	Gene Donatti's Orchestra		Big Band	White	"Glen Echo," *The Evening Star* (April 30, 1959), 82; "Glen Echo," *The Evening Star* (May 15, 1959), 55; "Glen Echo," *The Evening Star* (May 22, 1959), 30.	
1960	Unknown					Record hop with Don Dillard and Stan Karas, unknown if this was in the Spanish Ballroom.
1961	Unknown					No historical information on performer(s).
1962	Unknown					No historical information on performer(s).
1963, 6/9	Hank Locklin; Smiley and Kitty Wilson; Bobby Helms		Country	White	"Hootenanny Slated At Glen Echo Today," *The Washington Post* (June 9, 1963), G3.	Country Music Carnival
1963, 9/6-9/8	Clyde Beavers; Bill Carlisle Trio		Country	White	Bill Sachs, "Country Music Corner," *The Billboard* (August 31, 1963), 16.	
1964	Unknown					No historical information on performer(s).
1965	Unknown					No historical information on performer(s).
1966	Unknown					No historical information on performer(s).
1967	Unknown					No historical information on performer(s).
1968	Unknown					No historical information on performer(s).

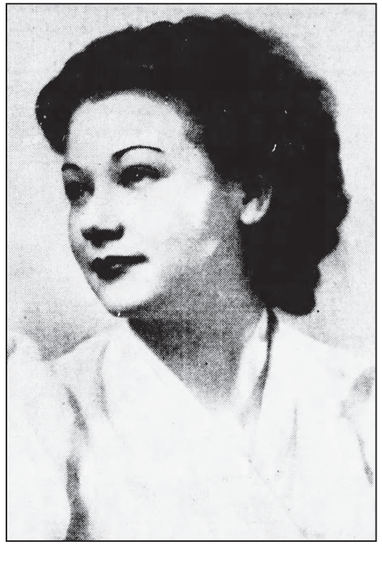

Figure 608. Vocalist Kitty Simmons, 1937. "Her Songs Are Featured," *The Evening Star* (July 22, 1937), 27.

Figure 609. Shirley Martin, 1938. "At Glen Echo," *The Evening Star* (May 20, 1938), 15.

Figure 610. Jeanne Carroll, 1938. "New Singer," *The Evening Star* (June 6, 1938), 34.

Figure 611. Helen O'Connell, 1938. "Life Is a Song," *The Evening Star* (June 15, 1938), 52.

Figure 612. Nancy Hutson, 1939. "At Glen Echo," *The Evening Star* (April 14, 1939), 55.

Figure 613. Nancy Gay, 1939. "A La Martha," *The Evening Star* (May 23, 1939), 36.

Figure 614. Thelma Mitchell, 1939. "Songstress Returns," *The Evening Star* (August 18, 1939), 20.

Figure 615. Shirley Dean, 1939. "At Glen Echo," *The Evening Star* (July 14, 1939), 23.

Figure 616. Adele Van, 1940. "On Her Way," *The Evening Star* (May 16, 1940), 44.

Figure 617. Iris O'Brien, 1942. "Glen Echo Park Opens Its Gates For the Season," *The Washington Post* (April 5, 1942), A2.

Appendix K: Consultant Reports

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HAZARDOUS MATERIALS (ARC ENVIRONMENTAL)

INSPECTION | COMPLIANCE | REMEDIATION

Celebrating 20 Years of Outstanding Service

Pre-alteration Hazardous Material Survey

Spanish Ballroom at Glen Echo Park
7300 MacArthur Boulevard
Glen Echo, Maryland 20812

GWWO Architects
800 Wyman Park Drive, Suite 300
Baltimore, Maryland 21211

November 28, 2022

Prepared by:

Arc Environmental, Inc.

1311 Haubert Street
Baltimore, MD 21230
p 410.659.9971
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EXECUTIVE SUMMARY

Arc Environmental, LLC performed a limited pre-alteration hazardous material survey of the Spanish Ballroom located within Glen Echo Park (Site). The Site is located at 7300 McArthur Boulevard in Glen Echo, Maryland. The purpose of the survey was to evaluate the Site for the presence of regulated or hazardous materials in support of the Historic Structure Report (HSR) and Schematic Design (SD) project. The survey included the assessment of suspect asbestos-containing materials (ACMs), lead-based paint (LBP), and inventorying universal/regulated wastes. The survey was performed on October 25, 2022.

During the survey, a total of 49 bulk samples were collected from 16 suspect homogenous areas identified within the Site. Based on the findings of the asbestos survey, one (1) of the sampled homogeneous materials was confirmed by laboratory analysis to be asbestos-containing material. The confirmed ACM included stucco finish present on interior and exterior walls. Additionally, labeled fire doors and suspect ceiling tiles were observed at the Site; these materials were assumed to be asbestos-containing. The assumed ACMs were not sampled due to inaccessibility and/or intent to maintain the integrity of the material. Section 2.0 provides additional details regarding the findings of the asbestos survey.

The lead-based paint survey was conducted using a portable X-ray Fluorescence (XRF) device. On-site testing was performed as a screening to determine if LBP was present at the Site. The testing revealed that lead-based paint was present on metal window components, wood window components, decorative wood columns, metal window opening bar, wood staircase components, wood decorative frame, wood support column, wood wall, and metal pipe components. Section 3.0 provides details regarding the LBP survey.

A visual inspection was performed to identify and quantify Universal and potentially regulated wastes associated with the Site. Potentially regulated and/or Universal wastes inventoried include potentially mercury-containing fluorescent light tubes and high-intensity discharge lamp (HID); potentially PCB-containing ballasts; hydraulic door closures suspected of containing oils/lubricants; water fountain suspected of containing Freon or other coolant(s); and exit signs and emergency lights that potentially contain batteries. Any regulated wastes that will be required to be removed from the Site will be determined and detailed during the design phase. Section 4.0 details the locations of the identified Universal and potentially regulated wastes.

Prepared by:
Arc Environmental, LLC

Derek Kwon
Program Manager, Industrial Hygiene Services

Table of Contents

1.0 Introduction 1
2.0 Asbestos-containing Materials Survey 1
2.1 Methodology 1
2.2 Findings and Recommendations 2
3.0 Lead-based Paint Survey 2
3.1 Methodology 2
3.2 Findings and Recommendations 3
4.0 Universal & Regulated Wastes 4
4.1 Mercury 4
4.2 Polychlorinated Biphenyls 4
4.3 Other Potentially Regulated and Hazardous Wastes 4

Appendix A Asbestos Bulk Sampling Results & Laboratory Accreditations
Appendix B Summary of Materials Tested for Asbestos
Appendix C Lead-based Paint Data Sheets
Appendix D Photographic Log
Appendix E Inspectors' Accreditation

1.0 Introduction

Arc Environmental, LLC (Arc Environmental) of Baltimore, Maryland, was retained by GWWO Architects to conduct a limited survey for hazardous materials at the Spanish Ballroom at Glen Echo Park (Site). The Site is located at 7300 MacArthur Boulevard in Glen Echo, Maryland. The inspection included the assessment and sampling of suspect, accessible asbestos-containing materials (ACMs), testing of painted/coated building components to determine lead content, and a visual inspection to identify any universal/regulated waste. The findings of the survey are presented in this report. The survey was conducted by Arc Environmental on October 25, 2022.

2.0 Asbestos-containing Materials Survey

2.1 Methodology

The asbestos survey was performed by U.S. Environmental Protection Agency (USEPA)-trained and Maryland Department of the Environment (MDE)-accredited asbestos inspectors, Mr. Derek Kwon and Mr. Payton Crandell-Kwon. A copy of the inspectors' accreditations is included in Appendix E. The asbestos survey included the identification, assessment, and sampling of suspect asbestos-containing materials. The survey was conducted under protocols established by the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763 Asbestos Hazard Emergency Response Act (AHERA) and 40 CFR 61 Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP), as feasible. No selective demolition was performed as part of this assessment and height restrictions created access limitations for noted materials.

Every reasonable attempt was made to locate suspect asbestos-containing materials (ACMs) present as thermal system insulation (TSI), surfacing material, or other miscellaneous materials. Specifically, Arc Environmental employed the following protocols while performing the survey: flooring materials were penetrated to the subfloor to determine how many layers of flooring were present; wall systems and ceiling systems were evaluated to identify suspect building materials associated with the systems themselves, as well as any accessible cavities; and mechanical insulation systems were evaluated to identify potential suspect insulation beneath jackets and wraps.

During the survey, a total of 49 bulk samples were collected from 16 suspect homogenous areas identified throughout the accessible portions of the Site. The bulk samples of suspect ACMs were submitted, along with the corresponding chain-of-custody forms, to NAN Technologies, Inc. (NAN) for analysis. NAN is accredited for asbestos analysis in bulk materials through the National Voluntary Laboratory Accreditation Program (NVLAP).

The bulk samples were analyzed using polarized light microscopy (PLM/Dispersion Staining following the EPA method 600/R-93/116, Method for the Determination of Asbestos in Bulk Building Materials). Based on the United States Environmental Protection Agency's (USEPA's) definition, a material which contains greater than one percent (1%) asbestos, as determined using the methods specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), is considered an ACM and must be handled according to OSHA, USEPA, and MDE regulations.

The findings and quantities of verified ACM are summarized in Table 1, *Identified Asbestos-containing Materials*. A copy of the chain of custody forms and Laboratory Analytical Results are included in Appendix A.

2.2 Findings and Recommendations

Table 1 below lists the confirmed ACMs identified at the Site; Table 2 details the assumed asbestos-containing materials which are suspected of potentially containing asbestos but were not sampled due to inaccessibility or an effort to retain the integrity of the material. A complete list of the building materials sampled during this survey is presented in Appendix B. It is recommended that if additional suspect materials not identified in this report are uncovered/exposed during demolition or construction activities, the materials should be assumed to contain asbestos or sampled and analyzed for asbestos content to determine if they are ACMs.

Table 1: Identified Asbestos-containing Materials

HA	Description	Location	Total Quantity
STC1	Stucco	Exterior & Interior Walls	28,000 SF

Table 2: Identified Presumed Asbestos-containing Building Materials

Material Description	Location	Total Quantity
Labeled Fire Door	Basement	7 EA
2' x 2' Acoustical Ceiling Tile	Ballroom	7,035 SF

The stucco, ceiling tile, and labeled fire doors are classified by the USEPA as Category II Non-friable materials. Category II non-friable materials are regulated if they have a high probability of becoming or have become crumbled, pulverized, or reduced to powder by the forces expected to impact the materials during the course of demolition or renovation activities. If these materials are to remain in place and will not be altered during renovation activities, the materials can be managed in place. If these materials will be impacted by planned Site activities, they must be removed by a licensed asbestos abatement contractor prior to disturbance, unless otherwise specified below.

The identified ACM(s) should be removed from the Site prior to renovations which may disturb the identified material(s). All abatement actions should be performed by personnel trained in accordance with USEPA, OSHA, and MDE regulations for asbestos-related activities. In addition, a licensed asbestos consultant should be retained to conduct oversight and air-monitoring during any abatement activities.

3.0 Lead-based Paint Survey

3.1 Methodology

Painted surfaces within the project area were visually inspected to determine their condition. A lead screening survey was conducted using an X-ray Fluorescence (XRF) Spectrum Analyzer on painted building surfaces and/or components. Surfaces that are intact or deteriorated condition (as defined by the U.S. Department of Housing and Urban Development Guidelines) do not pose an immediate health risk,

regardless of the lead content. Leaded paint in poor condition is a priority lead-hazard and should be promptly addressed using approved Lead Safe Work Practices.

The screening included field readings in addition to periodic calibration checks to ensure that the instrument is within acceptable calibration parameters. Lead-based paint, when tested via XRF, is defined by the U.S. Department of Housing and Urban Development (HUD) and the state of Maryland as paint having lead concentrations in excess of 0.7 milligrams per square centimeter (mg/cm²). The results of the lead-based paint survey are summarized in the *XRF Lead-based Paint Inspection Data Sheets* included in Appendix D.

Table 3, below, provides a summary of the positive XRF reading obtained during the screening.

Table 3: Summary of Positive XRF Readings

Sample Location	Substrate	Component	Result (mg/cm²)
Exterior Roof	Metal	Window Apron	1.4 - 1.8
Foyer to Roof	Metal	Window Apron	1.2 – 1.4
Exterior	Metal	Window Apron	1.1 – 1.6
Attic Storage	Wood	Windowsill	1.0 – 1.6
Attic Storage	Metal	Window Frame	1.2
Attic Storage	Wood	Window Frame	1.3 – 1.4
Stairwell	Wood	Window Opening Column	2.6 – 3.6
Stairwell	Metal	Window Opening Bar	1.1 – 1.2
Ballroom	Wood	Handrail	1.1 – 1.2
Ballroom	Wood	Baluster	1.1 – 1.4
Ballroom	Wood	Stage Decorative Frame	1.1 – 1.6
Hallway outside Ballroom	Wood	Support Column	0.8
Hallway outside Ballroom	Wood	Wall	7.3 - >9.9
Basement	Metal	Pipe Clamp/Connection	1.2 – 1.3
Basement	Metal	Sprinkler Line Pipe	1.1 – 1.4

3.2 Findings and Recommendations

Forty-five (45) of the 241 field screening shots yielded lead concentrations above the state of Maryland threshold of (> 0.7 mg/cm²) for lead-based paint. Building components and/or surfaces identified as being affected with lead-based paint include: metal window components, wood window components, decorative wood columns, metal window opening bar, wood staircase components, wood decorative frame, wood support column, wood wall, and metal pipe components.

The lead screening does not include testing of every painted surface within the project area; rather its intention is to characterize groups of similar components and coatings. If similar components with the same substrate and paint to those identified below are encountered during renovation activities, they are to be treated as lead-based paint affected.

Building demolition activities have the potential to produce hazardous waste if lead-based paint is dry scraped, dry sanded, or heated. Lead Safe Work practices should be enforced at all times due to the presence of lead-based and lead-containing paints within the project area.

A lead Toxicity Characteristic Leaching Procedure (TCLP) test should be conducted for the demolition debris generated on Site. A representative waste stream sample should be collected to characterize the demolition debris, in accordance with the Resource Conservation and Recovery Act (RCRA), to determine disposal options. The hazardous waste criteria for lead waste is established under RCRA, Subtitle C, as 5.0 milligrams per liter (mg/L) measured with the TCLP as listed in CFR 40 Part 261. The lead-containing and lead-based paint debris generated during demolition should be handled in accordance with all applicable Federal and MDE regulations.

4.0 Universal & Regulated Wastes

Arc Environmental conducted a visual inspection for Universal Wastes (UWs) and other potentially regulated and hazardous wastes within the project area. As per 40 Code of Federal Regulations (CFR) 261 Subpart C, UWs include any of the following six wastes that have at least one hazardous characteristic: batteries, pesticides, thermostats, cathode ray tubes, mercury-containing devices, and mercury-containing lamps (e.g., fluorescent tubes and high intensity discharge lamps). These wastes require proper handling and disposal methods when no longer in use or prior to completing any planned renovation/demolition activities. All identified Universal and potentially regulated wastes must be handled, transported, and disposed of in accordance with applicable regulations prior to the renovation of the Site.

4.1 Mercury

Arc Environmental observed 140 fluorescent tubes and 22 high-intensity discharge (HID) lamps within the Site. The fluorescent tubes and HID are assumed to contain mercury vapors. Mercury containing fluorescent tubes will require proper removal and disposal in accordance with USEPA regulations listed in 40 CFR Part 273 and Code of Maryland Regulations (COMAR) Title 26 Subpart 13.

4.2 Polychlorinated Biphenyls

Arc Environmental conducted a visual inspection for PCB-containing light ballasts within fluorescent fixtures along with other potential PCB-containing equipment and material at the Site. If light fixtures containing ballasts were observed in the building, Arc personnel accessed the ballasts and recorded information from the manufacturer's label. All capacitors and fluorescent light ballasts that are not labeled as "non-PCB" were assumed to contain PCBs. Arc Environmental observed ballasts were labeled no PCBs.

Although some of the ballasts do not contain PCBs, they likely contain other regulated liquids. Arc Environmental recommends collecting and separating all fluorescent light ballasts by type during the demolition process. The ballasts should then be characterized for disposal in accordance with federal, state and local regulations.

4.3 Other Potentially Regulated and Hazardous Wastes

Arc Environmental observed eight (8) exit signs, seven (7) emergency lights, and 12 exit sign/emergency light hybrid. The exit signs, emergency lights, and the exit sign/emergency light hybrid are assumed to have rechargeable battery.

In addition, Arc Environmental observed four (4) water fountain suspected of containing Freon or other refrigerants and four (4) hydraulic door closures with assumed hydraulic oil. These materials should be properly handled, containerized, and disposed of per applicable regulations.

Appendix A
Asbestos Bulk Sampling Results

NAN Technologies Inc.,
Environmental and Industrial Hygiene Services
1550 Caton Center Dr, Ste# M (Front), Halethorpe, MD - 21227

Local view with global vision

Lab ID# 600284-0

PLM Report by EPA/600/R-93/116 and App. E to Sub. E of 40 CFR Part 763 .

Client:	Arc Environmental	Date Reported:	10/31/22
Address:	1311 Haubert St	Date Received:	10/26/22
	Baltimore MD - 21230	Date Collected :	10/25/22
		Analysis Date:	10/27/22
Attn:	Stacey Kahatapitiya	Sampler's Name:	DEREK KWON/PAYTON
Phone:	(443)864 - 7464	Project Name:	SPANISH BALLROOM
E.Mail:	skahatapitiya@arcenvironmental.com	Project/Job ID:	SEE COC
	DKwon@arcenvironmental.com	Sampling Site:	7300 MACARTHUR BLVD
	skim@arcenvironmental.com		GLENECHO MD
		NTEL File#:	B22103101-3050

			Asbestos	Non- Asbestos Composition	
Sample #	**Sample/ Material Description**	**Appearance**	**Type (%)**	**% Fibrous**	**% Nonfibrous**
RM1-25	Black Built Uproof	Black Homogeneous	ND	10%Polymers	90% Binders Gravel
RM1-26		Black Homogeneous	ND	6%Polymers	94% Binders Gravel
RM1-27		Black Homogeneous	ND	5%Polymers	95% Binders Gravel
RM2-22	Gray Built Uproof	Gray Homogeneous	ND	10%Polymers	90% Binders Gravel
RM2-23		Gray Homogeneous	ND	15%Polymers	85% Binders Gravel
RM2-24		Gray Homogeneous	ND	10%Polymers	90% Binders Gravel
CK1-1	Beige Caulk on Roof	Beige Homogeneous	ND	ND	100% Binders
CK1-2		Beige Homogeneous	ND	ND	100% Binders
CK1-3		Beige Homogeneous	ND	ND	100% Binders
RS1-4	Roof Shingle	Black Homogeneous	ND	30%Polymers	70% Binders Asphalt Gravel
RS1-5		Black Homogeneous	ND	25%Polymers	75% Binders Asphalt Gravel
RS1-6		Black Homogeneous	ND	50%Polymers	50% Binders Asphalt Gravel
CK2-7	Black Roof Caulk	Black Homogeneous	ND	ND	100% Binders
CK2-8		Black Homogeneous	ND	ND	100% Binders

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Sample #	Sample/ Material Description	Appearance	Asbestos Type (%)	Non- Asbestos Composition % Fibrous	% Nonfibrous
CK2-9	Black Roof Caulk	Black Homogeneous	ND	ND	100% Binders Mica
CK3-10	Caulking around Vent	Tan Homogeneous	ND	ND	100% Binders
CK3-11		Tan Homogeneous	ND	ND	100% Binders
CK3-12		Tan Homogeneous	ND	ND	100% Binders
DM1-13	Gray Duct Seam Seam Sealant on Blue Metal Duct	Grey Homogeneous	ND	ND	100% Binders
DM1-14		Grey Homogeneous	ND	ND	100% Binders
DM1-15		Grey Homogeneous	ND	ND	100% Binders
DW1-16	Drywall	White/Brown Homogeneous	ND	20%Cellulose	80% Binders Carbonaceous
DW1-17		White/Brown Homogeneous	ND	50%Cellulose	50% Binders Carbonaceous Paint
DW1-18		White/Brown Homogeneous	ND	30%Cellulose	70% Binders Carbonaceous
EJ1-19	Black Expansion Joint	Black Homogeneous	ND	10%Polymers	90% Binders
EJ1-20		Black Homogeneous	ND	1%Polymers	99% Binders
EJ1-21		Black Homogeneous	ND	ND	100% Binders
WC1-28	Green Window Caulk	Green/Red Homogeneous	ND	ND	100% Binders
WC1-29		Green/Red Homogeneous	ND	ND	100% Binders
WC1-30		Green/Redwhite Homogeneous	ND	ND	100% Binders
DC1-31	Green Door Caulking on Glass Panel	Green/White Homogeneous	ND	ND	100% Binders
DC1-32		Green/White Homogeneous	ND	ND	100% Binders
DC1-33		Green/White Homogeneous	ND	ND	100% Binders
STC1-34	Stucco	Grey/White Homogeneous	Chrysotile5%	20%Cellulose	75% Binders Concrete Kind Mica

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NAN Technologies Inc.,
Environmental and Industrial Hygiene Services
1550 Caton Center Dr, Ste# M (Front), Halethorpe, MD - 21227

Local view with global vision

NVLAP TESTING
Lab ID# 600284-0

Sample #	Sample/ Material Description	Appearance	Asbestos Type (%)	Non- Asbestos Composition % Fibrous	% Nonfibrous
STC1-35	Stucco	Grey/White Homogeneous	ND	5%Cellulose 2%Polymers	93% Binders Concrete Kind Mica
STC1-36	Stucco	Grey/White Homogeneous	Chrysotile3%	27%Cellulose	70% Binders Concrete Kind Mica
STC1-37		Grey/White Homogeneous	Chrysotile7%	15%Cellulose	78% Binders Concrete Kind Mica
STC1-38		Grey/White Homogeneous	Chrysotile2%	25%Cellulose	73% Binders Concrete Kind Mica
STC1-39		Grey/White Homogeneous	ND	10%Cellulose	90% Binders Concrete Kind Mica
STC1-40		Grey/White Homogeneous	ND	15%Cellulose	85% Binders Concrete Kind Mica
JC1-41	Joint Compound	White Homogeneous	ND	3%Cellulose	97% Binders Carbonaceous Perlite
JC1-42		White Homogeneous	ND	1%Cellulose	99% Binders Carbonaceous Perlite
JC1-43		White Homogeneous	ND	3%Cellulose 2%Polymers	95% Binders Carbonaceous Perlite
WG1-44	Interior Window Glazing	White Homogeneous	ND	1%Polymers	99% Binders
WG1-45		White Homogeneous	ND	1%Polymers	99% Binders
WG1-46		White Homogeneous	ND	ND	100% Binders
DIM1-47	Beige Duct Seam Mastic on Fiberglass Duct Insulation	Beigw Homogeneous	ND	50%Glass Fibers	50% Binders Silver Foil
DIM1-48		Beigw Homogeneous	ND	60%Glass Fibers	40% Binders Silver Foil
DIM1-49		Beigw Homogeneous	ND	60%Glass Fibers	40% Binders Silver Foil

DW - Drywall, MS - Mastic, SOFP - Spray-on Fire Proofing, FT - Floor Tile, RF - Roofing materials, CT - Ceiling Tile, PC - Popcorn Ceiling, SU - Sink Underlayment, WP - Window Putty.
Note: ND- None Detected

Samples were analyszed in compliance with appendix E of 40 CFR to subpart E part 763, EPA 600/M4-82020 "interimmethod, but augmented with procedured outlined in the 1993 (final) version of the method. Components of nonhomogeneous or multi layered samples analyzed seperately and report respective component and /or individual layer. NTEL bears no responsibility for sample collection and or analytical method limitations. Report of results relate only to the tested items.The above samples were collected by client and the conditions of the samples analyzed were acceptable upon reciept to lab unless otherwise noted in report.

