HISTORIC RESOURCES REPORT

for the

BASS MUSEUM OF ART

2100 COLLINS AVENUE
MIAMI BEACH, FLORIDA 33139

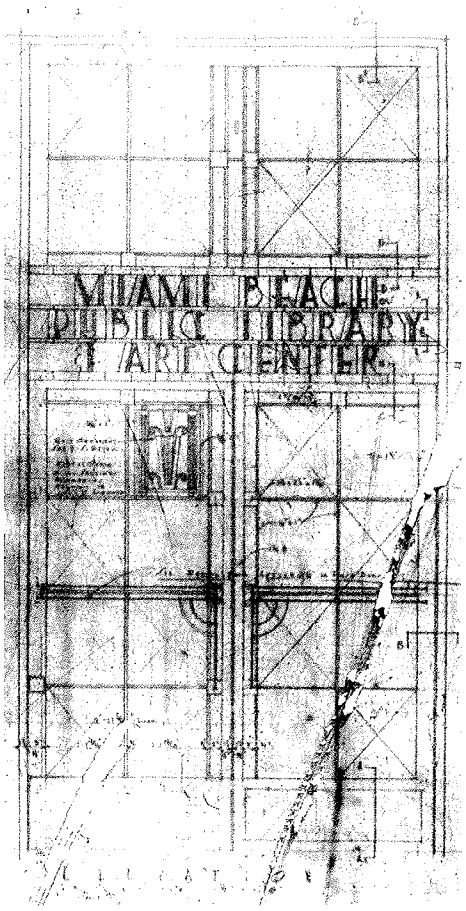
originally the
JOHN S. COLLINS MEMORIAL LIBRARY & ART CENTER

prepared by
ARTHUR J. MARCUS ARCHITECT P.A.
HISTORIC ARCHITECTURAL PRESERVATION CONSULTANT

for the

CITY of MIAMI BEACH HISTORIC PRESERVATION BOARD

FEBRUARY 6, 2015



MAIN ENTRANCE DOOR DESIGN FROM THE 1930 ARCHITECTURAL DRAWINGS

HISTORIC RESOURCES REPORT

for the

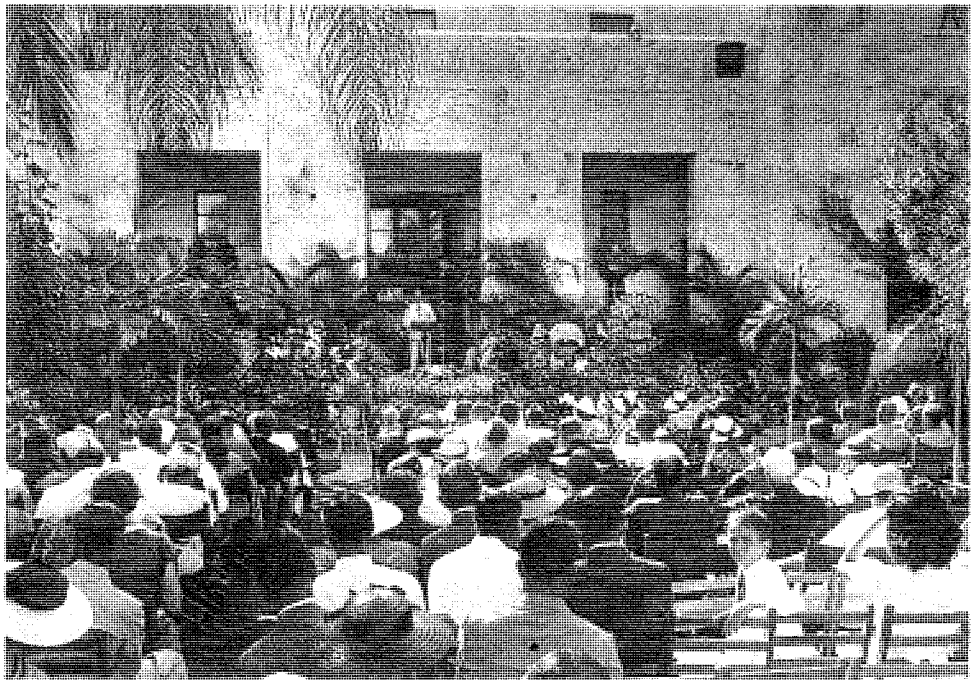
BASS MUSEUM OF ART

2100 COLLINS AVENUE
MIAMI BEACH, FLORIDA 33139

originally the
JOHN S. COLLINS MEMORIAL LIBRARY & ART CENTER

prepared by
ARTHUR J. MARCUS ARCHITECT P.A.
HISTORIC ARCHITECTURAL PRESERVATION CONSULTANT
www.arthurmarcus.com
1800 North Andrews Avenue #7F
Fort Lauderdale, Florida 33311

February 6, 2015



MEMORIAL SERVICE FOR CARL FISHER IN FRONT OF THE MIAMI BEACH PUBLIC LIBRARY, 1939

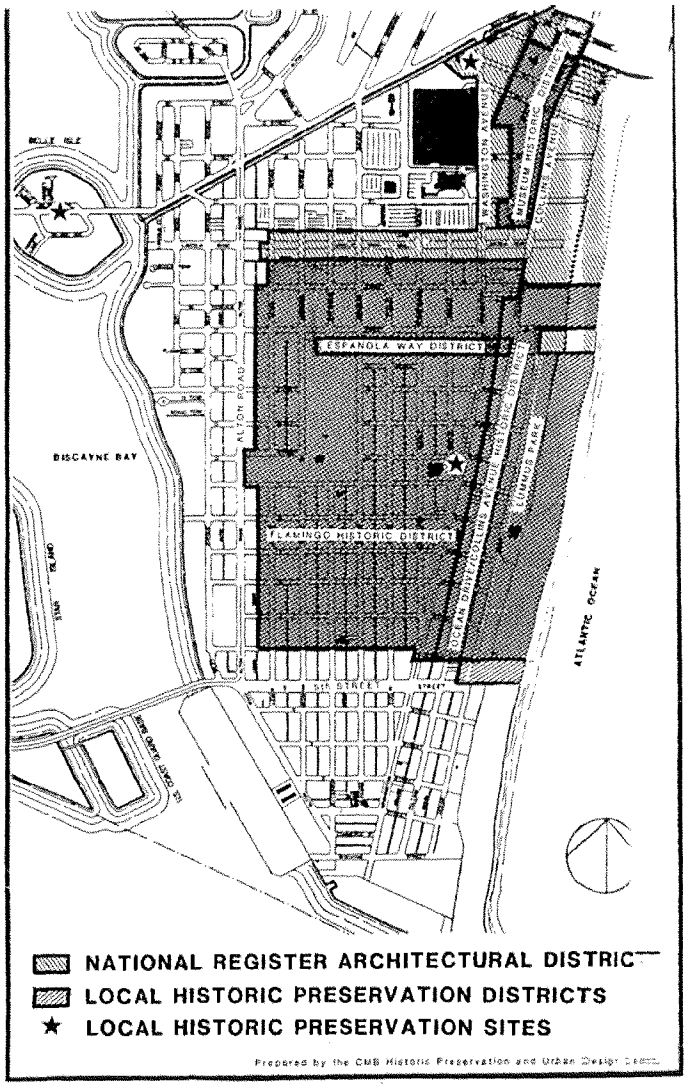
TABLE of CONTENTS:

During more than 85 years of existence in Miami Beach this stately building housing the Bass Museum of Art has always been a local icon and center of community activity. Through the years in both of its different occupancies, the building has remained central to the community.

Originally designed and built as the Miami Beach Library in 1930 and designed by the Architect Russell Pancoast, the building is located in the local Museum Historic District which is part of the City of Miami Beach Art Deco District which was adopted and designated on June 20, 1990 by the Miami Beach City Commission thru Ordinance No. 90-2693 designating the Flamingo Park & the Museum Historic Districts. (1)

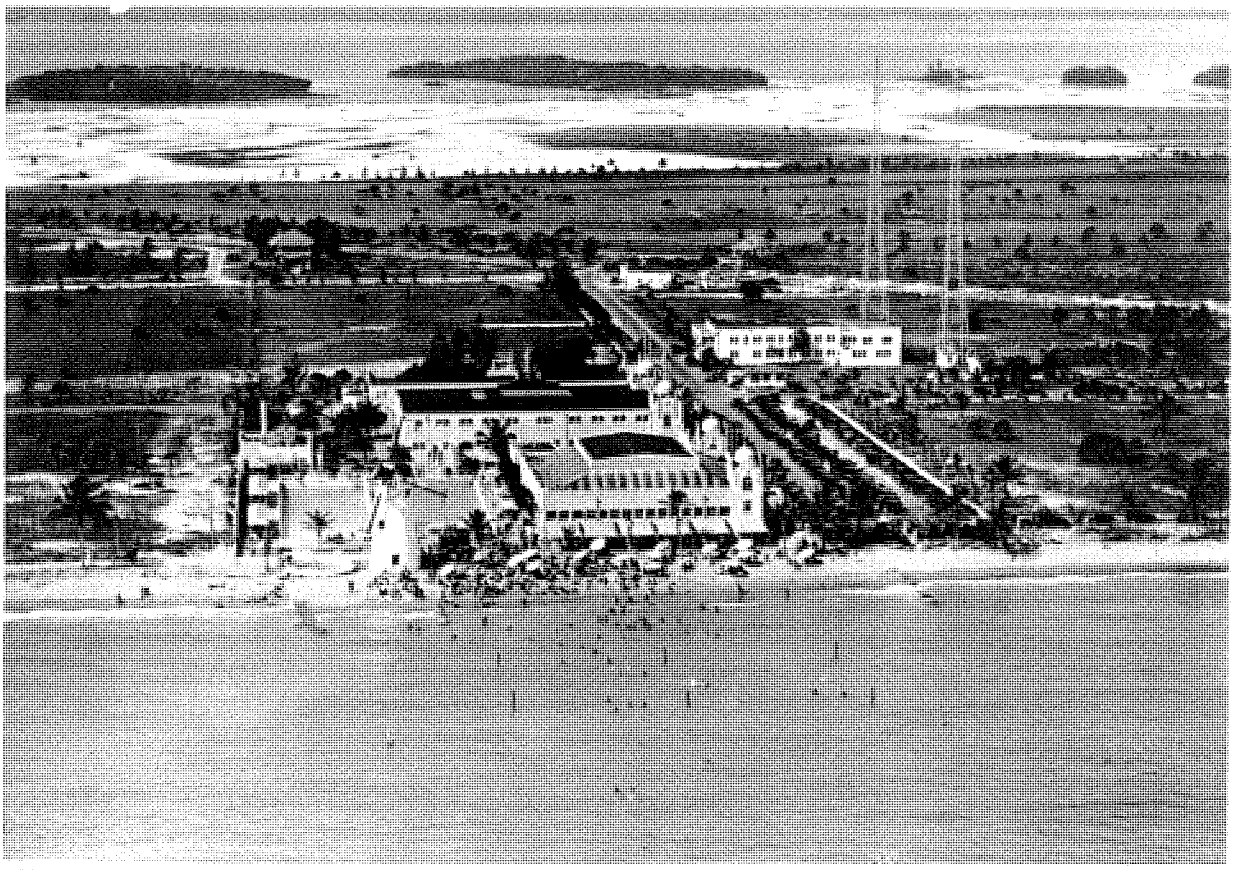
The area surrounding the future Collins Park and Bass Museum was one of the first platted and settled areas on Miami Beach. *"At the turn of the (20th) century, the expanded district was part of the coconut plantation owned by Esra Osborn and Elnathan Field of Red Bank, New Jersey. In the 1880's, Osborn and Field purchased a 65 mile strip of land along the ocean beginning at the Lum Plantation (approximately 14th Street) and extending north to present day Jupiter. When the initial attempts at coconut farming failed, John Styles Collins...bought out Osborn for control of approximately 1675 acres of land north of present day 14th Street, ocean to bay."* (2)

Collins and Field then utilized the property for the farming of avocados. In 1909 Field sold his percentage to Collins making him sole owner of the property. Carl Graham Fisher, millionaire developer of the Indianapolis Speedway and Prest-o-Lite Headlight Company had retired. to Miami. It is said that Fisher had grown restless in retirement and, in response to Shutts' suggestion, loaned Collins $50,000. He received, as a bonus on the loan, 200 acres of Collins' land from present day 14th Street to 19th Street, ocean to bay. (3)



HISTORY

THE BASS MUSEUM IS LOCATED WITHIN THE MUSEUM HISTORIC DISTRICT, WHICH INCLUDES BOTH THE 'CURRENT' AS WELL AS THE 'PROPOSED' AS SHOWN ABOVE IN THIS MAP DATED 1992 courtesy CITY OF MIAMI BEACH HISTORIC PRESERVATION AND URBAN DESIGN DEPARTMENT.



22 A. 1919 - Roman Pools, Twenty-third Street—the beginning of the Bay Shore development, showing Sunset Islands in background.

ABOVE: THE FUTURE COLLINS PARK AT LEFT CENTER (24)

The (Collins Park) district includes the developments of Collins and Fisher, two of the most important pioneer developers of Miami Beach. The northern portion of the district was first platted by Collins' Miami Beach Improvement Company on February 10, 1916 (19th Street north to 27th Street (3)

Thomas J. ·Pancoast, Collins' son-in-law, had been Vice President and junior partner in the Collins and Pancoast Company of Merchantville, New Jersey. He first came to inspect the family property in South Florida in 1911. (3)

In 1912, Pancoast, Irving Collins, and John Collins formed the Miami Beach Improvement Company. Irving Collins and Thomas Pancoast would also be associated with Carl Fisher in the Miami Bay Shore Company which constructed the City's largest hotels on Biscayne Bay. The southern portion of the expanded district was first platted by Fisher's Alton Beach Realty Company on January 15, 1914. (3)

The ·first road through the expanded district was Collins Avenue (originally known as Atlantic Boulevard) (3)

The layout of blocks and streets remaining in the expanded district is consistent with the original developments, although some street names have changed (ie. Cardinal Avenue became Park Avenue, Sheridan became Liberty Avenue, Miami Avenue became Washington Avenue, etc) . Land use surrounding and within the district evolved as development pressures increased from the boom-time 1920's into the even more successful 1930's and 1940's. (4)

114.34. July 19, 1926. The Fowler Apartments and Collins Park, the site of the present Miami Beach Library.

ABOVE: IN THE DISTANCE BEYOND THE FUTURE COLLINS PARK THE 4-STORY BUILDING IS THE RIVIERA PLAZA APARTMENTS at 20th & PARK AVENUE - CONSTRUCTED IN 1924. THE 2-STORY BUILDING IN FRONT IS THE ANSONIA APARTMENTS ON 21st STREET. (24)

UPPER RIGHT: ANSONIA APARTMENTS 2012 PHOTOGRAPH by ARTHUR MARCUS

LOWER RIGHT: RIVIERA PLAZA APARTMENTS 2012 PHOTOGRAPH by ARTHUR MARCUS

11-34 1926 Looking south from the roof of the Roney Plaza Hotel.

Hi - 136

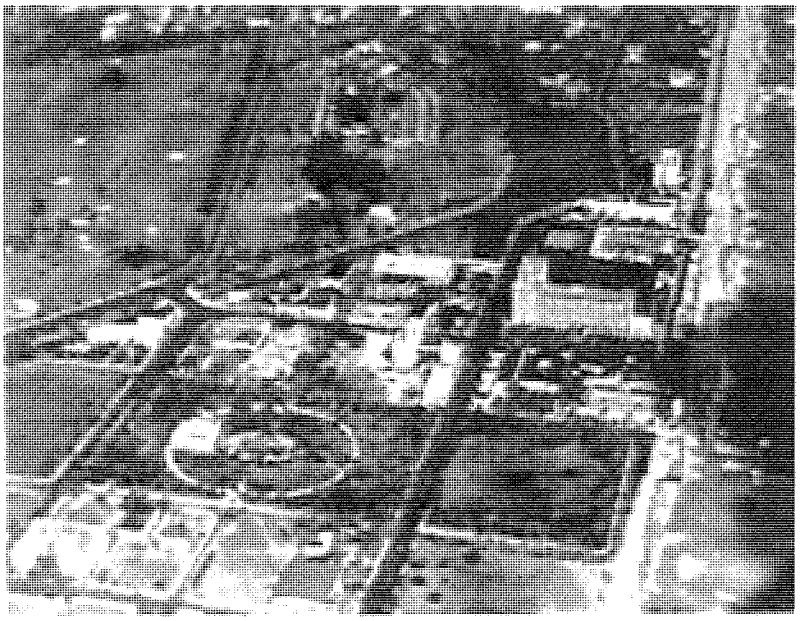
"Development within the (Collins Park) district was sparse at the end of the 1920's. The 1927 and 1929 photo aerials indicate the concentration of Roney developments at 23rd Street, development of the Miami Beach Bath and Beach Club (later named the Riviera Bath Club.) , the houses on Collins Avenue, and the Palm Court, the Riviera Plaza, the Fairbanks Apartments and Garage (later named Fowler Apartments, now named the Santa Barbara Apartments) and the Ansonia Apartments. A number of small schools were located in the district. " (4)

ABOVE: LOOKING NORTH FROM THE RONEY PLAZA HOTEL IN 1926 SHOWS AN EMPTY COLLINS PARK. (24)

RIGHT: VIEW OF RONEY PLAZA HOTEL FROM COLLINS PARK - OPENED IN 1925 AND DEMOLISHED IN 1968.

MIAMI BEACH PUBLIC LIBRARY

The Roney Plaza jump-started development in the Collins Park neighborhood as seen in the aerial photo at right taken in 1935. The hotel immediately became the social center of town. And once the Miami Beach Library opened in 1930 the neighborhood was beginning to rapidly develop. *"Numerous small hotels and apartment buildings, designed in the Moderne style, were rapidly built to attract the growing numbers of middle class tourists. By 1935, the building activity on Miami Beach surpassed that of the boom periods of the 1920's. "* (5)



RIGHT: 1935 AERIAL PHOTOGRAPH COURTESY HISTORY MIAMI SHOWS ONLY CENTRAL LIBRARY SECTION BUILT IN 1930..
BELOW: 1931 DEDICATION CEREMONY FOR THE MIAMI BEACH LIBRARY. NOTE THAT THE CENTRAL SECTION HAD ONLY BEEN COMPLETED . (27)

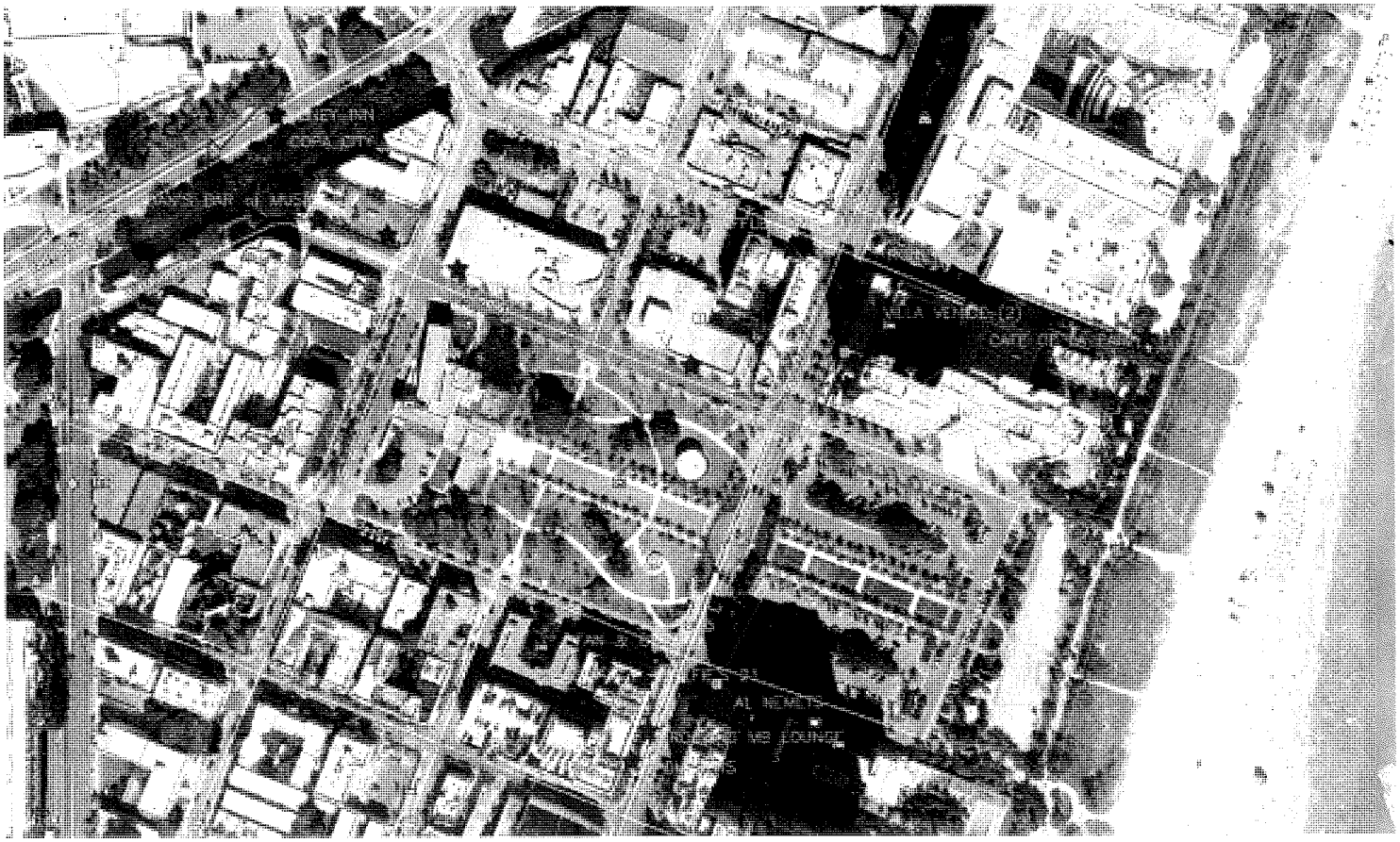
NIGHTCLUB & RESTAURANT DISTRICT

In addition to the hotel development typical of Miami Beach in the 1930s, the nominated district and adjacent streets developed as a nightclub/ restaurant district. More so than in other neighborhoods within the National Register District, independent (not associated with a hotel) nightclubs and restaurants flourished along 23rd Street, Liberty Avenue, 22nd Street, and Park Avenue. At least ten (10) nightclubs and restaurants appear on maps and plats through the 1940s. (6)