Analyzed by KS

Reviewed By NK

K. Sydnu

Approved Signature

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END OF REPORT

Bulk Sampling Form

Project Name: Spanish Ball Room
Project Location:
Client Name:

Project Number:
Date of Survey: 10/25/2022
Inspector: Derek Kwon / Payton Crandell-Kwon

HA	Sample #	Location	Sample Description (material type, diameter, color)	Condition (good, Fair, Poor)	Friable Y/N	Estimated Quantity
Rm1	~~Not Sampled~~	Rm1-25 -26 -27	Black Built up roof			B22103101 03 02
Rm2		Rm2-22 -23 -24	Gray Built up roof			04 05 06
CK1	CK1-1 -2 -3		Beige Caulk on roof			07 08 09
RS1	RS1-4 -5 -6		Roof Shingle			10 11 12
CK2	CK2-7 -8 -9		Black Roof caulk			13 14 15
CK3	CK3-10 -11 -12		Caulking around vent			16 17 18
Dm1	Dm1-13 -14 -15		Gray Duct Seam Sealant on Bare metal duct			19 20 21
DW1	DW1-16 -17 -18		Drywall			22 23 24
EJ1	EJ1-19 -20 -21		Black expansion joint			25 26 27
WC1	WC1-28 -29 -30		Green window caulk			28 29 30
DC1	DC1-31 -32 -33		Green Door caulking on glass panel			31 32 33

Arc

Bulk Sampling Form

Project Name: Spanish Ball Room
Project Location:
Client Name:

Project Number:
Date of Survey:
Inspector:

HA	Sample #	Location	Sample Description (material type, diameter, color)	Condition (good, Fair, Poor)	Friable Y/N	Estimated Quantity
STC1	STC1-34-37 -35-38 -36-39	-40	Stucco			B22103 134 35 36 37 38 39 40
JC1	JC1-41 -42 -43		Joint Compound			41 42 43 37 38 39
WG1	WG1-44 -45 -46		Interior window glazing			44 ~~40~~ 46 45
CT1	CT1		2x2 Ceiling Tile	No sample		47
DJm1	DJm1-47 -48 -49		Beige Duct Seam mastic on ~~Calpro~~ fiberglass duct insulation			48 49 ~~50~~

Appendix B
Summary of Materials Tested for Asbestos

Summary of Sampled Suspect Materials			
Homogeneous Area	**Material Description**	**Sample Numbers**	**Results**
RM1	Black Built-up Roof	25, 26, 27	NAD
RM2	Gray Built-up Roof	22, 23, 24	NAD
CK1	Beige Caulk on Roof	1, 2, 3	NAD
RS1	Roof Shingle	4, 5, 6	NAD
CK2	Black Roof Caulk	7, 8, 9	NAD
CK3	Caulking around Vent	10, 11, 12	NAD
DM1	Gray Duct Seam Sealant on Blue Metal Duct	13, 14, 15	NAD
DW1	Drywall	16, 17, 18	NAD
EJ1	Black Expansion Joint	19, 20, 21	NAD
WC1	Green Window Caulk	28, 29, 30	NAD
DC1	Green Door Caulking on Glass Panel	31, 32, 33	NAD
STC1	**Stucco**	**34, 35, 36, 37, 38, 39, 40**	**2% - 7% Chrysotile**
JC1	Joint Compound	41, 42, 43	NAD
WG1	Interior Window Caulking	44, 45, 46	NAD
DIM1	Beige Duct Seam Mastic on Fiberglass Duct Insulation	47, 48, 49	NAD

NAD: No Asbestos Detected

Appendix C
Lead-based Paint Data Sheets

XRF Lead-Based Paint Testing Data Sheet

GWWO Architects

Spanish Ballroom Dance Floor at Glen Echo Park

Inspection Date: October 25, 2022 Abatement Level: 0.8

Reading No.	Wall	Room	Component	Substrate	Color	Paint Condition	Lead (mg/cm^2)
001	N/A	N/A	Calibration	N/A	N/A	N/A	0.9
002	N/A	N/A	Calibration	N/A	N/A	N/A	1.0
003	N/A	N/A	Calibration	N/A	N/A	N/A	1.0
004	C	Exterior Roof	Wall	Stucco	Peach	I	0.3
005	C	Exterior Roof	Flashing Trim	Metal	Peach	I	0.0
006	C	Exterior Roof	Wall Cap	Metal	Peach	I	0.0
007	C	Exterior Roof	Vent	Metal	Peach	I	0.0
008	N/A	Attic	Support Beam	Metal	Red	NP	0.0
009	N/A	Attic	Support Beam	Metal	Red	NP	0.0
010	N/A	Attic	Support Beam	Metal	Red	NP	0.0
011	N/A	Attic	Support Beam	Metal	Red	NP	0.0
012	N/A	Attic	Pipe	Metal	Black	NP	0.0
013	N/A	Attic	Pipe	Metal	Black	NP	0.0
014	C	Attic	Hatch Access Door	Metal	Peach	I	0.2
015	C	Attic	Hatch Access Door	Metal	Peach	I	0.3
016	C	Exterior Roof	Window Casing	Metal	Green	D	0.0
017	C	Exterior Roof	Window Frame	Wood	Green	D	0.0
018	C	Exterior Roof	Windowsill	Wood	Green	D	0.0
019	**C**	**Exterior Roof**	**Window Apron**	**Metal**	**Green**	**D**	**1.8**
020	C	Exterior Roof	Window Casing	Metal	Green	D	0.0
021	C	Exterior Roof	Window Frame	Wood	Green	D	0.1
022	C	Exterior Roof	Windowsill	Wood	Green	D	0.2
023	**C**	**Exterior Roof**	**Window Apron**	**Metal**	**Green**	**D**	1.6
024	C	Exterior Roof	Window Casing	Metal	Green	D	0.0
025	C	Exterior Roof	Window Frame	Wood	Green	D	0.2
026	C	Exterior Roof	Windowsill	Wood	Green	D	0.1
027	**C**	**Exterior Roof**	**Window Apron**	**Metal**	**Green**	**D**	1.4
028	C	Exterior Roof	Window Frame	Wood	Green	D	0.0
029	C	Exterior Roof	Windowsill	Wood	Green	D	0.0
030	C	Exterior Roof	Door Frame	Wood	Peach	D	0.3
031	C	Exterior Roof	Door	Metal	Red	D	0.0
032	C	Exterior Roof	Wall	Wood	Peach	D	0.0
033	C	Exterior Roof	Wall	Wood	Peach	D	0.0
034	C	Exterior Roof	Wall	Wood	Peach	D	0.0
035	C	Exterior Roof	Wall	Wood	Peach	D	0.0
036	D	Foyer to Roof	Windowsill	Wood	Green	D	0.1
037	D	Foyer to Roof	Window Frame	Wood	Green	D	0.6
038	D	Foyer to Roof	Window Casing	Metal	Green	D	0.1
039	**D**	**Foyer to Roof**	**Window Apron**	**Metal**	**Green**	**D**	**1.2**
040	C	Foyer to Roof	Windowsill	Wood	Green	D	0.0
041	C	Foyer to Roof	Window Frame	Wood	Green	D	0.4
042	C	Foyer to Roof	Window Casing	Metal	Green	D	0.2
043	**C**	**Foyer to Roof**	**Window Apron**	**Metal**	**Green**	**D**	**1.4**
044	A	Foyer to Roof	Door Frame	Metal	Red	D	0.0

Arc Environmental

XRF Lead-Based Paint Testing Data Sheet

GWWO Architects

Spanish Ballroom Dance Floor at Glen Echo Park

Inspection Date: October 25, 2022 Abatement Level: 0.8

Reading No.	Wall	Room	Component	Substrate	Color	Paint Condition	Lead (mg/cm^2)
045	A	Foyer to Roof	Door	Metal	Red	D	0.0
046	D	Exterior	Handrail	Wood	Peach	D	0.0
047	D	Exterior	Baluster	Wood	Peach	D	0.0
048	B	Exterior	Door	Metal	Green	D	0.0
049	B	Exterior	Door Frame	Metal	Green	D	0.0
050	B	Exterior	Door	Metal	Green	D	0.0
051	B	Exterior	Door Frame	Metal	Green	D	0.0
052	B	Exterior	Wall	Stucco	Peach	D	0.0
053	B	Exterior	Wall	Stucco	Peach	D	0.0
054	B	Exterior	Windowsill	Wood	Green	D	0.0
055	B	Exterior	Window Frame	Wood	Green	D	0.2
056	B	Exterior	Window Casing	Metal	Green	D	0.2
057	**B**	**Exterior**	**Window Apron**	**Metal**	**Green**	**D**	**1.6**
058	B	Exterior	Windowsill	Wood	Green	D	0.1
059	B	Exterior	Window Frame	Wood	Green	D	0.3
060	B	Exterior	Window Casing	Metal	Green	D	0.2
061	**B**	**Exterior**	**Window Apron**	**Metal**	**Green**	**D**	**1.1**
062	D	Attic Storage	Windowsill	Wood	Dark Green	D	0.0
063	D	Attic Storage	Window Casing	Metal	Dark Green	D	0.2
064	D	Attic Storage	Window Frame	Wood	Dark Green	D	0.1
065	D	Attic Storage	Windowsill	Wood	Dark Green	D	0.0
066	D	Attic Storage	Window Casing	Metal	Dark Green	D	0.1
067	D	Attic Storage	Window Frame	Wood	Dark Green	D	0.1
068	**D**	**Attic Storage**	**Windowsill**	**Wood**	**Light Green**	**D**	**1.6**
069	**D**	**Attic Storage**	**Window Frame**	**Metal**	**Light Green**	**D**	**1.2**
070	**D**	**Attic Storage**	**Windowsill**	**Wood**	**Light Green**	**D**	**1.5**
071	**D**	**Attic Storage**	**Window Frame**	**Wood**	**Light Green**	**D**	**1.4**
072	**D**	**Attic Storage**	**Windowsill**	**Wood**	**Light Green**	**D**	**1.5**
073	**D**	**Attic Storage**	**Window Frame**	**Wood**	**Light Green**	**D**	**1.3**
074	N/A	Attic Storage	Support Beam	Wood	Black	D	0.0
075	N/A	Attic Storage	Support Beam	Wood	Black	D	0.0
076	N/A	Attic Storage	Support Beam	Wood	Red	D	0.0
077	N/A	Attic Storage	Support Beam	Metal	Red	D	0.0
078	N/A	Attic Storage	Support Column	Metal	Red	D	0.0
079	N/A	Attic Storage	Support Column	Metal	Red	D	0.0
080	B	Attic Storage	Pipe	Metal	Black	D	0.0
081	B	Attic Storage	Pipe	Metal	Black	D	0.0
082	A	Attic Storage	Door	Metal	Red	I	0.0
083	A	Attic Storage	Door Frame	Metal	Red	I	0.0
084	B	Attic Storage	Baseboard	Wood	Tan	D	0.1
085	B	Attic Storage	Baseboard	Wood	Tan	D	0.1
086	N/A	Attic Storage	Ceiling	Wood	Black	D	0.0
087	N/A	Attic Storage	Ceiling	Wood	Black	D	0.0
088	**D**	**Attic Storage**	**Windowsill**	**Wood**	**Light Green**	**D**	**1.1**

Arc Environmental

XRF Lead-Based Paint Testing Data Sheet

GWWO Architects

Spanish Ballroom Dance Floor at Glen Echo Park

Inspection Date: October 25, 2022 Abatement Level: 0.8

Reading No.	Wall	Room	Component	Substrate	Color	Paint Condition	Lead (mg/cm^2)
089	D	Attic Storage	Windowsill	Wood	Light Green	D	1.2
090	D	Attic Storage	Windowsill	Wood	Light Green	D	1.1
091	D	Attic Storage	Windowsill	Wood	Light Green	D	1.0
092	N/A	Stairwell	Newel Post	Wood	Pink	I	0.0
093	N/A	Stairwell	Baluster	Wood	Pink	I	0.0
094	N/A	Stairwell	Handrail	Wood	Black	I	0.0
095	D	Stairwell	Baseboard	Wood	Pink	I	0.0
096	B	Stairwell	Stair Stringer	Wood	Pink	I	0.0
097	B	Stairwell	Wall	Stucco	Tan	I	0.0
098	D	Stairwell	Windowsill	Wood	Green	D	0.0
099	D	Stairwell	Window Casing	Metal	Green	D	0.0
100	C	Stairwell	Door	Metal	Red	D	0.0
101	C	Stairwell	Door Frame	Metal	Red	D	0.0
102	B	Stairwell	Window Opening Frame	Wood	Light Green	D	0.0
103	B	Stairwell	Window Opening Column	Wood	Light Green	D	2.6
104	B	Stairwell	Window Opening Bar	Metal	Light Green	D	1.1
105	N/A	Stairwell	Newel Post	Wood	Pink	I	0.0
106	N/A	Stairwell	Baluster	Wood	Pink	I	0.0
107	N/A	Stairwell	Handrail	Wood	Black	I	0.0
108	D	Stairwell	Baseboard	Wood	Pink	I	0.0
109	B	Stairwell	Stair Stringer	Wood	Pink	I	0.0
110	B	Stairwell	Wall	Stucco	Tan	I	0.0
111	D	Stairwell	Windowsill	Wood	Green	D	0.0
112	D	Stairwell	Window Casing	Metal	Green	D	0.0
113	B	Stairwell	Window Opening Frame	Wood	Light Green	D	0.2
114	B	Stairwell	Window Opening Column	Wood	Light Green	D	3.6
115	B	Stairwell	Window Opening Bar	Metal	Light Green	D	1.2
116	B	Stairwell	Window Opening Frame	Wood	Light Green	D	0.3
117	B	Stairwell	Window Opening Column	Wood	Light Green	D	2.8
118	B	Stairwell	Window Opening Bar	Metal	Light Green	D	1.1
119	A	Ballroom	Handrail	Wood	Light Green	D	1.1
120	A	Ballroom	Handrail	Wood	Light Green	D	1.2
121	A	Ballroom	Handrail	Wood	Light Green	D	1.2
122	A	Ballroom	Baluster	Wood	Pink/Tan	D	1.1
123	A	Ballroom	Baluster	Wood	Pink/Tan	D	1.4
124	A	Ballroom	Baluster	Wood	Pink/Tan	D	1.1
125	A	Ballroom	Archway Column	Wood	Tan	D	0.0
126	A	Ballroom	Archway Column	Wood	Tan	I	0.0
127	C	Ballroom	Archway Column	Wood	Tan	I	0.0
128	C	Ballroom	Archway Column	Wood	Tan	I	0.0
129	B	Ballroom	Stage Decorative Frame	Wood	Multi	I	1.6
130	B	Ballroom	Stage Decorative Frame	Wood	Multi	I	1.4
131	B	Ballroom	Stage Decorative Frame	Wood	Multi	I	1.3
132	B	Ballroom	Stage Decorative Frame	Wood	Multi	I	1.4

Arc Environmental

XRF Lead-Based Paint Testing Data Sheet

GWWO Architects

Spanish Ballroom Dance Floor at Glen Echo Park

Inspection Date: October 25, 2022 Abatement Level: 0.8

Reading No.	Wall	Room	Component	Substrate	Color	Paint Condition	Lead (mg/cm^2)
133	**B**	**Ballroom**	**Stage Decorative Frame**	**Wood**	**Multi**	**I**	**1.1**
134	**B**	**Ballroom**	**Stage Decorative Frame**	**Wood**	**Multi**	**I**	**1.2**
135	B	Ballroom	Stage Base	Wood	Salmon	D	0.0
136	B	Ballroom	Stage Base	Wood	Salmon	D	0.0
137	B	Ballroom	Stage Handrail	Metal	Pink	D	0.0
138	B	Ballroom	Stage Handrail	Metal	Pink	D	0.0
139	B	Ballroom	Stage Baluster	Metal	Pink	D	0.0
140	B	Ballroom	Stage Baluster	Metal	Pink	D	0.0
141	B	Ballroom	Stage	Wood	Blue	D	0.0
142	B	Ballroom	Stage	Wood	Blue	D	0.0
143	B	Ballroom	Stage Wall	Drywall	Salmon	I	0.0
144	B	Ballroom	Stage Wall	Drywall	Salmon	I	0.0
145	B	Ballroom	Stage Wall	Drywall	Salmon	I	0.0
146	B	Ballroom	Door	Wood	Green	D	0.0
147	B	Ballroom	Door	Wood	Green	D	0.0
148	B	Ballroom	Door Frame	Wood	Orange	D	0.0
149	B	Ballroom	Door Frame	Wood	Orange	D	0.0
150	A	Ballroom	Baseboard	Wood	Pink	D	0.0
151	C	Ballroom	Baseboard	Wood	Pink	D	0.0
152	C	Ballroom	Speaker Frame	Wood	Green/Tan	I	0.2
153	C	Ballroom	Speaker Frame	Wood	Green/Tan	I	0.4
154	A	Ballroom	Speaker Frame	Wood	Green/Tan	I	0.3
155	A	Ballroom	Speaker Frame	Wood	Green/Tan	I	0.3
156	B	Hallway outside Ballroom	Door	Wood	Green	D	0.0
157	B	Hallway outside Ballroom	Door Frame	Metal	Red	D	0.0
158	A	Hallway outside Ballroom	Wall	Stucco	Salmon	I	0.0
159	B	Hallway outside Ballroom	Wall	Wood	Salmon	I	0.0
160	C	Hallway outside Ballroom	Bench	Wood	Green	I	0.0
161	B	Hallway outside Ballroom	Bench	Wood	Green	I	0.0
162	B	Hallway outside Ballroom	Support Beam	Wood	Red	D	0.0
163	B	Hallway outside Ballroom	Support Beam	Wood	Red	D	0.0
164	B	Hallway outside Ballroom	Support Beam	Wood	Red	D	0.0
165	B	Hallway outside Ballroom	Support Column	Wood	Red	D	0.6
166	**B**	**Hallway outside Ballroom**	**Support Column**	**Wood**	**Red**	**D**	**0.8**
167	B	Hallway outside Ballroom	Support Column	Wood	Red	D	0.6
168	B	Hallway outside Ballroom	Pipe	Metal	Red	D	0.0
169	**A**	**Hallway outside Ballroom**	**Wall**	**Wood**	**Tan**	**I**	**7.3**
170	C	Hallway outside Ballroom	Windowsill	Wood	Green	D	0.0
171	C	Hallway outside Ballroom	Window Casing	Metal	Green	D	0.0
172	A	Hallway outside Ballroom	Baseboard	Wood	Pink	D	0.0
173	C	Hallway outside Ballroom	Door	Wood	Red	D	0.0
174	C	Hallway outside Ballroom	Door Frame	Metal	Red	D	0.0
175	**A**	**Hallway outside Ballroom**	**Wall**	**Wood**	**Tan**	**D**	**>9.9**
176	D	Dining Area	Handrail	Wood	Salmon	I	0.0

Arc Environmental

XRF Lead-Based Paint Testing Data Sheet

GWWO Architects

Spanish Ballroom Dance Floor at Glen Echo Park

Inspection Date: October 25, 2022 Abatement Level: 0.8

Reading No.	Wall	Room	Component	Substrate	Color	Paint Condition	Lead (mg/cm^2)
177	D	Dining Area	Handrail	Metal	Red	I	0.0
178	D	Dining Area	Baluster	Wood	Tan	I	0.0
179	D	Dining Area	Newel Post	Wood	Salmon	I	0.0
180	D	Dining Area	Wall	Stucco	Beige	I	0.0
181	C	Dining Area	Windowsill	Wood	Green	I	0.0
182	C	Dining Area	Window Frame	Wood	Green	I	0.0
183	C	Dining Area	Window Casing	Metal	Green	I	0.4
184	C	Dining Area	Door	Metal	Red	I	0.0
185	C	Dining Area	Door Frame	Metal	Red	I	0.0
186	N/A	Dining Area	Support Column	Wood	Brown	I	0.0
187	N/A	Handicap Elevator	Wall	Wood	White	I	0.0
188	A	Rear Practice Studio	Wall	Drywall	Tan	I	0.0
189	C	Rear Practice Studio	Wall	Drywall	Tan	I	0.0
190	C	Rear Practice Studio	Wall	Cement Block	Tan	I	0.0
191	C	Rear Practice Studio	Baseboard	Wood	Red	I	0.0
192	C	Rear Practice Studio	Door	Metal	Red	I	0.0
193	C	Rear Practice Studio	Door Frame	Metal	Red	I	0.0
194	C	Rear Practice Studio	Window Sill	Wood	Green	I	0.0
195	C	Rear Practice Studio	Window Frame	Wood	Green	I	0.0
196	C	Rear Practice Studio	Window Casing	Metal	Green	I	0.2
197	N/A	Stairwell to Basement	Handrail	Metal	Red	I	0.0
198	N/A	Stairwell to Basement	Baluster	Metal	Red	I	0.0
199	N/A	Stairwell to Basement	Stringer	Metal	Red	I	0.0
200	N/A	Stairwell to Basement	Riser	Metal	Red	I	0.0
201	C	Stairwell to Basement	Window Frame	Wood	Green	I	0.0
202	C	Stairwell to Basement	Window Sill	Wood	Green	I	0.0
203	C	Stairwell to Basement	Window Casing	Metal	Green	I	0.0
204	N/A	Basement	Support Beam	Metal	Red	I	0.0
205	N/A	Basement	Support Beam	Metal	Red	I	0.0
206	N/A	Basement	Support Beam	Metal	Red	I	0.0
207	N/A	Basement	Support Beam	Metal	Red	I	0.0
208	N/A	Basement	Support Column	Metal	Red	I	0.0
209	N/A	Basement	Support Column	Metal	Red	I	0.0
210	N/A	Basement	Support Column	Metal	Red	I	0.0
211	N/A	Basement	Support Column	Metal	Red	I	0.0
212	N/A	Basement	Pipe	Metal	Black	I	0.0
213	N/A	Basement	Pipe	Metal	Black	I	0.0
214	N/A	Basement	Pipe	Metal	Black	I	0.0
215	N/A	Basement	Pipe	Metal	Black	I	0.0
216	**N/A**	**Basement**	**Pipe Clamp**	**Metal**	**Red**	**I**	**1.2**
217	**N/A**	**Basement**	**Pipe Clamp**	**Metal**	**Red**	**I**	**1.3**
218	**N/A**	**Basement**	**Pipe Clamp**	**Metal**	**Red**	**I**	**1.2**
219	**N/A**	**Basement**	**Pipe Clamp**	**Metal**	**Red**	**I**	**1.2**
220	N/A	Basement	Pipe Elbow	Metal	Red	I	0.0

Arc Environmental

XRF Lead-Based Paint Testing Data Sheet

GWWO Architects

Spanish Ballroom Dance Floor at Glen Echo Park

Inspection Date: October 25, 2022 Abatement Level: 0.8

Reading No.	Wall	Room	Component	Substrate	Color	Paint Condition	Lead (mg/cm^2)
221	N/A	Basement	Pipe Elbow	Metal	Red	I	0.0
222	N/A	Basement	Pipe Elbow	Metal	Red	I	0.0
223	N/A	Basement	Door Frame	Metal	Red	I	0.0
224	N/A	Basement	Door	Metal	Red	I	0.0
225	**N/A**	**Basement**	**Sprinkler Pipe**	**Metal**	**Red**	**I**	**1.1**
226	**N/A**	**Basement**	**Sprinkler Pipe**	**Metal**	**Red**	**I**	**1.3**
227	**N/A**	**Basement**	**Sprinkler Pipe**	**Metal**	**Red**	**I**	**1.4**
228	N/A	Basement	Sprinkler Pipe	Metal	Black	I	0.0
229	N/A	Front Lobby	Support Beam	Wood	Brown	I	0.0
230	N/A	Front Lobby	Support Column	Wood	Brown	I	0.0
231	A	Front Lobby	Window Frame	Wood	Green	I	0.0
232	A	Front Lobby	Window Sill	Wood	Green	I	0.0
233	A	Front Lobby	Window Casing	Metal	Green	I	0.0
234	A	Men's Restroom	Wall	Ceramic Tile	N/A	I	0.0
235	B	Men's Restroom	Wall	Ceramic Tile	N/A	I	0.0
236	N/A	Men's Restroom	Ceiling	Drywall	N/A	I	0.0
237	A	Exterior	Wall	Stucco	Tan	I	0.0
238	B	Exterior	Wall	Stucco	Tan	I	0.0
239	C	Exterior	Wall	Stucco	Tan	I	0.0
240	A	Exterior	Window Frame	Metal	Green	I	0.0
241	A	Exterior	Window Sill	Metal	Green	I	0.0
242	A	Exterior	Window Casing	Metal	Green	I	0.0
243	A	Exterior	Door Frame	Metal	Red	I	0.0
244	A	Exterior	Door	Metal	Red	I	0.0
245	N/A	N/A	Calibration	N/A	N/A	N/A	1.0
246	N/A	N/A	Calibration	N/A	N/A	N/A	1.0
247	N/A	N/A	Calibration	N/A	N/A	N/A	1.0

Arc Environmental

Appendix D
Photo Log

Asbestos-containing stucco, as viewed from the exterior.

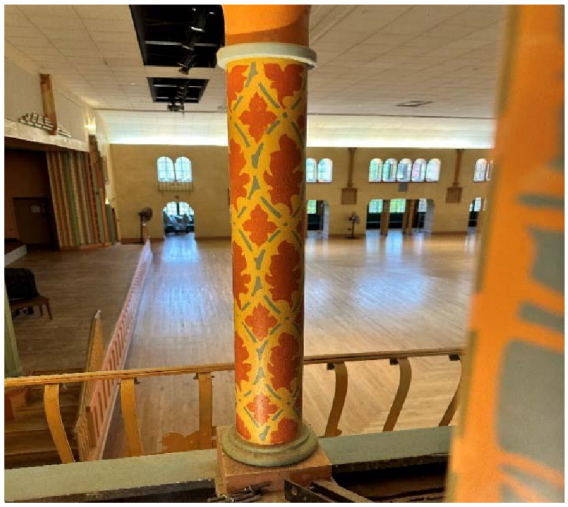
Lead-based paint on balusters.

Lead-based paint on framing of wall vent in the Ballroom.

Lead-based paint on framing trimwork at stage.

PHOTO 1	Date Site Surveyed: October 25, 2022	Spanish Ballroom 7300 MacArthur Blvd Glen Echo, Maryland

Lead-based paint on handrail.



Lead-based paint on columns.

Lead-based paint on window frame (light green).

Lead-based paint on columns and bars.

PHOTO 2	Date Site Surveyed: October 25, 2022	Spanish Ballroom 7300 MacArthur Blvd Glen Echo, Maryland

Lead-based paint on window apron.

Asbestos-containing interior stucco on walls.

Lead-based paint on window sill.

View of ballroom ceiling tiles which are assumed to contain asbestos.

PHOTO 3	Date Site Surveyed: October 25, 2022	Spanish Ballroom 7300 MacArthur Blvd Glen Echo, Maryland

Appendix E
Inspectors' Accreditations

THIS IS TO CERTIFY THAT

Han Sang Kwon

HAS MET THE LEAD PAINT SERVICES ACCREDITATION REQUIREMENTS FOR

Risk Assessor

EXPIRATION DATE 02 / 14 / 2023

TRAINING PROVIDER Aerosol Monitoring & Analysis, Inc.

COURSE DATE 07 / 07 / 2021

10/15/2021

ADMINISTRATOR, LEAD PAINT ACCREDITATION
MARYLAND DEPARTMENT OF THE ENVIRONMENT

DATE

STATE OF MARYLAND

Certificate # 14879

Application for reaccreditation shall be submitted to MDE 60 days prior to accreditation expiration indicated on this certificate.

Asbestos License

Han Kwon
Name

Signature

Inspector/Management Planner Review
Course Title

Course Date: 04/27/2022
Exp Date: 04/27/2023
Exam Date: 08/15/2022

2200015501

STATE OF MARYLAND

Asbestos License

Payton Crandell-Kwon
Name

Signature

Inspector Initial
Course Title

Course Date: 01/10/2022
Exp Date: 01/12/2023
Exam Date: 03/07/2022

2200003801

STATE OF MARYLAND

STRUCTURAL SYSTEM (KEAST & HOOD)

KEAST & HOOD
STRUCTURAL ENGINEERS

1635 Market Street, Suite 1705
Philadelphia, PA 19103
215.625.0099 **keasthood.com**

DRAFT

Spanish Ballroom
7300 MacArthur Boulevard
Glen Echo, Maryland 20812

United States National Park Service
Main Interior Building: 1849 C Street Northwest, Washington, D.C.

75% Structural Condition Assessment

Prepared For:
GWWO Architects
Isabelle A. Gizinski
800 Wyman Park Drive #300
Baltimore, Maryland 21211

April 21, 2023
Date of Visit: October 25, 2022

Prepared By:
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John R. Davis, P.E
Nick Paparo, E.I.T.
Keast & Hood
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Table of Contents

1.0 Project Description 1
2.0 General Overview 1
3.0 General Description of Existing Structures 2
4.0 Repair Recommendations 2
5.0 Limitations 3
6.0 Closing 3
7.0 Appendix 5

1.0 Project Description

At the request of GWWO Architects & the United States National Park Service, Keast & Hood (K&H) conducted a visual structural condition assessment of the Spanish Ballroom located at Glen Echo Park, 7300 MacArthur Boulevard, Glen Echo, Maryland.

An evaluation of the structural system of the building (floor framing, roof framing, walls, etc.) was conducted by Associate and Director of Historical Preservation Brian D. Wentz, P.E., and Structural Designer Nick Paparo, E.I.T. of Keast & Hood to assess the condition of the structure for use in the preservation plan.

This structural condition assessment is based on a visual field survey conducted on October 25, 2022. We arrived on site at 9AM and met Isabelle Gizinski, AIA, and Chris Elcock, AIA, of GWWO. Representatives from the National Parks Service, Henry Adams Engineering, GHD Group, and ACE Environmental were also on site. The referenced building was visited for the purpose of observing the physical condition of the major structural components to the extent reasonably ascertainable without disturbing the existing structural conditions or architectural finishes. We report here on these conditions. The Spanish Ballroom is one of many structures in the Glen Echo Park in Glen Echo, Maryland. The ballroom structure is located north of the Potomac River and the Clara Barton Parkway West, and is oriented with the long direction of the ballroom in a northwest to southeast direction. For this report the elevation with the tower and the main entrance will be the north elevation. A modern addition was added at the east side of the main ballroom structure. See the Appendix for photographs.

2.0 General Overview

The Spanish Ballroom, footprint approximately 125 feet x 145 feet, consists of reinforced concrete and brick masonry foundation walls and footings, steel and wood framed floors and low roofs, and steel roof trusses over the main ballroom. The steel roof trusses are supported by steel columns.

The typical ballroom floor framing consists of 2x12 floor joists spaced at 16” on-centers spanning between built-up wood beams (typically 4- 2x10’s). The ballroom built-up floor beams are supported by either reinforced concrete piers or CMU piers with wood blocking. The first-floor framing along the south is similar to the ballroom floor framing, but the framing is supported by perimeter steel beams. The second-floor framing along the north consists of steel beams supporting timber floor beams spaced at approximately 48” on-centers. The second-floor framing along the south and west consists of timber beams supporting wood joists spaced at 16” on-centers.

The roof framing over the main ballroom consists of 72’-0” long steel trusses spanning north-south supported by steel columns; the steel columns extend down to concrete foundations. The steel trusses support 2x10 ceiling framing spaced approximately 48” on-centers, and 2x10 roof framing spaced 16” on-centers. At the east end plywood sheets were installed to create walkways. The low roof over the north portion of the building consists of steel beams supporting timber roof beams. Wood framed towers are located in the southwest corner and near the northwest corner.

In 2001, a two-story addition was added at the east end of the Ballroom, and a single-story with basement addition was added at the northwest corner of the Ballroom. The east addition provided a dance studio at the main first floor level and mechanical space at the lower basement level; the west addition provided a food service area with basement storage space. The east addition consists reinforced concrete foundations supporting a steel braced-frame structure. The first-floor framing consists of a concrete slab on composite metal deck supported by steel framing; the roof framing consists of steel long-span joists supported by steel framing. The west addition consists of reinforced concrete foundations with reinforced CMU bearing walls supporting the first-floor framing and the roof framing; the floor framing consists of steel beams spanning north-south between bearing walls with a concrete slab on composite metal deck. The roof framing of the west addition consists of steel beams spanning north-south between bearing walls with steel roof deck.

3.0 General Description of Existing Structures

With a few exceptions, the majority of the Spanish Ballroom at Glen Echo Park structural framing appeared to be in good condition. The portions of the steel roof trusses that were visible during the site visit is in good condition. The majority of the attic joists were not visible due to the obstruction of large mechanical ducts, but what was visible is in good condition, and appeared to be completed in accordance with the 1986 structural drawings (see Photo 1). The second-floor wood and steel framing are in good condition. Some timber beams exhibited minor checking, though these defects are not a structural concern. The first-floor and ballroom framing are in good condition (see Photo 2). The floor framing, north of the ballroom, was reframed relatively with metal-deck-on-steel-beam construction; a portion east of this new framing remained as wood framing, with 2x members sistered to the original timber joists which exhibited insect damage. The structure supporting the ballroom floor is in good condition, though some of the wood blocking appeared to be slightly off-center. The foundations supporting the first-floor framing are in good condition; however, one column exhibits a highly deteriorated column base plate (see Photo 3).

4.0 Repair Recommendations/Improvements

From what structure was able to be observed, the Spanish Ballroom at Glen Echo Park appeared to be in good condition. In keeping with the Secretary of the Interior's *Standards for the Treatment of Historical Properties*, it is recommended that the following repairs/improvements be completed:

- *Accessibility improvements* – The basement and mezzanine levels as they currently exist lack accessibility features. The following are potential options for improving accessibility to these areas, along with recommendations for the preferred options:
    - *Basement life safety:*
        - <u>Option 1:</u> No modifications to egress as it currently exists. *Not recommended.*
        - <u>Option 2:</u> A new cast-in-place concrete staircase at the west corner of the building, from the basement exit up to grade. The existing patio at this area could serve as an area of refuge, and the stairs allow for right-of-way access and patio access in the event of an emergency. *Recommended.*
        - <u>Option 3:</u> A new cast-in-place concrete ramp that would allow full accessibility from the basement up to grade. Due to the significant elevation difference between the basement level and grade at the west side of the building, the ramp would be roughly 50' in length. *Not recommended.*

- *Basement general accessibility:*
  - Option 1: No modifications, leaving the basement inaccessible from the first floor. *Not recommended.*
  - Option 2: Install a lift in the existing (currently unused) elevator shaft to make the basement accessible. *Recommended.*
  - Option 3: Install a ramp down to the basement at the exterior of the southeast elevation. Due to the difference in elevation from the basement to grade at this area, the ramp length would be approximately 150'. *Not recommended.*
- *Mezzanine general accessibility:*
  - Option 1: No modifications, leaving the mezzanine as an unoccupied space. *Recommended.*
  - Option 2: Change the mezzanine to an assembly space and install a standard elevator. Stair #4 could serve as a potential location for this new elevator. *Not recommended.*
- *First floor general accessibility – built-up dance floor:*
  - The ramps at the built-up dance floor area behind the stair currently do not meet the turn-around space requirements. This option would consist of relocating the ramps to allow for the required 5' of distance from the end of the ramp and any obstructions. *Not recommended.*

- *Off-center wood blocking at ballroom floor framing* – Rebuild wood blocking at affected piers. Ensure that blocking is flush to bottom of ballroom floor joists
- *Deteriorated base plate* – Replace deteriorated base plate in-kind with galvanized plate. Set plate on 2" of non-shrink grout. Drill and epoxy (4) 3/4"-diameter galvanized anchor rods to be embedded 12". Field weld the column to base plate using a 5/16" weld all-around.

5.0 Limitations

Users of this report should understand that its scope is limited to observations and conclusions drawn from purely visual conditions assessment. This exercise was not exhaustive; rather, it was preliminary in nature and was intended to provide an experienced, initial assessment of the facility. Field measurements, and probes to uncover and assess hidden structural elements and conditions were beyond the scope of this study as was the identification of hazardous materials, but not limited to, lead paint, asbestos containing materials, mold, fungi and other hazardous materials that might possibly be present.

6.0 Closing

The recommendations and comments contained herein are based on visual observations made during our assessment of the existing conditions, and the professional judgment and experience of K&H engineers. This report represents the extent of the review.

Please do not hesitate to contact the undersigned if we can be of continued assistance or if we may answer any questions regarding the observations and recommendations.

Very truly yours,

KEAST & HOOD

Brian D. Wentz, PE APT-RP CDT
Associate & Director of Historic Preservation

Nick Paparo, EIT
Structural Designer

7.0 Appendix

Photo 1: View of the attic space from the west attic hatch door.

Photo 2: The portion of the first-floor framing that was visible appears in good condition.

Photo 3: A column base exhibits surface corrosion.

End of Report

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MECHANICAL SYSTEM (HENRY ADAMS)

PHYSICAL CONDITIONS - MECHANICAL

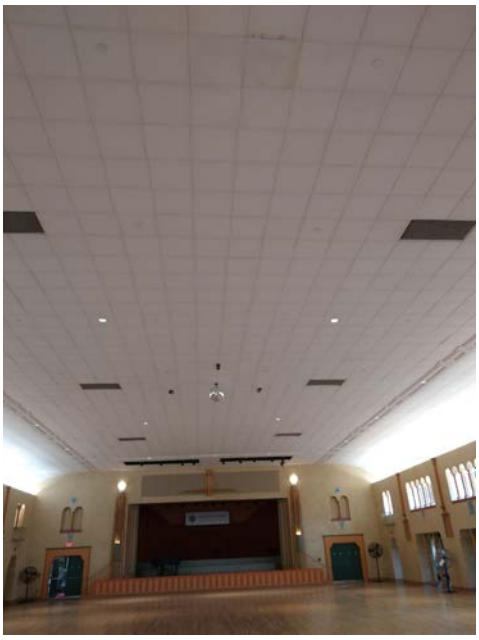
Ballroom:

The Ballroom is only ventilated and partially heated. There is no cooling currently provided. There are two inline tubular axial fans (VF-1-1 and VF-1-2) located in 006 Storage each sized for 11,000 CFM. These two fans are ducted to side wall registers on the side of the benches in the Ballroom. These two fans are also connected to a louver in the west wall of the basement. These fans have variable frequency drives (VFD's) and are capable of running in reverse.

Picture 01: VF-1-1 and VF-1-2

Picture 02: Registers in Bench

There are also two inline tubular axial fans (VF-2-1 and VF-2-2) located in the attic each sized for 11,000 CFM. These fans are ducted to ceiling mounted registers in the ballroom ceiling. Each of these fans is also connected to a louver in the east wall of the attic. These fans have variable frequency drives (VFD's) and are capable of running in reverse.

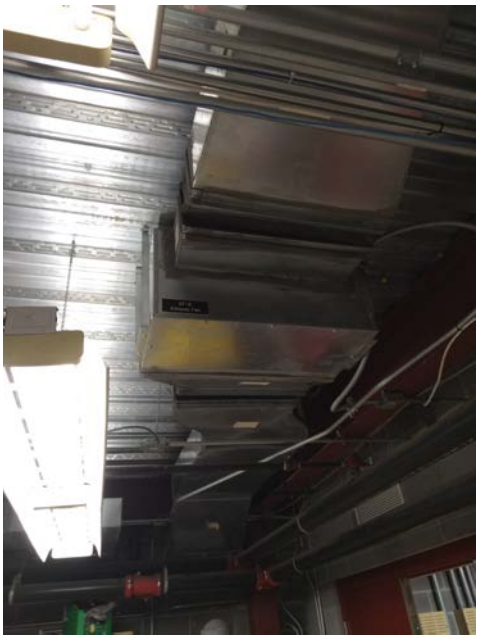


Picture 03: Ceiling Mounted Registers

During the summer, the basement fans pull in outdoor air from the basement louver and supply the outdoor air to the side wall registers in Ballroom benches. The attic fans pull the air from the ceiling mounted registers in the Ballroom and exhaust the air through the attic louvers. During the winter, this operates in reverse and the attic fans pull in outdoor air from the attic louver and supply to the Ballroom through the ceiling mounted registers. The basement fans pull air from the Ballroom through the side wall registers in the benches and exhaust the air through the basement louvers. The outdoor air that is brought in under both modes of operation is untreated.

There is also an inline centrifugal exhaust fan (EF-6) in the basement that exhausts air from the Stage. The exhaust fan discharge is ducted up through the shaft behind Stair #1 and discharges through a louver above the outdoor air intake louver.

There is no heat provided directly in the Ballroom, but there are 13 electric radiant heating cove panels mounted in the Promenade around the perimeter of the Ballroom. These do not provide sufficient heat to the Ballroom. There are also 4 floor mounted electric heaters in the floor of the stage.



Picture 04: EF-6

Picture 05: Radiant Cove Heater

Picture 06: Heater in Stage Floor

- VF-1-1 and VF-1-2 were installed in 2003 and are in fair condition. The typical life expectancy for fans is 25 years, so these fans are starting to approach the end of their life. They are starting to show some rust.
- The sidewall registers on the benches are in poor condition. There are lots of dents, scratches, etc. and a lot of dust/dirt.

- VF-2-1 and VF-2-2 were installed in 2003 and are in fair condition. The typical life expectancy for fans is 25 years, so these fans are starting to approach the end of their life.
- The exhaust louvers in the attic for VF-2-1 and VF-2-2 have a very thick layer of dust covering the birdscreen.
- The ceiling mounted registers are in fair condition.
- EF-6 was installed in 2003 and is in fair condition. The typical life expectancy for fans is 25 years, so this fan is starting to approach the end of its life.
- EF-6 does not have any vibration isolators.
- The radiant heating cove panels were installed in 2003 and are in fair condition. The typical life expectancy for radiant panels is 10 years, so these are past their life expectancy.
- The floor mounted electric heaters in the stage were installed in 2003 and are in fair condition. The typical life expectancy for electric heaters is 10 years, so these are past their life expectancy.

Support Spaces:

The support spaces are conditioned by an air handling unit located in 002 Storage. The air handling unit supplies 3,000 CFM to floor mounted supply registers in 112 Support and 113 Support. Air is returned back to the air handling unit through side wall registers low in the wall of 112 Support. Outdoor air is provided to the air handling unit through a louver in the north wall behind Stair #1.

The air handling unit has a mixing plenum, filters, direct expansion (DX) cooling coil, and supply fan. The air handling unit is mounted on a housekeeping pad. There is an air-cooled condensing unit outdoors on grade on the east side of the building. The air-cooled condensing unit is mounted on a concrete pad with waffle pad vibration isolators. Refrigerant piping runs between the air-cooled condensing unit and the DX cooling coil. The condensing unit provides 15-tons of cooling. There is a duct mounted 42.7 kw electric heating coil mounted in the supply ductwork off the air handling unit. There is a duct mounted smoke detector in the supply ductwork, but not the return ductwork. The condensate drains to the adjacent floor drain.

Picture 07: Air Handling Unit

Picture 08: Electric Duct Heater

Picture 09: Sprinkler Pipe Penetrating Duct Insulation

Picture 10: Refrigerant Piping at AHU

Picture 11: Air-Cooled Condensing Unit

Picture 12: Outdoor Refrigerant Pipe

Picture 13: Floor Mounted Supply Register

Picture 14: Wall Mounted Return Register

There is an open-end relief air duct with a motor operated damper in 113 Support that is ducted up to the louvered penthouse on the roof. This provides a means for excess air to be relieved when the system is in economizer mode.

Picture 15: Louvered Penthouse

- The air handling unit was installed in 2003 and is in poor condition. The typical life expectancy for air handling units is 20 years, so it is just at the end of its expected life.
- The air-cooled condensing unit was installed in 2003 and is in fair condition. The typical life expectancy for air-cooled condensing units is 20 years, so it is just at the end of its expected life.
- The insulation on the outdoor portion of the refrigerant piping is deteriorated and in very poor condition.
- The insulation on the indoor portion of the refrigerant piping is in fair condition.
- The condensate drain from the air handling unit drains into a floor drain. It is not known if this floor drain goes to sanitary or storm water. Condensate drainage needs to be taken to either storm water or daylighted to grade.
- The duct mounted electric heating coil was installed in 2003 and is in fair condition. The typical life expectancy for electric duct heaters is 15 years, so it is past its life expectancy.
- There does not appear to be enough straight duct upstream of the electric duct heater. Sufficient straight duct is required to achieve evenly distributed airflow across the coil to avoid tripping the coil on low airflow.
- The ductwork and duct insulation are in fair condition.
- There is a sprinkler pipe that penetrates a portion of the supply duct insulation. This could cause condensation to form.
- The air is coming out of the floor mounted supply registers in 113 Support at a very high velocity causing drafts and a lot of noise.
- The air is being sucked into the wall mounted return registers in 112 Support at a very high velocity causing drafts and a lot of noise.
- The return air registers in 112 Support are very dirty.

<u>109 Main Lobby</u>:

109 Main Lobby has no cooling, heating, or ventilation.

<u>105 Lounge</u>:

105 Lounge is only heated. There are six 565 watt electric radiant ceiling panels. There are also overhead ceiling fans which just move air around within the space. The radiant heating ceiling panels were installed in 2003 and are in fair condition. The typical life expectancy for radiant panels is 10 years, so these are past their life expectancy.

Picture 16: Radiant Panels and Ceiling Fans

114 Concessions

114 Concessions is conditioned by a packaged rooftop unit on the roof. The rooftop unit has filters, direct expansion cooling/heating coil, and a supply fan. It is not known if the unit has an auxiliary electric heating coil. The rooftop unit provides 6-tons of cooling. The rooftop unit is ducted to ceiling mounted supply diffusers and return grilles.

There are two roof mounted air-cooled condensing units that each serve an evaporator with walk-in coolers/freezer in the Concessions. There is refrigerant piping connected between each condensing unit and its associated evaporator.

Picture 17: Rooftop Equipment

Picture 18: Roof Mounted Ductwork

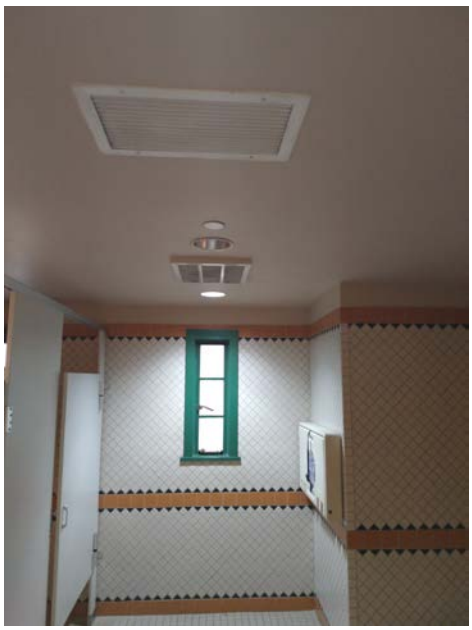
Picture 19: Roof Mounted Ductwork

- The packaged rooftop unit was installed in 2014. The typical life expectancy for packaged rooftop units is 15 years, so it has some expected life left. However, it is in poor condition.
- There is not sufficient clearance around the packaged rooftop unit.
- The ductwork on the roof associated with the rooftop unit is in very poor condition. The ductwork is deteriorated, rusted and falling apart. The ductwork is also not insulated. There is a high likely hood that there are leaks in the ductwork, which could cause mold.
- The air-cooled condensing units are assumed to have also been installed in 2014. The typical life expectancy for air-cooled condensing units is 20 years, so they have some expected life left, however they are in poor condition. The cabinets are starting to degrade, portions of the coil fins are dented, and many of the bolts are rusted.
- The insulation on the refrigerant piping between the air-cooled condensing units and evaporators is in very poor condition. A lot of the insulation is deteriorated and large portions are missing.
- The refrigerant piping that is visible is in poor condition as it is starting to corrode.

Restrooms:

106 Women's Toilet and 107 Men's Toilet are only heated and ventilated. Each restroom has a 4 kw ceiling mounted electric heater. 108 Janitor's Closet has a 3kw electric unit heater. The two restrooms are exhausted by a roof mounted downblast exhaust fan (EF-2) sized for 1,200 CFM.

Picture 20: EF-2



Picture 21: Restroom Unit Heater

- The ceiling mounted electric heaters were installed in 2003 and are in good condition. The typical life expectancy for electric heaters is 10 years, so these are past their life expectancy.
- EF-2 was installed in 2003 and is in fair condition. The typical life expectancy for fans is 25 years, so this fan is starting to approach the end of its life.

200 Unoccupied:

200 Unoccupied has no cooling, heating, or ventilation.

Basement:

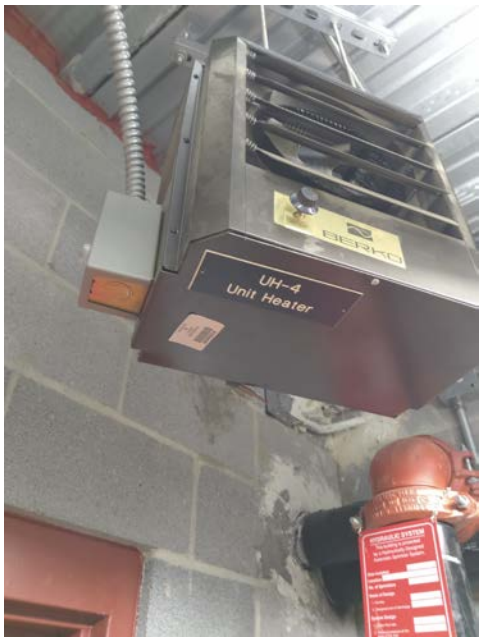
The Basement is only heated and ventilated. There is an inline centrifugal exhaust fan (EF-1) in 006 Storage that pulls air from the Basement and discharges through a louver in the south wall of 006 Storage. This fan is sized for 900 CFM. There is another louver in 006 Storage with a motor operated damper that opens when the exhaust fan is on to provide make-up air.

The 001A Electrical Room is ventilated by a wall mounted fan (EF-3).

There is a 5.6 kw electric unit in 002 Storage and a 5.6 kw electric unit heater in 005 Storage. There is a 3 kw electric unit heater located in 001B Sprinkler Room.

Picture 22: EF-1

Picture 23: EF-3



Picture 24: Unit Heater

- EF-1 was installed in 2003 and is in fair condition. The typical life expectancy for fans is 25 years, so this fan is starting to approach the end of its life.
- EF-1 does not have any vibration isolators.
- EF-3 was installed in 2003 and is in fair condition. The typical life expectancy for fans is 25 years, so this fan is starting to approach the end of its life.
- There are no fire dampers in the duct penetrations into 001A Electrical Room. It is not known if this room is rated. It likely needs to be.
- The electric unit heaters were installed in 2003 and are in fair condition. The typical life expectancy for electric heaters is 15 years, so these are past their life expectancy.

Attic:

The attic is only ventilated. There are two inline centrifugal exhaust fans (EF-4 and EF-5) at the east end of the attic that are each sized for 1,200 CFM. These fans are ducted to louvers in the east wall of the attic. These fans exhaust air out of the attic. There are two louvers on the west wall of the attic with motor operated dampers that open when the exhaust fans are on to provide make-up air.

Picture 25: EF-4

- EF-4 and EF-5 were installed in 2003 and are in fair condition. The typical life expectancy for fans is 25 years, so these are starting to approach the end of their life. They are starting to show some rust.
- EF-4 and EF-5 do not have flexible connections at the duct connections.
- EF-4 and EF-5 do not have vibration isolators.

HVAC Controls:

The building has a Honeywell controls system.

RECOMMENDATIONS - MECHANICAL

Ballroom:

Short Term:
- Clean the Basement and Attic Louvers
- Clean the side wall registers in the benches.

Long Term:

Option 1:
Fully condition the Ballroom. Completely remove the entire existing HVAC system serving the Ballroom and provide an air handling unit to condition the Ballroom. The air handling unit would be located in the basement where there is plenty of space. It is recommended that the air handling unit have a DX cooling

coil (with an air-cooled condensing unit outdoors) and hot water heating coil. An electric hot water boiler would be provided to provide the heating water.
The air handling unit would be ducted to supply registers in the low in the ballroom - either in the floor or low side wall registers in the bench, wall, or columns. Ideally return air would be located high in the space to allow for the best air distribution. As the design phase progressed it will need to be determined where the best locations are to minimize the impact on the historic fabric.
This option would provide much better temperature and humidity control than the existing heating and ventilating system and would therefore provide much better thermal comfort to the occupants. The proposed system would include dehumidification and would also ensure that the building is slightly over-pressurized to keep moisture out of the building.
It is understood that there is a concern about maintaining higher humidity levels in the Ballroom to protect the dance floor. The recommended humidity levels for the floor need to be determined as these may conflict with the desired conditions for thermal comfort of occupants and for maintaining other finishes within the space. A humidifier section can be provided to the AHU if higher humidity levels are required in the winter. This is the recommended long term option, but would be significantly more expensive than Option 2.

Option 2:
Keep the same system as existing, but replace the fans, registers, and radiant heaters. The existing ductwork could be reused, but would be recommended to be cleaned. This option would not have very good humidity control. It would also likely get very hot in the Ballroom in the summer months which would make occupants very uncomfortable, especially during large events. This option however would cost much less than Option 1.

<u>Support Spaces</u>:

Short Term:
- Clean the registers
- Replace the insulation on the refrigerant piping.

Long Term:
- It is recommended that the HVAC system serving the support spaces be completely replaced including the air handling unit, air-cooled condensing unit, piping, ductwork, and registers. A similar system would be put back – air handling unit with DX cooling (with and air-cooled condensing unit outdoors) and hot water heating cooler. The electric hot water boiler mentioned above for the Ballroom would also provide the hot water to the heating coil in this AHU. It should be ensured that the registers are properly sized to avoid excessive noise and drafts like the current conditions.

<u>109 Main Lobby</u>:

- If desired this space could be fully conditioned. This is a low priority item and would depend on the intended use of the space.

<u>105 Lounge</u>:

- If desired this space could be fully conditioned. This is a low priority item and would depend on the intended use of the space.

<u>114 Concessions</u>

- Replace the rooftop unit. This is a medium priority item.
- Replace the ductwork on the roof. This is a high priority item.
- Replace the condensing units for the walk-in coolers and freezers. This is a medium priority item.
- Replace the insulation on the refrigerant piping. This is a high priority item.

Restrooms:

- At some point the exhaust fan and electric heaters should be replaced, but this is low priority.

200 Unoccupied:

- It is recommended that this space at least be heated and ventilated. This can be done by electric unit heaters and an exhaust fan.

Basement:

- EF-1 should be replaced in the near future. This is a medium priority. Vibration isolators should be provided.
- EF-3 should be replaced in the near future. This is a medium priority.
- The unit heaters should be replaced. This is a low priority.

Attic:

- EF-4 and 5 should be replaced in the near future. This is a medium priority. Vibration isolators should be provided. Flexible connections should be provided at the duct connections.

ELECTRICAL SYSTEM (HENRY ADAMS)

PHYSICAL CONDITIONS - ELECTRICAL

Electrical Service:

Electric service is provided to the Spanish Ballroom by a Potomac Electric Power Company (PEPCO) pad mounted transformer located at the southeast side of the building. The service is routed underground from the transformer to pad mounted switchgear located adjacent to the transformer. A single utility meter is mounted to the switchgear. From the switchgear, a feeder is routed underground to distribution panel DP3-1 located in the main basement electrical room.