Largely seasonal in population, the neighborhood began to decline in the 1950s and 1960s as tourist patterns changed and newer, larger hotels and apartment buildings were constructed to the north. Many restaurants closed and. nightclubs converted to "adult" entertainment. (9)

Evolving into a lower cost neighborhood for retirees, the neighborhood remained stable until the 1970s and 1980s when increasingly poor and more transient residents occupied the area. The physical deterioration of buildings continued through the 1980's until the reduced property values combined with the availability of Federal Investment tax credits attracted rehabilitation-oriented developers. (9)

BELOW: COLLINS PARK NEIGHBORHOOD - RESTAURANTS AND NIGHTCLUB LOCATIONS 1930's - 1960's



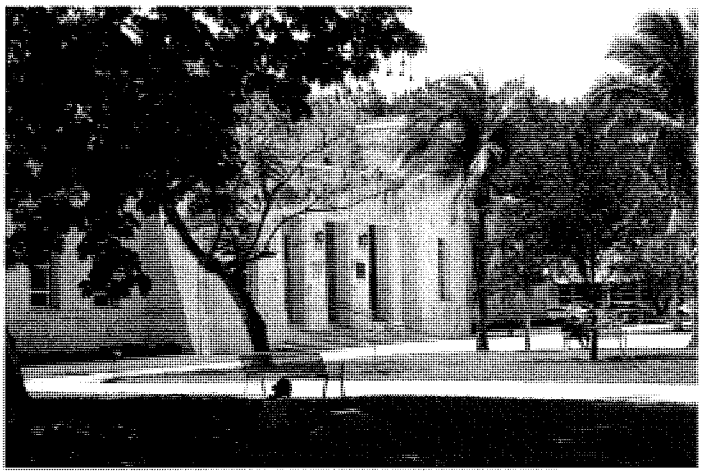
COLLINS PARK

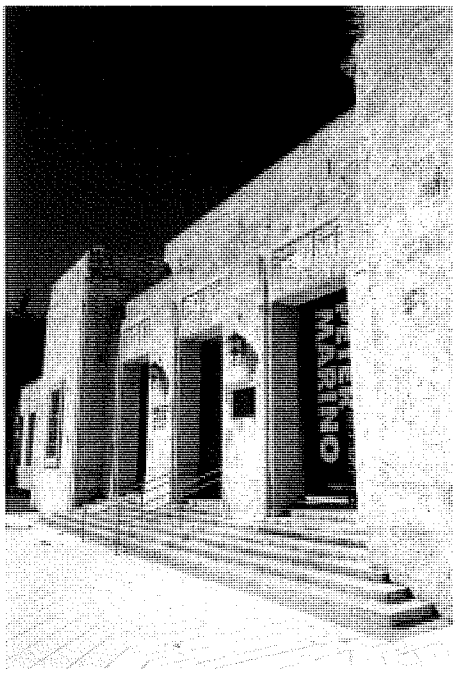
John Collins and the Miami Beach Improvement Company deeded the land to the City of Miami for Park purposes in 1913 (the City of Miami Beach was not yet incorporated). During its ownership , the City of Miami made some $1500 in property improvements. In April of 1920, citing difficulties in maintaining a park outside its City limits, Miami sold the property back to the Miami Beach Improvement Company for $1, 000. Four months later, the property was sold to the. City of Miami Beach for $1. (6)

The original design of Collins Park was a symmetrical arrangement of walks and hedges with specimen trees place in informal groups. Early photo aerials indicate the west portion of the park was completed by 1927, the eastern portion was not completed until the 1930's. By 1941, the eastern portion had been converted from a park to a parking lot. The central walkway which extended from the Library building, across Collins Avenue to the beach remains. (7)

The central focus of Collins Park was the Miami Beach Library and Art Center. The Library and Art Center was first endorsed at the Miami Beach Women's Club on June 8, 1927. Later, the Library and Art Institute of Miami Beach and the Chamber of Commerce proposed the building of a library as a memorial to John Collins in the park, and on April 2, 1930, the City Council granted its permission. on July 31, 1930, the deed giving the land to the city was amended to allow the construction of a library and art center. The structure was designed by Russell Pancoast, who was a popular architect and grandson of John Collins. (8)

2013 + 2015 PHOTOGRAPHS by ARTHUR MARCUS





WESTERN WING OF BASS MUSEUM UNDER CONSTRUCTION 1965 courtesy CITY OF MIAMI BEACH PHOTO ARCHIVES

The center section of the structure opened in 1934 with 18,000 Volumes. In 1937, the south wing was completed by Russell Pancoast, architect as a donation from Mrs. Pancoast, Chair of the Library Board, in memory of her father, John Collins. The second floor art gallery was also constructed at this time. (8)

In 1950's, the north and west wings were added to provide additional space, but by the end of the decade, it was determined that a new library was needed. (8)

Art Deco. The earliest of the moderne styles, constructed primarily between 1930 and 1936. The Art Deco structures incorporated classical themes, such as Egyptian and Mayan, in a modern context. The building forms are angular, simpler than earlier Mediterranean Revival structures, with elaborate surface ornamentation.In the 1950's, newer and larger hotels were developed in areas north of the district. This was the beginning of the resort hotel, complete with numerous restaurants, nightclubs, shops, and private beaches. As these new hotels drew tourists from southern Miami Beach, the nightclubs and restaurants closed or were converted to other uses, and the hotels and apartments changed to an older and poorer clientele. (8)

AERIAL PHOTOGRAPH circa 1965 SHOWING NEW LIBRARY IN FRONT OF THE BASS MUSEUM of ART courtesy CITY OF MIAMI BEACH PHOTO ARCHIVES.

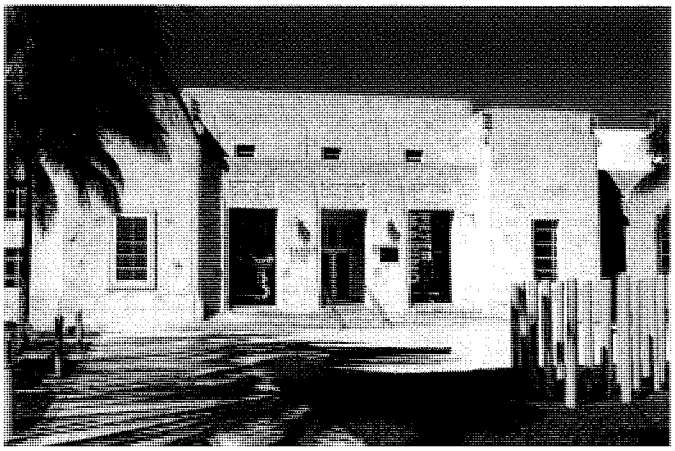
BASS MUSEUM of ART

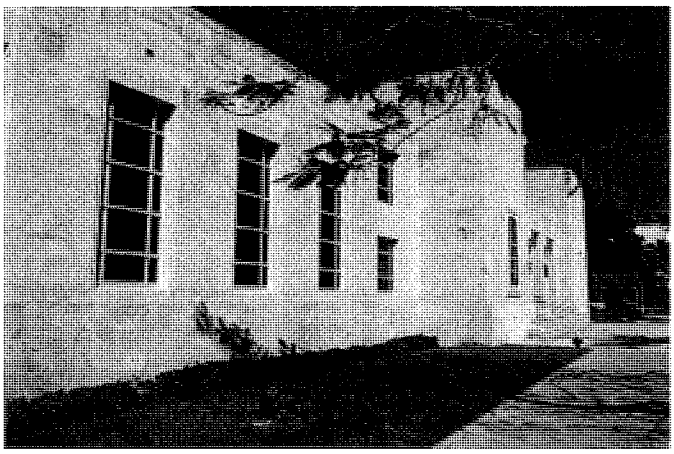
In 1959, the electorate approved a $6 million Bond issue which specified $600,000 for· a new library. The old library building was to be used for a Municipal Art Center. The new library was opened (in front of the Museum) *in 1962.* (8)

In 1964, the Bass Museum of Art opened in the old library building. The City had spent $160,000 in improvements to house the collection of John and Johanna Bass. Mr. Bass was a 71 year old retired sugar magnet. When asked why he donated his collection to Miami Beach, he stated that " ... Miami Beach has everything but culture, it really needed it". (8)

"

Two parking lots were carved out of the eastern end of the park but maintained the central axis. In 1962 the park was further diminished when A. Herbert Mathes's new library was built. The postwar building, sited between the Russell Pancoast building and Collins Avenue, turned its back on the old Collins Library, destroying the axial vista and unceremoniously isolating the older building behind the blank service wall of the new." (25)





TOP: BASS MUSEUM 2015
MIDDLE: LOOKING NORTH 2015
BELOW: REMNANT OF PRESERVED 1962 MIAMI BEACH PUBLIC LIBRARY MEETING ROOM in COLLINS PARK taken during ART BASEL 2014.

ARCHITECTURE

Modern classicism was the framework for the evolution of modernity in Miami Beach..It responded to the practical, technical and even moral challenges of the International Style by rationalizing yet maintaining the elements of the classical language....The severity and order of the style, which swept America in the 1930's, crystallized the spirit of the era and the sentiment of the nation." (11)

The Miami Beach Library & Art Center designed by Russell Pancoast in 1930, was Miami Beach's archetypical modern classical building. The building was reminiscent of (Architect) Paul Philippe Cret ' Folger Shakespeare Library...built one year earlier in 1929 within the monumental core of Washington D. C. " (12)

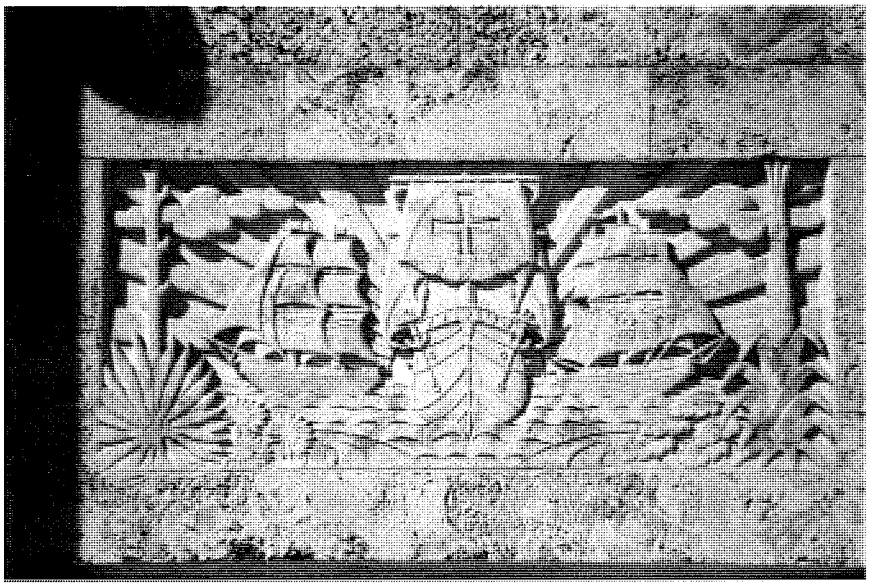
"The Miami Beach Library was..."the first Deco building on the island." (13)

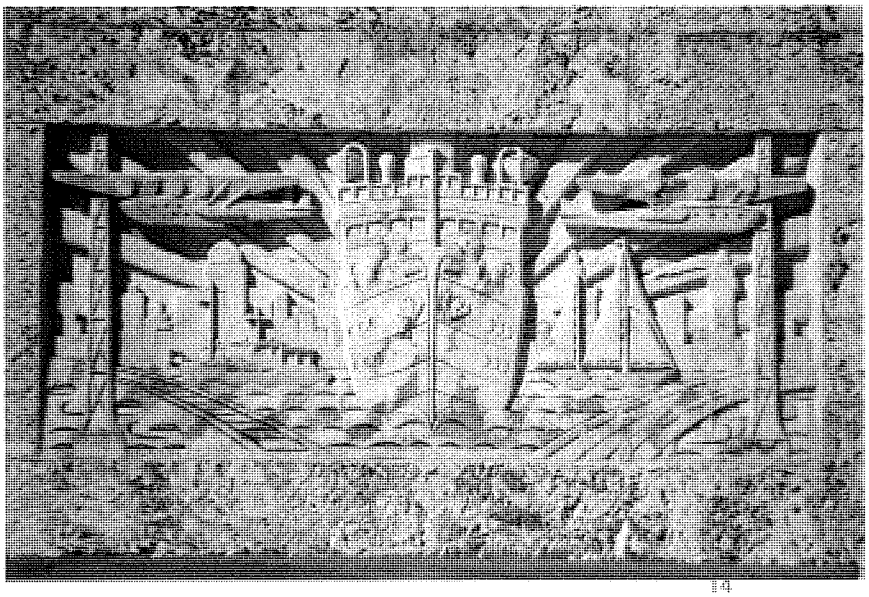
Fashioned from native quarry keystone and incited with bas-relief ornament, the Library had two wings positioned on either side of a higher central mass fronted with a monumental entry loggia. (14)

"Miami Beach's 1930's construction boom was the catalyst for an important transformation of ornament into adornment evoking the fantasy of the tropics." ...Stylized depictions of plant life, sunrise, waves and fountains appeared, complementing the parallel modern tendency toward purely geometric ornament." (15)

The most striking ornamentation is the use of bas-relief panels. Some panels utilize geometric patterns, others incorporated stylized forms of tropical birds and plants. In this way, the buildings reinforced the seaside environment promoted to visitors. Examples of Art Deco style buildings within the expanded district include: Collins Plaza Hotel, South Beach Hotel (originally named Liberty Arms Hotel) and the Bass Museum of Art (originally Miami Beach Memorial Library. (10)

"An excellent example was the series of three bas-relief panels placed over the entrance portico of the Miami Beach Public Library in 1937 by sculptor Gustav Bohland. Borland, who also incised the keystone structure to reveal sculpted seagulls at its corners, created a triptych that represented symbols nature and progress. The center panel featured a stylized pelican while the other two represented the discovery of America and the wonders of modern transportation and communications: a ship, an airplane, a train and the antenna of Miami Beach's first radio station, WIOD (wonderful isle of dreams)." (16)



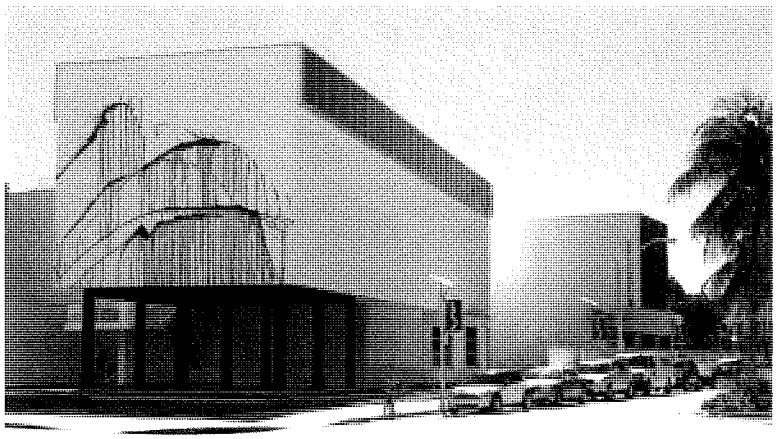


Gustav Bohland was also the sculptor for the stylized concrete seagulls which are featured emerging at the building corners.

2002 MUSEUM ADDITION

"A major expansion of the Bass Museum by Arata Isozaki with Spillis Candela DMJM Architects was completed in 2002. The expansions, the first of two planned phases, maintained the prominence of the monumental east facade but reoriented the building toward Park Avenue, with a new entrance and second level wing projecting above a ground-level pool and sculpture garden." (17)

The magic of the 2002 addition is the manner in which the historic building retains its grandeur at the head of Collins Park while locating the new additions to the west of the historic building. At the same time the diagonal siting of the 2002 addition opens up the corner and brings open space into the neighborhood all around the building.



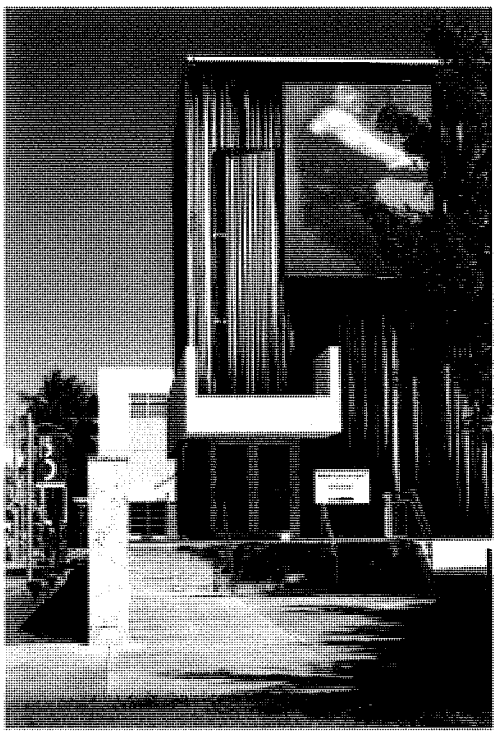
ARCHITECTS for the 2100 Collins Building:

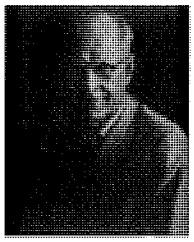
RUSSELL T. PANCOAST ARCHITECT
Central Building 1930
South Wing Addition 1937
North Wing Additions 1950

ROBERT SWARTBURG ARCHITECT
Conversion to Museum 1962

ARATA ISOZAKI & ASSOC. ARCHITECTS
Additions & Renovations 2000

A. HERBERT MATHES ARCHITECT
of New Miami Beach Library
constructed in 1962 and
demolished in 2000



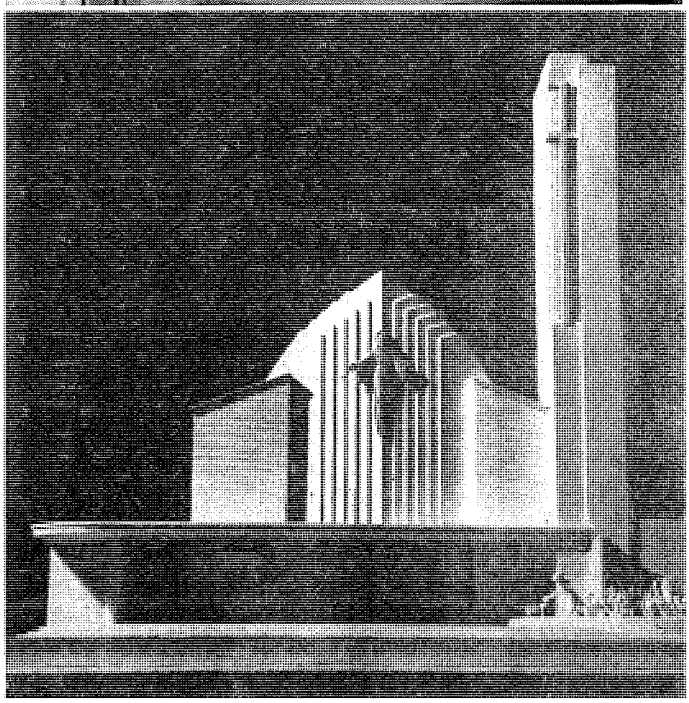


RUSSELL T. PANCOAST ARCHITECT

"Russell T. Pancoast (1889 - 1972) the grandson of John S. Collins, was born in New Jersey, joined his family in Miami Beach in 1913 and returned here after earning a degree in architecture from Cornell in 1922. His wife Katharine, was a classmate, and for their honeymoon, they traveled to Spain, Italy, and North Africa to study Mediterranean architecture. Pancoast worked for Kiehnel & Elliott (Architects), became manager of their Miami Beach office in 1924 and started his own practice in 1928. His first big job was designing the prestigious Surf Club in Surfside 1929." (18)

REPRESENTATIVE PROJECTS INCLUDE:

- Surf Club, Surfside, Fl
- Latin Quarter Nightclub - Palm Island, Miami Beach (constructed 1934 & demolished 1968)
- 1638 Collins Avenue - former Greyhound Bus Station, Miami Beach 1947 (now incorporated into the facade of the Ballet Valet Garage)
- 901 Lincoln Road - Mead Building, Lincoln Rd 1928
- Carl Fisher Memorial - Alton Road & Lakeview Drive, Miami Beach 1941
- Cushman School - 592 NE 60th Street Miami 1926
- Southland Super Service Station @ 1700 SW 22nd Street - Miami - from a prototype by Russell Pancoast 1938
- Miami Beach Community Church Parish Hall - 1620 Drexel Avenue, Miami Beach 1949
- Miami Beach Women's Club 2401 Pine Tree Drive, Miami Beach 1933
- North Beach Elementary School - 4100 Prairie Avenue, Miami Beach 1936
- Peter Miller Hotel, Miami Beach
- Miami Beach Public Library now Bass Museum of Art, 1930

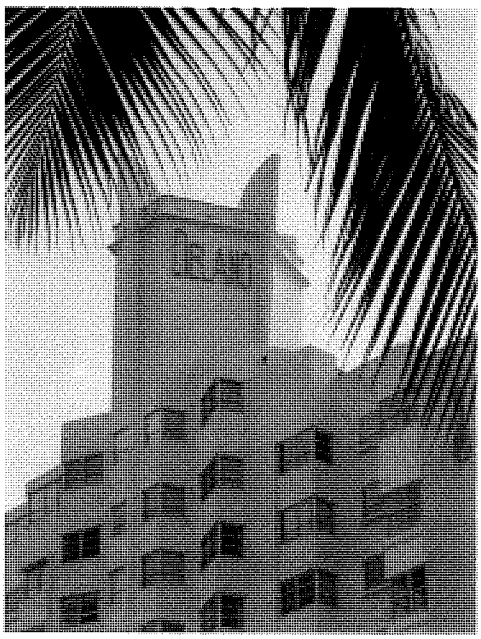


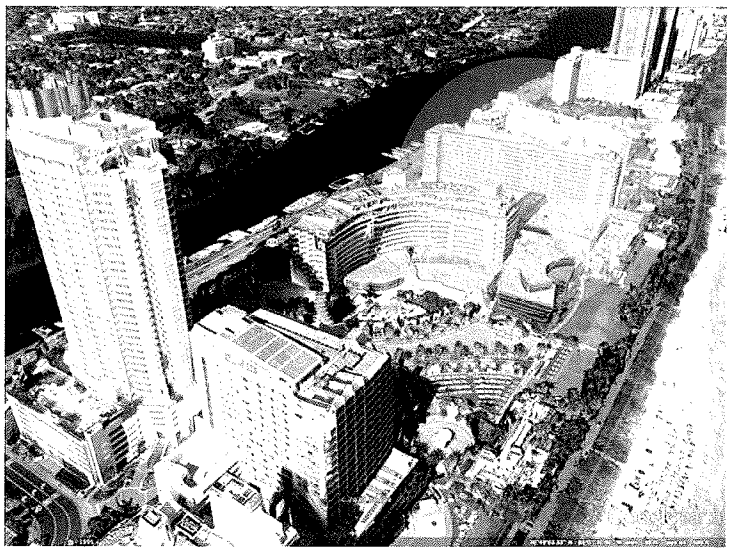
TOP PHOTO: PETER MILLER HOTEL
MIDDLE PHOTO: PHOTO OF MODEL OF PROPOSED NEW MIAMI BEACH COMMUNITY CHURCH CIRCA 1948 (unbuilt)
LOWER PHOTO: MEAD BUILDING

B. ROBERT SWARTBURG (1895-1975) was born in New York and educated at Columbia University, the American Academy in Rome, and at the Ecole des Beaux Arts in Paris. He moved to Miami permanently in 1944 from New York and worked there until his retirement in 1972. In his 35-year career he is said to have designed more than 1000 buildings. Mr. Swartburg was also an accomplished artist who painted for pleasure, and executed murals and sculptures to embellish his buildings. (26)

REPRESENTATIVE PROJECTS INCLUDE:

- Garden Bay Manor, New York City
- Delano Hotel, Miami Beach
- Civic Center, Miami
- Miami Metro Justice Building, Miami
- Miami Beach Convention Hall, Miami Beach
- Riviera Junior High School, Miami
- Ojus Elementary School, Miami
- Sorrento Hotel, Miami Beach
- 910 Bay Drive Apartments, Miami Beach
- 960 Bay Drive Apartments, Miami Beach
- 6881 Bay Drive Apartments, Miami Beach
- Executive House apartments at 4925 Collins \
- Vagabond Motel, Miami
- Belle Towers, Belle Isle, Miami Beach
- Bass Museum conversion from former Miami Beach Public Library, 1962



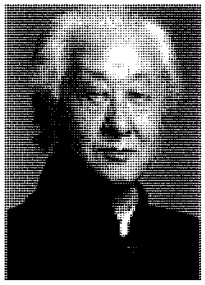


ABOVE: FONTAINEBLEAU HOTEL 2015 WITH NORTH TOWER by A. HERBERT MATHES in HIGHLIGHTED PHOTOGRAPH courtesy GOOGLE EARTH
BELOW: DELANO HOTEL by B. ROBERT SWARTBURG

A. HERBERT MATHES (1912–1977) graduated from New York University in 1937 and came to Miami Beach in 1944. Previously he had designed stores for the National Shoe Company, shoe exhibits at the 1939 New York World's Fair, packing plants in Kansas and film labs for 20th Century Fox. During World War II he designed ships for the U.S. Navy. In Miami Beach he designed a number of commercial, residential and municipal buildings, including many hotels. (26)

REPRESENTATIVE PROJECTS INCLUDE:

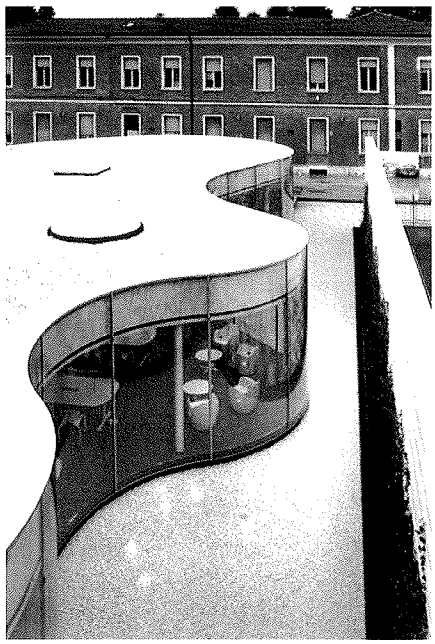
- Forest Park Gardens in Rye, New York
- Continental Hoel, 4000 Collins Avenue
- Parisian Hotel, 1510 Collins Avenue
- Allison Hotel, 261 Collins Avenue
- Fontainebleau Hotel, North addition 1958 (popularly known as the 'spite wall building')
- New Mlami Beach Public Library (1962 - 2000)

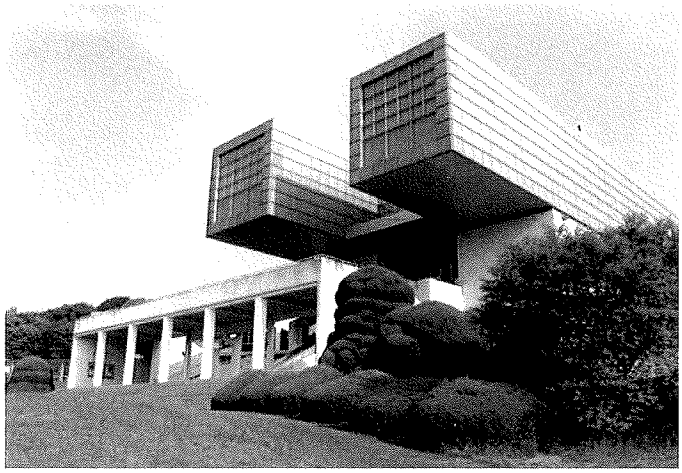


ARATA ISOZAKI ARCHITECT

Arata Isozaki (磯崎 新) was born 23 July 1931 and is a Japanese architect, teacher and theorist. One of the leading architects of his generation, he became an influential proponent of the avant-garde conceptual approach to architecture that characterized the New Wave in Japan in the 1970s and after. He studied at the University of Tokyo under Kenzō Tange and after graduating (1954) he worked for Kenzō Tange & Urtec until 1963. From 1960 Isozaki began to develop his own practice first as an architectural designer.

His beginning projects were influenced and influenced by European experiences with a style mixed between "New Brutalism" & "Metabolist Architecture" (Oita Medical Hall, 1959-1960) according to Reyner Banham. He then developed a more eclectic style with buildings such as: and later developed a modernistic style with buildings such as the Art Tower of Mito (1986–90), Domus-Casa del Hombre (1991-1995) and more.



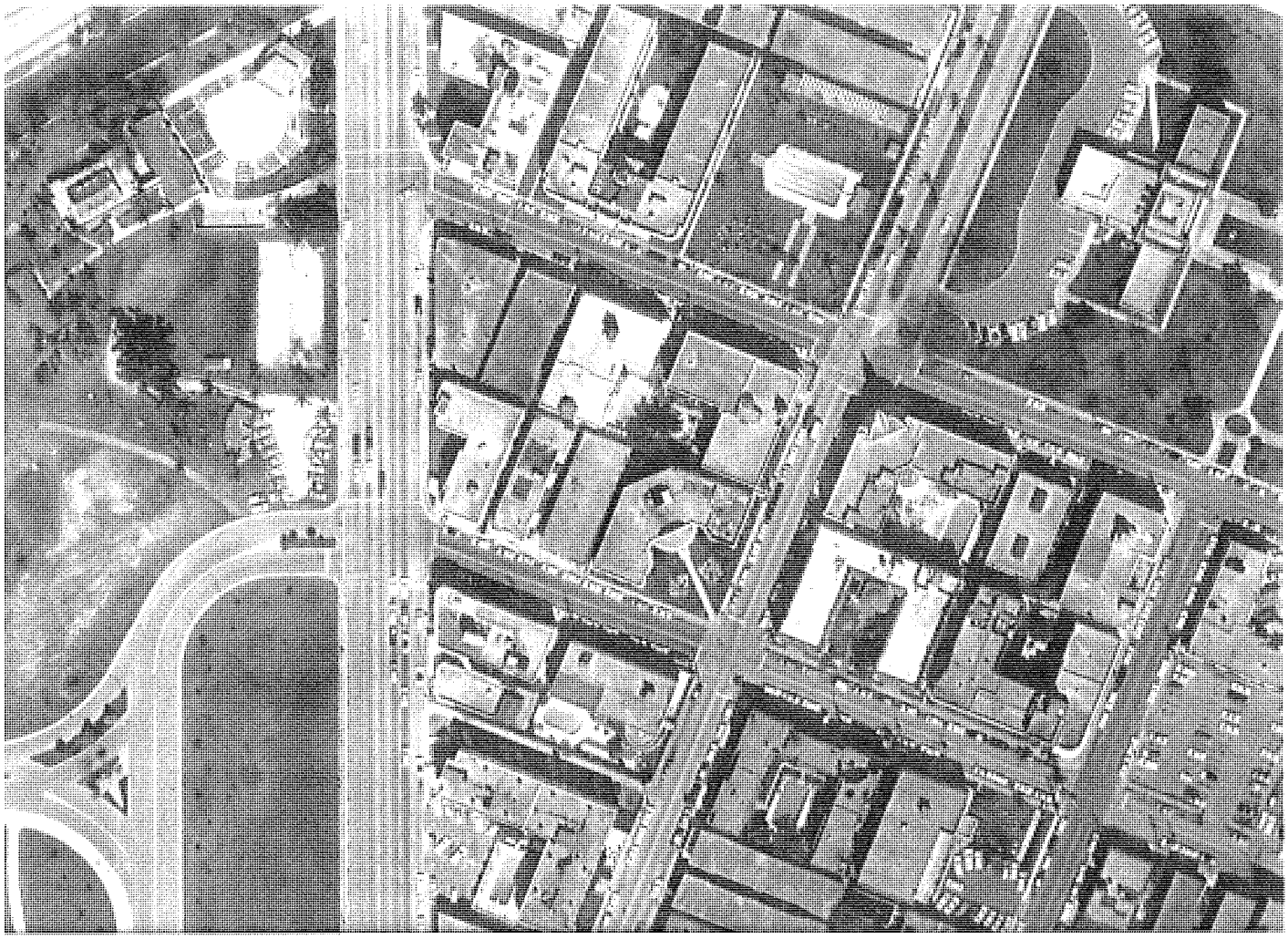


ABOVE: KITAKYUSHU MUNICIPAL MUSEUM OF ART, JAPANBELOW: BIBLIOTECA DI MARANELLO, ITALY

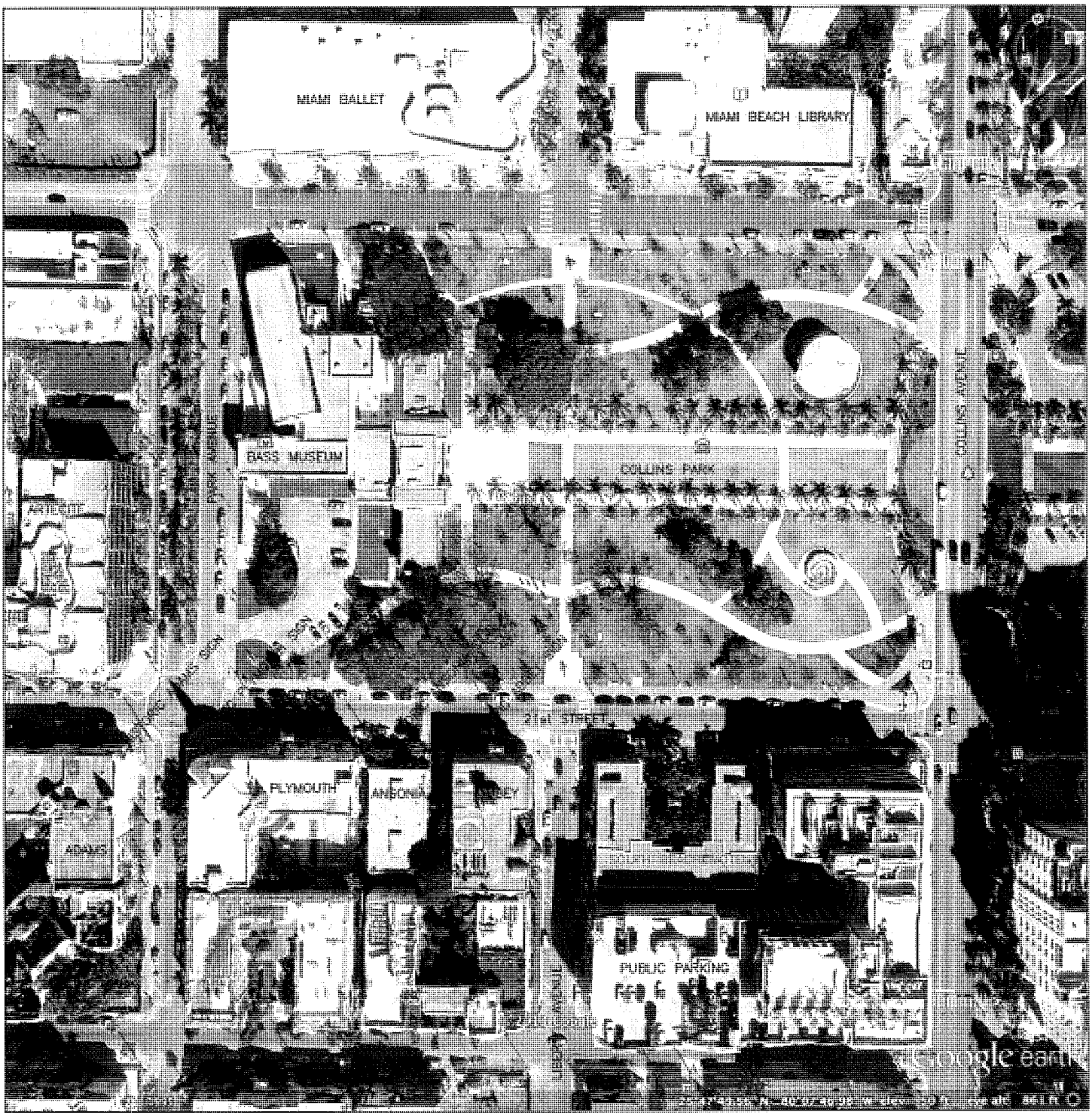
He has created a number of various works both inside and outside Japan. He is considered one of world's most illustrious architects, winning many prestigious international awards

Other major projects include:

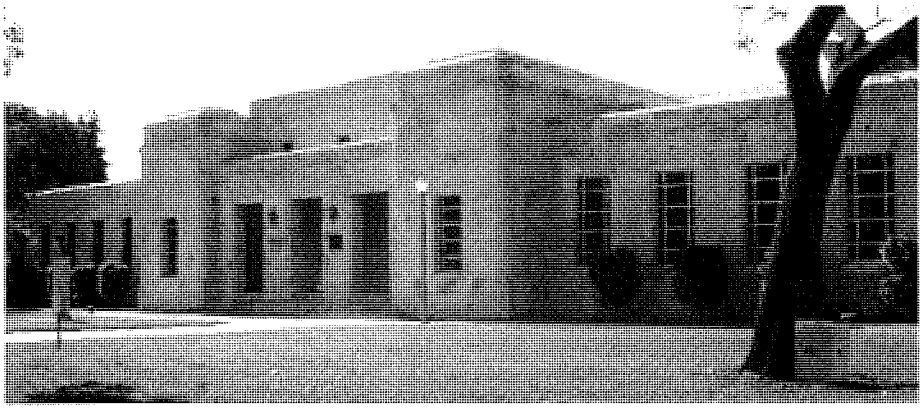
- Museum of Contemporary Art, Los Angeles, CA
- Olympic Stadium, Barcelona, Spain
- Team Disney, Orlando, Florida
- Tokyo University of Art and Design
- Kitakyushu Municipal Museum of Art, Kitakyushu, Japan 1974
- Ōita Medical Center (1960)
- Ōita Prefectural Library (1966)
- Ōita branch of the Fukuoka Mutual Bank (1967)
- Gunma Prefectural Museum of Modern Art (1971–1974), Takasaki
- Kitakyushu Municipal Central Library (1972–1975)
- West Japan General Exhibition Center (1977) Kitakyushu.
- Fujimi Country Club (1973–74)
- Casals Hall, Chiyoda, Japan
- Nara Centennial Hall, Japan
- Palau Sant Jordi Stadium, Barcelona, Spain 1990
- Kitakyushu Central Library (1973–74)
- Kyoto Concert Hall, Japan
- CityLife Centre, Milan, Italy
- ICE Krakow Congress Centre, Poland
- Bass Museum of Art, Miami Beach, Florida 2000



1965 AERIAL PHOTOGRAPHY SURVEY OF PARTIAL
NEIGHBORHOOD SHOWING THE BASS MUSEUM courtesy
of CITY OF MIAMI BEACH PUBLIC WORKS



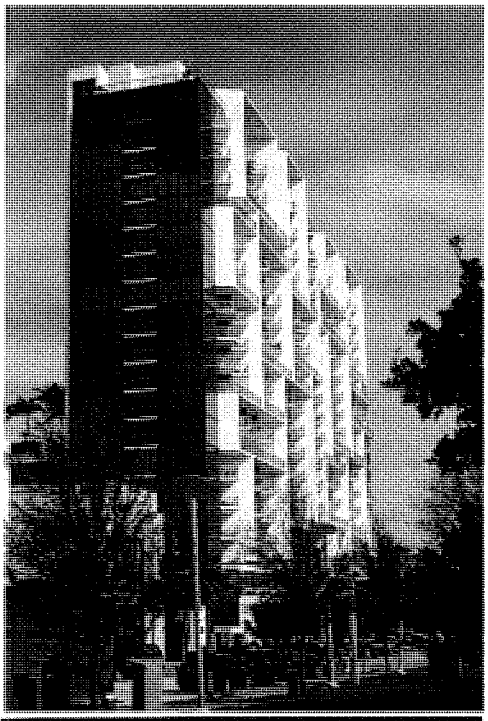
THIS MAP WAS PREPARED PREVIOUSLY BY ARTHUR MARCUS ARCHITECT IN 2013 FOR THE SOUTH BEACH HOTEL AND NOTES PROMINENT BUILDINGS SURROUNDING COLLINS PARK AND THE BASS MUSEUM. MAP COURTESY OF GOOGLE EARTH.

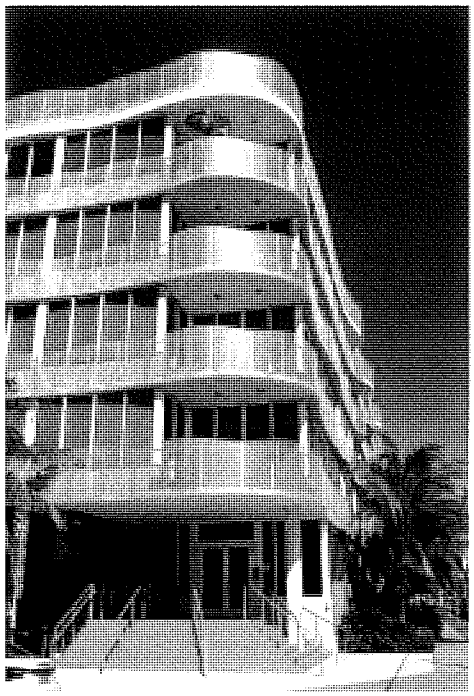


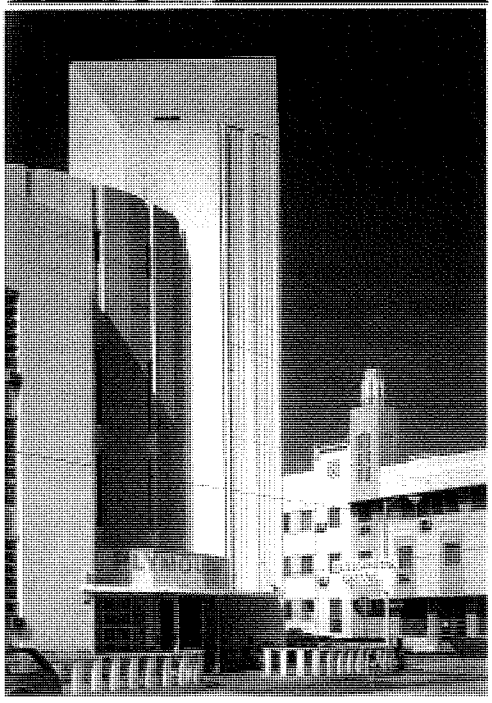
TOP & LOWER PHOTOGRAPHS
COURTESY BASS MUSEUM

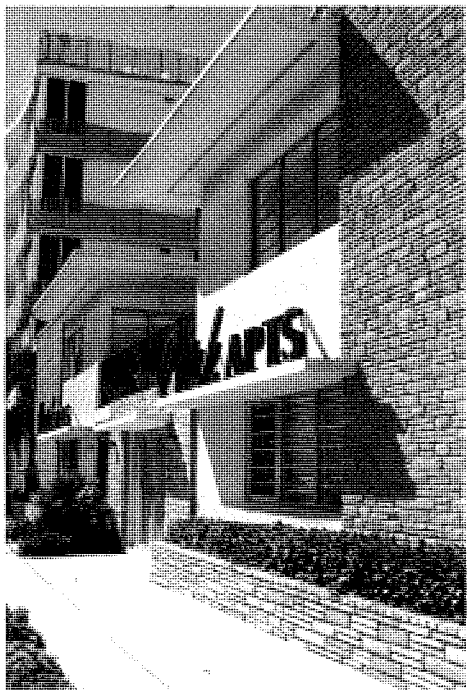
NEIGHBORING BUILDINGS

Surrounding the Bass Museum in every direction around Collins Park is an intriguing melange of noted structures of different architectural styles and forms.