Photos E1a and E1b (left to right): a. Switchgear and Pad Mounted Transformer; b. Switchgear with Meter

Based on the record drawings, the feeder consists of three sets of 4-500 KCMIL conductors plus 2/0 grounding conductors in three 4-inch conduits. The record drawings also indicate that the conductors terminate at a 1000-amp main circuit breaker in panel DP3-1 and that panel DP3-1 is a 208Y/120-volt, 3-phase, 4-wire panel with a 1000-amp bus.

Based on field observations (and contrary to the record drawings), panel DP3-1 has a 1600-amp main circuit breaker with a trip setting of 1000 amps, and the panel has a 1600-amp bus. The panel has also been provided with surge protection.

Panel DP3-1 contains 15 feeder circuit breakers and serves as the main distribution point for the building's electrical system. In addition to feeding the panelboards described below, panel DP3-1 feeds HVAC equipment. There is a spare 3-pole, 100-amp circuit breaker that was designated for the material lift, however, the lift was never installed.

208Y/120-Volt Electrical Distribution Equipment:

Panelboards and dimmer racks serve as the distribution points for branch circuits throughout the facility. The panelboards and dimmer racks contain molded case circuit breakers. There are five panelboards and three dimmer racks in the facility. The panelboards and dimmer racks and the loads they serve are described below.

- Panel RP1: This panel is a 2-section panel that serves as the distribution point for branch circuits throughout the basement, first floor, and mezzanine of the building. The panel has the following

ratings: 208Y/120-volt, 3-phase, 4-wire with 225-amp main lug rating and fed by a 3-pole, 225A circuit breaker in panel DP3-1. The panel's circuit directory indicates that it feeds the following types of loads: Receptacles, fire alarm control panel, ceiling fans in the lobby, exhaust fans, platform heaters, heat trace, baseboard heaters, and a timer for outdoor lighting. There is no room for additional circuit breakers. Panel RP1 is located in the basement electrical room, adjacent to DP3-1.

- Panel LP1: This panel is a single-section panel that serves as the distribution point for branch circuits throughout the basement, first floor, and mezzanine of the building. The panel has the following ratings: 208Y/120-volt, 3-phase, 4-wire with 400-amp main lug rating and fed by a 3-pole, 70A circuit breaker in panel DP3-1. The panel's circuit directory indicates that it feeds the following loads: Receptacles; puppet lights on the first floor; platform lights; lights in storage room, electrical room, bathrooms, lounge, and mezzanine; stair lights, stage receptacles; and stage disconnects located at both stage right and stage left. There is no room for additional circuit breakers. Panel LP1 is located in the basement electrical room, adjacent to panel RP1.

- Panel EM: This panel is a single-section panel that serves as the distribution point for emergency lighting branch circuits. The panel has the following ratings: 208Y/120-volt, 3-phase, 4-wire with 100-amp main lug rating. The panel's circuit directory indicates that it feeds exit lights, outside lights, and an inverter. This is an 18-pole panel with 12 1-pole, 20-amp circuit breakers and 6 spaces. Panel EM is located in the basement electrical room, adjacent to panel LP1.

- Panel PP3-5 is located in the concession area. The panel is fed by a 3-pole, 400-amp circuit breaker in panel DP3-1.

- Dimmer Panel WD5: This dimmer rack has 24 1-pole, 20-amp molded case circuit breakers that serve the stage luminaires in the Spanish Ballroom. WD5 is fed from a 3-pole, 150-amp circuit breaker in panel DP3-1.

- Dimmer Panel A: This dimmer rack has 24 1-pole, 20-amp molded case circuit breakers that serve the ceiling mounted luminaires and wall sconces in the Spanish Ballroom. Dimmer Panel A is fed from a 3-pole, 150-amp circuit breaker in panel DP3-1, which is fed through Dimmer Panel B. 12 circuit breakers at pole no's 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, and 22 in this panel have been taped in the "off" position with red electrical tape.

- Dimmer Panel B: This dimmer rack has 12 1-pole, 20-amp molded case circuit breakers that serve the luminaires in the Spanish Ballroom and lobby. Dimmer Panel B is fed from a 3-pole, 150-amp circuit breaker in panel DP3-1. Dimmer panel B has a 3-pole, 150-amp main circuit breaker.

Branch Circuits and Wiring Devices:

Branch Circuits:

Feeders and branch circuits are installed in metal conduit and junction box systems. Conduit has generally been routed exposed in the basement.

Branch circuit wiring leaves the basement panelboards in metal conduit.

Conduit and wiring are generally routed concealed within walls and ceilings in the finished spaces on the first floor. In the concessions area, metal conduit and wiring for the ceiling fans is routed exposed on the ceiling and has been painted to match the adjacent ceiling surface.

On the mezzanine level, conduit and wiring is generally routed concealed within walls to serve wall mounted devices, however, conduit is routed exposed on the ceilings to serve luminaires and other ceiling-mounted devices.

Conduit and wiring are also generally routed concealed on the exterior of the building to serve wall sconces and downlights. Surface mounted metal conduit and wiring has been installed exposed to serve receptacle outlets at the northwest area of the building in the outdoor concession area.

Wiring Devices:

Basement

Surface mounted duplex receptacles are located throughout the basement rooms. The receptacles are generally mounted in 4x4 metal boxes with metal cover plates. Wiring in surface mounted metal conduit serves the receptacles.

First Floor

Convenience receptacle outlets are located throughout the first floor. The outlets are generally recessed in walls and have metal cover plates. The outlets are generally mounted 18 inches above the finished floor. Wiring serving the receptacles is concealed.

Mezzanine

Duplex convenience receptacle outlets are located throughout the mezzanine. The receptacles are generally installed recessed at 18 inches above the finished floor. The receptacles are brown with brushed steel cover plates. Wiring serving the receptacles is concealed within building finishes.

Exterior

Surface mounted GFCI receptacle outlets are located at the north corner of the building at the concession area. The receptacles and associated conduit and wiring are surface mounted.

Photos E2a, E2b, and E2c (left to right) : Exterior Receptacles at Concessions Area

Lighting:

Basement Lighting:

Lighting throughout the basement generally consists of 2-lamp fluorescent industrial turret (open) troffers suspended from the ceiling. Wiring serving the troffers is installed in surface mounted metal conduit.

First Floor Lighting:

Ballroom 101

Lighting in the ballroom consists of the following:

- Northeast Elevation - Alcove lighting mounted at the mezzanine level and fluorescent cove lighting.
- Northwest Elevation - Decorative Wall sconces with glass shades.
- Southwest Elevation - Alcove lighting mounted at the mezzanine level and fluorescent cove lighting.
- Southeast Elevation/Stage Proscenium – Decorative wall sconces with glass shades.
- Ceiling -
    - Recessed Downlights
    - Spot lights for the mirror ball
    - Cove uplighting
    - Color uplights with blue, orange, and red lenses located in the false clerestory ballroom mezzanine openings.
    - Performance lighting – follow-spots

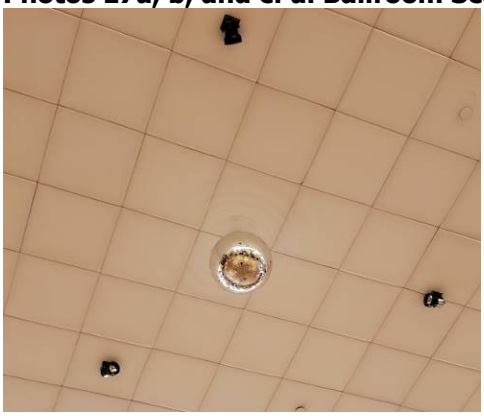
Photo E3: Ballroom Northeast Elevation

Photo E4: Ballroom Northwest Elevation

Photo E5: Ballroom Southwest Elevation

Photo E6: Ballroom Southeast Elevation

Photos E7a, b, and c: a. Ballroom Sconce; b. Proscenium Sconce; c. Follow Spots



Photos E8a, b, and c: a.Mirror Ball and Spotlights; b. and c. Luminaires at False Clerestory

Platform (Stage) 100

- Performance lighting
  - Light pipe
  - Spot lights
- Fluorescent strip work lights

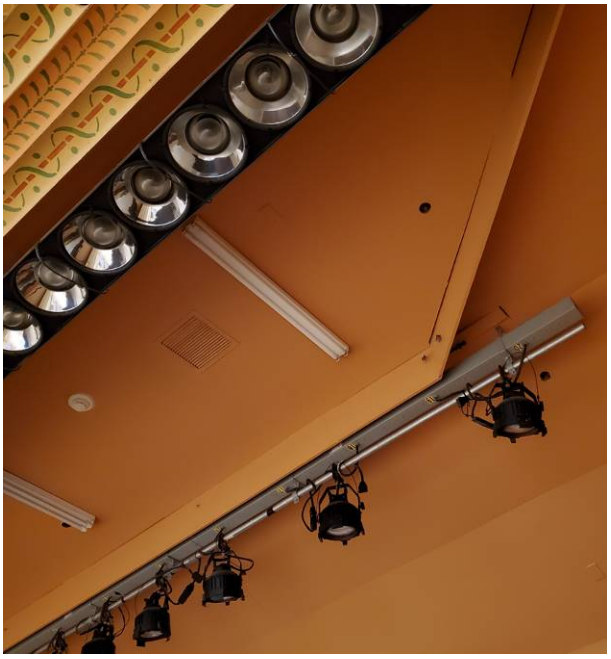


Photo E9: Stage Lighting

Photo E10: Stage Lighting

Main Lobby 109

- Decorative wall sconces with glass shades.
- Ceiling fans with lamps and glass shades.

Photo E11: Lobby Lighting

Photo E12: Lobby Wall Sconce

North, South, and West Promenades

- Decorative wall sconces with glass shades

Photo E13: Promenade Lighting

Photo E14: Wall Sconce

Lounge 105

- Decorative wall sconces with glass shades.
- Ceiling fans with lamps and glass shades.

Photo E15: Lounge Lighting

Photo E16: Sconce

Photo E17: Sconce

Photo E18: Lounge Ceiling Fan

Women's and Men's Toilet Rooms 106 and 107

- Wall sconces with glass shades above lavatories.
- Recessed downlights.
- Stem suspended luminaire with glass shade.

Photo E19: Ceiling Light

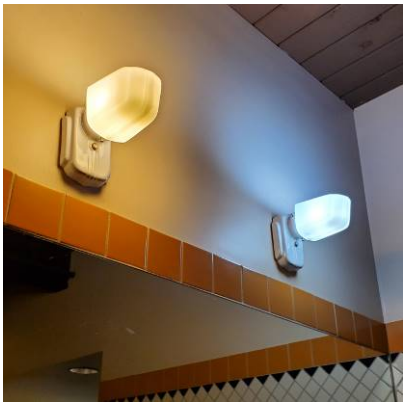


Photo E20: Sconces Above Sinks

Photo E21: Downlight

Stair 110

- Wall sconces with glass shades.
- Stem suspended luminaire with metal canopy.

Photo E22: Stair Luminaires

Photo E23: Sconce in Stair

Mezzanine Level Lighting:

Room 200 (Unoccupied/Storage) Lighting throughout the mezzanine level generally consists of 2-lamp fluorescent industrial turret (open) troffers suspended from the ceiling. Wiring serving the troffers is installed in surface mounted metal conduit. Luminaires previously described for the ballroom are also located at the mezzanine level in the false clerestory ballroom openings.

Exterior Lighting:

Exterior lighting is described below. Conduit and wiring serving exterior luminaires has been installed concealed within building finishes.

- Northwest Elevation

- Entrance at Ballroom West Promenade 103 - Wall mounted frosted spheres, one on each side of the double-door. Wiring serving these luminaires is installed concealed.

- North Corner/Northwest Elevation
  - Concession "Café" area – Recessed downlights are mounted in the soffit.
- North Corner/Northeast Elevation
  - Concession "Café" entry – Recessed downlights are mounted in the soffit at the café entry doors.
- Northeast Elevation
  - Entrance at Lounge 105 - A single wall mounted mission style lantern with frosted lens is mounted to the right side of the entrance door.
- Northeast Elevation
  - Entrance at Main Lobby 109 - Wall mounted frosted spheres, one on each side of the double-door. The luminaires are mounted under the "Ballroom" sign. Wiring serving these luminaires is installed concealed.

Photo E24: Northwest Elevation

Photos E25 and E26: Café Entry Downlights

Photo E27: Northeast Elevation at Lounge

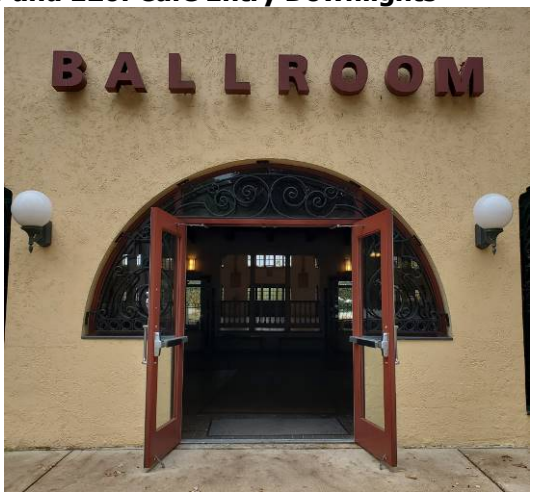


Photo E28: Northeast Elevation at Main Lobby

- East Corner / Northeast Elevation
  - Entrance at Support Lobby 111 - A single wall mounted mission style lantern with frosted lens is mounted to the left side of the double-door.
- East Corner / Southeast Elevation

- Entrance at Support 112 - Wall mounted frosted spheres, same type as described for the main lobby entrance, are mounted on each side of the double-door. Wiring serving these luminaires is installed concealed.

- South Corner
  - Entrance at Lift Shaft 004 - A lensed, full cut-off wall pack luminaire with a compact fluorescent screw-in lamp is mounted above the double-door.

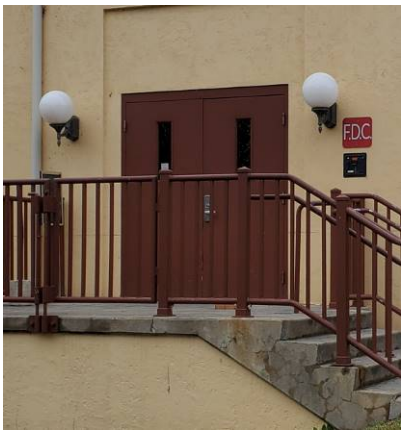


Photo E29: Northeast Elevation Photo E30: Southeast Elevation Photo E31: South Corner

Lighting Controls:

Manual lighting control throughout the service areas of the building is provided by wall-mounted switches.

First Floor Lighting Control:

Platform 100 (stage) and Ballroom 101

- Lehigh theatrical/architectural dimmer cabinets with molded case circuit breakers control the following:
  - Ceiling perimeter downlights
  - Ceiling center downlights and mezzanine floodlights.
  - Alcove lights.
  - Wall sconces.
  - Stage proscenium caps.
  - Stage proscenium columns.
  - Cove fluorescent lighting.
- Lehigh wall mounted control stations with pre-set buttons located at the platform and promenades. Presets control the following:
  - 1 Full – All lights full brightness.
  - 2 Dance – Incandescents only (full) – No fluorescents.
  - 3 Work/Teach – All fluorescents only – No incandescents.
  - 4 Rehearsal – Front fluorescents only – No rear fluorescents
  - 5 Dinner – All incandescents dimmed to medium, front fluorescents ON, Rear fluorescent OFF.
  - 6 Subdued – Al incandescent full, Rear fluorescents ON, Front fluorescents OFF.
  - 7 Full – All lights full

- 8 Mirror ball
- 9 Unused
- 10 Unused
- 11 Unused
- 12 Emergency – All fluorescents, Rear sconces, and prosceniums.

- Manual wall mounted toggle switch labeled "disco ball" at the stage.

Photo E32: Lehigh Dimmer Station

Photo E33: Preset Control Station

Photo E34: Lehigh Dimmer Station

Photo E35: Preset Control Station

Photo E36: Toggle Switch

Women's and Men's Toilet Rooms 106 and 107

- Occupancy sensor wall switches.

Lounge 105

- Wall mounted four-button fan controls, one for each fan for control of lighting and fan speed.
    - Light
    - Fan
    - Reverse
    - Power

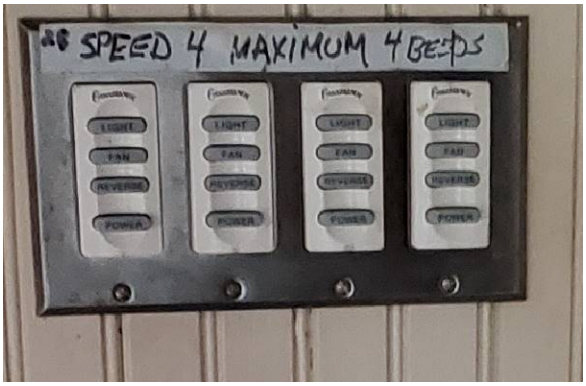


Photo E37: Fan Controls in Lounge

Emergency Egress Lighting:

Basement
Emergency egress lighting is provided throughout the basement by wall mounted battery units with attached twin beams.

Exit signs with battery backup are located throughout the basement, and exit signs with integral battery backup and twin beams are located at exit doors.

First Floor
Emergency egress lighting is provided throughout the areas of the first floor by wall mounted battery units with attached twin beams as well as exit signs with integral battery backup and twin beams located at exit doors.

First Floor - Ballroom
Emergency egress lighting is provided throughout the ballroom by wall mounted battery units with attached twin beams.

Exit signs with integral battery backup and twin beams are located at exit doors.

Mezzanine
Emergency egress lighting is provided throughout the mezzanine by wall mounted battery units with attached twin beams.

Exit signs with integral battery backup and twin beams are located at exit doors.

Electrical Service Observations and Recommendations:

For distribution panel DP3-1, there is a discrepancy between the information on the record drawings and what has been installed. As stated previously, the record drawings indicate that the building has a 1000-amp distribution panel that is served from a 1000-amp feeder even though a 1600-amp panel has been installed.

The distribution panel appears to be in good condition.

Recommendations:

- If the Ballroom will be fully conditioned, further investigation will be required to determine whether the electrical service has available capacity to supply new HVAC equipment. We recommend the following actions:
    - Confirm the ampacity of the building's existing feeder (quantity and size of conductors).
    - Meter the building's service for a minimum of 30 days to determine whether the system has adequate spare capacity for additional HVAC loads.
    - Analyze records of the building's energy use if records are available.
- If additional HVAC equipment will be installed, we also recommend providing new panelboards to serve the new equipment.

Electrical Distribution Observations and Recommendations:

The panelboards appear to be in good condition with noted deficiencies listed below:

- Panel RP1, Section 1 – The fire alarm circuit breaker is required to have a red marking. This was required by the edition of NFPA 72 in effect at the time of design (ref NFPA 72-1993, 1-5.2.8.2).
- Panel RP1, Section 1 – Copper wire is used as a handle tie for circuit breakers at poles 38 and 40. A listed handle tie must be used since copper wire is not listed for this use per NFPA 70-1996, 110-3(b).
- Panel LP1 – The load served by the 3-pole, 30-amp circuit breaker at poles 1,3,5 is not identified on the panel directory. Load identification is required by NFPA 70-1996, 384-13.
- Panel EM - Loads served by 1-pole, 20-amp circuit breakers at poles 5,7,9,11 and 8,10,12 are not identified on the panel directory. Load identification is required by NFPA 70-1996, 384-13.

Photo E38: RP1 Fire Alarm Breaker

Photo E39: Breakers with Wire Tie

Recommendations:

- Panel RP1, Section 1 –
  - Provide a red lock-out clip for the fire alarm circuit breaker.
  - Replace the copper wire with a listed handle tie for circuit breakers at poles 38 and 40.
- Panel LP1 – Identify the load served by the 3-pole, 30-amp circuit breaker at poles 1,3,5. Update the panel directory to include this information.
- Panel EM – Identify the loads served by 1-pole, 20-amp circuit breakers at poles 5,7,9,11 and 8,10,12. Update the panel directory to include this information.
- If the building will undergo renovations, provide new panelboards to support any additional equipment. The existing panelboards do not have physical space in them for additional branch circuits.
- To support converting the mezzanine space from storage to administrative use, provide a new 208/Y120V, 3-phase, 4-wire, 100-amp (est.), 32-pole panelboard to supply branch circuits for new receptacle outlets, lighting, and other new equipment in this space.

Branch Circuits and Wiring Devices Observations

Receptacle outlets inside the building are generally in good condition.

Exterior receptacle outlets located at the concessions area have been damaged. The weatherproof receptacle covers are missing, and the cover plates are not securely attached to the wall box.

Recommendation:

- Replace the exterior receptacle outlets with weather resistant (WR) GFCI receptacles. Replace the wall boxes and provide weatherproof while-in-use covers to protect the outlet from the elements even while equipment cords are plugged in.
- To support converting the mezzanine space from storage to administrative use, provide new receptacle outlets in coordination with locations of workstations and equipment.

Lighting Observations and Recommendations

Basement Lighting:

The fluorescent luminaires in the basement were installed during the 2002 renovation project and appear to be in good condition.

Recommendation: Retain the luminaires, or replace with LED equivalents (or retrofit with LED) when ballasts fail.

First Floor Lighting:

In general, the ceiling and wall-mounted luminaires on the first floor appear to be in good condition. Some of the luminaires are in need of cleaning and re-lamping.

A glass shade on one of the wall sconces located in the north promenade is damaged.

Photo E40: Damaged Wall Sconce

Glass wall sconces located above the lavatories in the women's and men's toilet rooms have dirt build-up, and downlight trim rings are corroding.

Photo E41: Dirty Wall Sconce Shade

Photo E42: Corroding Downlight

Recommendations:

- Clean luminaires and re-lamp with LED equivalent lamps.
- Replace downlights in toilet rooms.
- Replace damaged glass lens on wall sconce located in the north promenade.

Ballroom Platform (Stage) Lighting:

The spot lights, light pipe luminaires, and fluorescent strip work lights appear to be in good condition.

Recommendations:

To improve on energy efficiency and performance versatility, and to coordinate with new lighting control technology, we recommend the following

- Replace incandescent lamps in existing spot lights with LED lamps, or replace entire spot light with LED luminaire.
- Replace incandescent light pipe luminaires in with LED luminaires.
- Replace existing fluorescent strip work light luminaires in this room with LED luminaires.

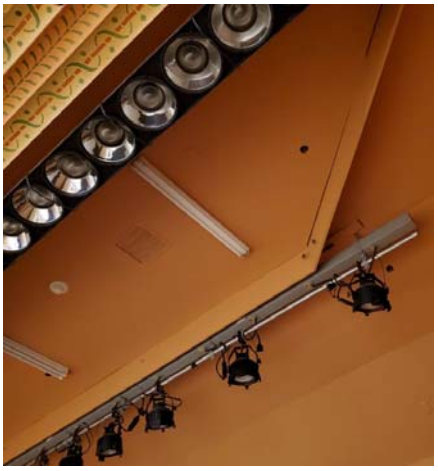


Photo E43a and b (left to right): a. Stage Lighting Spot Lights and Light Pipe; b. Stage Lighting Spot Lights

Ballroom Lighting:

The ceiling and wall-mounted luminaires in the ballroom appear to be in good condition.

The alcove luminaires that are mounted at the false clerestory openings at the mezzanine level are not working. There is also a significant amount of dust and dirt on these luminaires. Park staff have reported that these luminaires have not worked for quite some time, and that they were not part of the 2002 updates.

Photos E44a, b, and c (left to right): a and b. Dirt Build-Up on Luminaire in False Clerestory; c. Mirror Ball

The mirror ball, while not a luminaire, appears to be in good condition. Park personnel have expressed concerns, however, that the motor could pose a fire hazard.

Recommendations:

- Clean luminaires and re-lamp with LED equivalent lamps.
- Replace alcove luminaires that are mounted at the mezzanine level. Consider the use of color-changing LED fixtures. The existing luminaires have blue, red, and orange lenses. These lenses will not be necessary if luminaires with color-changing LEDs are installed.

- Investigate the motor for the mirror ball to determine whether it is listed by a nationally recognized testing laboratory (NRTL).

Mezzanine Lighting:

The fluorescent luminaires in the storage room (unoccupied space) on the mezzanine level appear to be in good condition.

Recommendations:

- To support converting the mezzanine space from storage to administrative use, replace the fluorescent luminaires with LED volumetric lensed luminaires to provide a glare control and a finished appearance to the space.
- If the function and use of the mezzanine will remain, retain the luminaires, or replace with LED equivalents (or retrofit with LED) when ballasts fail.

Photo E45: Suspended Fluorescent Luminaire in Mezzanine

Lighting Control Observations and Recommendations

Lighting control in support spaces is currently provided by manual toggle switches.

Automatic lighting control in toilet rooms is provided by wall mounted occupancy sensors.

Recommendations:

- In support spaces, provide automatic lighting controls consisting of ceiling or wall mounted occupancy/vacancy sensors in offices, storage rooms, and similar spaces.
- Replace wall switch occupancy sensors in toilet rooms with ceiling mounted occupancy sensors.

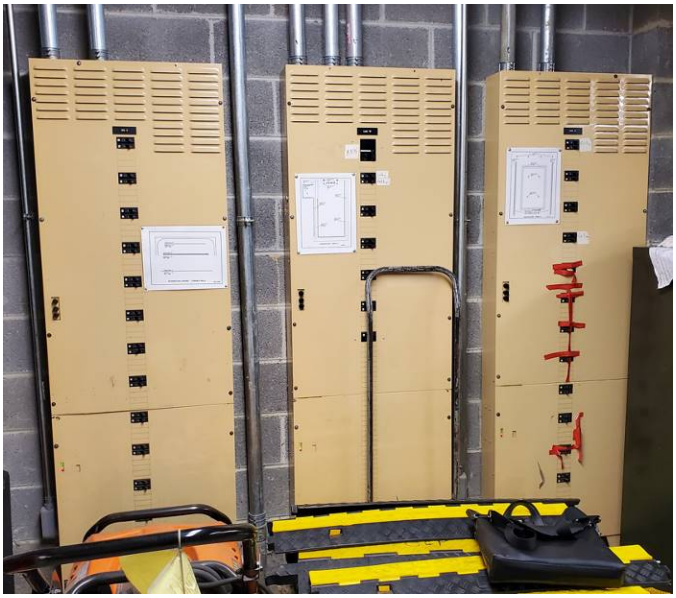
Theatrical/Architectural Lighting Controls

Dimmer panels WD5, A, and B appear to be in fair condition. As mentioned previously, 12 circuit breakers at pole no's 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 21, and 22 in Panel A have been taped in the

"off" position with red electrical tape. These 12 circuit breakers appear to serve the uplights in the false clerestory openings at the mezzanine level. It is presumed that the circuit breakers have been taped in the "off" position because the luminaires are no longer in working condition. Park staff confirmed that the lighting controls do not currently work.