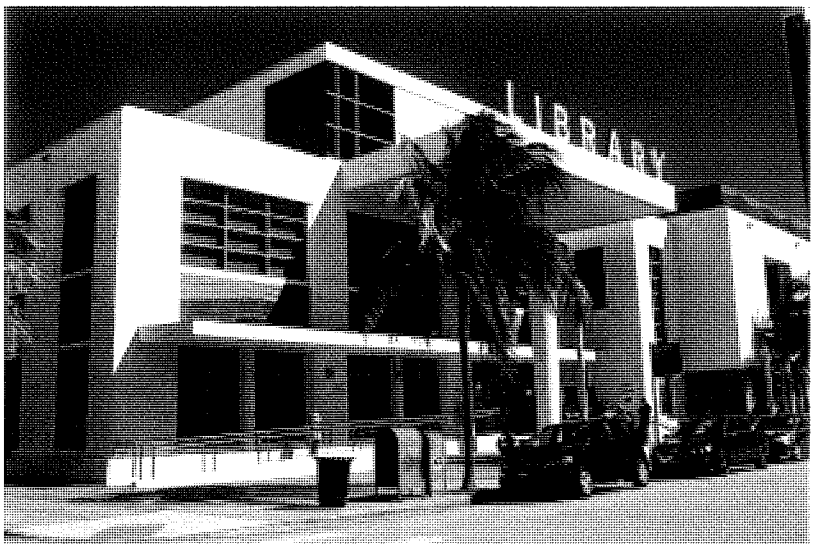


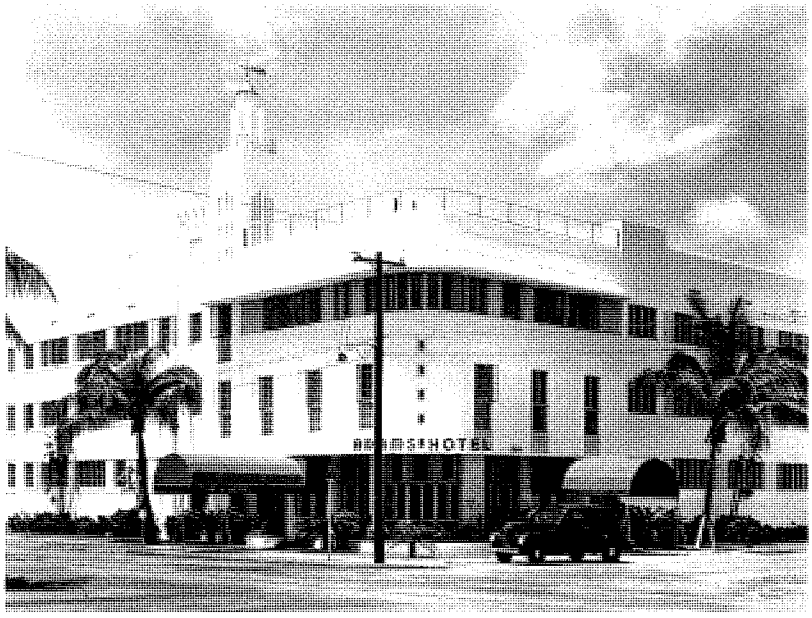
TOP RIGHT: ARTECITE at 20th + PARK AVE

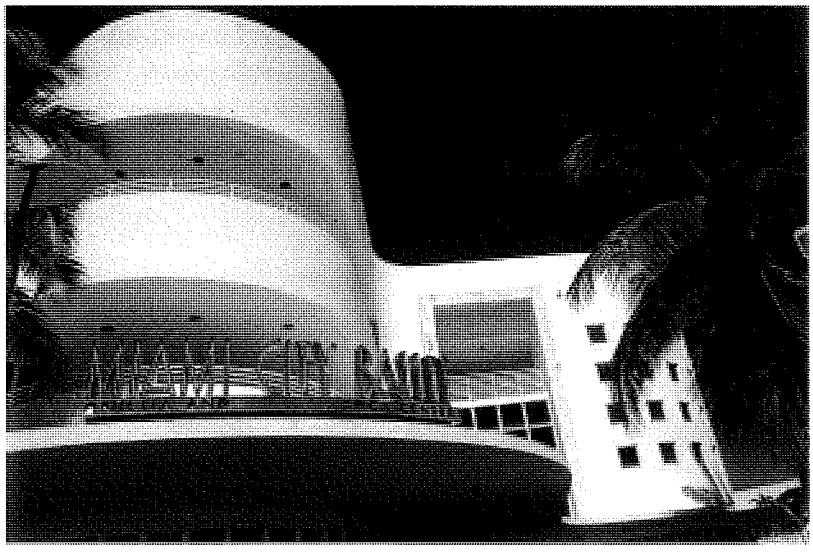
TOP LEFT: W HOTEL on 21st STRRET

LOWER RIGHT: PARK APARTMENTS on PARK AVENUE

LOWER LEFT: PLYMOUTH HOTEL with ADAMS HOTEL IN BACKGROUND. photo by STEVEN BROOKE in DECO DELIGHTS 1988 (28)







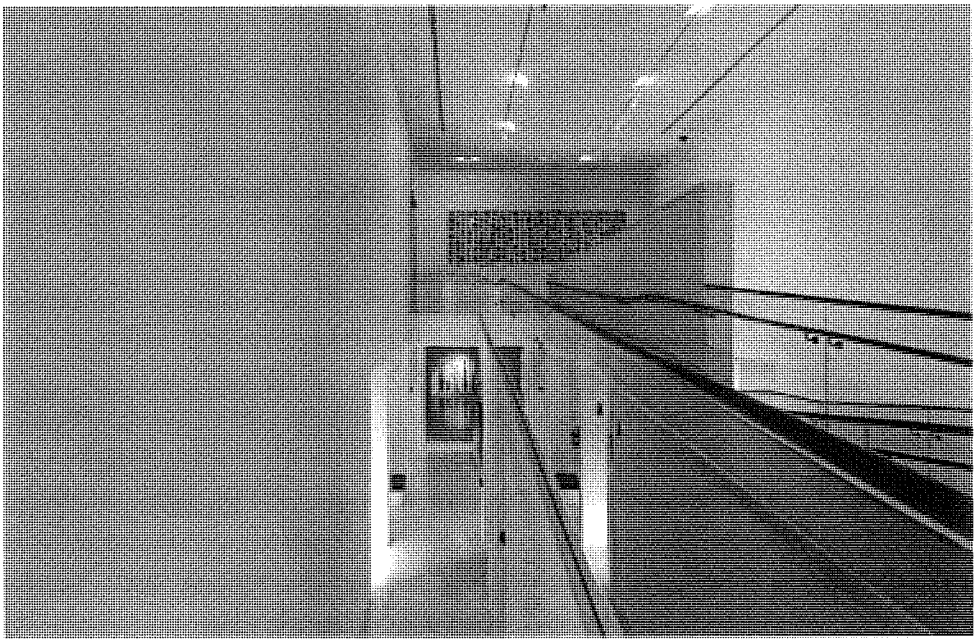
NEIGHBORING BUILDINGS

TOP PHOTO: MIAMI BEACH REGIONAL LIBRARY by ROBERT A. M. STERN ARCHITECTS, 2004

MIDDLE PHOTO: ADAMS HOTEL by L. MURRAY DIXON ARCHITECT 1938 courtesy HISTORY MIAMI

LOWER PHOTO: MIAMI CITY BALLET by ARQUITECTONICA ARCHITECTS, 2000

TOP AND LOWER PHOTOGRAPHS by ARTHUR MARCUS



PUBLIC INTERIOR SPACES

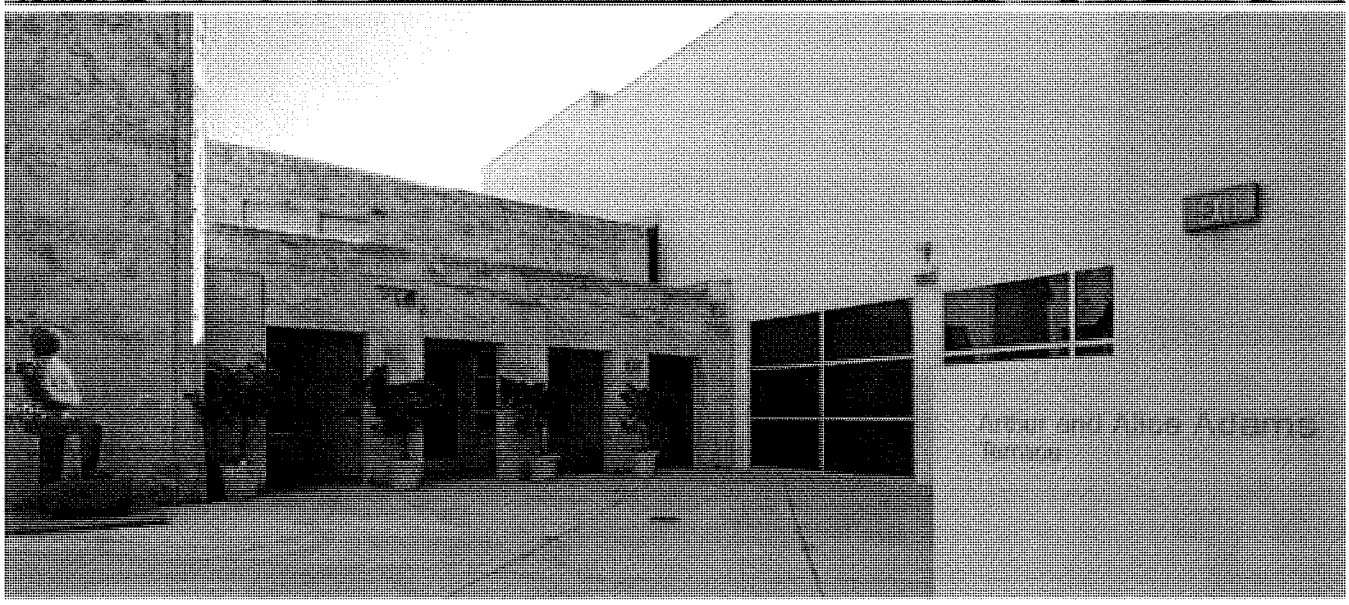
TOP PHOTO:

ENTRANCE LOBBY

MIDDLE PHOTO:
EXISTING
WESTERN
GALLERY

LOWER PHOTO:
ROTUNDA
CLASSROOM

PHOTOGRAPHS
COURTESY
BASS MUSEUM



Throughout its existence as both a Library and an Art Museum, the building has experienced a continual series of additions to the north, west and south elevations.

The photo at left is taken standing from the 2000 Isozaki addition looking through the doorway into one of the western additions to the 1930 Pancoast building - still clad with coral rock stone.

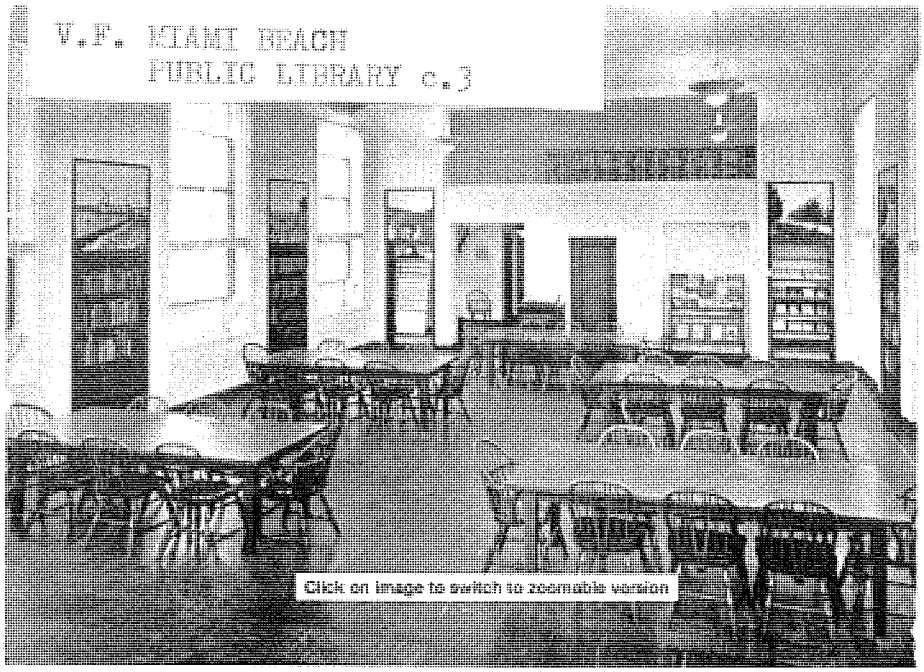
Top + Lower Photos by Arthur Marcus
Middle Photo courtesy Bass Museum

NORTH GALLERY WITH RECENT ART INSTALLATION

TOP LOOKING NORTH

LOWER LOOKING SOUTH

f



Interior View of Collins Memorial

The
JOHN S. COLLINS
MEMORIAL

of the

MIAMI BEACH PUBLIC LIBRARY
and ART CENTRE

COVER OF THE 4-page 1930 DEDICATION BOOKLET for the MIAMI BEACH PUBLIC LIBRARY WITH INTERIOR VIEW OF THE NORTH GALLERY.

The John S. Collins Memorial

This memorial comprising the south wing of the Miami Beach Public Library and Art Centre of Miami Beach, Florida is erected to commemorate the late John S. Collins, pioneer and early developer of Miami Beach by his daughter Mrs. Thomas J. Pancoast, Chairman of the Library Board.

Mr. Collins was born December 29, 1837 in the ancestral Quaker home of the Collins family in Morrestown, New Jersey. The son of a farmer, he was the sixth generation of his name to live in this homestead. He grew up with a deep love of the soil and a creative passion for making things grow and produce abundantly. In his early youth he experimented with growing strawberries commercially, and as a young man of twenty years he was the proud possessor of a quarter of an acre of ground all his own, a gift from his father. This land he planted half in blackberries and half in strawberries and harvested a profitable crop the first year. His love of growing things caused him to establish the Pleasant Valley Nurseries at Morrestown, the profits from which were used to buy neighboring farms, an enterprise of considerable value. After much experience in experimental agriculture he stocked a farm at Merchantville, New Jersey with his beloved blackberry plants and it was from these plants that he popularized the famous Wilson early blackberries in the markets of Philadelphia and New York. His early recognition of the Kiefer pears did much to promote its acceptance in the east.

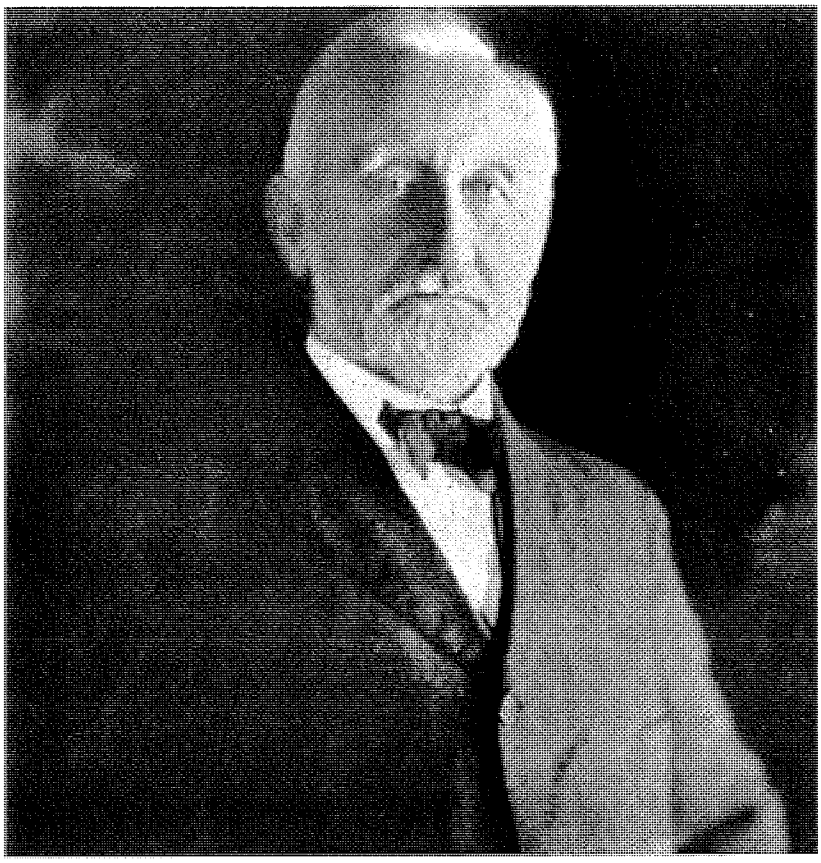
Mr. Collins was always keenly receptive to new methods and new ideas, especially machine and labor saving devices, and in 1888 he became a dealer in farm machinery and farmer's supplies. Feeling that he was getting along in years, he was now ready to shift a measure of his responsibilities to his son and son-in-law. Now he found that there was time to look for other fields to conquer.

A number of years before he had come to the financial aid of a group of New Jersey men who were promoting a fantastic plan to grow coconuts commercially in Miami Beach. This plan had proven a failure, a fact deeply resented by Mr. Collins and he now determined to turn that failure into success. In the early nineties Mr. Collins had first come to Florida. The railroad had not yet reached Palm Beach and he preceded the railroad into Miami in 1896 to take the situation over personally. He intended, if the land came up to his expectations, to develop it according to his own ideas. Two black men rowed him across Biscayne Bay and for the first time he set foot on the soil of Miami Beach. He admired the location, and after examining the soil found it good. Things, wonderful things, new things could be grown in this virgin jungle. That was for the present, and with the perfect climate, the sun and the sea, he foresaw that thousands of people would come to spend the winter here, if given the opportunity.

There was much work to be done, the jungle must be cut down, business called him north, proper control of the land must be obtained, all of these things caused irritating delays, but finally by 1907 he was ready to go ahead. During the delay he studied the situation, talked to native farmers and government plan experts. He sought and found the unusual fruit with which he wished to experiment. He would plant avocados and while these grew he would plan the fashionable winter resort of his dreams.

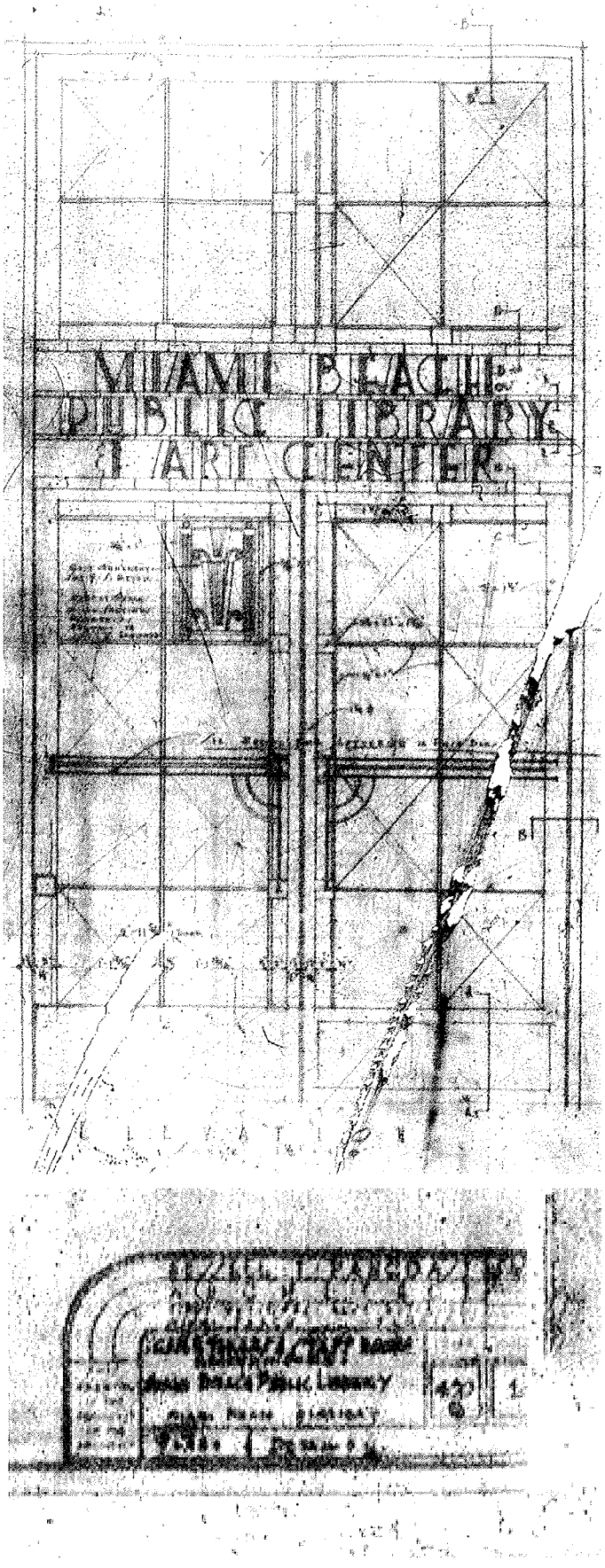
The Herculean task of clearing the jungles, of planting orchards, of building canals and bridges for communication, of interesting others to settle here, of supplying vision and courage to those who without it would so easily have given up, has truly earned him the loving title of Father of Miami Beach.

In memory of this vision and this courage, the John S. Collins Memorial is erected for the citizens of the city he dreamed.

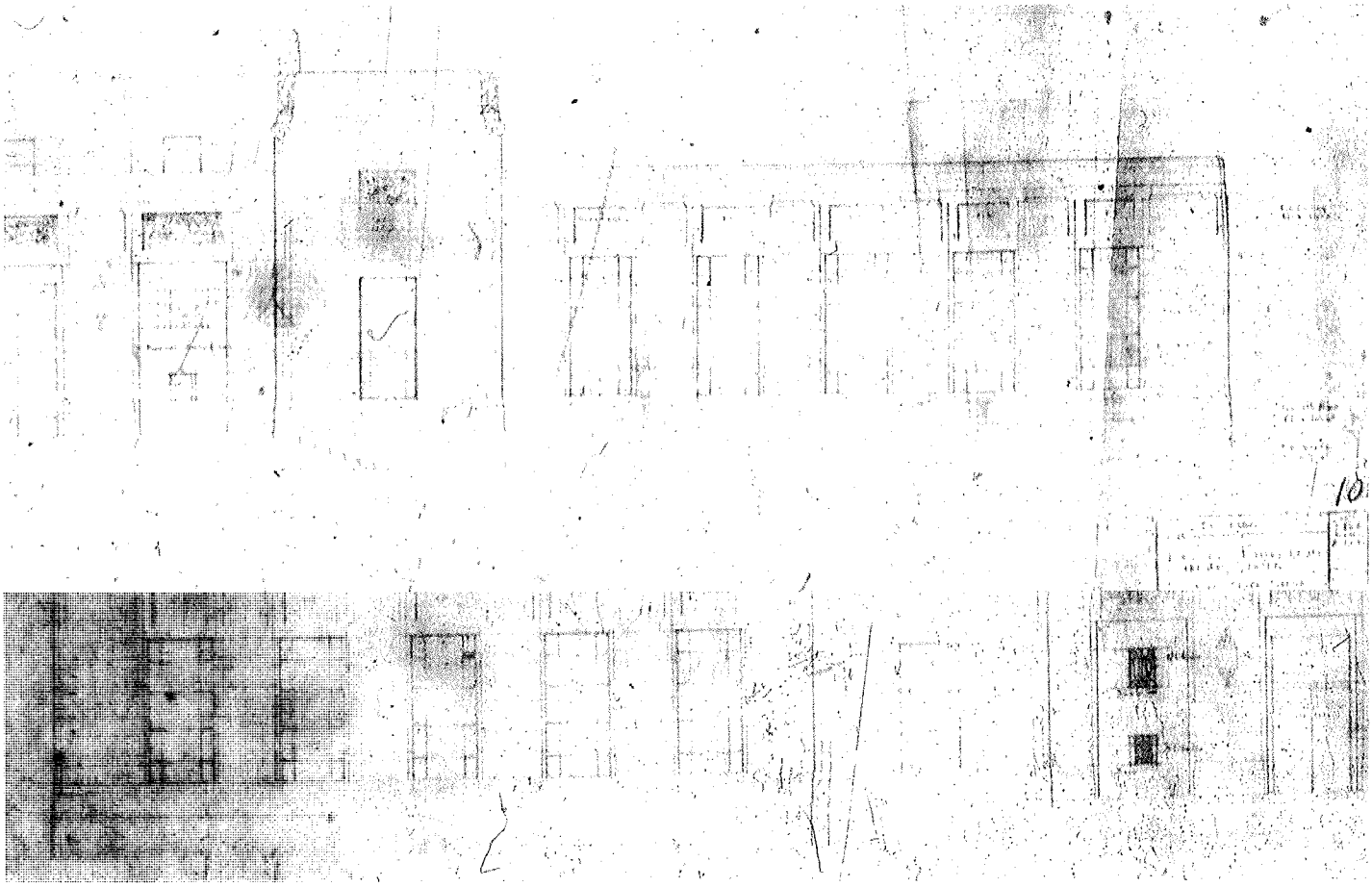


JOHN S. COLLINS

THE MEMORIAL IS ERECTED IN LOVE AND RESPECT FOR THIS FRIENDLY MAN. MIAMI BEACH IS A MONUMENT TO HIS VISION AND COURAGE.