Recommendations:

- While the Lehigh dimmer racks are in fair condition, the technology is obsolete and several of the circuits are not working. If significant quantities of luminaires will be replaced with LED lighting, the dimming control system should be replaced since the technology will not support LED lighting.
- Provide lighting control stations for technical/performance functions in the mezzanine area.



Photos E46: Dimmer Racks

PLUMBING SYSTEM (HENRY ADAMS)

PHYSICAL CONDITIONS - PLUMBING

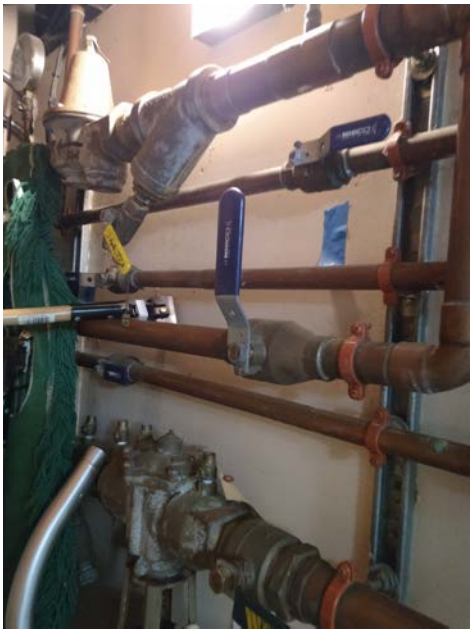
Domestic Water:

The 2" incoming domestic water enters the building within 108 Janitor's Closet. The incoming service has a reduced pressure zone backflow preventer and a pressure reducing valve (PRV). The PRV is set to limit the pressure to 80 psi.

The domestic water piping is distributed to the plumbing fixtures within 106 Women's Toilet, 107 Men's Toilet and 108 Janitor's Closet and the drinking water cooler in the Ballroom. The piping is copper.

There is a separate 1-1/2" incoming domestic water line that serves the Concessions.

- The domestic water piping that is visible is in good condition.
- The backflow preventer is in fair condition. It is starting to show some corrosion.
- The piping that is visible is not insulated.

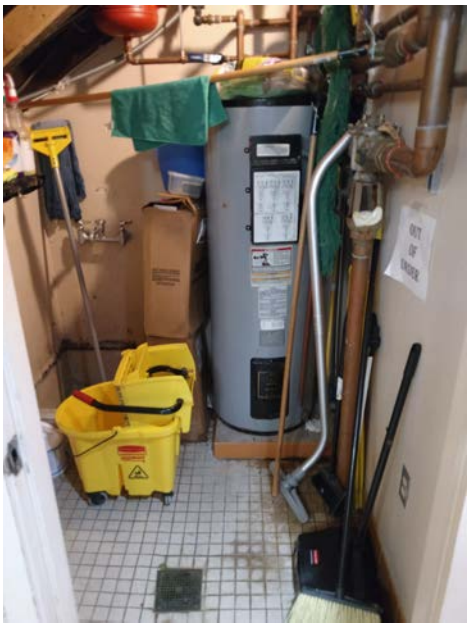


Picture 01: Domestic water Piping

Domestic Hot Water:

There is an electric domestic water heater located in 108 Janitor's Closet. It is not known what the electrical input kW is. It has a storage capacity of 50 gallons. This water heater serves the fixtures in 106 Women's Toilet, 107 Men's Toilet, and 108 Janitor's Closet.

- The domestic water heater was installed in 2003 and is in fair condition. The typical life expectancy for domestic water heaters is 15 years, so it is past its life expectancy.
- There is no drain pan underneath the water heater.



Picture 02: Domestic Water Heater

Sanitary System:

A 4" sanitary main exits the north side of the building at the restrooms below grade. This sanitary main serves the two Restrooms, Janitor's Closet and the drinking water cooler in the Ballroom.

Another 4" sanitary main exits the north side of the building at the Concessions. This sanitary main only serves the fixtures in the Concessions.

There is a floor drain in 005 Storage, but it is not known where the sanitary line leaves the building.

The condition of the sanitary system is not known, but assumed to be in good condition as it was installed in 2003.

Picture 03: 005 Storage Floor Drain

Storm Water System:

The flat portions of the roofs are drained via roof drains and internal storm water piping. The sloped roofs are drained by gutters and downspouts. Some of the downspout's discharge to grade and some are hard piped below grade. The secondary roof drainage is via scuppers and downspouts which discharge to grade.

- Many of the scuppers are very clogged with leaves.
- The dome strainers on the roof drains are in fair condition and are rusted.
- The gutters and downspouts are in fair condition.

Picture 04: Scupper Clogged with Leaves

Picture 05: Roof Drain

Picture 06: Downspout

Plumbing Fixtures:

106 Women's Toilet has (7) Tank Type Water Closets and (3) countertop lavatories with manual faucets. Two of the water closets are ADA. The flush handle for the ADA water closets are on the wrong side of the water closet and therefore not ADA compliant. There is a single floor drain in the center of the restroom. These plumbing fixtures are in good condition.

Picture 07: 106 Women's – Water Closet

Picture 08: 106 Women's – Lavatories

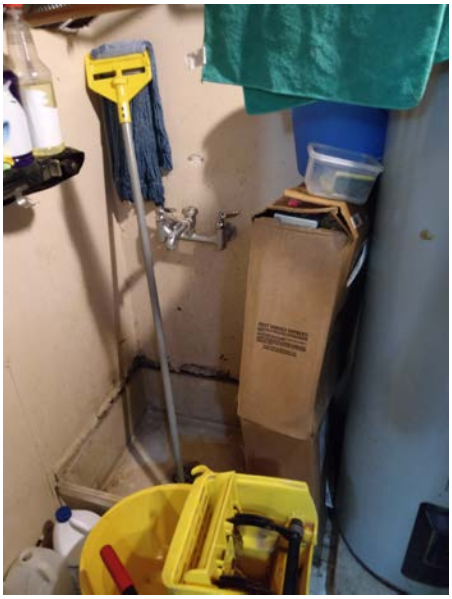
107 Men's Toilet has (3) Tank Type Water Closets, (3) urinals with manual flush valves, and (3) countertop lavatories with manual faucets. One of the water closets is ADA. The flush handle for the ADA water closet is on the wrong side of the water closet and therefore not ADA compliant. There is a single floor drain in the center of the restroom. These plumbing fixtures are in good condition.

Picture 09: 107 Men's – Water Closet

Picture 10: 107 Men's – Urinal

Picture 11 – 107 Men's - Lavatories

108 Janitor's Closet has a floor mounted mop sink. The mop sink is in fair condition.



Picture 12: 108 Janitor's - Mop Sink

The Ballroom has (2) bi-level drinking water coolers. These are in good condition.

Picture 13: Drinking Water Cooler

There is a wall hydrant on the exterior of the north wall at the restrooms. The wall hydrant is in fair condition.

There is a floor drain in 005 Storage adjacent to the air handling unit. This floor drain is in fair condition and has a lot of dirt and debris in it.

RECOMMENDATIONS - PLUMBING

- Replace the flush handles on the ADA water closets so that they are on the correct side per ADA requirements. This is a high priority item.
- Replace the domestic water backflow preventer. This is a low priority item.
- Replace the domestic water heater. The domestic water heater can just be replaced in kind. When the water heater is replaced a drain pan should be placed beneath it. This is a medium priority item.
- Replace the floor drain in 005 Storage. This is a medium priority item.
- All of the roof drains, scupper, gutters, and downspouts should be cleaned. This is a high priority item.
- Replace the dome strainers on the roof drains. This is a low priority item.

FIRE PROTECTION (GHD)

Spanish Ballroom

Fire Protection Conditions Assessment

GWWO Architects

10 April 2023

→ **The Power of Commitment**

Project name	GLEC 317353
Document title	Spanish Ballroom | Fire Protection Conditions Assessment
Project number	12590339
File name	Document1

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Executive summary

The building is provided with existing dry pipe sprinklers throughout, providing complete protection of the existing building. The system is potentially beyond its expected lifespan but appeared to be in good condition at the time of survey. The existing system is recommended to remain in place with continued maintenance but should be replaced at the first signs of system failure or with building upgrades.

The building has an existing Edwards E-FSA Fire Alarm Control Panel with horn and strobe notification throughout, as well as manual pull stations and smoke detectors located in areas not normally occupied. The fire alarm control panel is now obsolete and is no longer supported by the manufacturer, so should be upgraded or replaced with building upgrades. The building will also require voice notification where occupancy in an Assembly use space exceeds 300 people, so the notification system should be updated to accommodate a voice fire alarm system.

Contents

1. Introduction **1**

1.1 Purpose of this report 1

1.2 Scope and limitations 1

1.3 Applicable Codes and Standards 1

2. Fire Suppression Systems **2**

2.1 Existing Fire Suppression System Description & Observations 2

2.2 Fire Suppression Recommendations 4

3. Fire Alarm Systems **4**

3.1 Existing Fire Alarm System Description & Observations 4

3.2 Fire Alarm Recommendations 7

1. Introduction

1.1 Purpose of this report

This document serves as the Fire Protection Historic Structures existing conditions site assessment narrative of the Spanish Ballroom in Glen Echo Park, MD. This document should be used as a fire suppression and fire alarm system reference by the design team throughout subsequent phases of the project.

1.2 Scope and limitations

This report: has been prepared by GHD for GWWO Architects and may only be used and relied on by GWWO Architects for the purpose agreed between GHD and GWWO Architects.

GHD otherwise disclaims responsibility to any person other than GWWO Architects arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

1.3 Applicable Codes and Standards

The project will be designed in accordance with the following applicable International Code Council Model Codes, National Fire Protection Association Codes, and Federal Government Regulations, Standards, and guidelines.

Denver Service Center (DSC) Requirements

National Park Service (NPS) Requirements

International Code Council (Per the Denver Service Center)

- IBC 2021, Including Appendices (International Building Code)
- IEBC 2021, Including Appendices (International Existing Building Code)

National Fire Protection Association Codes

- NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2019
- NFPA 25, *Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems*, 2020
- NFPA 70®, *National Electric Code®*, 2020
- NFPA 72®, *National Fire Alarm and Signaling Code®*, 2019
- NFPA 101®, *Life Safety Code®*, 2021
- NFPA 170, *Standard for Fire Safety and Emergency Symbols,* 2021
- NFPA 914, *Fire Protection in Historic Structures*, 2019
- All other NFPA codes and standards, including recommended practices

Fire protection systems should strive to minimize required (NFPA 25/NFPA 72) Inspection, Testing, and Maintenance (ITM).

Montgomery County, MD Requirements

- Montgomery County, MD Local Amendments
  - IBC 2018, ER 31-19

- NFPA 70, ER 23-19
- NFPA 72, 2013, ER 7-16
- NFPA 1 & 101, 2015, ER 8-16
- NFPA 13, 2013, ER 7-16

2. Fire Suppression Systems

2.1 Existing Fire Suppression System Description & Observations

At the time of survey, the existing Spanish Ballroom structure was fully sprinklered with dry pipe sprinklers throughout, including coverage within the Ballroom, the attic space above the Ballroom, and the unfinished under-floor area beneath the Ballroom. Sprinkler coverage was also provided at the top of all stair tower shafts. The dry pipe systems were served by three dry valves located in the Basement Sprinkler Room. The system was installed in 2001 but appeared to be in good working condition at the time of survey, with no leaks or pressure losses reported. Generally, dry pipe sprinkler systems have a life expectancy of 8-12 years, making this 22-year-old system well beyond its expected service life.

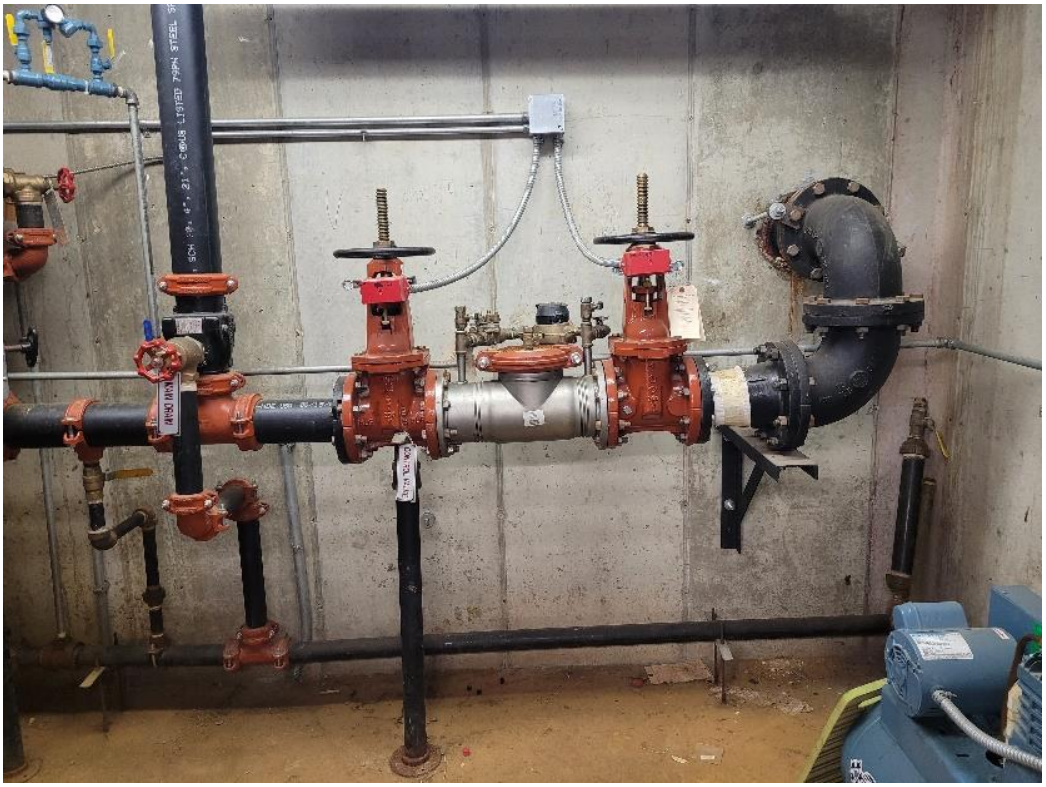


Figure 1 Incoming water supply and backflow preventer in Basement Sprinkler Room.

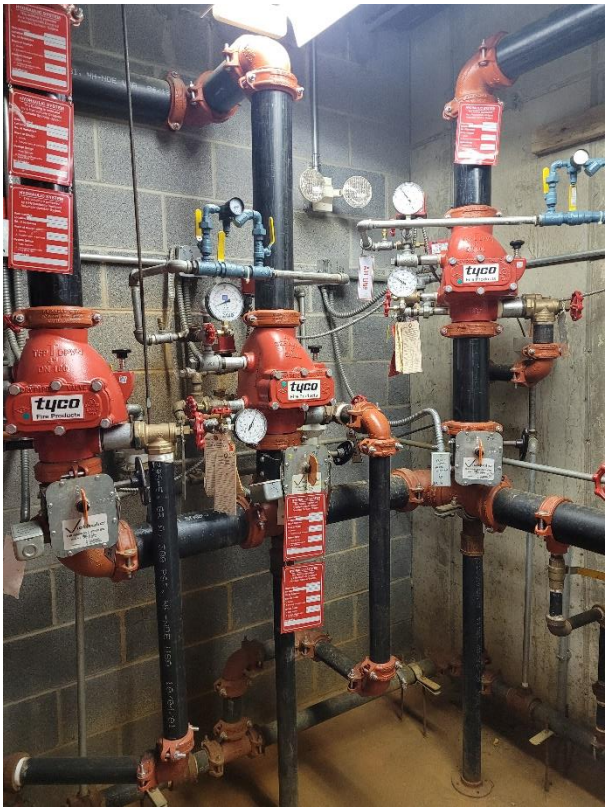


Figure 2 Three dry valves in Basement Sprinkler Room.

It appeared that ITM services for the sprinkler system were most recently provided by VSC Fire & Security: Fire Safety and Security Protection.

Though the sprinkler system appeared to be in good condition throughout the building, it was noted that several of the concealed type sprinklers in the ceiling of the Ballroom area had lost their cover plates.

Figure 3 Sprinklers in Ballroom ceiling missing cover plates.

The fire department connection was wall mounted on the east building exterior, which appeared to be within 100 ft of the nearby fire hydrant located at the north side of the northeast corner of the building.

Figure 4 Fire Department Connection on East side of building.

2.2 Fire Suppression Recommendations

In future, if the building should be provided with conditioning throughout to maintain a minimum temperature of 40F, it would be possible to switch over from dry pipe sprinklers to wet pipe sprinklers, which have a longer life span and require less maintenance. If certain areas cannot be maintained at 40F, such as the attic space above the Ballroom would not be conditioned, a dry system would remain necessary.

It should be noted that the dry pipe system is not installed as a measure of historic preservation, as the system is not interlocked and will activate upon the opening of any loss of pressure in the system. The dry pipe system is installed in this building only because of the lack of conditioning. Otherwise, a wet pipe system would be preferable. Dry systems require air compressor maintenance, as well as other additional maintenance requirements, and are more prone to leaks from corrosion than a wet pipe sprinkler system.

It is recommended that no action need be taken at this time and that the existing fire suppression should be maintained until further issues arise, or new work and upgrades to other systems are planned for the building.

3. Fire Alarm Systems

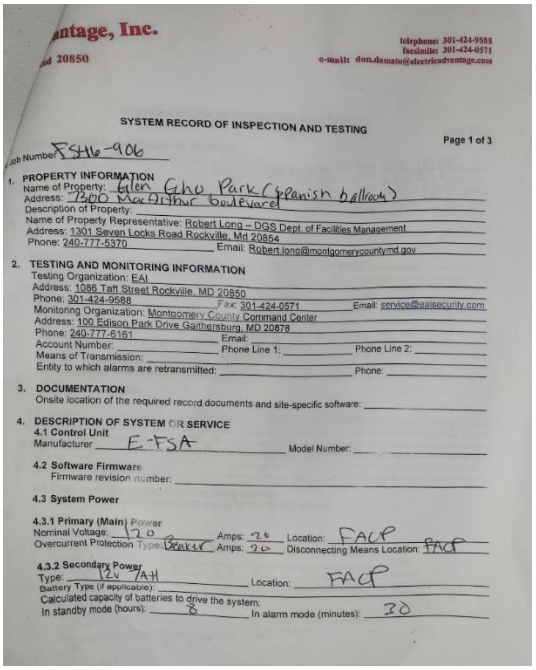
3.1 Existing Fire Alarm System Description & Observations

The building was provided with an Edwards E-FSA Fire alarm control panel with Starlink commercial fire alarm communicator located in the Basement Electrical Room. The fire alarm system consisted of manual initiation provided at the building exits with smoke detection in storage areas and other areas that were not normally occupied, above the panels, above the stage, and in the towers. Notification was provided via horns/strobes located throughout the building. The fire alarm annunciator was located in the Support Lobby on the First Floor.

Figure 5 Edwards E-FSA Fire Alarm Control Panel and Starlink communicator in Basement Electrical Room.

Figure 6 Fire Alarm Remote Annunciator located in the First Floor Support Lobby.

It appeared that ITM services for the fire alarm system were most recently provided by Electric Advantage, Inc.



ntage, Inc.
d 20850
telephone: 301-424-9588
facsimile: 301-424-0571
e-mail: don.damato@electricadvantage.com

SYSTEM RECORD OF INSPECTION AND TESTING

Page 1 of 3

Job Number FSH6-906

1. PROPERTY INFORMATION
Name of Property: Glen Echo Park (Spanish ballroom)
Address: 7300 MacArthur Boulevard
Description of Property:
Name of Property Representative: Robert Long – DGS Dept. of Facilities Management
Address: 1301 Seven Locks Road Rockville, Md 20854
Phone: 240-777-5370 Email: Robert.long@montgomerycountymd.gov

2. TESTING AND MONITORING INFORMATION
Testing Organization: EAI
Address: 1086 Taft Street Rockville, MD 20850
Phone: 301-424-9588 Fax: 301-424-0571 Email: service@eaisecurity.com
Monitoring Organization: Montgomery County Command Center
Address: 100 Edison Park Drive Gaithersburg, MD 20878
Phone: 240-777-6161 Email:
Account Number: Phone Line 1: Phone Line 2:
Means of Transmission:
Entity to which alarms are retransmitted: Phone:

3. DOCUMENTATION
Onsite location of the required record documents and site-specific software:

4. DESCRIPTION OF SYSTEM OR SERVICE
4.1 Control Unit
Manufacturer E-FSA Model Number:
4.2 Software Firmware
Firmware revision number:
4.3 System Power
4.3.1 Primary (Main) Power
Nominal Voltage: 120 Amps: 20 Location: FACP
Overcurrent Protection Type: Breaker Amps: 20 Disconnecting Means Location: FACP
4.3.2 Secondary Power
Type: 12V 7AH Location: FACP
Battery Type (if applicable):
Calculated capacity of batteries to drive the system:
In standby mode (hours): 8 In alarm mode (minutes): 30

Figure 7 ITM Maintenance port at Fire Alarm Control Panel

Smoke detection was provided in areas not normally occupied, above the stage, and in the towers. Manual pull stations were provided at exits. Notification was provided throughout with horns and strobes.

Figure 8 Smoke detectors located throughout normally unoccupied areas of building.

Figure 9 Horn strobe and manual pull stations installed at site.

A duct smoke detector appeared to have been removed from the ductwork in the attic space, but it was not clear if the observed device was extra unused equipment or if the system had been dismantled. The fire alarm control panel indicated system normal status, which implied that all programmed devices were installed correctly without trouble or supervisory signals.

Figure 10 Duct smoke detector was observed on the floor in the Attic space at the time of survey. System does not appear to be in trouble or supervisory mode, indicating that this may have been an extra device.

3.2 Fire Alarm Recommendations

The Edwards E-FSA fire alarm control panel is no longer supported by the manufacturer and has been replaced by the Edwards FX-64. It is recommended that if the building undergoes major renovations, the panel should be upgraded to the newer system, maintaining existing circuitry and field devices if possible. The horn strobes appeared to also be models that are no longer supported by the manufacturer and should be replaced with the rest of the system upgrade.

The current edition of NFPA 101 also requires that Assembly use occupancies with occupant loads greater than 300 shall be provided with a voice fire alarm system, which would be applicable to this space. For this reason, the existing fire alarm notification would need to be upgraded to include a voice system.

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Appendix L: Memo on Swastika Floor Tiles (BCA)

BCA

MEMO

To:	GWWO Architects
From:	Building Conservation Associates, Inc.
Date:	October 16, 2023
Subject:	Spanish Ballroom – Swastika Floor Tiles

Introduction

This memo has been prepared by Building Conservation Associates, Inc. (BCA) at the request of Darren Fraser of the National Park Service's (NPS) George Washington Memorial Parkway (GWMP). It addresses correspondence by Glen Echo Park Partnership for Arts & Culture (GEPPAC) board member Barbara Martin regarding the presence of six inset floor tiles in the main lobby of the Spanish Ballroom that feature a swastika symbol. This correspondence suggested that the misinterpretation of these floor tiles could result in damaging press for the park, the GEPPAC board, and the NPS. The purpose of this memo is to provide important historical context about these floor tiles and make recommendations for their treatment.

Background Information

The Spanish Ballroom at Glen Echo Park was designed by Philadelphia-based architect Edward Schoeppe in 1931 and constructed in 1933. Schoeppe designed the ballroom in conjunction with the Crystal Pool as an entertainment complex at the southwest edge of the park. The park's manager, Leonard B. Schloss, commissioned the elaborate ballroom as a culmination of his investment—starting in 1911—in dancing as a park attraction. Schoeppe conformed the design of the ballroom primarily to the Spanish Colonial Revival architectural style, which gained popularity at international expositions beginning in 1915 and spread to amusement parks. He also added colorful Art Deco details, particularly at the interior, as a way to feature of-the-moment design trends.

The main lobby at the northeast side of the building features a tile floor of four-square-inch red quarry tiles and two-square-inch colorful decorative inset tiles (Figure 2). The companion firms U.S. Quarry Tile Company and the Sparta Ceramic Company, both of East Sparta, Ohio, manufactured the floor tiles. The extant inset tiles at the Spanish Ballroom include 15 different design motifs, including a swastika (Figure 3). A 1940 Sparta Ceramic Company catalog features 13 of these motifs, although by the time it was published the swastika option had been removed from the catalog (Figure 4-Figure 5).[1]

The main lobby was the primary point of access for the building between 1933 and 1960 when new owners, the Rekab Corporation, had the northeast part of the building converted into a ride called Jungleland. This ride primarily occupied the main lobby and the northeast mezzanine area. It is unknown whether the lobby floor remained exposed during its use as Jungleland or if it was covered. However, the amusement park closed in 1969 and by 1981, much of the infrastructure for the Jungleland ride had

[1] While Schoeppe likely selected tiles from the company catalog in 1932, BCA was not able to locate a catalog published prior to 1940.

been removed. Various repair and restoration campaigns, including a major restoration in 2002-2003, brought the building back to its pre-1960 condition and the main lobby once again became the primary entrance to the building.

At some point after the restoration, moveable mats were laid inside the lobby to prevent visitors from slipping on the tile floor. Because the location of the six existing swastika tiles is directly in front of the entrance doors, the mats completely obscure them and a number of the other inset tiles. It should be noted that 15 inset tiles are either missing or have been replaced with blanks; the design motifs of the missing tiles is not presently known. Also of note is the fact that the six tiles with the swastika motif are all of the left-facing type. It is not known if Sparta ever offered a right-facing option.

Historical Context and Interpretation

In order to understand why the swastika symbol was in the Sparta Ceramic Company's catalog in the early 1930s and why Edward Schoeppe may have selected it to be part of the Spanish Ballroom's lobby floor, it is critical to have a clear understanding of the symbol's historical and cultural contexts.

In the present day, the swastika is one of the most recognizable symbols of hate in the western world. Its association with the National Socialist German Workers' Party (Nazi) in Germany and the atrocities perpetrated by that regime in the 1930s and 1940s has, as the Anti-Defamation League (ADL) stated, "permanently converted the swastika into a symbol of hate, antisemitism, and infamy."[2] However, while western culture securely and justifiably associates the symbol with Nazi Germany and antisemitism, its use before the Nazi Party appropriated it in 1920 dates to some of the earliest developed cultures in history and, according to scholars, the swastika developed independently on multiple continents where it symbolized a variety of different meanings.