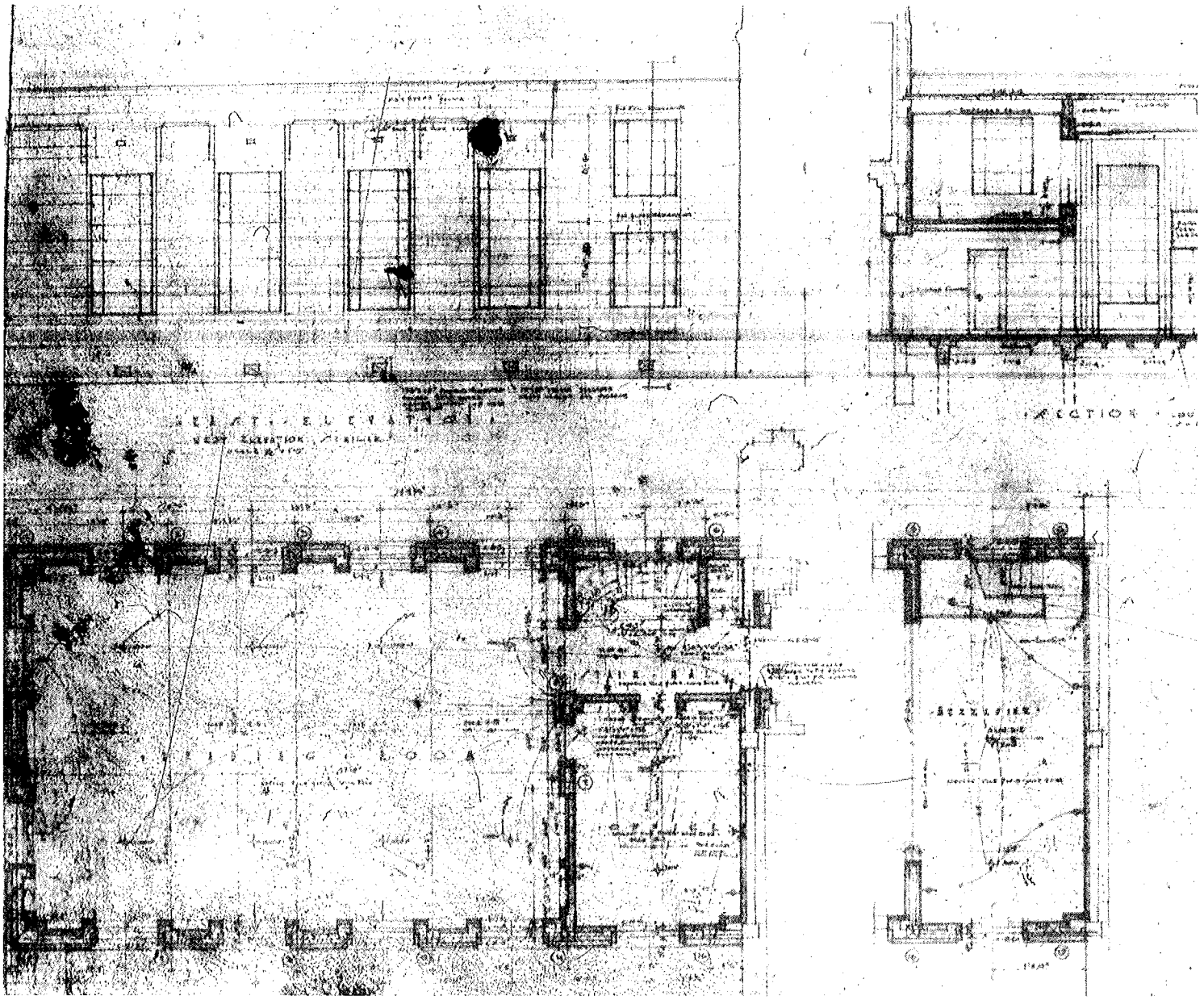


DESIGN FOR NEW ENTRANCE DOORS, 1930 RUSSELL PANCOAST ARCHITECT WITH ARCHITECT'S TITLE BLOCK BELOW.

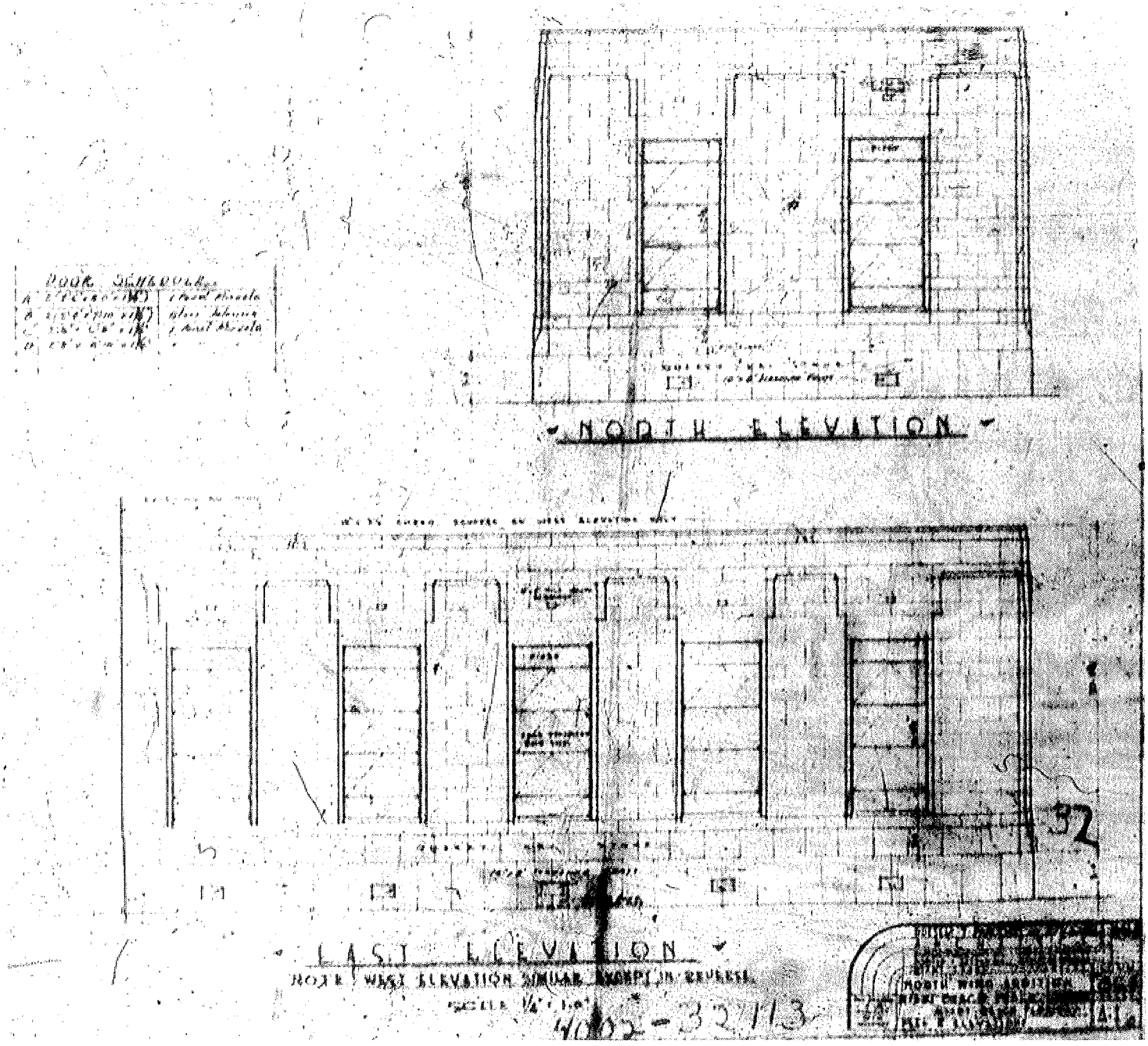


ABOVE: 1930 - NORTHERN PORTION OF EAST ELEVATION

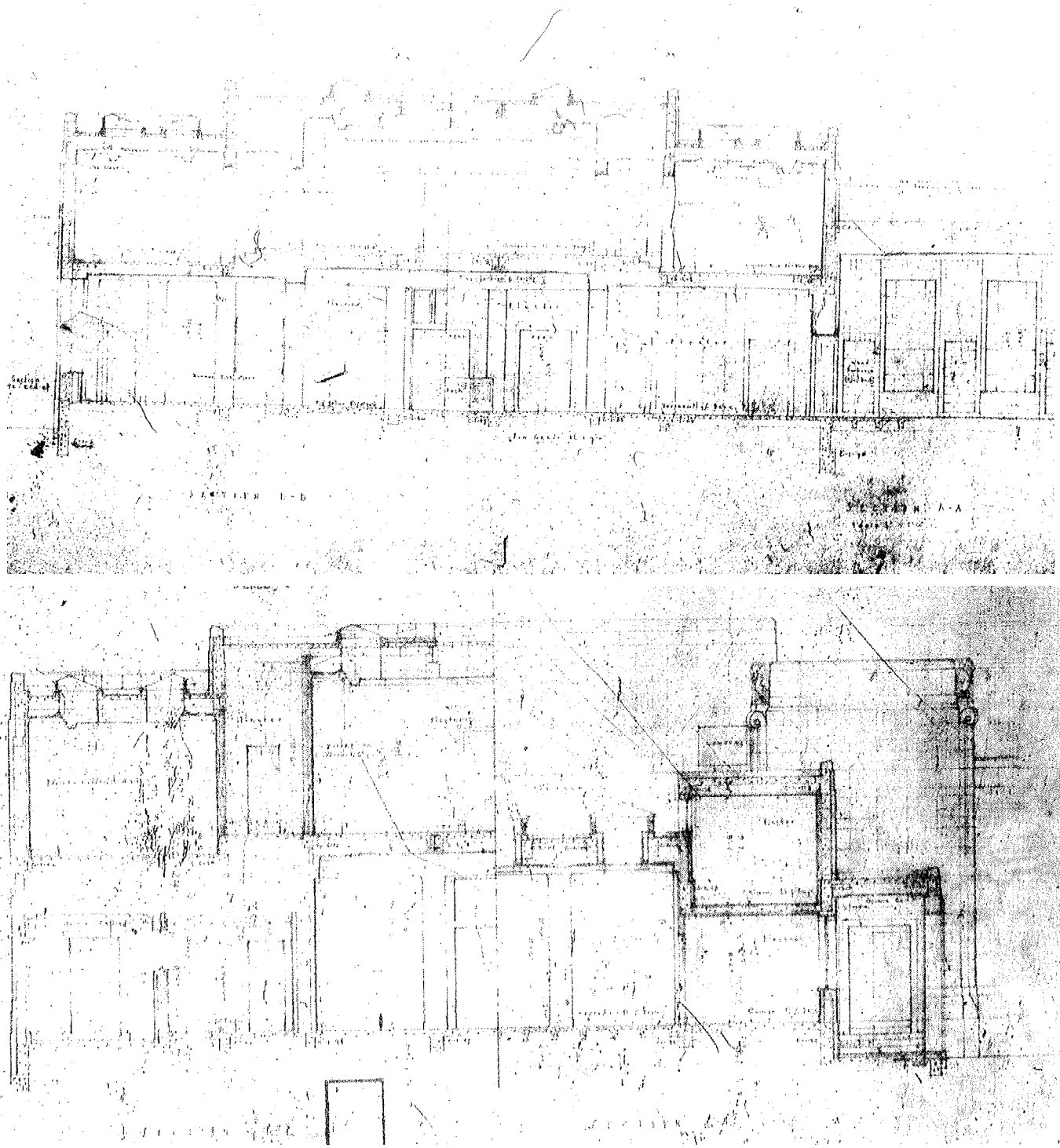
BELOW: 1930 - SOUTHERN PORTION OF EAST ELEVATION



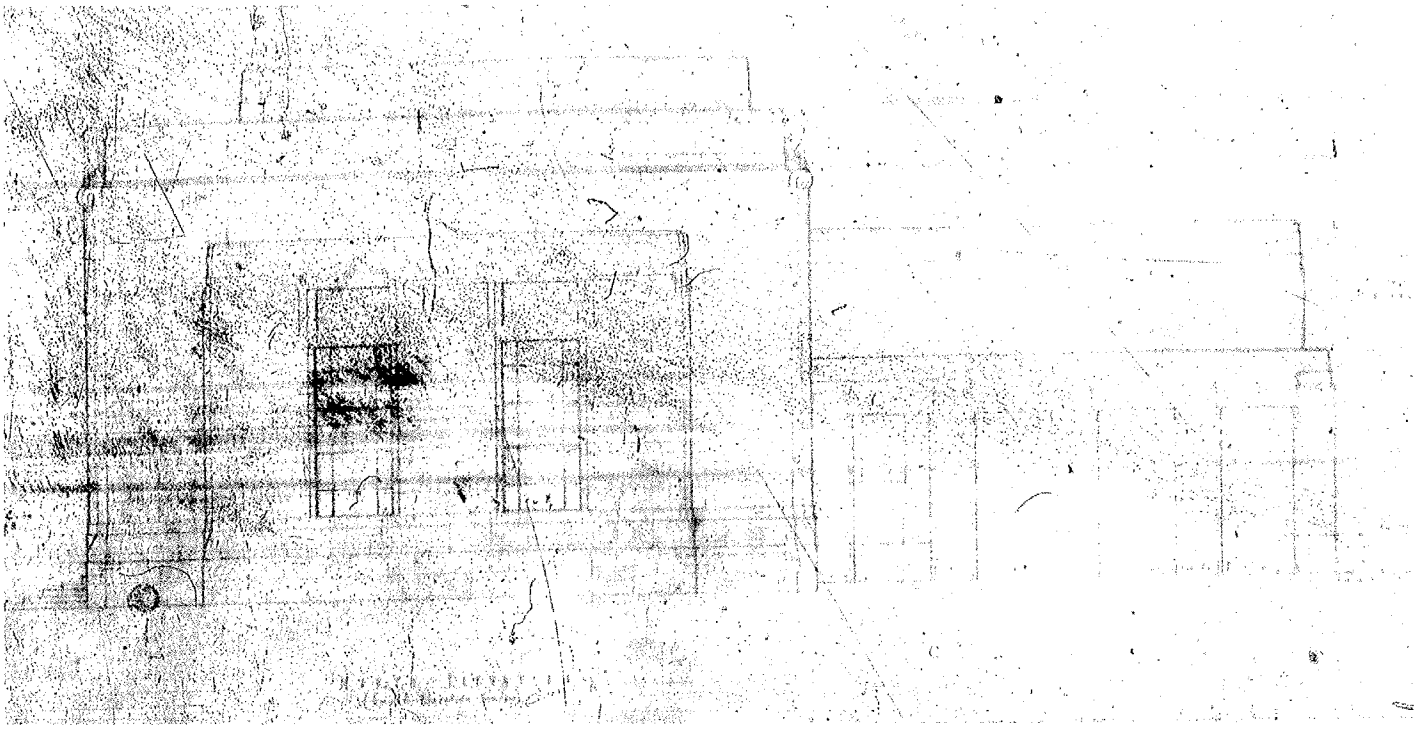
1930 - PLAN @ FIRST FLOOR READING ROOM
RUSSELL PANCOAST ARCHITECT