One of the earliest comprehensive studies of the swastika symbol was written in 1894 by Thomas Wilson, the curator of the Department of Prehistoric Anthropology for the Smithsonian Institution.[3] Wilson did not attempt to discover the earliest origin of the swastika symbol, as he believed it to have been formed before recorded history. However, he did state that, as opposed to simple forms like the line, circle, cross, and triangle, "the Swastika was probably the first [symbol] to be made with a definite intention and a continuous or consecutive meaning, the knowledge of which passed from person to person, from tribe to tribe, from people to people, and from nation to nation, until with possibly changed meanings, it has finally circled the globe."[4] Wilson identified various forms of the symbol and discussed its etymology and symbolism. He also identified the use of the swastika and its variations, as well as its migration, throughout diverse locations across the world including (Figure 6):[5]

- Asian Cultures: Japanese, Korean, Chinese, Tibetan, and Indian
- The "Classical Orient": Babylonian, Assyrian, Persian, Trojan, etc.
- African Cultures: Egyptian, Algerian, Asante
- The "Classical Occident": Greek, Bronze Age Europe, Etruscan
- North American Indigenous
- Central American Indigenous
- South American Indigenous

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[2] Anti-Defamation League, "Swastika," https://www.adl.org/resources/hate-symbol/swastika, accessed August 11, 2023.
[3] Thomas Wilson, *The Swastika: the earliest known symbol, and its migrations*, from the Report of the U.S. National Museum, Washington, DC: Government Printing Office, 1894, 757-1011.
[4] Wilson, 764.
[5] Wilson, 794.

While the development and meaning of the symbol within all of these cultures is important historical context for this memo, only a few select interpretations will be presented here. These include a description of the various forms of the swastika, an overall discussion of its meaning to these various cultures, how it came to be associated with the Nazi Party, and its usage in western culture before World War II.

Swastika Form and Variations

The form of the swastika is rooted in the cross. Wilson describes it as such: "The bars of the normal swastika are straight, of equal thickness throughout, and cross each other at right angles, making four arms of equal size, length, and style. Their peculiarity is that all the ends are bent at right angles and in the same direction, right or left."[6] Variations of this symbol include the spiral or ogee, the three-armed triskelion, the five or more armed, and the ogee with a circle (Figure 7).[7] The standard straight, four-armed version is the most common, and there does not appear to be a strong preference among the various cultural uses for right (卐) or left-facing (卍). The left-facing swastikas of the type found in the Spanish Ballroom are sometimes called *suawastika* or *aswastika* and while some scholars ascribe a slightly different meaning to this type versus the right-facing, there was generally little historical difference.[8] Another version is the *fylfot*, which is similar to the typical swastika, although the bent extensions are shorter. The fylfot is understood to be an Anglo-Saxon and Christian icon.

Etymology and Meaning

The etymology of the word swastika is also closely tied to its overall meaning, although both the name and the meaning varies slightly between the cultures that use it. The word "swastika" comes from two Sanskrit words: *su* and *asti*, which at their most basic translation mean "good" or "well" and "being", respectively. In the Sanskrit Vedas (religious texts), the symbol was called a *svasti*. When the word was adopted by early Greek-speaking cultures, the *ka* was added at the end to signify a substantive noun.

While, as Wilson notes, the symbol existed before the Sanskrit name was given to it, in the western world, the use of the word swastika to represent this symbol is typically attributed to the discovery of the symbol on numerous archaeological objects at the ancient city of Troy in present-day Turkey by German archaeologist Heinrich Schliemann in the 1870s. In Schliemann's publication of his discoveries, Oxford professor Max Müller wrote:

> Ethnologically, *svastika* is derived from *svasti*, and *svasti* from *su*, 'well,' and *as*, 'to be.' *Svasti* occurs frequently in the Veda, both as a noun in the sense of happiness, and as an adverb in the sense of 'well,' or 'hail!' The derivative *swasti-ka* is of later date, and it always means an auspicious sign, such as are found most frequently among Buddhists and Jainas. It occurs often at the beginning of Buddhist inscriptions, on Buddhist coins, and in Buddhist manuscripts…In the foot-prints of Buddha the Buddhists recognize no less than sixty-five auspicious signs, the first of them being the *Svastika*. The fourth is the *Sauvastika* (left-facing swastika); the third the *Nandyávarta*, a mere development of the *Svastika*.[9]

[6] Wilson, 767.
[7] Wilson, 768.
[8] W. Norman Brown, Ph.D. *The Swastika: A Study of the Nazi Claims of its Aryan Origin*, New York: Emerson Books, Inc., 1933, 18.
[9] Max Müller, "The Svastika and Sauvastika," in *Ilios: The City and Country of the Trojans* by Dr. Heinrich Schliemann, New York: Harper & Brothers, 1880, 347.

Müller also tried to convince Schliemann not to use the word swastika to refer to this symbol for any of its iterations outside of India, as "It is a word of Indian origin, and has its history and definite meaning in India."[10]

Wilson's description of the swastika's symbolism and interpretation demonstrates the highly varied usage in various cultures around the world, although it is often attributed to a deity. He wrote:

> What seems to have been at all times an attribute of the Swastika is its character as a charm or amulet, as a sign of the benediction, blessing, long life, good fortune, good luck. This character has continued into modern times, and while the Swastika is recognized as a holy and sacred symbol by at least one Buddhist sect, it is still used by the common people of India, China, and Japan as a sign of long life, good wishes, and good fortune.[11]

Wilson also noted that "Whatever else the sign Swastika may have stood for, and however many meanings it may have had, it was always ornamental. It may have been used with any or all of the above significations, but it was always ornamental as well."[12]

In North America, the swastika has strong ties to indigenous communities, particularly those in the southwestern United States including the Navajo (or Diné), Hopi, Apache, and Tohono O'odham. According to UC Irvine professor Dennis J. Aigner, in the Navajo culture, the symbol, called the Whirling Logs, "recalls the sacred number four in many ways: the four seasons, the four directions, and the four sacred mountains. Native artists in the Southwest used the whirling logs design in many art forms, including weavings, silverwork, and basketry, between the years 1890 and 1940."[13]

Western Usage in the Early 20th Century

By the early 20th century, the popularization of the discoveries at Troy and western travel to Asia led to the proliferation and appropriation of the swastika in numerous ways throughout western culture. The swastika's meaning of well-being, good fortune, and blessing led it to be used often as an architectural motif and in advertising. This meaning also led to the symbol being drawn on the original spinner nose cone of the Spirit of St. Louis before Charles Lindbergh's historic first solo transatlantic flight in 1927 (Figure 8). The swastika's roots in North America with the Navajo and other indigenous cultures led to the Arizona State Highway Department using it on their road signs in the 1920s (Figure 9).

It was also commonly used as a symbol by various military organizations during World War I, including several in the United States such as the 45th Infantry Division of the U.S. Army, the Lafayette Escadrille squadron, and the U.S. Army 12th Infantry Regiment (Figure 10-Figure 12). Several social clubs and sports teams also featured the swastika including a Ladies' Home Journal-sponsored Girl's Club whose magazine was called *The Swastika*, and the Boston Braves professional baseball team, who wore a swastika emblem on their jerseys in 1914, possibly because of its association with indigenous cultures. In 1912, a minor league baseball team from Cañon City, Colorado, called themselves "The Swastikas." A large range of commercial advertisements in the U.S. also used the swastika. Coca-Cola produced metal watch fobs with this symbol and used it in advertisements for its "Drink a Bottle of Coca-Cola and be Lucky" campaign in the 1920s (Figure 13-Figure 15).

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[10] Müller, 346.
[11] Wilson, 770-1.
[12] Wilson, 771.
[13] Dennis J. Aigner, "A Brief History of the Swastika Symbol and Its Use in Navajo Weaving," Millicent Rogers Museum, https://www.millicentrogers.org/pages/a-brief-history-of-the-swastika-symbol-and-its-use-in-navajo-weaving-with-author-dennis-agner, accessed August 11, 2023; Dennis J. Aigner, "Whirling Log: The Swastika Symbol in Navajo Textiles," *DAI Press*, https://whirlinglog.com/home, accessed August 30, 2023.

The swastika motif can also be found on numerous government buildings throughout the country, including the Marriner S. Eccles Federal Reserve Board Building in Washington, D.C. (built 1935-1937); the U.S. Courthouse in Albuquerque, New Mexico (built 1930); and several early 1930s post offices (Figure 15-Figure 18). Several religious buildings that highlight the world's religions in their architectural iconography feature the swastika, including the Bahá'í Faith's House of Worship in Wilmette, Illinois (built 1926-1957) and the Transfiguration Episcopal Church in New York City (built 1849-1926) (Figure 19). Similar to the Spanish Ballroom, the swastika motif was typically featured near entrances to buildings and often on tile or mosaic floors, as in the example of the Yale University Library (built 1930) and the James A. Garfield Monument in Cleveland, Ohio (built 1890) (Figure 20). Its position at building entrances likely served as a blessing and apotropaic symbol.

As at the Spanish Ballroom, the swastika was a commonly used American ceramic-tile motif. Until the late 1930s, well-known tile manufacturing companies across the country featured the swastika motif in their tile designs. These included the Moravian Pottery and Tile Works in Doylestown, Pennsylvania (Figure 21); Enfield Pottery and Tile Company in Enfield, Pennsylvania (Figure 22); Franklin Tile Company in Lansdale, Pennsylvania (Figure 23)[14]; Cambridge-Wheatley Pottery Company in Cincinnati, Ohio (Figure 24); and the Mueller Mosaic Company in Trenton, New Jersey, among others. Fabricators of other interior decorative items, such as rugs, light fixtures, and wall stencils, also used the swastika motif (Figure 25). Sears, Roebuck and Company even featured a black, red, and white swastika motif in their 1910 "Tilebook" catalog (Figure 26). In general, U.S. tile manufacturing companies, including Sparta, removed the swastika from their catalog during the 1930s due to its association with the Nazis.

Appropriation by the Nazi Party

Schliemann and Müller's discoveries and interpretations of the swastika symbol at Troy led later scholars, including Wilson, to identify it as "the oldest Aryan symbol."[15] In this early context, the word Aryan signified a connection with an ethnocultural group that spoke Vedic Sanskrit and identified with Vedic cultural customs. However, by the mid- to late-19th century, a racially focused misinterpretation of the term was championed by white supremacists who used it to identify a singular race of people descended from pre-historic Northern Europeans. It was this misinterpretation that the Nazi Party exploited as it sought to characterize white Germans as a superior race.[16] Because of the swastika's already widespread usage and its connection with ancient cultures and their deities, the Nazi Party selected this symbol as their icon. They emblazoned their flag with a black right-facing swastika at a 45-degree angle, set within a white circle on a red field (Figure 27).

Interestingly, in describing the creation of the Nazi Party flag in *Mein Kampf*, Adolph Hitler did not use the word swastika to refer to the symbol. Instead, he used only the German word *Hakenkreuz*, translated as "hooked cross." This has been taken by some, including Nikunj Trivedi, the head of the Coalition of Hindus in North America, and journalist Rakesh Krishnan Simha, to posit that this was a conscious decision on Hitler's part to invoke the history and meaning of the swastika without tying the Nazi Party to cultures to which they viewed themselves as superior.[17] Several other scholars believed

[14] Information and examples were provided by the Tile Heritage Foundation and the Moravian Pottery and Tile Works.
[15] Wilson, 770.
[16] Brown, 5-13.
[17] Nikunj Trivedi, "Wrongfully Accused: The Swastika is Not Hitler's Hakenkreuz," Coalition of Hindus in North America, https://cohna.org/swastika-is-not-hakenkreuz/, accessed August 11, 2023; Rakesh Krishnan Simha, "Lost in Mistranslation: Why the Hindu Swastika is nothing like the German Hakenkreuz," Indiafacts, https://web.archive.org/web/20200806151424/http://indiafacts.org/lost-in-mistranslation-why-the-hindu-swastika-is-nothing-like-the-german-hakenkreuz/, accessed August 11, 2023.

that Hitler first encountered the *Hakenkreuz* at Lambach Abbey, the Benedictine Catholic Monastery where he was educated as a child (Figure 28).[18]

Although the Nazi Party was formed and adopted the *Hakenkreuz* as its primary symbol in 1920, it began small and its rise to power in Germany did not culminate until 1933 when Hitler was appointed the Chancellor of Germany. At this time, the Nazi Party was only just beginning to assert its white supremacist beliefs in Germany and very few Americans were aware of the party's antisemitic rhetoric and racist ideologies before then. According to the U.S. Holocaust Memorial Museum, it wasn't until 1933 that journalists in the U.S. began reporting about the rising antisemitism in Germany and American Jewish organizations held protests and demonstrations to call attention to the mistreatment of Jews in Germany. The Nazi power in Germany leading up to World War II was not extensively and generally known in the U.S. until around 1936 when Germany remilitarized its border with France and the U.S. considered boycotting the Olympics in Germany.[19]

The Swastika After World War II

Because of the Nazi Party's appropriation of the swastika symbol, it has become inextricably linked to the genocide committed against European Jews, Roma, Sinti, and other persecuted groups between 1933 and 1945. Once these atrocities became widely known around the world, the traditional use of the swastika in publicly accessible materials by non-Nazi organizations in the United States was dramatically reduced, for fear of its misinterpretation as a Nazi symbol. As noted above, the tile manufacturing companies removed the symbol from their catalogs. Also, in 1940, several indigenous tribes, including the Navajo, Hopi, Apache, and Tohono O'odham, entered into an intertribal agreement whereby they would end the practice of using the whirling log motif.

Since World War II, the Nazi Party version of the symbol has been adopted by neo-Nazi and white supremacist groups around the world, to show their loyalty to the ideals extolled by the Nazis. According to the ADL:

> Since 1945, the swastika has served as the most significant and notorious of hate symbols, antisemitism and white supremacy for most of the world outside of Asia. Its display is prohibited in Germany and some other countries…In the United States, the swastika is overwhelmingly viewed as a hate symbol.
>
> The swastika as adopted by the Nazis has "arms" that hook to the right; later white supremacists maintained this tradition. Though sometimes more ignorant white supremacists accidentally render swastikas "backwards," the backwards or left-pointing swastika is typically the hallmark of someone not actually familiar with white supremacist iconography.

As noted in an article in *Smithsonian Magazine*, "Efforts to ban the display of the swastika and other Nazi iconography in the post-war years—including current German criminal laws that prohibit the public use of the swastika and the Nazi salute—seem to have only further enshrined the evil regime it was co-

[18] Trivedi.
[19] United States Holocaust Memorial Museum, "The United States and the Nazi Threat: 1933-1937," https://encyclopedia.ushmm.org/content/en/article/the-united-states-and-the-nazi-threat-1933-37?parent=en%2F3486, accessed August 14, 2023; Public Broadcasting System, "Nazis in the News: 1936," American Experience, https://www.pbs.org/wgbh/americanexperience/features/fight-nazis-news-1936/, accessed August 14, 2023.

opted by. Today the symbol remains a weapon of white supremacist groups around the world."[20] At Glen Echo Park, the Nazi swastika was worn by George Rockwell and his American Nazi Party as they counter-protested the civil rights demonstrations in 1960.

Comparative Examples

The concern brought up by Barbara Martin is not unprecedented. In just the last 15 years, there have been several instances in which architectural decorations from before World War II that featured swastikas have been criticized by members of the public and proposed for removal due to either their misinterpretation as a Nazi symbol or a general public discomfort with the symbol's use since its Nazi appropriation. In each of the cases presented below, the organizations tasked with the stewardship of these buildings considered the complaints about the swastikas and chose to take a variety of actions: retaining them as is, interpreting them with posted signage, covering them, or removing them. In several cases, public comments were solicited before decisions were made. Note that eight of these examples represent all that were found to be appropriate comparisons where institutional organizations dealt with pre-Nazi architectural details decorated with swastikas. Another example, from a privately-owned residential building, is included because the news report references comments from tile history and historic preservation experts.

- 2009—Bonneville County Courthouse, Idaho Falls, ID (built 1921): The courthouse, which is on the National Register of Historic Places (NRHP), features a white and red mosaic floor with a meander pattern that includes right-facing swastikas (Figure 29). During the restoration of the courthouse, it was proposed to remove the swastika symbol from the mosaic floor to eliminate the possibility of its misinterpretation as a Nazi symbol and to protect members of the public who might be offended or otherwise emotionally affected. Some of the tiles had previously been altered with white paint to make the swastikas appear to be a simple cross design. The County ultimately chose **not to eliminate the swastika**, as the National Park Service had previously told them that eliminating character-defining features could jeopardize the courthouse's listing on the NRHP.[21]
- 2015-2016—Longview Community Church, Longview, WA (built 1923): The church and local community debated for over a year about whether to remove around 60 inset floor tiles near the entrance that depict right-facing swastikas (Figure 30). The church is listed on the NRHP. Initially, the church's 25-person board voted to remove the tiles, although members of the community pushed back against the decision, and they were ultimately **left in place**.[22]
- 2016—Union County Courthouse, El Dorado, AR (built 1927): The courthouse, which is on the NRHP, features a tile floor with decorative inset tiles with designs that include left-facing swastikas (Figure 31). After an alderman posted a photo of a swastika tile on Facebook and demanded that they be removed, community members, misinterpreting them as a Nazi symbol, joined the call for their removal. However, County officials, noting that the tiles pre-dated

[20] Lorraine Boissoneault, "The Man Who Brought the Swastika to Germany, and How the Nazis Stole It," *Smithsonian Magazine*, https://www.smithsonianmag.com/history/man-who-brought-swastika-germany-and-how-nazis-stole-it-180962812/, accessed August 14, 2023.
[21] The Associated Press, "Idaho court won't remove pre-Nazi swastika tiles," *The San Diego Union-Tribune* (September 3, 2009), https://www.sandiegouniontribune.com/sdut-us-courthouse-swastikas-090309-2009sep03-story.html, accessed August 17, 2023; The Associated Press, "Courthouse to keep swastika décor," *The Lewiston Tribune* (September 4, 2009), https://www.lmtribune.com/northwest/courthouse-to-keep-swastika-decor/article_ffa8acb7-a833-55d4-9064-d1622d3ee470.html, accessed August 17, 2023.
[22] Shuly Wasserstrom, "Concern over swastika in historic church," *KOIN* (July 15, 2014), https://www.koin.com/news/concern-over-swastika-tile-in-historic-church/, accessed August 17, 2023; Marissa Luck, "Longview church debates its historical swastika tiles," *The Daily News* (March 16, 2016), https://www.heraldnet.com/news/longview-church-debates-its-historical-swastika-tiles/), accessed August 17, 2023.

World War II and were considered auspicious symbols for many religious groups, **elected to keep them**.[23]

- 2017—Asbury Hall, DePauw University, Greencastle, IN (built 1929): Asbury Hall is an academic building that features a tile floor with decorative inset tiles, including right-facing swastika designs, near the entrance (Figure 32). After Jewish students and the university's Hillel complained about the presence of the swastika tiles, the university considered removing them. However, other students and faculty advocated for them to remain, including a Hindu student who noted the swastika's auspicious meaning in his own religion and a Jewish faculty member who noted the distinction between the pre-Nazi symbol and the Nazi swastika. Ultimately, the university decided to **cover the tiles**, with the university's president noting that he believed them to not have artistic value or quality and that there was a potential for misinterpretation and offense of the university community. A Hindu student noted that there was little effort to include Southeast Asian voices during a forum on the tiles.[24]
- 2019—Corbin Hall, University of Montana, Missoula, MT (built 1927): Corbin Hall is a brick dormitory that features small left-facing swastika tiles on a concrete field in the transom of multiple windows (Figure 33). The university's diversity council recommended their removal in 2019; the university noted that people had been calling for their removal since the 1970s. Students and faculty came down on both sides of the issue. The Associated Students of the University of Montana (ASUM) passed a resolution supporting the council's recommendations, although nothing was done at the time. The ASUM passed another resolution in 2022 saying that despite the fact that the tiles are not connected to the Nazi Party, the Nazi appropriation has resulted in the symbol sending a hateful message.[25] **No action has been taken yet.**
- 2019—Bay Pines VA Hospital, St. Petersburg, FL (built 1933): The Bay Pines VA Hospital, which is on the NRHP, features decorative inset floor tiles, some of which display the fylfot-style swastika (Figure 34). A news outlet reported the presence of the tiles, initiating a debate within the hospital administration. The hospital decided to **keep the tiles in place and interpret them with plaques**.[26]

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[23] Kayla Lusby, "Swastika Symbol in Union County Courthouse," *myarklamiss.com* (October 25, 2016), https://www.myarklamiss.com/news/local-news/swastika-symbol-in-union-county-courthouse/, accessed August 17, 2023; Randal Curtman, "Loftin: Swastika part of historic design," *The El Dorado News-Times* (November 6, 2016), https://www.eldoradonews.com/news/2016/nov/06/loftin-swastika-tile-part-historic-design/, accessed August 17, 2023.

[24] Alaina Stellwagen, "Asbury tiles draw attention to religious symbols," *The DePauw* (September 20, 2017), https://thedepauw.com/asbury-tiles-draw-attention-religious-symbols/, accessed August 17, 2023; Bryttni Carpenter, "Swastika tiles will be covered up," *The DePauw* (December 6, 2017), https://thedepauw.com/swastika-tiles-will-covered/, accessed August 17, 2023.

[25] Stella Sun, "UM diversity group recommending removal of swastika-like symbols on campus building," *ABC FOX Montana* (December 10, 2019), https://www.montanarightnow.com/missoula/um-diversity-group-recommending-removal-of-swastika-like-symbols-on-campus-building/article_b6343fa0-1ba1-11ea-8156-7fb4fe6fa5fc.html, accessed August 17, 2023; Emily Tschetter, "ASUM approves land acknowledgement, calls for Corbin swastika tile removal," *Montana Kamin* (December 6, 2022), http://www.montanakaimin.com/news/asum-approves-land-acknowledgement-calls-for-corbin-swastika-tile-removal/article_71cad6e2-7596-11ed-b03a-179d7c8f408c.html, accessed August 17, 2023; Josie Hess, Asher Swan Adams, and O'Shay Birdinground, "SB09-22/23: Resolution Requesting the Removal of the Swastika Symbols from Corbin Hall," *Senate Resolutions, 2007-Present, ASUM Student Government* (November 18, 2022), https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=1993&context=asum_resolutions, accessed August 17, 2023.

[26] Grady Trimble, "This is why there are swastikas at a local VA hospital," *WTSP* (May 24, 2019), https://www.wtsp.com/article/news/local/this-is-why-there-are-swastikas-at-a-local-va-hospital/67-8905e542-d75c-4bb6-baa9-25c30c632645, accessed August 17, 2023; Courtney Goodwin, "Why a Florida VA hospital serving WWII veterans has swastika floor tiles," *Military Times* (May 29, 2019), https://www.militarytimes.com/2019/05/29/why-a-florida-va-hospital-serving-wwii-veterans-has-swastika-floor-tiles/, accessed August 17, 2023.

- 2019—School of Public Health, Indiana University, Bloomington, IN (built 1917): The IU School of Public Health (former Men's Gymnasium) featured decorative inset wall tiles that include right-facing swastika designs (Figure 35-Figure 36). The University had previously installed signage interpreting the tiles, although in 2019 it **decided to remove the signage**, perhaps because it drew attention to the tiles. A statement from the university said that history could be taught without exposing people to the troubling system and that the appropriation of the symbol by the Nazi Party obscures the previous religious meaning "in the deep past."[27]
- 2022—Hidden Villa, Los Altos, CA (built 1929): Hidden Villa, a local non-profit, built their camp in 1929 and decorated it with tiles featuring left-facing swastikas and other Buddhist symbols that they had purchased in 1913 (Figure 37). Several staff members quit in 2022, resulting in the cancellation of camp sessions, because the camp did not immediately remove the swastika tiles when requested. The camp began a process to consider how to handle the tiles in light of the complaints and **eventually removed them**.[28]
- 2018—Brooklyn Garden Apartments (built 1928): A final, non-institutional example, saw management of the apartment complex **refuse to remove** Mueller Mosaic Company floor tiles decorated with swastikas, despite complaints by some residents; other residents agreed with management's decision. A news report included comments from tile historian Vance Koehler of the Moravian Pottery and Tile Works and Columbia University Historic Preservation professor Andrew Dolkart, who both noted that these ornamental tiles were common to the time period.[29]

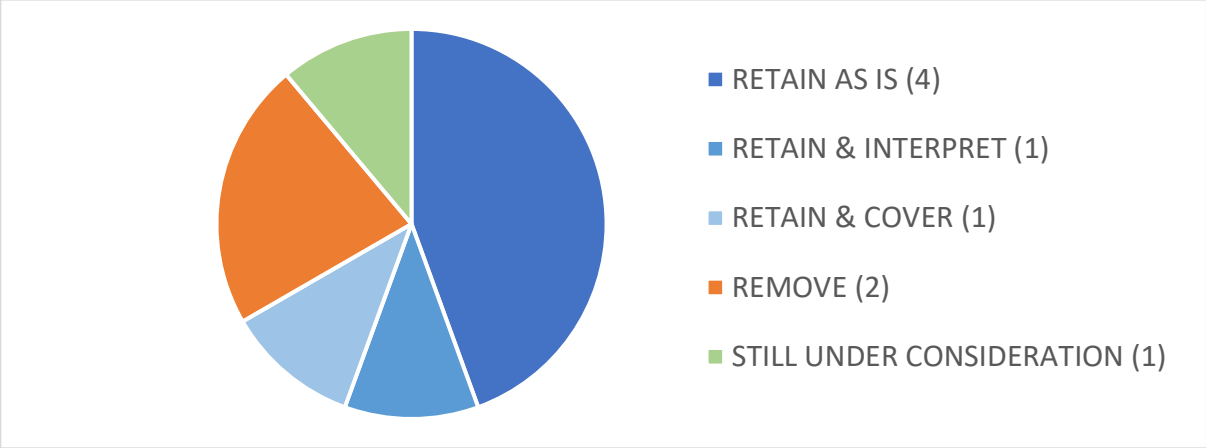


Figure 1. Graph showing the distribution of decisions made for comparative examples.