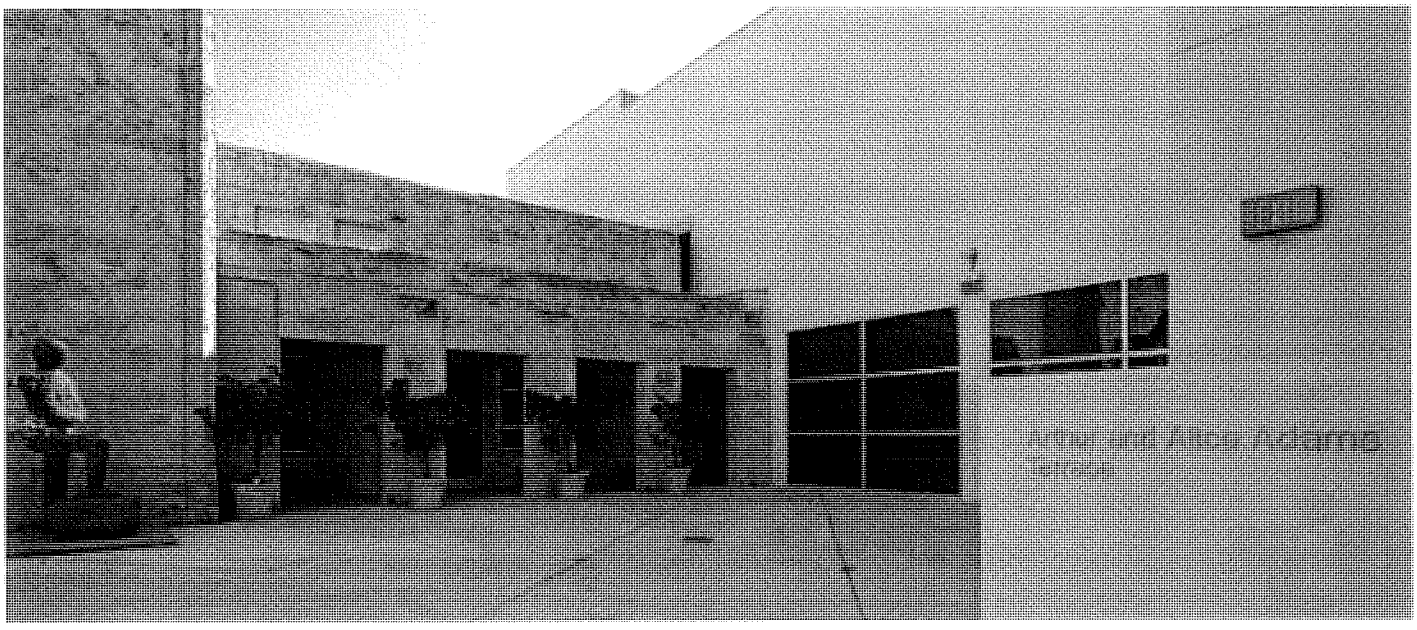


1930 ELEVATIONS - RUSSELL PANCOAST ARCHITECT

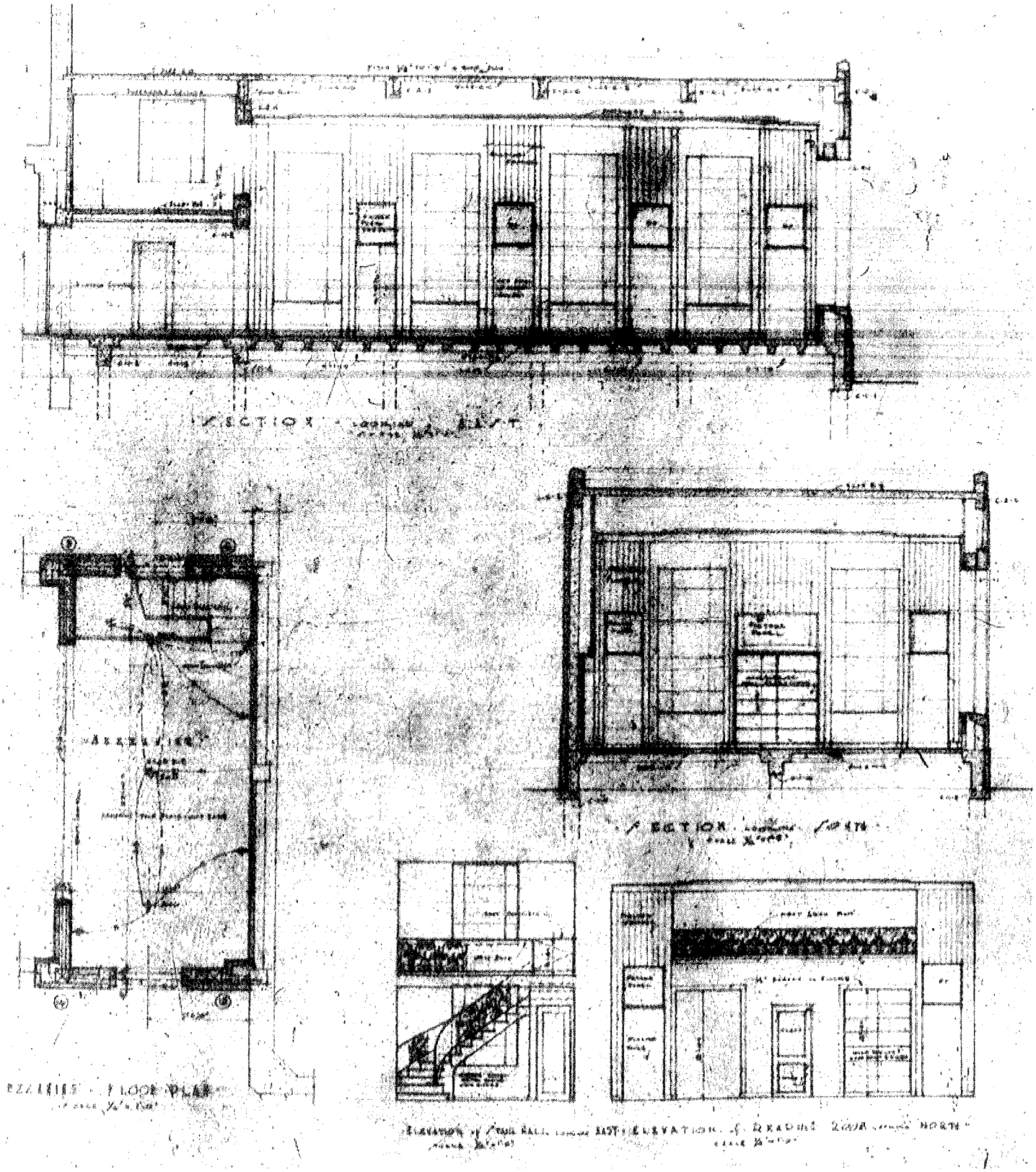


1930 SECTIONS - RUSSELL PANCOAST ARCHITECT

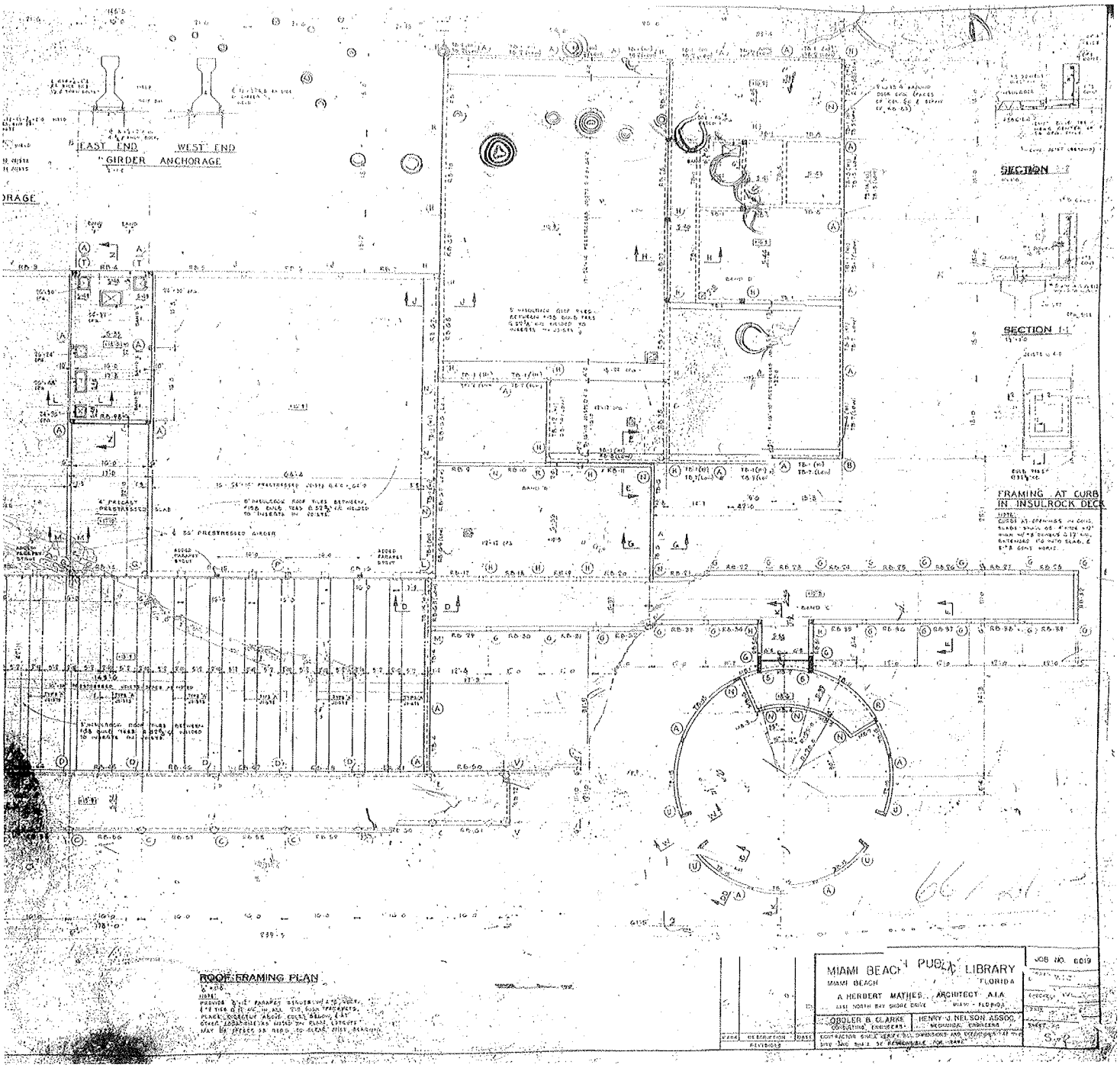




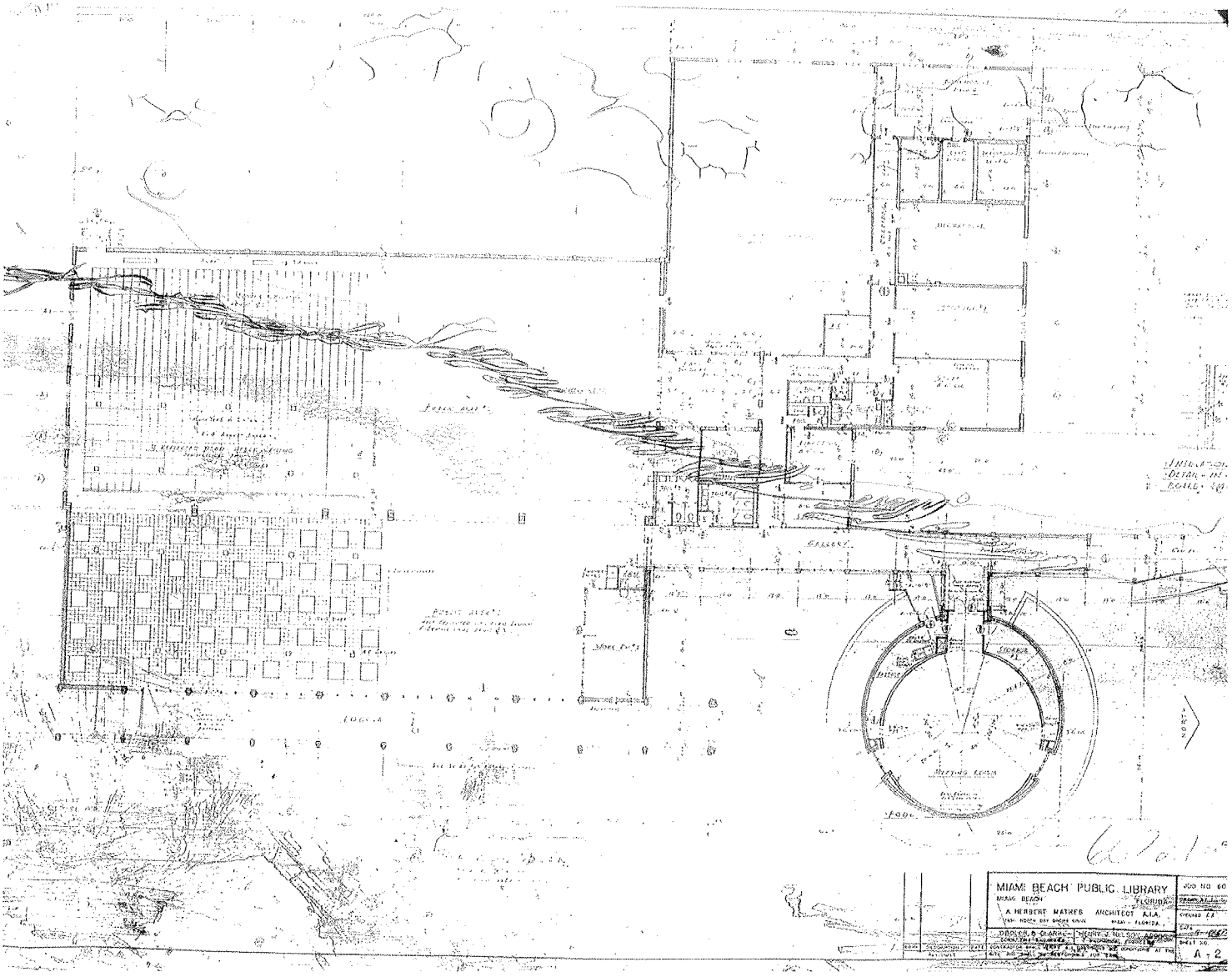
ARTHUR AND ALICE ADAMS TERRACE



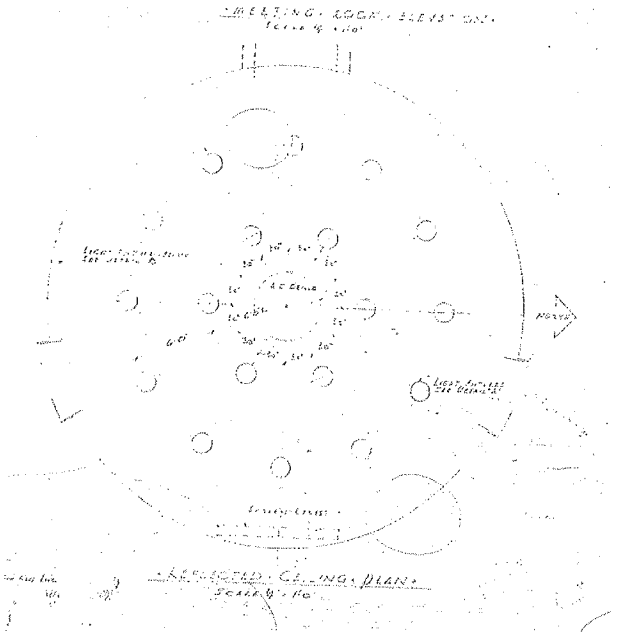
1930 INTERIOR ELEVATIONS - RUSSELL PANCOAST ARCHITECT

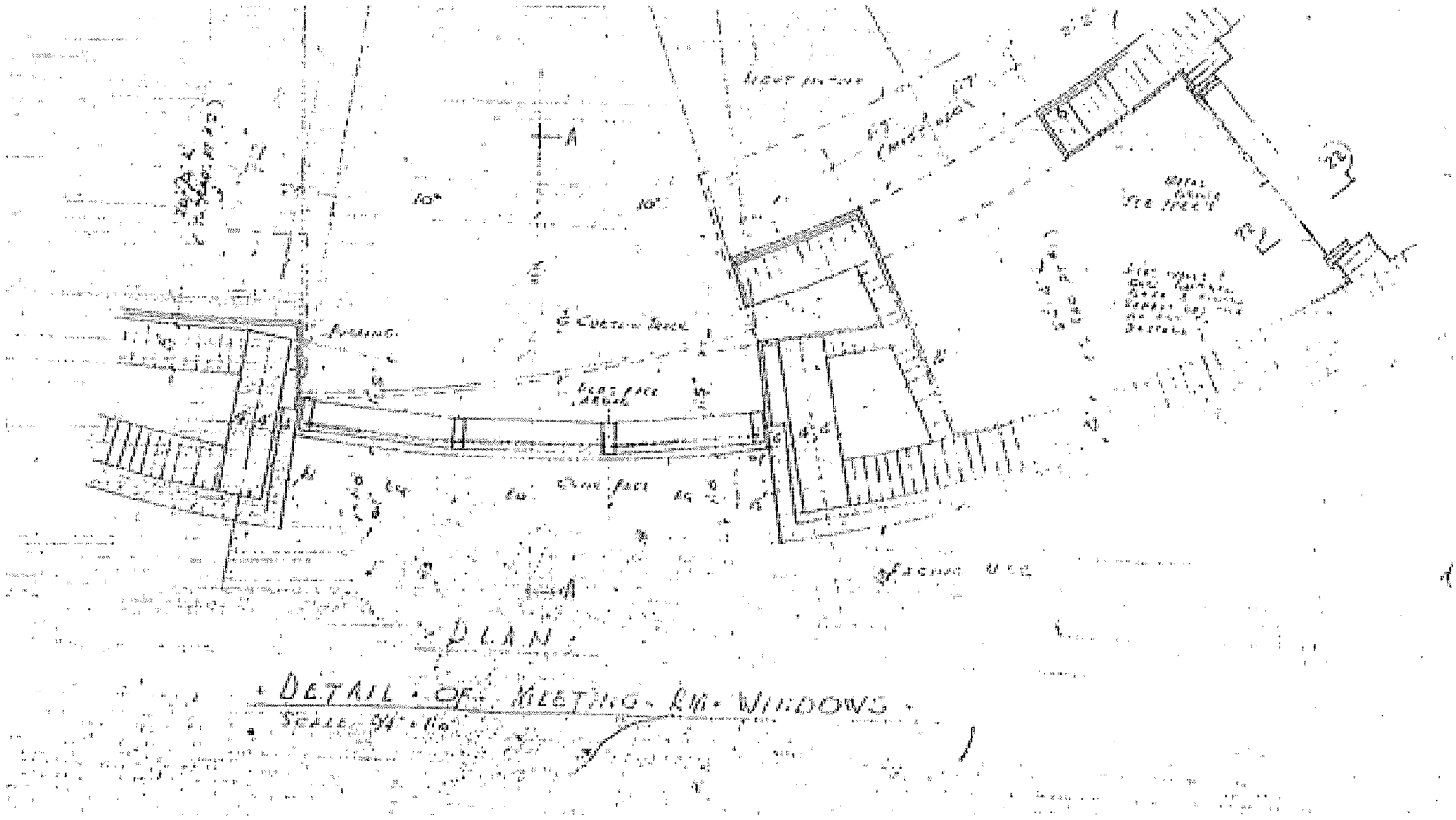


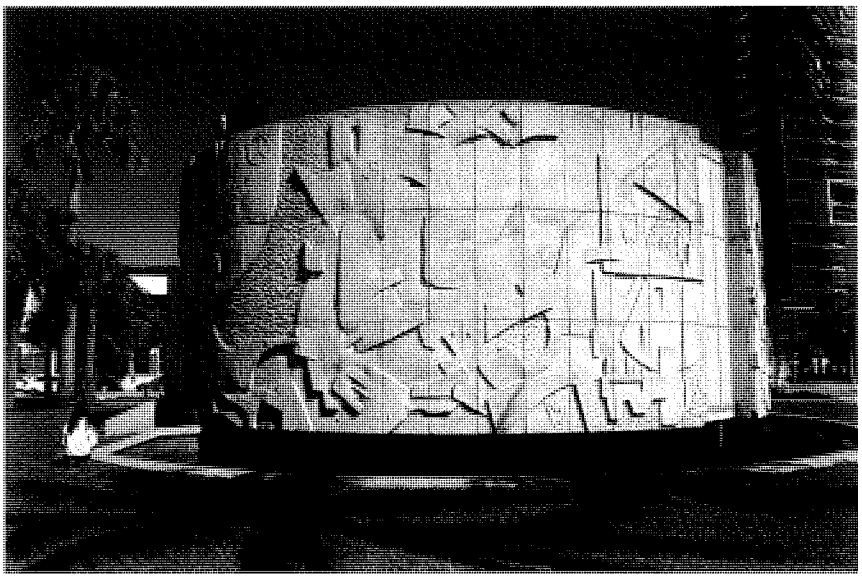
1962 NEW MIAMI BEACH PUBLIC LIBRARY by
A. HERBERT MATHES ARCHITECT -
ROOF FRAMING PLAN



ABOVE: 1962 NEW MIAMI BEACH PUBLIC LIBRARY by
A. HERBERT MATHES ARCHITECT -
ROOF FRAMING PLAN
BELOW: MEETING ROOM REFLECTED CEILING PLAN

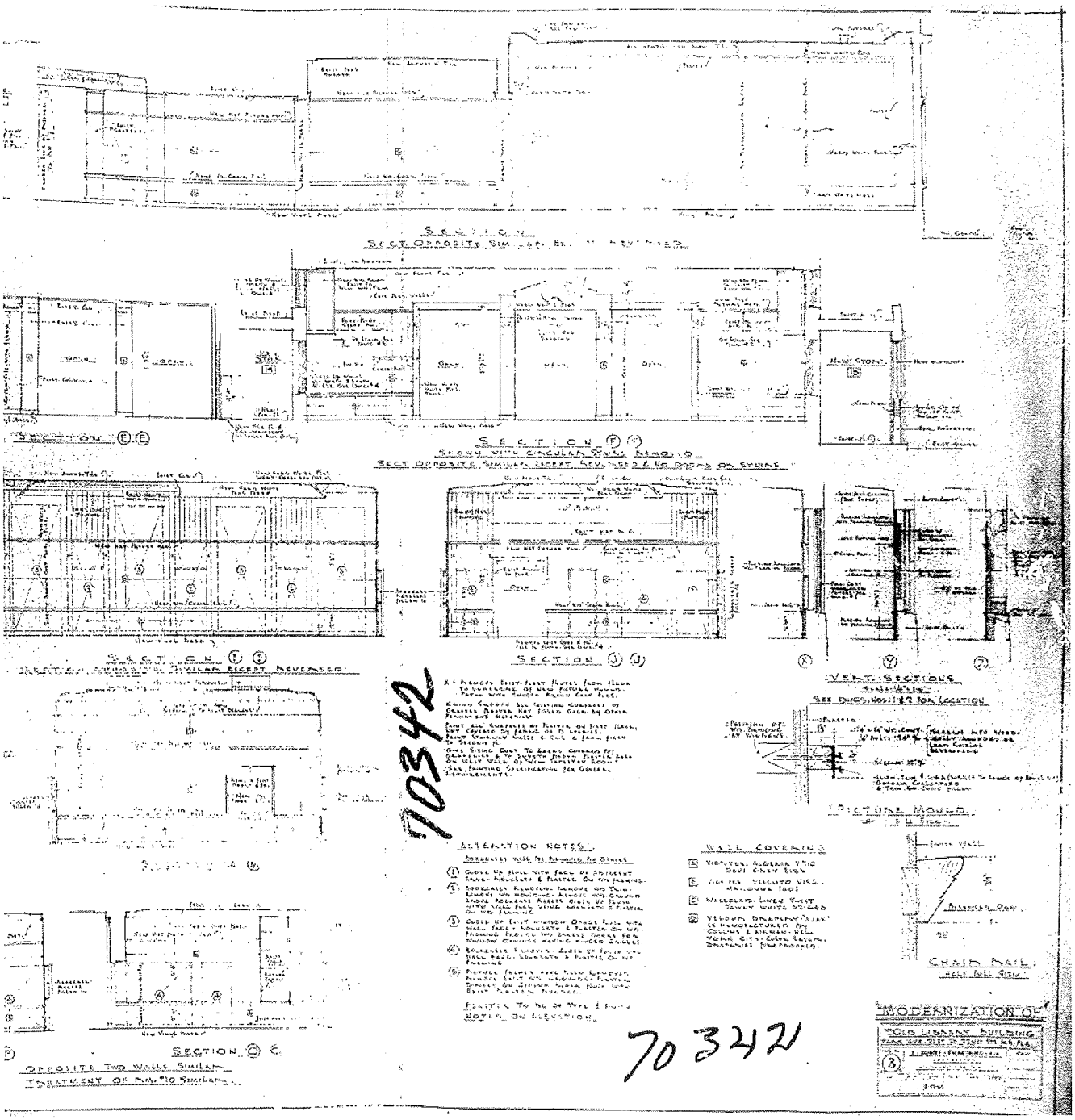






ABOVE -1962 NEW MIAMI BEACH PUBLIC LIBRARY by A. HERBERT MATHES ARCHITECT - WALL DETAIL

BELOW: 2015 PHOTOGRAPH by ARTHUR MARCUS



1962 RENOVATION OF FORMER LIBRARY BUILDING INTO
THE BASS MUSEUM OF ART by ROBERT SWARTBURG
ARCHITECT

JOHN S. COLLINS MEMORIAL LIBRARY & ART CENTER — AM. NEW ART MUSEUM - 10/18/62 - SEE PERMIT #[illegible] - [illegible]

Owner Jno. S. Collins Memorial Library — Mailing Address — Permit No. 4002 - - ALL PLANS

Lot — Block — Subdivision COLLINS PARK — No. — Street 24th Street & Collins Ave — Date Sept. 30-1930

General Contractor John B. Orr — Address

Supervision of Ralph Tyson, engineer --

Architect Russell T. Pancoast — Address

Russell T. Pancoast

Front — Depth — Height — Stories — Use Library

Type of construction C/B/S — Cost $60,000.00 -Orr $10,000.00-finishing -- C.W.A. $ 4,402.01 City of M. B. #5429 — Foundation Piling -- — Roof Galv. Conc--

---

Plumbing Contractor Orr — Address — Date Oct. 9-1930

No. fixtures 10 — Rough approved by — Date

No. Receptacles GAS 6

Plumbing Contractor — Address — Date

No. fixtures set — Final approved by — Date

Sewer connection — Septic tank — Make — Date

Electrical Contractor E.A. Robinson #1824 — Address — Date Oct. 13-1930

No. outlets 161 — Heaters — Stoves — Motors — Fans — Temporary service

Rough approved by — Date

Electrical Contractor — Address — Date

No. fixtures set — Final approved by — Date

Date of service

**** Alterations or repairs #10135- Finishing 2nd floor as per plans and specifications Russell T. Pancoast, architect: J. C. Horning, Inc. contractor- $ 15,000.00 -Aug. 16-1937 — Date

10207- ADDITION -Reading Room and Office- $ 17,000.00 Aug. 24-1937
Russell Pancoast, arch; J.B.Orr, contractor- c/b/s/ - concrete piling - flat roof.