[27] Hope Schreiber, "Tiles featuring 'troubling' swastikas removed from Indiana University after 102 years," *Yahoo!Life* (July 10, 2019), https://www.yahoo.com/lifestyle/swastika-tiles-indiana-university-removed-094144873.html, accessed August 17, 2023; Michael Reschke, "Questions remain about decision to remove swastika tiles from IU building," *The Herald-Times* (July 11, 2019), https://www.heraldtimesonline.com/story/news/2019/07/11/questions-remain-about-decision-to-remove-swastika-tiles-from-iu-building/46664851/, accessed August 17, 2023.

[28] Emma Goss, "Uproar over historical pre-Nazi swastikas forces Bay Area summer camp to cancel sessions," *The Jewish News of Northern California* (June 16, 2022), https://jweekly.com/2022/06/16/uproar-over-historical-pre-nazi-swastikas-forces-bay-area-summer-camp-to-cancel-sessions/, accessed August 17, 2023; Jennah Pendleton, "Camp comeback: A year of reflection, change strengthens Hidden Villa," *Los Altos Town Center* (August 2, 2023), https://bloximages.newyork1.vip.townnews.com/losaltosonline.com/content/tncms/assets/v3/editorial/5/3f/53f92432-30af-11ee-b5fb-afb928d40091/64c97444435142.pdf.pdf, accessed August 17, 2023.

[29] Julianne McShane, *Brooklyn Paper*, "'Stika shock: Greenwood Heights building adorned with Nazi Symbol," https://www.brooklynpaper.com/stika-shock-greenwood-heights-building-adorned-with-nazi-symbol/, accessed October 16, 2023.

Treatment Recommendations

As described above, the swastika has a long history of use before the Nazi Party appropriated it and corrupted its meaning in the minds of people around the world. However, the swastika's significance as an auspicious symbol did not end with the Nazis. It is still in use by several cultures and religions, including Buddhists, Hindus, Jains, and Indigenous Americans, who reject that this important icon must now only be read as a symbol of hate. It is not, as the Indiana University statement noted, a meaning that is relegated to "the deep past." Unfortunately, extricating the symbol completely from the Nazis is not possible. To many, this symbol will forever represent the atrocities of the Holocaust and viewing a swastika, regardless of its context or historical meaning, may be traumatic. Because of its long and multi-faceted history, the swastika symbol holds varied but equally powerful meanings to different people, and prioritizing one meaning over another minimizes the cultural identities and lived experiences of peoples who do not hold to the same meaning. This is the challenge that the organizations above faced, and which the National Park Service is now charged with addressing.

In order to determine the appropriate course of action, it must first be understood that the swastika tiles in the Spanish Ballroom are not the *Hakenkreuz* of the Nazi Party and were not installed as symbols of hate. Instead, they were selected and installed at the entrance as a purely decorative way to welcome visitors and to wish them well. Furthermore, the misinterpretation, or fear of misinterpretation, of the swastika floor tiles as the Nazi *Hakenkreuz* is the result of a misunderstanding or ignorance of the historical context, historical precedent, and historical uses of the swastika. Intention is important and conflating the two symbols is dangerous, as it associates the swastika, traditionally meant to convey good luck and well-being, with the horrific atrocities perpetrated by the Nazis in the 1930s-1940s and neo-Nazi groups today. It also risks misaligning present cultural and religious usage of the swastika with hate groups as well as minimizing the impact and trauma of the *Hakenkreuz* when it is used intentionally as a hate symbol.

It should be noted that there does not appear to be any official federal, state, or local guidance on this topic. However, California recently passed a law that, while criminalizing the placement or display of the Nazi *Hakenkreuz*, specifically and intentionally states that the swastikas associated with Hinduism, Buddhism, and Jainism are not criminalized.[30]

The following are possible treatment options for the swastika tiles at the Spanish Ballroom.

- *Alternative #1: Preserve the Existing Condition (Recommended by BCA in keeping with the Secretary of the Interior's Standards)*. Part of the mission of the NPS is to "preserve unimpaired the natural and cultural resources" of the United States. The *Secretary of the Interior's Standards for the Treatment of Historic Properties* represent best practice for the stewardship of Glen Echo Park's historic resources. The Standards recommend the preservation of intact historic character-defining features and materials, and the six swastika tiles are intact character-defining features. Actions that could harm the historic character of a cultural resource are not recommended. Leaving the existing floor mats in place would not harm the historic material.
- *Alternative #2: Uncover and Interpret.* Displaying signage that interprets the cultural history of the tiles and the swastika is a proactive way to combat the misinterpretation of these tiles as Nazi symbols. It is also an opportunity for Glen Echo Park and NPS to engage in education and outreach and promote discourse on the symbol's historical and cultural significance. However,

[30] Sarah Goodman, "The Governor Signs Assemblymember Bauer-Kahan's Bill to Strengthen and Equalize Penalties for Using Symbols of Terror," *Rebecca Bauer-Kahan* (September 19, 2022), https://a16.asmdc.org/press-releases/20220919-governor-signs-assemblymember-bauer-kahans-bill-strengthen-and-equalize, accessed August 17, 2023.

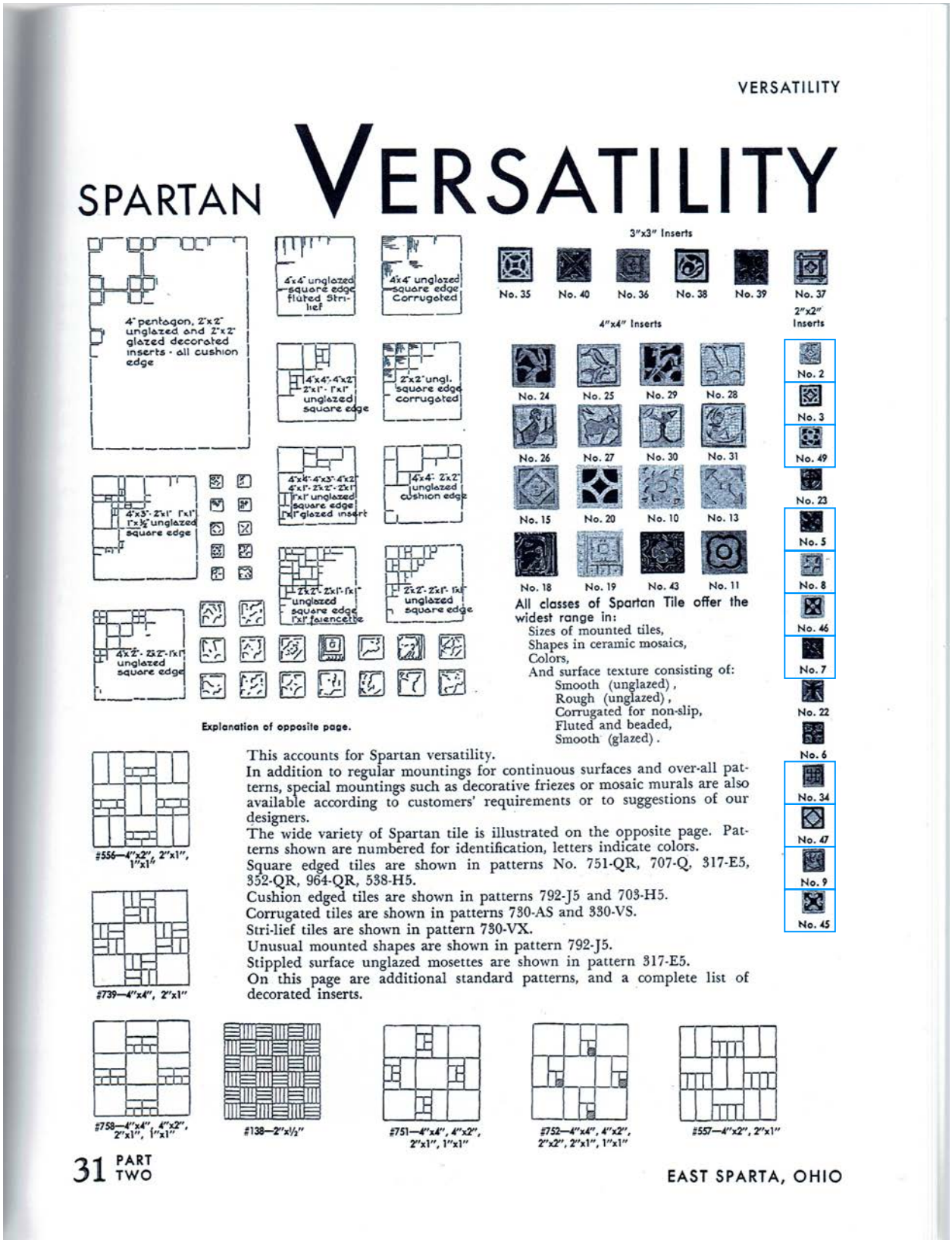
as seen in the Indiana University example above, installing signage calls attention to the tiles, which may not be desired. Moreover, interpretation with the floor mats in place may be confusing to the public and may result in visitors trying to remove the mats to see the tiles discussed in the signage.

- *Alternative #3: Obscure with a More Permanent Cover.* A more formal, permanent cover could be designed to completely conceal the swastika tiles, but the Standards do not recommend installing new material that obscures or damages character-defining interior features and finishes.
- *Alternative #4: Remove.* Altering features or finishes which are important in defining the overall historic character of a building so that, as a result the character is diminished, is not recommended. Beyond the damage removal would cause to the historic floor, removing non-Nazi-related swastikas ostensibly continues the cultural erasure that the Nazis perpetrated, and it sends a message to those who still use the swastika as a cultural or religious icon of well-being that their perspective is not valid and that they must sacrifice their symbol because of its misinterpretation.
- *Alternative #5: Interpret Without In-Situ Display*. This option allows Glen Echo Park and NPS to interpret the history of the swastika tiles via signage without leaving them displayed on the floor, by either installing a permanent cover or removing them and replacing them with blanks. Photographs or signage with the actual tiles could be incorporated into the display. While this option demonstrates an intent on the part of Glen Echo Park and NPS to counter potential misinterpretation, it is still not a preferred treatment option via the *Secretary of the Interior's Standards for the Treatment of Historic Properties* because of the damage this will cause to the historic floor and one of the building's character-defining features.

Figures

Figure 2. Spanish Ballroom lobby tile floor (Building Conservation Associates, 2023).

Figure 3. The 15 different 2"x2" tile designs in the Spanish Ballroom lobby floor (Building Conservation Associates, 2023).



VERSATILITY

SPARTAN VERSATILITY

4" pentagon, 2"x2" unglazed and 2"x2" glazed decorated inserts - all cushion edge

4"x4" unglazed square edge fluted Stri-lief

4"x4" unglazed square edge Corrugated

4"x4"-4"x2" 2"x1"-1"x1" unglazed square edge

2"x2" ungl. square edge corrugated

4"x3"-2"x1"-1"x1" 1"x½" unglazed square edge

4"x4"-4"x3"-4"x2" 4"x1"-2"x2"-2"x1" 1"x1" unglazed square edge 1"glazed insert

4"x4"-2"x2" unglazed cushion edge

4"x2"-2"x1"-1"x1" unglazed square edge

2"x2"-2"x1"-1"x1" unglazed square edge 1"x1" faïencette

2"x2"-2"x1"-1"x1" unglazed square edge

Explanation of opposite page.

3"x3" Inserts

No. 35 No. 40 No. 36 No. 38 No. 39 No. 37

4"x4" Inserts

No. 24 No. 25 No. 29 No. 28

No. 26 No. 27 No. 30 No. 31

No. 15 No. 20 No. 10 No. 13

No. 18 No. 19 No. 43 No. 11

2"x2" Inserts

No. 2 No. 3 No. 49 No. 23 No. 5 No. 8 No. 46 No. 7 No. 22 No. 6 No. 34 No. 47 No. 9 No. 45

All classes of Spartan Tile offer the widest range in:
Sizes of mounted tiles,
Shapes in ceramic mosaics,
Colors,
And surface texture consisting of:
Smooth (unglazed),
Rough (unglazed),
Corrugated for non-slip,
Fluted and beaded,
Smooth (glazed).

This accounts for Spartan versatility.
In addition to regular mountings for continuous surfaces and over-all patterns, special mountings such as decorative friezes or mosaic murals are also available according to customers' requirements or to suggestions of our designers.
The wide variety of Spartan tile is illustrated on the opposite page. Patterns shown are numbered for identification, letters indicate colors.
Square edged tiles are shown in patterns No. 751-QR, 707-Q, 317-E5, 352-QR, 964-QR, 538-H5.
Cushion edged tiles are shown in patterns 792-J5 and 703-H5.
Corrugated tiles are shown in patterns 730-AS and 330-VS.
Stri-lief tiles are shown in pattern 730-VX.
Unusual mounted shapes are shown in pattern 792-J5.
Stippled surface unglazed mosettes are shown in pattern 317-E5.
On this page are additional standard patterns, and a complete list of decorated inserts.

#556—4"x2", 2"x1", 1"x1"

#739—4"x4", 2"x1"

#758—4"x4", 4"x2", 2"x1", 1"x1"

#138—2"x½"

#751—4"x4", 4"x2", 2"x1", 1"x1"

#752—4"x4", 4"x2", 2"x2", 2"x1", 1"x1"

#557—4"x2", 2"x1"

31 PART TWO

EAST SPARTA, OHIO

Figure 4. Tile designs in the Sparta Ceramic Company 1940 catalog, some of which match those at the Spanish Ballroom (Courtesy of Tile Heritage Foundation).

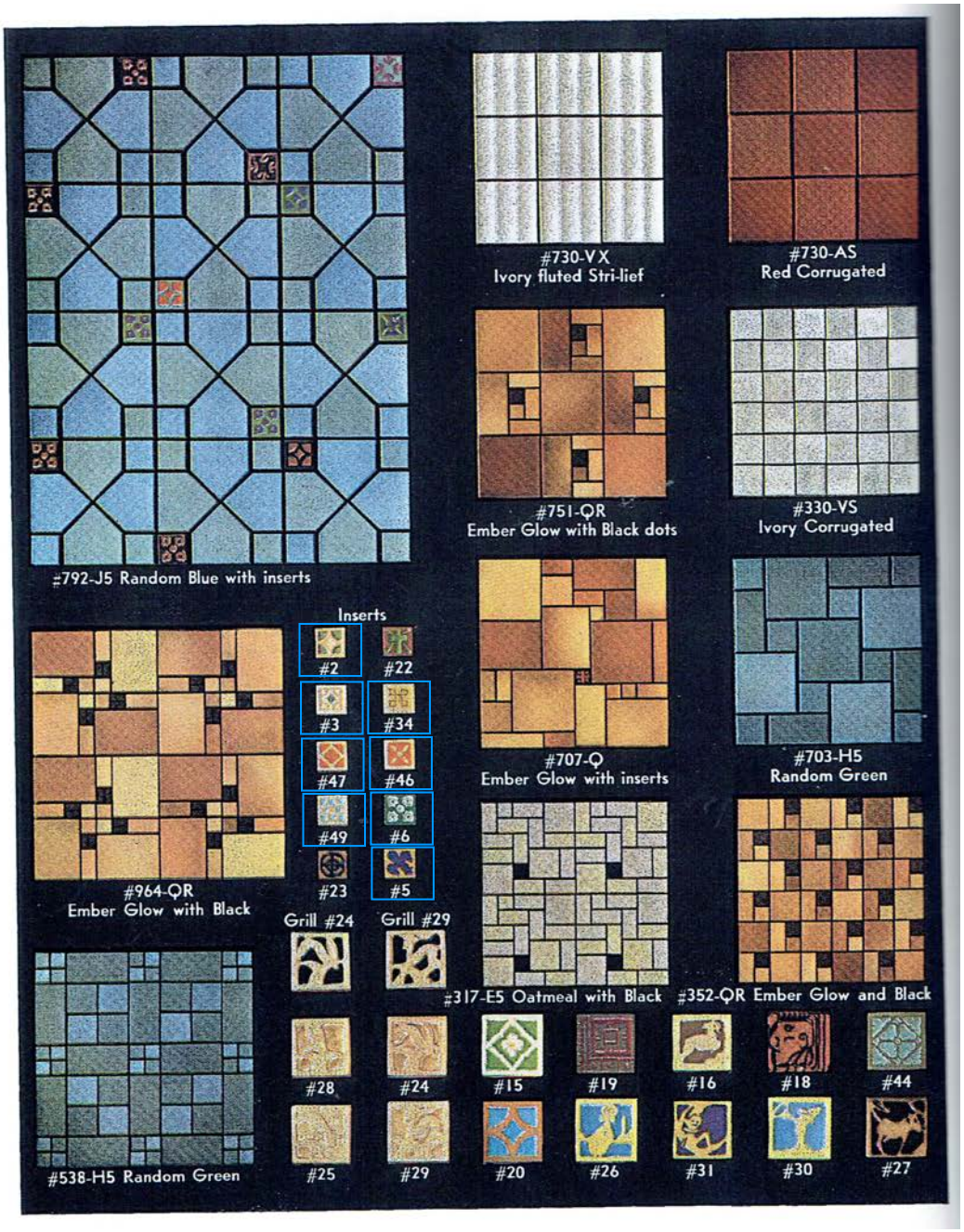


Figure 5. Tile designs in the Sparta Ceramic Company 1940 catalog, some of which match those at the Spanish Ballroom (Courtesy of Tile Heritage Foundation).

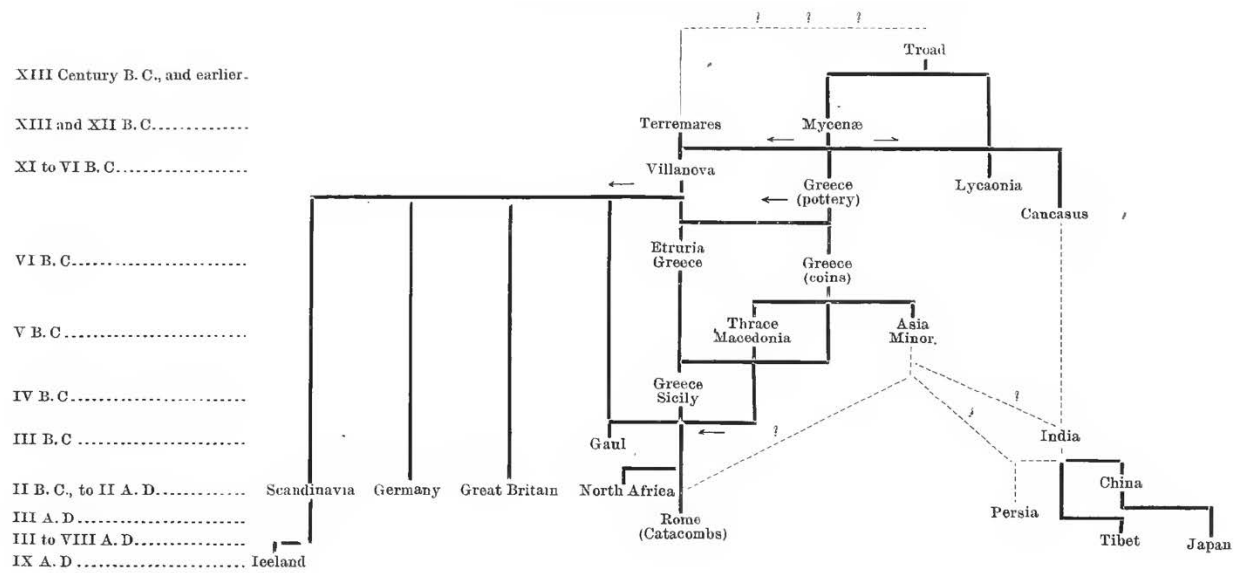


Figure 6. Possible migration of the swastika around the world (Wilson, 794).

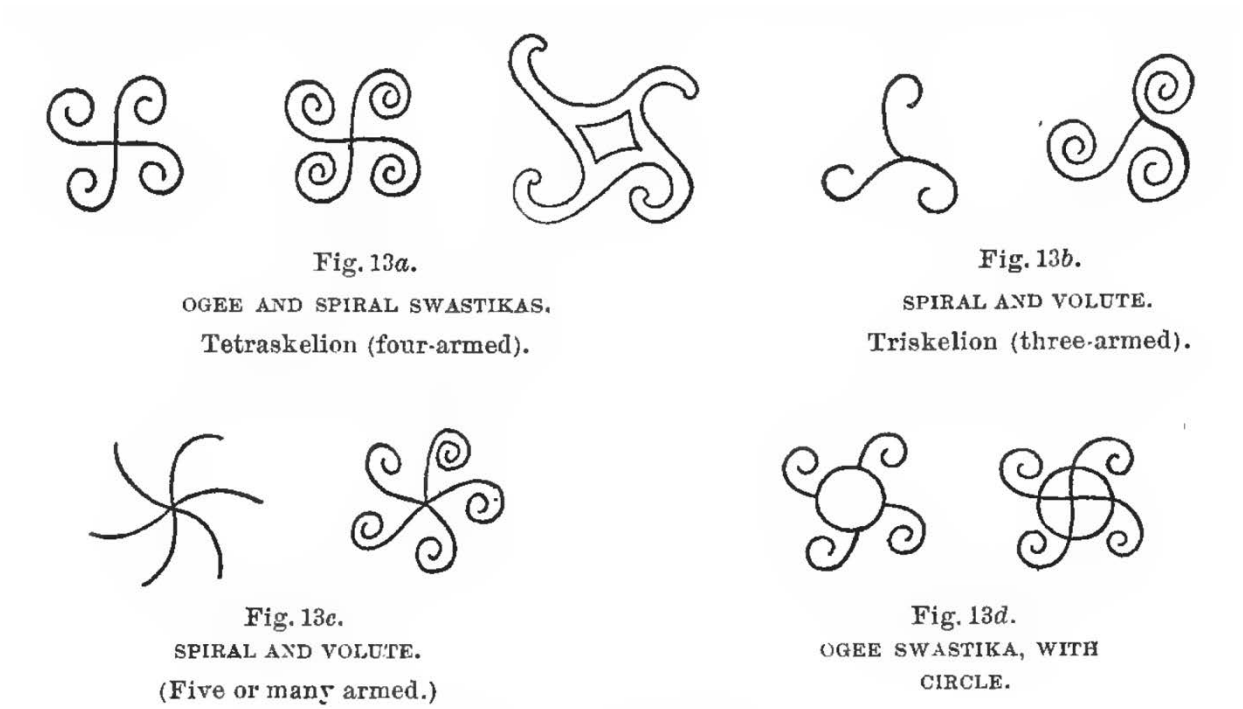


Figure 7. Different historical forms of the swastika (Wilson, 794).

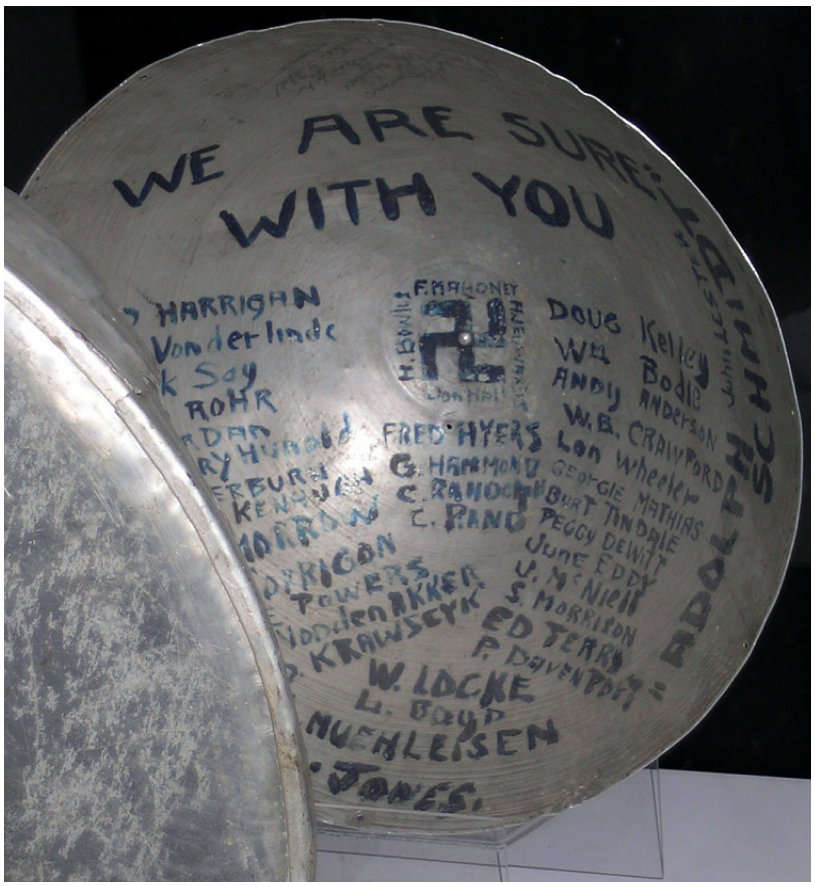


Figure 8. Original Spirit of St. Louis spinner nose cone with swastika symbol for good luck (Smithsonian Air and Space Museum Inv. #A19890217000).

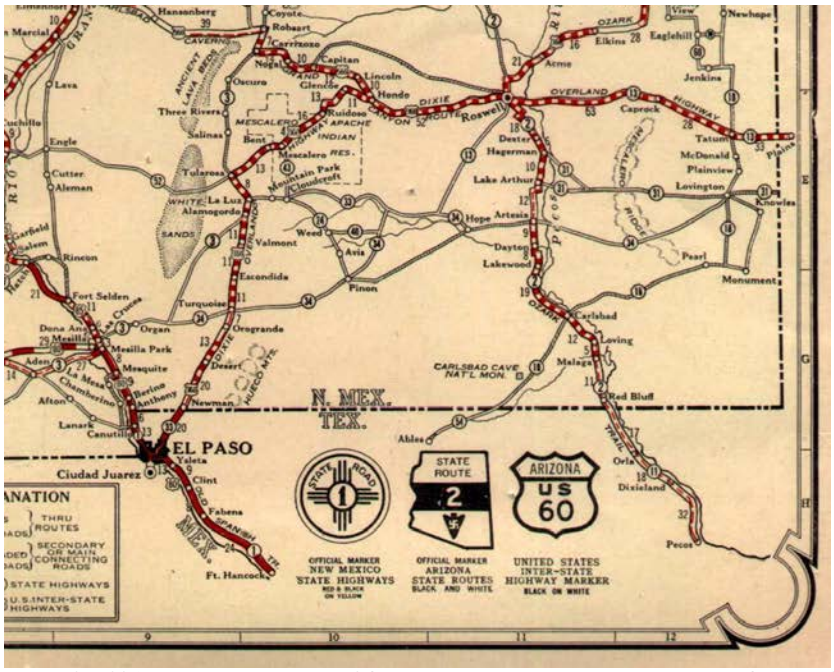


Figure 9. 1926 Rand McNally map of Arizona and New Mexico showing the Arizona State Route marker with swastika (Arizona Maps, https://arizonaroads.com/maps/1926-2.jpg, accessed August 17, 2023).