Repairing flashing - Robbins Roofing Company $ 450..... August 1,1945

BUILDING PERMIT # 20613 Roofing & repairs to flashing & parapet walls - $ 500... Aug. 22, 1945
Robbins Roofing Co:

SEE OTHER SIDE FOR ADDITIONAL PLUMBING AND ELECTRICAL PERMITS*****

ELECTRICAL PERMITS - # 9235 - Geo. LaVigne- 34 switch, 128 light outlets; 24 receptacles;
(Horning & Orr jobs- 2 fans- 121 fixtures- 1 center of distribution- Aug. 30-1937

26532 Bankier B rothers: 1 switch outlet, 2 light outlets, 4 fixtures, 1 center of distribution- June 16, 1948

BUILDING PERMITS

28124 Re-roofing - Palmer's Roofing Company $ 3,300.... August 30, 1948

30588 Foundation for bust of Dr. Carlos J. Finley (on Collins Avenue facing East)- J.C.Woodruff, contractor $ 200.....August 22, 1949

32113 Addition to public library- 32' x 58'10" x 20'8-5/8 in.- #1 CBS - Reinforced concrete Pilin; foundation- Flat roof- H. P. Hardin, engr: Russell T. Pancoast, architect: Shalker Constr. Company, contractor - $ 58,824..... March 8, 1950

49930 Alt & Addition---Install two 1½ ton heating units: [illegible] Hamilton, contractor ------ OK, Plaag 6/15/1956---- $ 9,000...March 12, 1956

#55405 Sam L. Hamilton,Inc: 468,000 BTU Hot Water Heater Oil Fired-$2000-1/23/58

#55464 Fuel Oil Equipment: Install 1 - 300 gal fuel oil tank underground, 1 Atlantic hot water boiler, tank location approved by Fire Inspectors Report #7946 - $900 - Jan. 31, 1958 OK 2/17/58 Fiedler

#58727 Owner:(Barton): Foundation for pedestal for bust of Dr. Carlos J. Finley, west end of walk from Collins Ave. facing the Library - $200.00 - April 1, 1959

#70342 David M. Abel Constr. Co.: Art Museum addn. to existing library - $129,950. - 10/10/63 - Arch. B.Robt.Swartburg; engr., Oboler & Clarke W.C. Saperstein 12/10/64

#70529 Ideal Roofing & Sheet Metal Works,Inc.: New roof - $900. - 11/6/63

PLUMBING PERMIT - # 10468- Alex. Orr- 6 fixtures-- no gas - - - - - - - - - - - - Oct. 9-1937

29487 Alex. Orr: 2 temporary water closets - March 20, 1950

38019 Lindgren Plumbing Company: two A. C.(connecting water) Apr. 24, 1956

ELECTRICAL PERMIT # 30997 LaVigne Electric: 1 service-temporary - March 23, 1950

31015 LaVigne Electric: 19 switch outlets, 22 receptacles, 40 light outlets, 2 fan outlets, 1 service-equipment - March 28, 1950

OK, Meginniss 1/10/55

Art Center # 37696 Lyon Electric Co: 1 center of distribution - Oct. 3, 1952 - OK,Meginniss, 10-6-52

39046 Lyons Elec Co: 1 Service Equipment: March 30, 1953 OK,H.Rosser, 3-30-53

LibraryRosser12/15/53..# 39710 Lyon Electric: 2 Switch Outlets, 2 Light Outlets, 50 Fixtures: June 18,1953

OK, Rosser 6/6/1956 46966 Hulbert & Weinkler: 1 service-equipment, 1 meter change, 2 motors, 2-2hp 2 motors, 6-10hp March 13, 1956

#50889 Astor Elec: 3 light outlets, 24 fixtures - September 18, 1957

#51630 Foster Elec: 1 switch outlets, 1 receptacle, 1 light outlet, 1 fixture, 1 center of distribution, 2 motors (1HP)- Feb. 24, 1958 OK 3/5/58 Fidler

#

CITY PROPERTY

LOT: _____ BLOCK: _____ SUBDIVISION: _____ ADDRESS: _____

ALTERATIONS & ADDITIONS

BUILDING PERMITS

#90837 3/18/83 B.W. Anderson Const Co - concrete base only $3,470.

#24950 1/20/84 Florida Tent Rental temp tent 60/120' Fri Jan 20, removed Fri Jan 28, 1984 (material white cacron coated fire retardart $2,000.

#MO6877 - 8/4/84 - NO CHARGE CENTRAL A/C & SHEET METAL INC. Replace cen-rl heating, install hot water coils to existing equipment for dehumidification. Contract Price $32,731.00

30234 - 4-27-87 - J.M. Mont Gomez Roofing- Re-roof as per city specifications - 60 Sq. Ft. - $50,000.00

PLUMBING PERMITS

#60316 7/1/82 Van & Jon Inc. - 2 rgh, 2 set floor drain, 2 rgh, 2 set lavatory, 1 rgh, 1 set - urinal, 3 rgh, 3 set water closet

#61887 12/17/84 Stolpmann Plumb - repipe dehumidifier 300'

#61992 3/4/85 Stolpmann Plumbing - misc boiler repairs

ELECTRICAL PERMITS

#78054 7/1/82 Harmony elect - 3 r-ceptacles, no charge city M.B.

#79948 12/28/84 Contact Elect - 1 strip heater replaced, 5 humidlstate, 5 thermostats, 4-24 volt conkel xfmels

LOT: _____ BLOCK: _____ SUBDIVISION: _____ ADDRESS: _____

ALTERATIONS & ADDITIONS

BUILDING PERMITS

90661 - Remodling -

PLUMBING PERMITS

ELECTRICAL PERMITS

Owner MIAMI BEACH PUBLIC LIBRARY

~~Lot~~ City Park **Block** W.side Collins Ave **Subdivision** M.B.I. CO. O.F.

General Contractor Millman Construction Co.

Architect A. Herbert Mathes

Zoning Regulations: **Use** REE **Area** 14

Building Size: **Front** 235' **Depth** 109'

Certificate of Occupancy No.

Type of Construction CBS I **Foundation** Concrete Pads **Roof** Flat

27

Permit No. 66721 **Cost** $353,000.00

Address 2100 Collins Avenue

Bond No. -

Engineer Obeler & Clark: Henry J. Nelson

Lot Size 400' x 300'

Height 20' **Stories** 1

Use LIBRARY facilities with Meeting Room

Date Jan. 24, 1962

PLUMBING Contractor **Date**

Sewer Connection

Temporary Water Closet

Water Closets
Lavatories
Bath Tubs
Showers
Urinals
Sinks
Dish Washing Machine
Laundry Trays
Laundry Washing Machines
Drinking Fountains
Floor Drains
Grease Traps
Safe Wastes

Swimming Pool Traps
Steam or Hot Water Boilers
ROUGH APPROVAL
FINAL APPROVAL

Down Spouts
Wells

GAS Contractor **Date**

Gas Ranges
Gas Water Heaters
Gas Space Heaters
Gas Refrigerators
Gas Steam Tables
Gas Broilers

Gas Frylators
Gas Pressing Machine
Gas Vents for Stove

GAS Rough APPROVAL
GAS FINAL APPROVAL

AIR CONDITIONING Contractor #67037 Thermal Cooling, Inc.: Install 1 - 100 ton air conditioner, built up system - $30,000. - 4/3/62 OK Plaag 11/26/62

SEPTIC TANK Contractor

OIL BURNER Contractor

SPRINKLER Contractor

ELECTRICAL Contractor **Date**

OUTLETS: Switches, Lights, Receptacles

Ranges
Irons
Refrigerators
Fans
Motors

HEATERS: Water, Space

FIXTURES

Appliances

Temporary Service 1 .. #57835 .

Neon Transformers
Sign Outlets
Meter Change
Centers of Distributions
Service
Violations

Electrical Contractor **Date**

J. H. Gresham Inc. - 1/19/62
OK Scarborough 1/22/62

FINAL APPROVAL **By** **Date**

ALTERATIONS OR REPAIRS

Building Permits:

#2890-Weathertrol Maint. Corp.- cooling tower-2-15-74

4/13/81 - #M05173 - Socar Service Corp. - 1 hot water boiler - NC

#MO6699 4/24/84 Temptrol Air Cond 100 tons air cond wind, replace exist water cooled 100 ton chiller with a new 100 ton air cooled chiller with remote condensers City poject Bid 23-84

#28448 5/9/86 Arkin Const - monument, pedestal & bust (Jose Marti) n/c

#29875 2/20/87 Browns Roof - reroof 8 sqs $1,600.

#92233 - 8-27-87 - MCO Construction - Partition and 2 baths(Interior Remodeling) - $7,800.00

#M9421 - Solo Air Condition - Mechanical Ventilation - 9-30-87

Plumbing Permits:

Building Permits:

PLUMBING PERMIT

#55868-Peoples Gas System- meter set(gas)3-10-78

4/16/81 - #59418 - Socar Service Corp. - 1 gas piping- NC

5/26/81 - #59520 - 1 Meter Set (Gas)

#63458 - Ramon Guillen Plumbing - 1 Drinking Fountain, 2 lavatory, 2 water closet - 9-10-87

ELECTRICAL PERMITS

Electrical Permits: #82352 - Chino Electric - 2 Switch outlets, 2 light outlets, 6 receptacles - 9-8-87

COASTAL CONTROL ZONE

CUMULATIVE COST OF CONSTRUCTION OF PERMITS ISSUED

DATE ISSUED	PROCESS NO.	DESCRIPTION OF WORK	WORK COST	CUMULATIVE WORK COST	APPRAISED BLDG. VALUE BEFORE REMODEL	%	COMMENTS	BUILDING PERMIT NO.
8-27-87		Partitions	$7,800.00					9233

COASTAL CONTROL ZONE

CUMULATIVE COST OF CONSTRUCTION OF PERMITS ISSUED

DATE ISSUED	PROCESS NO.	DESCRIPTION OF WORK	WORK COST	CUMULATIVE WORK COST	APPRAISED BLDG. VALUE BEFORE REMODEL	%	COMMENTS	BUILDING PERMIT NO.
7-1-88		REROOF 11 SQ.	$22,000.00					SB881164
12-16-88		Install NEW built up ROOF onsection	$3,000.00					SB880398
3-24-89		Install bristol lite skylight	$17,000.00					B8900206
6-6-89		POUR CONCRETE SLAB PLACE TILES	$1,500.00					SB891405

BUILDING PERMITS: #SB881164 - 7-1-88 - Golden Eagle Roofing - Reroof 11 sqs. - $22,000.00
#SB880398 - 12-16-88 - Unlimited Roofing - Install new built up roof -$3,000.00
#B8900206 - 3-24-89 - Ideal Roofing & Sheet Metal - Install bristol lite skylight-
$17,000.00
#SB891405 - 6-6-89 - MCO Construction - Pour concrete slab place tiles -$1,500.00

PLUMBING PERMITS: #P8800147 - Jaffer Associates - Discharge well - 11-17-88

BIBLIOGRAPHY

(1) "Museum Historic District Expanded District Designation Report": Prepared by the City of Miami Beach Department of Historic Preservation & Urban Design, May 1992 (p.1)

(2) Ibid., pp.3-4

(3) Ibid., p. 4

(4) ibid., p. 5

(5) ibid., pp. 5-6

(6) ibid., p. 6

(7) ibid., pp. 6-7

(8) ibid., p. 7

(9) ibid., p. 13

(10) ibid., p. 9

(11) "The Making of Miami Beach 1933 - 1942" by Jean Francois Lejeune and Allan T. Shulman, 2000 p.52

(12) ibid., p. 53

(13) ibid., p. 167

(14) ibid., p. 53

(15) ibid., p. 67

(16) ibid., p. 68

(17) "Miami Architecture" by Allan T. Shulman, James F. Donnelly and Randall C. Robinson, 2010 p. 301

(18) 'Lost Miami Beach' by Carolyn Klepser 2014 p.66

(19) "Miami Architecture" by Allan T. Shulman, James F. Donnelly and Randall C. Robinson, 2010 p. 67

(20) ibid., p. 53

(21) ibid., p. 167

(22) ibid., p. 53

(23) ibid., p. 67

(24) Photograph courtesy of the City of Miami Beach Historic Photo Archives / Photographs from the Carl G. Fisher album, construction and early scenes from Miami Beach, Published by the City of Mlami Beach in August, 1941.

(25) "Miami Architecture" by Allan T. Shulman, James F. Donnelly and Randall C. Robinson, 2010 p. 297

(26) MiMo On the Beach, Guide to MiMo Architecture + Architects

(27) 'Lost Miami Beach" by Carolyn Klepser 2014

Bass Museum

Neon Sign Installation

2100 Collins Ave
Miami Beach, FL 33139

STRUCTURAL CALCULATIONS

Job. No. H152110
04/18/16

YHCE
www.yhengineering.com

Youssef H. Hachem, Ph.D., P.E.
P.E. License No. 43302
12151 SW 128 Ct., Suite 104
Miami, Florida 33186
(305) 969-YHCE
yh@yhengineering.com

21 Pages

YHCE, Inc.
Youssef Hachem Consulting Engineering
12151 SW 128th Court, Suite 104
Miami, FL 33186
(305) 969-YHCE / www.yhengineering.com

JOB H152210
SHEET NO. ____ OF ____
CALCULATED BY HH DATE ____
CHECKED BY ____ DATE ____
SCALE ____

BASS NEON SIGN

- SCOPE OF WORK: DESIGN TEMPORARY FRAME FOR SIGNAGE TO BE HELD DOWN BY SANDBAGS

- LOADS: WIND: 56.02 PSF [Pg. 2]

- DESIGN: TAKING WORST CASE SCENARIO (LARGER) OF (2) DIFF. FRAMES:
  - 56.02 PSF x (16.67' x 4.58') = 4277.05 lbs
  - M @ BASE = 4277.05 lbs x ($\frac{4.583'}{2}$ + 3.67') = 25497.64 'lbs
  - T/C = $\frac{25497.64 \text{ 'lbs}}{5'}$ = $\frac{5099.03 \text{ lbs}}{60 \text{ lbs}}$ T/C
    - 60 lbs → WEIGHT OF LARGE SANDBAGS
  - 65 SANDBAGS [Pg. 3-72]
  - 56.02 PSF x (13.5 x 4.58') = 3463.72 lbs
  - M @ BASE = 3463.72 lbs x ($\frac{4.583'}{2}$ + 3.67') = 20649 'lbs
  - $\frac{20649 \text{ 'lbs}}{5'}$ = $\frac{4130 \text{ lbs}}{60 \text{ lbs}}$ = 55 SANDBAGS
  - RESULT OF FRAME = OKAY! SEE PAGES FOR VISUAL ANALYSIS RESULTS. [Pg. 13-28]
  - USE 2x2x1/4" 6061-T6 ALUM ALLOY TUBES.

MecaWind Pro v2.2.4.9 per ASCE 7-10

Developed by MECA Enterprises, Inc. Copyright www.mecaenterprises.com

Date	: 4/8/2016	Project No.	: H152110
Company Name	: Youssef Hachem Consulting Engi	Designed By	: HH
Address	: 12151 SW 128 Ct, Suite: 104	Description	: Wind Load Calcs
City	: Miami	Customer Name	:
State	: FL	Proj Location	: Miami Beach, FL

File Location: Y:\2015\MISC\H152110 (Bass Neon Sign)\DESIGN PHASE\Calculations\WIND CALC'S\MWFRS (175 mph).vnd

Input Parameters: Other Structures & Building Appurtances MWFRS (Ch 29)

Basic Wind Speed(V)	= 175.00 mph		
Structural Category	= II	Exposure Category	= D
Natural Frequency	= N/A	Flexible Structure	= No
Importance Factor	= 1.00	Kd Directional Factor	= 0.85
Alpha	= 11.50	Zg	= 700.00 ft
At	= 0.09	Bt	= 1.07
Am	= 0.11	Bm	= 0.80
Cc	= 0.15	l	= 650.00 ft
Epsilon	= 0.13	Zmin	= 7.00 ft
Ht: Ht above Grade	= 5.00 ft		
L: Width Parallel to Wind Direction		= 0.50 ft	
W: Width Perpendicular to Wind Direction		= 33.00 ft	

Gust Factor Calculations

Gust Factor Category I Rigid Structures - Simplified Method

Gust1: For Rigid Structures (Nat. Freq.>1 Hz) use 0.85 = 0.85

Gust Factor Category II Rigid Structures - Complete Analysis

Zm: 0.6*Ht	=	7.00 ft
lzm: Cc*(33/Zm)^0.167	=	0.19
Lzm: l*(Zm/33)^Epsilon	=	535.47 ft
Q: (1/(1+0.63*((B+Ht)/Lzm)^0.63))^0.5	=	0.95
Gust2: 0.925*((1+1.7*1zm*3.4*Q)/(1+1.7*3.4*1zm))	=	0.90

Gust Factor Summary

Not a Flexible Structure use the Lessor of Gust1 or Gust2 = 0.85

Design Wind Pressure - Other Structures

Elev ft	Kz	Kzt	qz psf	W_Pres_Cf(1.60) psf	W_Pres_Cf(1.50) psf	W_Pres_Cf(1.10) psf
45.00	1.25	1.00	49.865	67.82	63.58	46.62
30.00	1.16	1.00	46.470	63.20	59.25	43.45
20.00	1.08	1.00	43.306	58.90	55.22	40.49
10.00	1.03	1.00	41.193	56.02	52.52	38.52

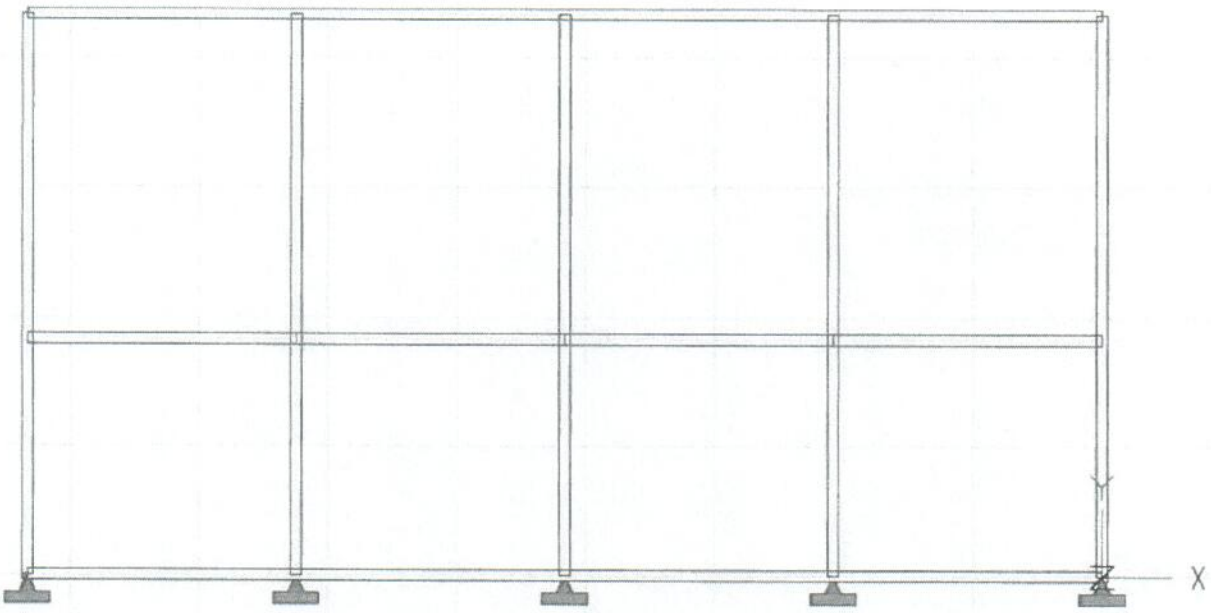
Note: W_Pres_Cf is Wind Pressure based on Cf(Force Coefficient)

Figure 29.5-2: Force Coefficients for Open Signs & Lattice

Description	Flat-Side Force Coeff.	D<=4.67	D>4.67
e-Solidity Ratio	0.500	0.500	0.500
Cf-Force Coeff.	1.600	1.500	1.100
Kz	1.030	1.030	1.030
Kzt	1.000	1.000	1.000
Qz(psf)	41.193	41.193	41.193
Elevation(ft)	5.000	5.000	5.000
Wind Pres.(psf)	56.022	52.521	38.515

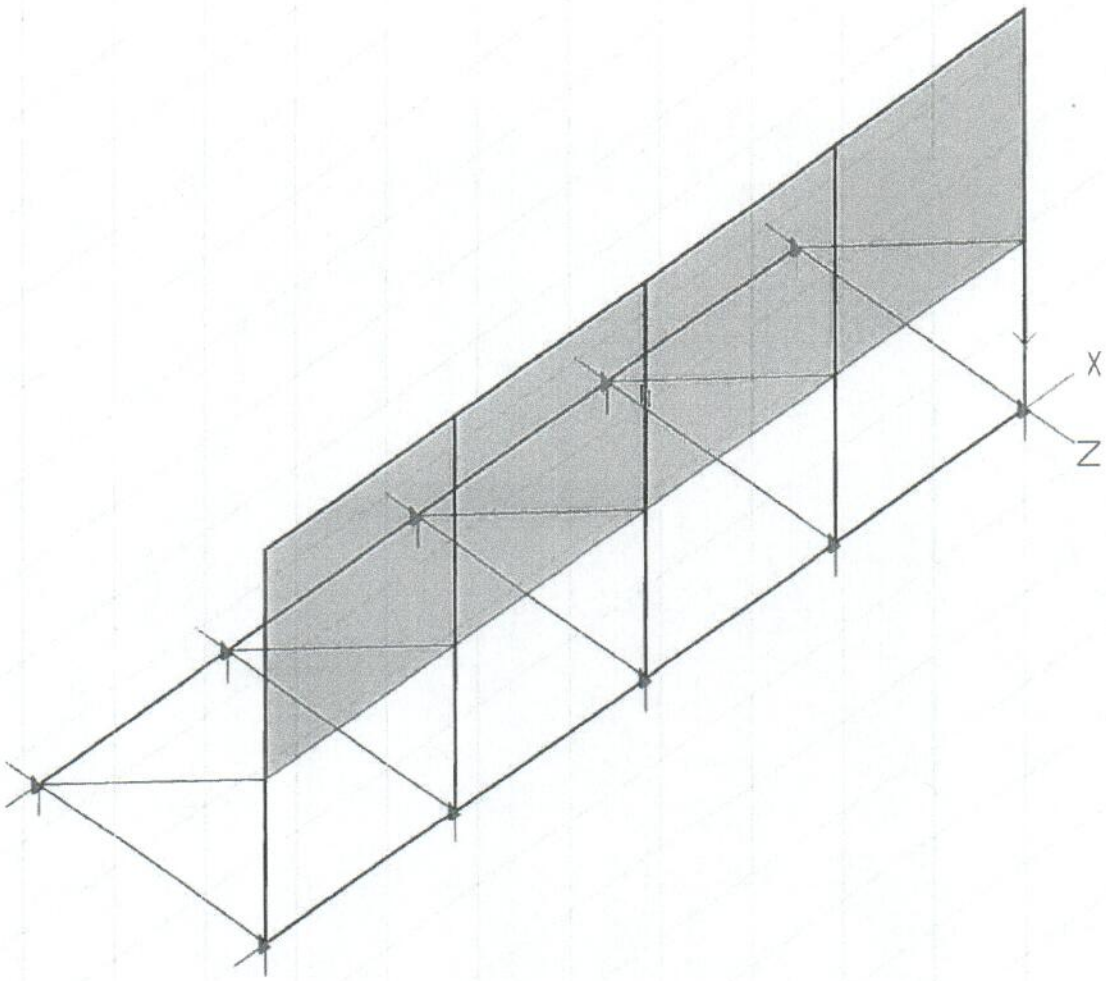
Notes: 1) Signs with openings comprising >30% of gross area are considered open signs
2) e - Ratio of solid area to gross area
3) D - Diameter of typical round member