Figure 10. Insignia of the 45th Infantry Division, 1939 (U.S. Militaria Forum, https://www.usmilitariaforum.com/forums/index.php?/topic/226634-45th-division-patch/, accessed October 16, 2023).

Figure 11. Insignia of the Lafayette Escadrille, c. 1915 (National Museum of the United States Air Force, https://www.nationalmuseum.af.mil/Upcoming/Photos.aspx?igphoto=2000997450, accessed August 17, 2023).

Figure 12. Insignia of the 12th Infantry Regiment with fylfot swastika, c. 1923 (The Institute of Heraldry, https://web.archive.org/web/20161205105811/http://www.tioh.hqda.pentagon.mil/Catalog/HeraldryMulti.aspx?CategoryId=3629&grp=2&menu=Uniformed%20Services, accessed August 17, 2023).

Figure 13. Coca Cola watch fob, c. 1925 (Mukti Jain Campion, "How the world loved the swastika – until Hitler stole it," *BBC* (October 23, 2014), https://www.bbc.com/news/magazine-29644591, accessed August 17, 2023).

Figure 14. Coca Cola advertisement with swastikas, 1916 (Heritage Auctions, https://historical.ha.com/itm/advertising/soda-items/rare-1916-coca-cola-cardboard-advertising-sign-with-swastika-motif-the-sign-measures-14-x-11-and-features-a-border-of-gre/a/659-25594.s, accessed August 17, 2023).

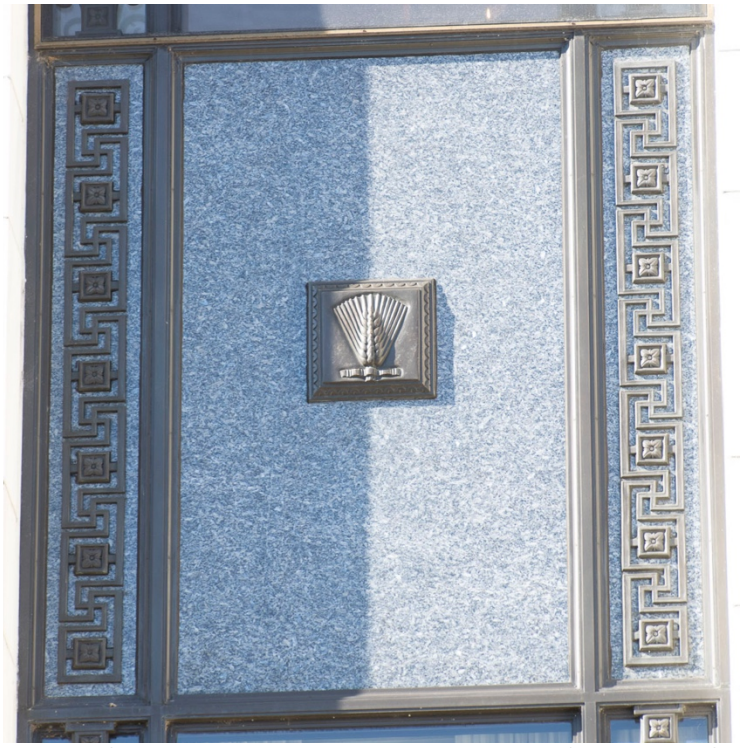


Figure 15. Swastika and meander design at the windows of the Marriner S. Eccles Building in Washington, DC, 1935-1937 (Building Conservation Associates, 2021).

Figure 16. Brick swastikas on the façade of the 1915 Thermopolis, WY former post office (Wendy Corr, "Those Aren't Nazi Swastikas On That Building In Downtown Thermopolis," *Cowboy State Daily* (October 25, 2022), https://cowboystatedaily.com/2022/10/25/those-arent-nazi-swastikas-on-that-building-in-downtown-thermopolis/, accessed August 18, 2023).

Figure 17. Moravian Tile and Pottery works swastika tile in the historic Allentown, PA post office, built in 1933 ("The history of Allentown's post office," *The Morning Call* (May 5, 2022), https://www.mcall.com/2002/05/05/the-history-of-allentowns-post-office/, accessed August 18, 2023).

Figure 18. Swastikas in the historic Reno post office, built in 1933 ("Reno's historic post office," *Reno Gazette Journal* (March 20, 1915), https://www.rgj.com/picture-gallery/news/2015/03/20/renos-historic-post-office/25125779/, accessed August 18, 2023).

Figure 19. Swastikas on the Bahá'í House of Worship in Wilmette, IL, built between 1912 and 1953 (Skeptic Photo, https://skepticphoto.blogspot.com/2013/06/bahai-house-of-worship.html, accessed August 18, 2023).

Figure 20. Fylfot-type swastika above the entrance to the Sterling Memorial Library at Yale University, built 1930 (https://www.flickr.com/photos/garyku/1250010379/, accessed August 18, 2023).

Figure 21. Swastika inset tile manufactured by the Moravian Tile and Pottery Works, c. 1900-1910s (Image courtesy of Moravian Tile and Pottery Works, 2023).

Figure 22. Swastika inset tile manufactured by the Enfield Tile and Pottery Works, c. 1910-1930 (Image courtesy of Moravian Tile and Pottery Works, 2023).

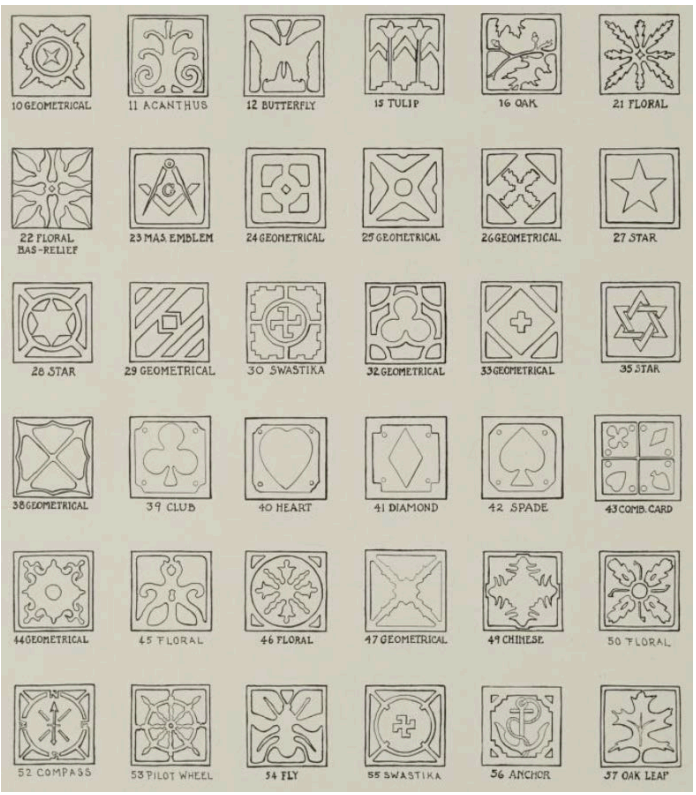


Figure 23. Franklin Tile Company, 1936 catalog with two swastika tiles (Franklin Tile Company, *A catalog of tiles and other products*, https://archive.org/details/catalogoftilesot00fran/mode/2up, accessed August 18, 2023).

Figure 24. Swastika inset tile manufactured by the Cambridge-Wheatley Pottery Company, c. 1920s-1930s (Image courtesy of Moravian Tile and Pottery Works, 2023).

Figure 25. Swastika design on light fixtures from the 1910 Sears, Roebuck and Co. catalog (Sears, Roebuck and Co., *Our Special Catalog for Home Builders*, https://archive.org/details/ourspecialcatalo00sear/page/110/mode/2up, accessed August 18, 2023).

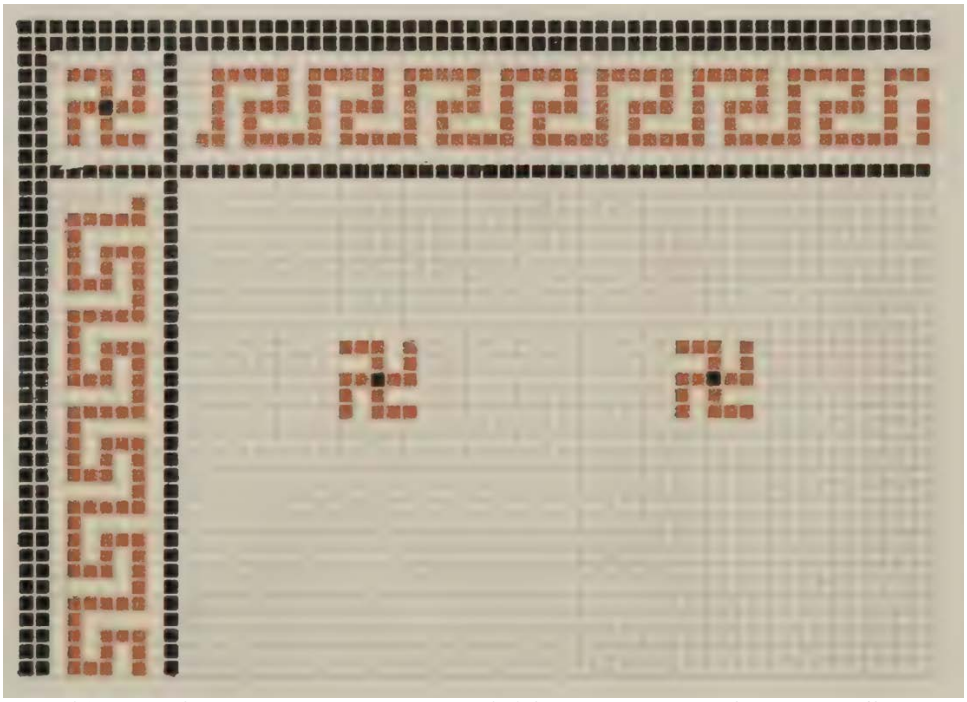


Figure 26. Mosaic floor with swastika design the 1910 Sears, Roebuck and Co. Tilebook (Sears, Roebuck and Co., *Tilebook*, https://archive.org/details/tilebookceramicm00sear/page/8/mode/2up, accessed August 18, 2023).

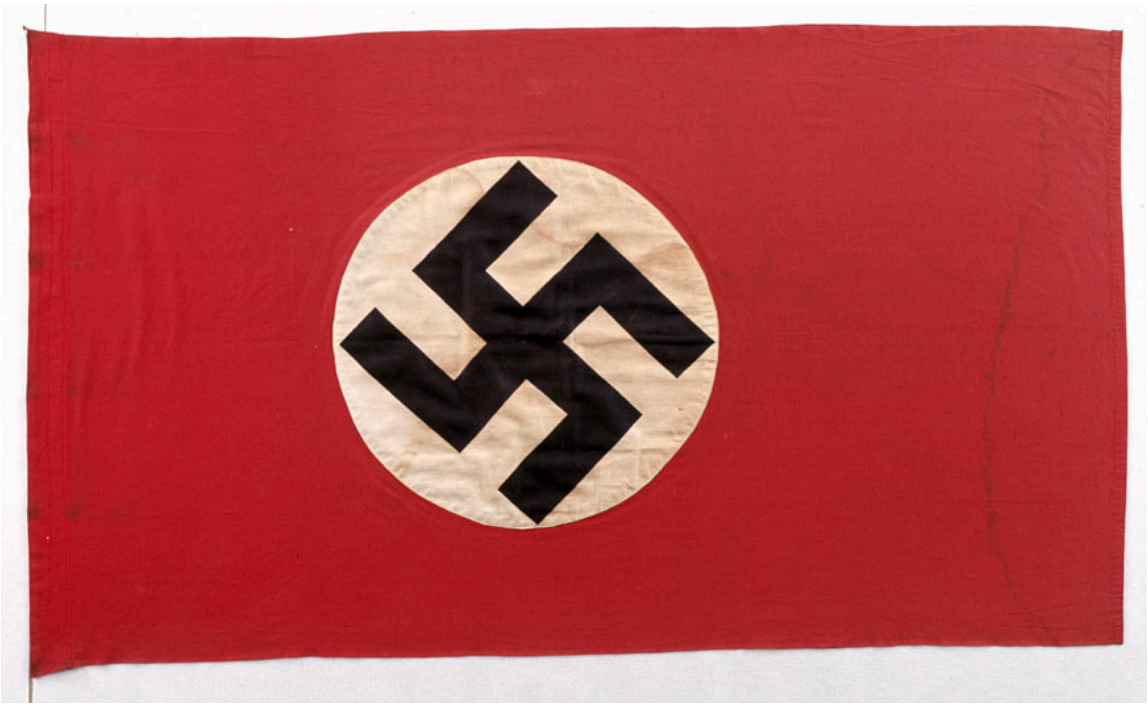


Figure 27. German Nazi Swastika flag (National Museum of American History, Accession #1977.0788).

Figure 28. *Hakenkreuz* at Lambach Abbey (http://tkparadosis.blogspot.com/2017/06/the-swastikas-of-lambach-abbey.html, accessed August 18, 2023).

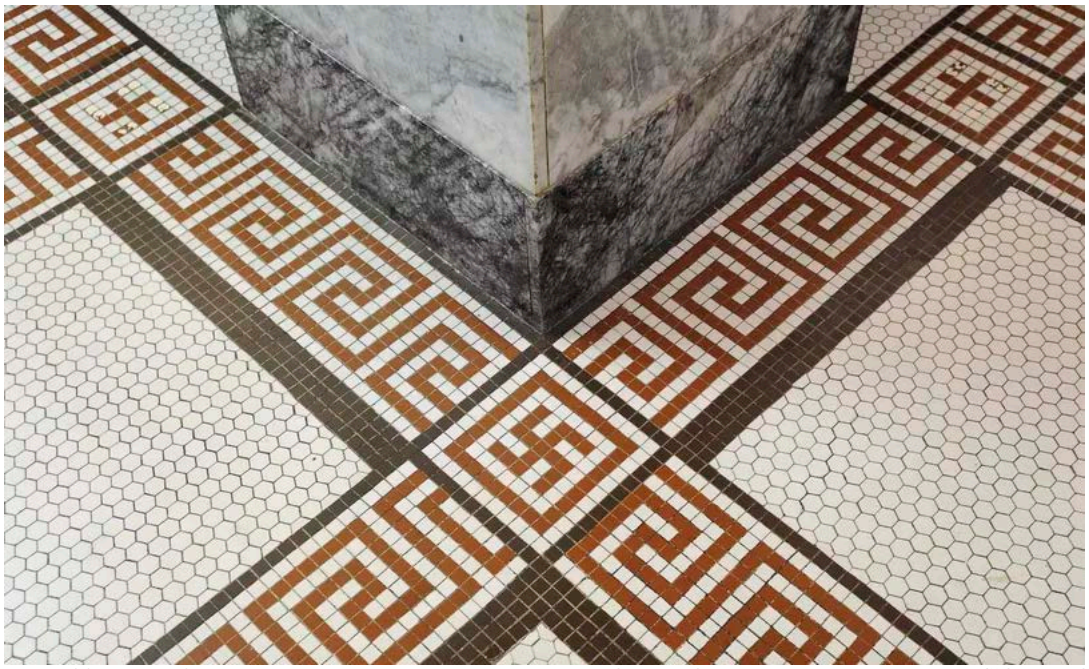


Figure 29. Mosaic floor with swastika design at the Bonneville County Courthouse in Idaho Falls, ID ("County Saves Pre-Nazi Swastika Tiles," https://www.spokesman.com/blogs/hbo/2009/sep/03/county-saves-pre-nazi-swastika-tiles/, accessed August 18, 2023).

Figure 30. Swastika inset tile in Longview Community Church in Longview, WA ("Longview church debates its historical swastika," https://www.heraldnet.com/news/longview-church-debates-its-historical-swastika-tiles/, accessed August 18, 2023).

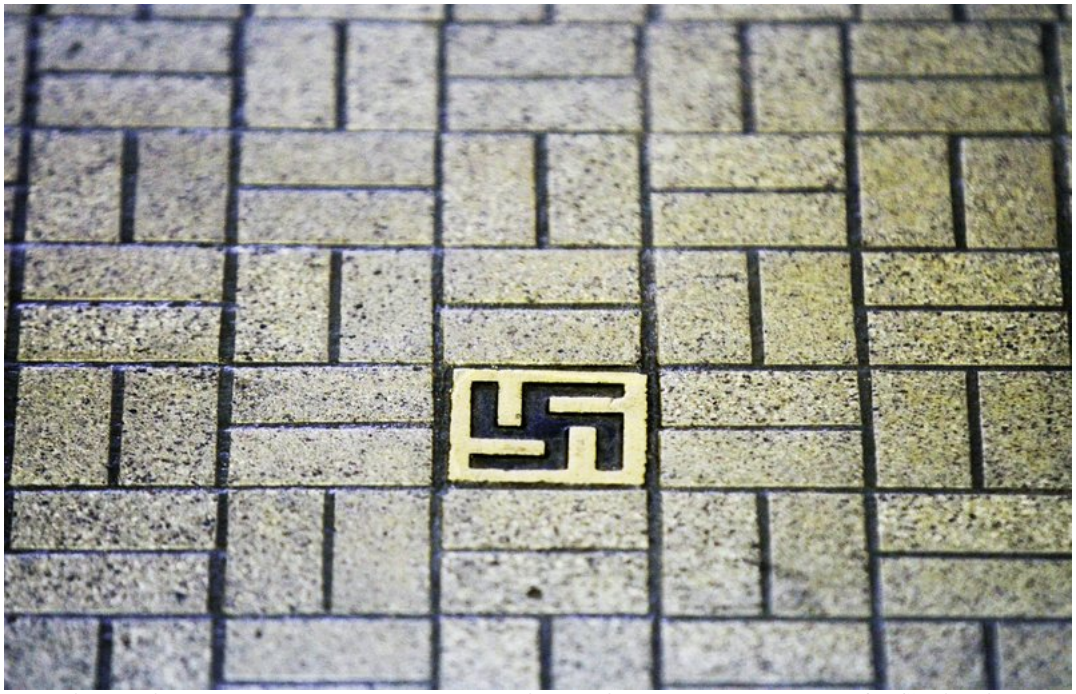


Figure 31. Tile floor with inset swastika tile in Union County Courthouse in El Dorado, AR ("Loftin: Swastika tile part of historic design," https://www.eldoradonews.com/news/2016/nov/06/loftin-swastika-tile-part-historic-design/, accessed August 18, 2023).

Figure 32. Tile floor with inset swastika tile in Asbury Hall at DePauw University ("Asbury tiles draw attention to religious symbols," https://thedepauw.com/asbury-tiles-draw-attention-religious-symbols/, accessed August 18, 2023).

Figure 33. Swastika tiles at Corbin Hall at the University of Montana ("ASUM approves land acknowledgement, calls for Corbin swastika tile removal," *Montana Kamin* (December 6, 2022), http://www.montanakaimin.com/news/asum-approves-land-acknowledgement-calls-for-corbin-swastika-tile-removal/article_71cad6e2-7596-11ed-b03a-179d7c8f408c.html, accessed August 18, 2023).

Figure 34. Swastika inset tile at Bay Pines VA Hospital in St. Petersburg, FL ("This is why there are swastikas at a local VA hospital," https://www.wtsp.com/article/news/local/this-is-why-there-are-swastikas-at-a-local-va-hospital/67-8905e542-d75c-4bb6-baa9-25c30c632645, accessed August 18, 2023).

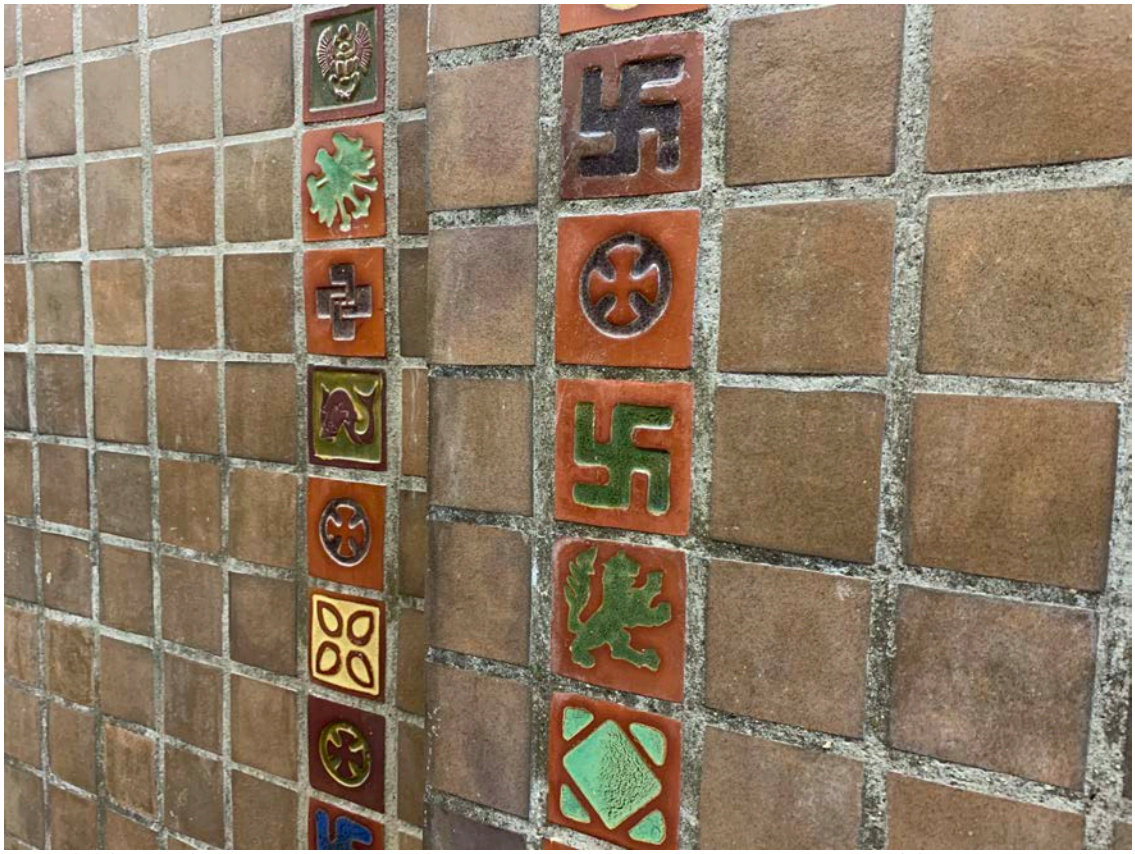


Figure 35. Swastika inset tiles on the wall of the Public Health Building at Indiana University ("Swastika tiles removed from Indiana University building," https://www.wthr.com/article/news/local/swastika-tiles-removed-indiana-university-building/531-f698b490-3669-4195-bab7-1c60104f5eb8, accessed August 18, 2023).

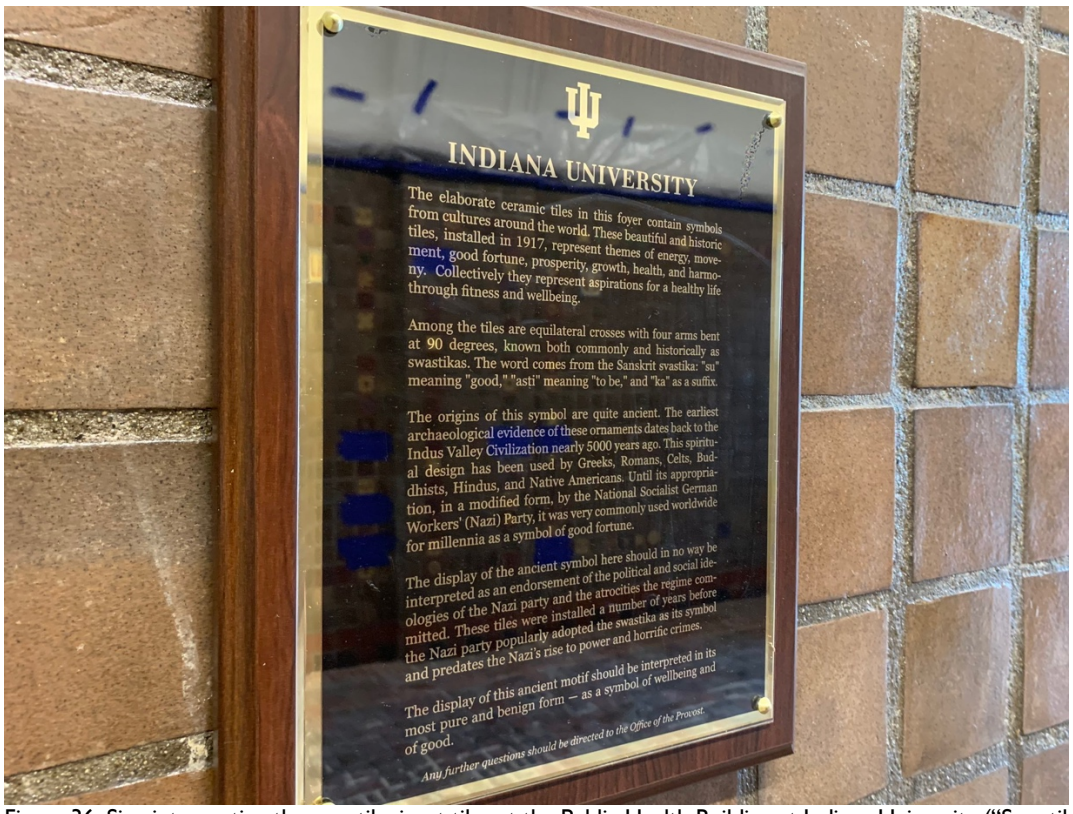


Figure 36. Sign interpreting the swastika inset tiles at the Public Health Building at Indiana University ("Swastika tiles removed from Indiana University building," https://www.wthr.com/article/news/local/swastika-tiles-removed-indiana-university-building/531-f698b490-3669-4195-bab7-1c60104f5eb8, accessed August 18, 2023).

Figure 37. Swastika ornaments at Hidden Villa in Los Altos, CA ("Hate symbol or Buddhist emblem?" https://www.paloaltoonline.com/news/2022/06/13/hate-symbol-or-buddhist-emblem-hidden-villa-cancels-summer-camps-for-1000-kids-after-staffers-resign-over-swastika-tiles, accessed August 18, 2023).