Sign (Updated-ALUM)-2 (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:17 PM
Load Case: W-Z
IES VisualAnalysis 11.00.0009

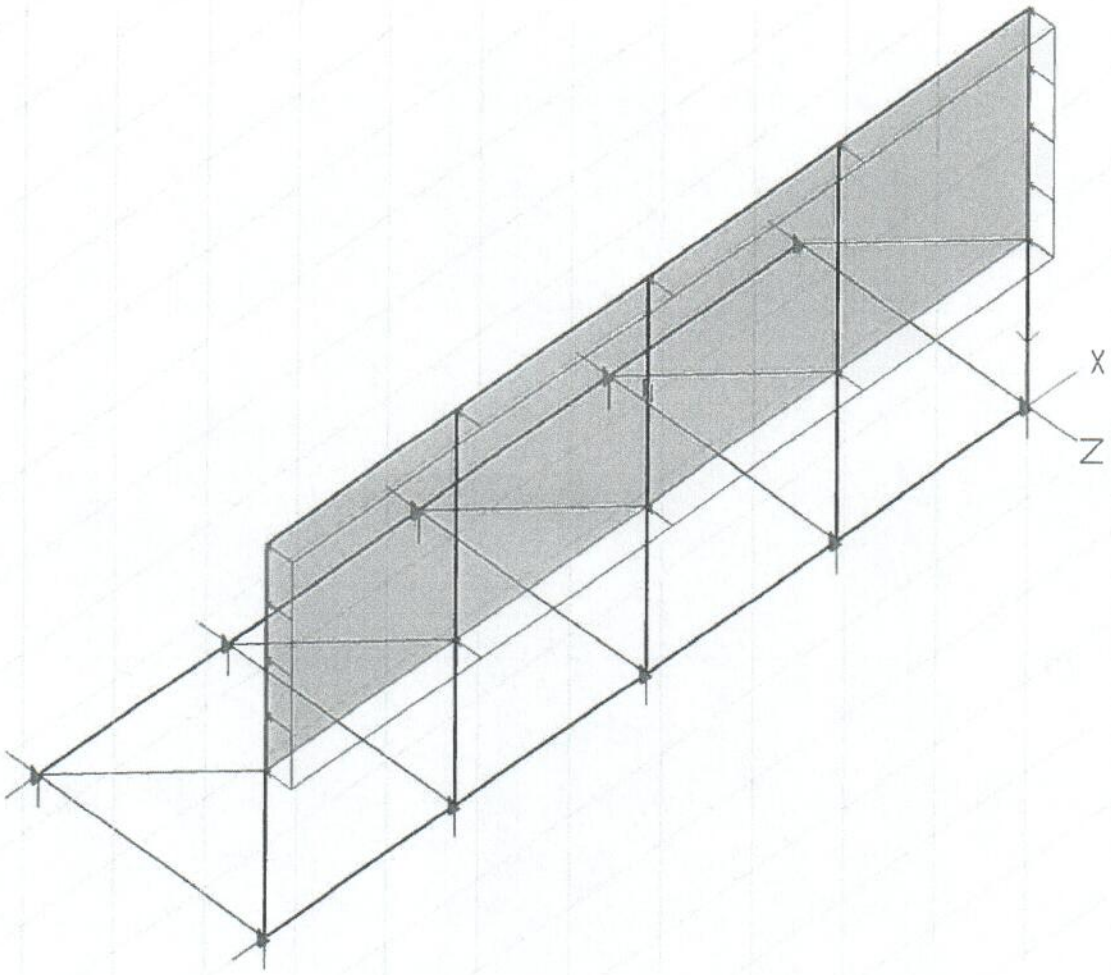


Sign (Updated-ALUM)-2 (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:17 PM
Load Case: W-Z
IES VisualAnalysis 11.00.0009

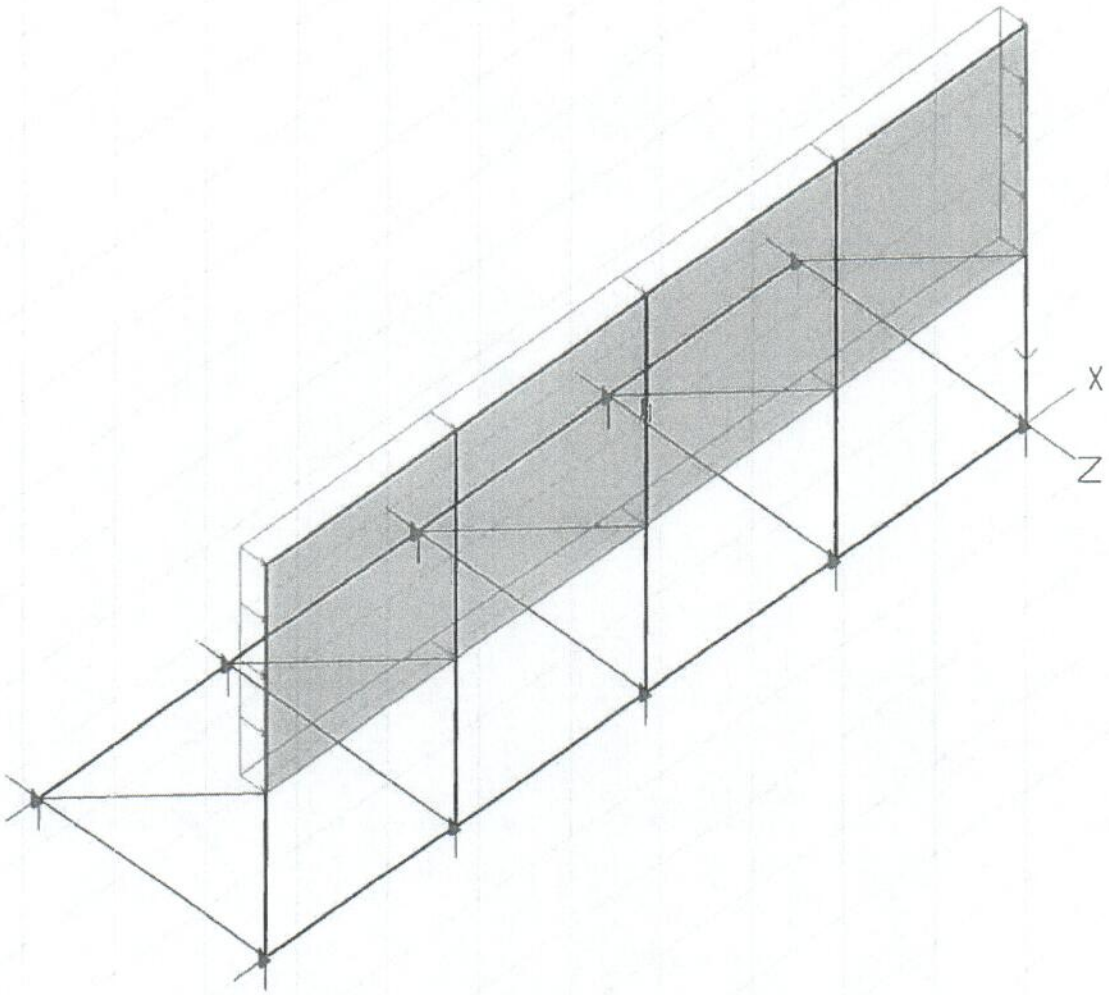
Sign (Updated-ALUM)-2 (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:31 PM
Load Case: D
IES VisualAnalysis 11.00.0009



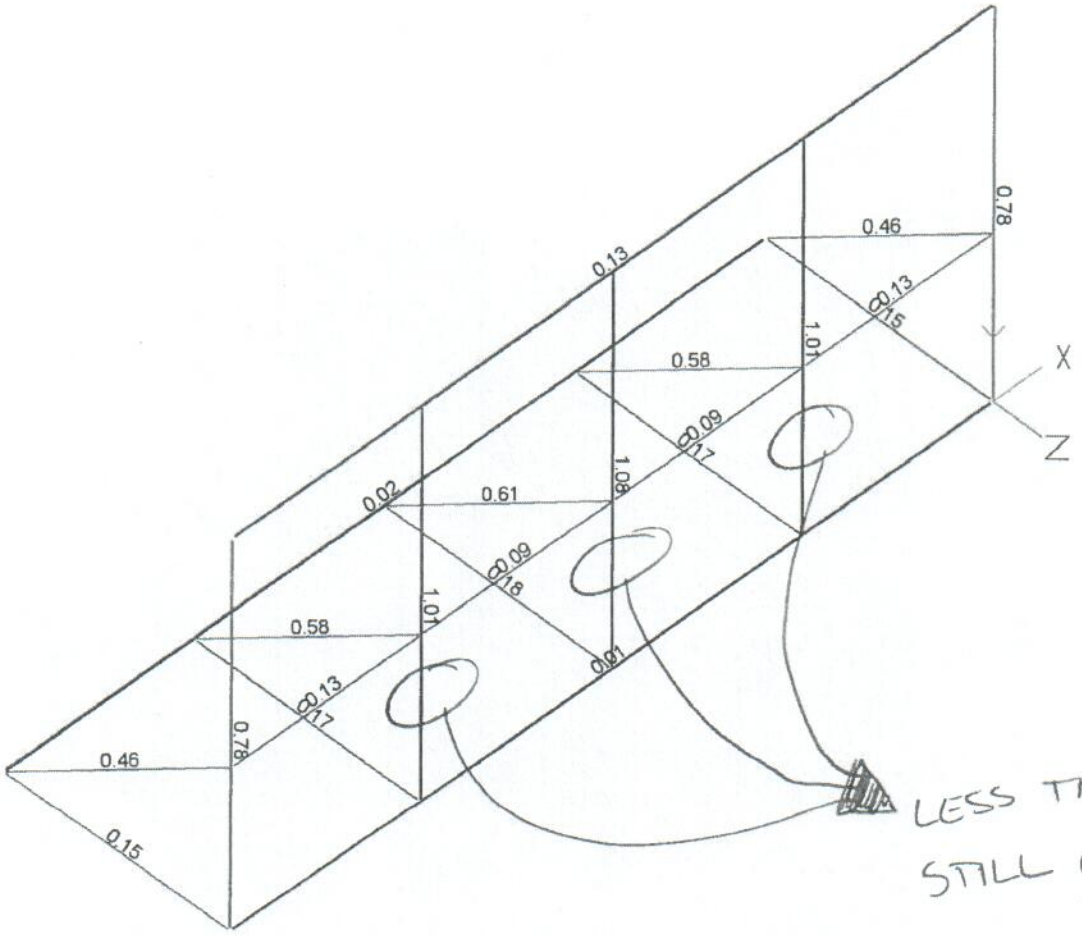
Sign (Updated-ALUM)-2 (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:19 PM
Load Case: W+Z
IES VisualAnalysis 11.00.0009



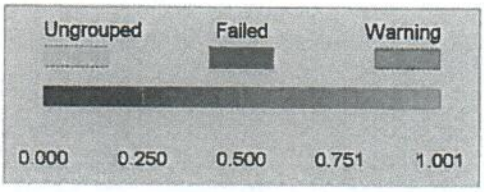
Sign (Updated-ALUM)-2 (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:19 PM
Load Case: W-Z
IES VisualAnalysis 11.00.0009



Sign (Updated-ALUM)-2 (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:19 PM
Design View, Unity Checks
IES VisualAnalysis 11.00.0009



LESS THAN 10%.
STILL OKAY!



Project: Sign (Updated-ALUM)-2 (175 mph)

Haidar , YH CONSULTING ENGINEERS April 13, 2016

Y:\2015\MISC\H152110 (Bass Neon Sign)\DESIGN PHASE\Calculations\Visual Analysis\

Design Groups

Group/Mesh	Elements	LL Factor	Unity	Design Shape	Overstrength	Specification
Aluminum_Beam X_G04	5	1.000	0.13	RT2.00x2.00x0.250	No	ADM LRFD (2010) - Building Structure
Aluminum_Beam X_G05	2	1.000	0.02	RT2.00x2.00x0.250	No	ADM LRFD (2010) - Building Structure
Aluminum_Beam Z_G04	5	1.000	0.18	RT2.00x2.00x0.250	No	ADM LRFD (2010) - Building Structure
Aluminum_Column_G02	5	1.000	1.08	-NA-	No	ADM LRFD (2010) - Building Structure
Aluminum_V Brace_G01	5	1.000	0.61	RT2.00x2.00x0.250	No	ADM LRFD (2010) - Building Structure

Load Cases

Load Case	Design Checks	Seismic Type	Results	Analyze?	Envelope?
(1)D	-NA-	-NA-	Yes	Yes	No
(24)W+Z	-NA-	-NA-	Yes	Yes	No
(27)W-Z	-NA-	-NA-	Yes	Yes	No
(34).6D+.6W »+Z	Allowable (ASD)	-NA-	Yes	Yes	No
(35).6D+.6W »-Z	Allowable (ASD)	-NA-	Yes	Yes	No
(36).6D+.7Di	Allowable (ASD)	-NA-	Yes	Yes	No
(37).9D+Di	Strength (LRFD)	-NA-	Yes	Yes	No
(38).9D+W »+Z	Strength (LRFD)	-NA-	Yes	Yes	No
(39).9D+W »-Z	Strength (LRFD)	-NA-	Yes	Yes	No
(40)1.2D+.5L+Lpa+.5S+Di	Strength (LRFD)	-NA-	Yes	Yes	No
(41)1.2D+1.6Lr+.5W »+Z	Strength (LRFD)	-NA-	Yes	Yes	No
(42)1.2D+1.6Lr+.5W »-Z	Strength (LRFD)	-NA-	Yes	Yes	No
(43)1.2D+W+.5L+Lpa+.5Lr »+Z	Strength (LRFD)	-NA-	Yes	Yes	No
(44)1.2D+W+.5L+Lpa+.5Lr »-Z	Strength (LRFD)	-NA-	Yes	Yes	No
(45)1.4D+.9H	Strength (LRFD)	-NA-	Yes	Yes	No
(46)D+.6H	Allowable (ASD)	-NA-	Yes	Yes	No
(47)D+.6W »+Z	Allowable (ASD)	-NA-	Yes	Yes	No
(48)D+.6W »-Z	Allowable (ASD)	-NA-	Yes	Yes	No
(49)D+.75(L+.6W+Lr) »+Z	Allowable (ASD)	-NA-	Yes	Yes	No
(50)D+.75(L+.6W+Lr) »-Z	Allowable (ASD)	-NA-	Yes	Yes	No

Member Extreme Results

Member	Fx (lc)	Vy (lc)	Vz (lc)	Mx (lc)	My (lc)	Mz (lc)
	K	K	K	K-ft	K-ft	K-ft
BmX004-c13	**-2.333 (43)**	**-0.236 (43)**	-0.000 (27)	-0.000 (43)	-0.000 (43)	**-1.047 (44)**
BmX004-c13	**2.325 (44)**	**0.237 (44)**	0.000 (43)	0.000 (27)	0.000 (27)	**1.040 (24)**
BmX004-c14	-2.326 (43)	-0.220 (43)	-0.001 (44)	-0.000 (27)	-0.004 (44)	-0.977 (44)
BmX004-c14	2.318 (44)	0.222 (44)	0.001 (24)	0.000 (43)	0.003 (24)	0.971 (24)
BmX004-c15	-1.365 (43)	-0.174 (43)	-0.024 (27)	-0.014 (43)	-0.112 (43)	-0.772 (44)
BmX004-c15	1.357 (44)	0.176 (44)	0.024 (43)	0.014 (27)	0.112 (27)	0.766 (24)
BmX030	-1.609 (44)	-0.000 (24)	**-0.577 (43)**	-0.000 (43)	**-2.653 (24)**	-0.000 (24)
BmX030	1.561 (24)	0.000 (44)	**0.574 (27)**	0.000 (27)	**2.653 (44)**	0.000 (44)
BmX031	-1.597 (44)	-0.001 (44)	-0.538 (43)	-0.102 (24)	-2.477 (24)	-0.002 (44)
BmX031	1.548 (24)	0.001 (24)	0.535 (27)	0.102 (44)	2.477 (44)	0.002 (24)
BmX048	-2.327 (43)	-0.220 (43)	-0.001 (24)	-0.000 (43)	-0.004 (24)	-0.978 (44)
BmX048	2.320 (44)	0.222 (44)	0.001 (44)	0.000 (27)	0.004 (44)	0.971 (24)
BmX048-c1	-1.365 (43)	-0.175 (43)	-0.024 (43)	-0.014 (27)	-0.112 (27)	-0.773 (44)
BmX048-c1	1.357 (44)	0.176 (44)	0.024 (27)	0.014 (43)	0.112 (43)	0.766 (24)
BmX048-c2	-0.000 (27)	-0.134 (43)	-0.001 (24)	-0.004 (24)	-0.012 (24)	-0.347 (43)
BmX048-c2	0.000 (43)	0.131 (44)	0.001 (44)	0.004 (44)	0.013 (44)	0.340 (27)
BmX061	-0.972 (44)	-0.009 (44)	-0.425 (43)	-0.155 (27)	-1.892 (43)	-0.024 (44)
BmX061	0.935 (24)	0.008 (24)	0.421 (27)	0.156 (43)	1.892 (27)	0.022 (24)

9

BmX065	-0.005 (44)	-0.008 (43)	-0.355 (27)	**-0.162 (44)**	-0.323 (24)	-0.007 (44)
BmX065	0.004 (24)	0.007 (43)	0.355 (43)	**0.162 (44)**	0.323 (44)	0.006 (24)
BmX066	-0.000 (24)	-0.007 (43)	-0.007 (43)	-0.010 (43)	-0.022 (27)	-0.006 (44)
BmX066	0.000 (44)	0.006 (43)	0.007 (43)	0.010 (43)	0.022 (43)	0.004 (43)
BmX067	-0.000 (27)	-0.015 (44)	-0.006 (43)	-0.006 (27)	-0.018 (43)	-0.030 (43)
BmX067	0.000 (43)	0.015 (44)	0.006 (43)	0.006 (43)	0.017 (27)	0.029 (27)
BmZ001	-0.000 (27)	-0.163 (43)	-0.000 (44)	-0.001 (44)	-0.003 (44)	-0.425 (43)
BmZ001	0.000 (43)	0.160 (44)	0.000 (24)	0.001 (24)	0.003 (24)	0.419 (27)
BmZ001-c1	-0.000 (27)	-0.174 (43)	-0.000 (44)	-0.000 (44)	-0.000 (44)	-0.455 (43)
BmZ001-c1	0.000 (43)	0.171 (44)	0.000 (24)	0.000 (24)	0.000 (24)	0.449 (27)
BmZ001-c2	-0.000 (27)	-0.163 (43)	-0.000 (24)	-0.001 (24)	-0.003 (24)	-0.425 (43)
BmZ001-c2	0.000 (43)	0.160 (44)	0.000 (44)	0.001 (44)	0.003 (44)	0.419 (27)
COL001-c5	-0.000 (27)	-0.134 (43)	-0.001 (44)	-0.004 (44)	-0.013 (44)	-0.347 (43)
COL001-c5	0.000 (43)	0.131 (44)	0.001 (24)	0.004 (24)	0.012 (24)	0.340 (27)
COL002	-1.598 (44)	-0.001 (24)	-0.539 (43)	-0.102 (44)	-2.478 (24)	-0.002 (24)
COL002	1.549 (24)	0.001 (44)	0.535 (27)	0.102 (24)	2.478 (44)	0.002 (44)
COL007	-0.972 (44)	-0.008 (24)	-0.424 (43)	-0.155 (43)	-1.891 (43)	-0.022 (24)
COL007	0.935 (24)	0.009 (44)	0.421 (27)	0.155 (27)	1.891 (27)	0.024 (44)
COL012-1	-0.021 (43)	-0.011 (44)	-0.379 (24)	-0.046 (24)	-0.314 (24)	-0.020 (43)
COL012-1	0.020 (27)	0.010 (43)	0.379 (44)	0.046 (44)	0.314 (44)	0.017 (27)
COL012-2	-0.022 (43)	-0.006 (45)	-0.301 (44)	-0.015 (24)	-0.212 (24)	-0.006 (44)
COL012-2	0.022 (27)	0.006 (45)	0.301 (24)	0.015 (44)	0.212 (44)	0.002 (43)
COL012-3	-0.022 (43)	-0.006 (45)	-0.300 (24)	-0.016 (44)	-0.211 (24)	-0.006 (44)
COL012-3	0.022 (27)	0.006 (45)	0.300 (44)	0.016 (24)	0.212 (44)	0.002 (43)
COL012-4	-0.021 (43)	-0.010 (43)	-0.379 (44)	-0.046 (44)	-0.313 (24)	-0.020 (43)
COL012-4	0.020 (27)	0.011 (44)	0.379 (24)	0.046 (24)	0.313 (44)	0.017 (27)

Member Unity Checks

Member	Unity	Controlling Case	Check	Model Shape	Design Shape	Material	Reference	Specification
BmX004-c13	0.61	.9D+W »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX004-c14	0.58	.9D+W »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX004-c15	0.46	.9D+W »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX030	1.08	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	-NA-	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX031	1.01	1.2D+W+.5L+Lpa+.5Lr »+Z	Combined Check	RT2.00x2.00x0.250	-NA-	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX048	0.58	.9D+W »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX048-c1	0.46	.9D+W »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX048-c2	0.15	1.2D+W+.5L+Lpa+.5Lr »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX061	0.78	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	-NA-	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX065	0.13	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX066	0.01	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmX067	0.02	1.2D+W+.5L+Lpa+.5Lr »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmZ001	0.17	1.2D+W+.5L+Lpa+.5Lr »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
BmZ001-c1	0.18	1.2D+W+.5L+Lpa+.5Lr »+Z	Strong Flexure Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	F.8.1	ADM LRFD (2010) - Building Structure
BmZ001-c2	0.17	1.2D+W+.5L+Lpa+.5Lr »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure

COL001-c5	0.15	1.2D+W+.5L+Lpa+.5Lr »+Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
COL002	1.01	1.2D+W+.5L+Lpa+.5Lr »+Z	Combined Check	RT2.00x2.00x0.250	-NA-	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
COL007	0.78	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	-NA-	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
COL012-1	0.13	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
COL012-2	0.09	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
COL012-3	0.09	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure
COL012-4	0.13	1.2D+W+.5L+Lpa+.5Lr »-Z	Combined Check	RT2.00x2.00x0.250	RT2.00x2.00x0.250	6061-T6-E	H.1-1	ADM LRFD (2010) - Building Structure

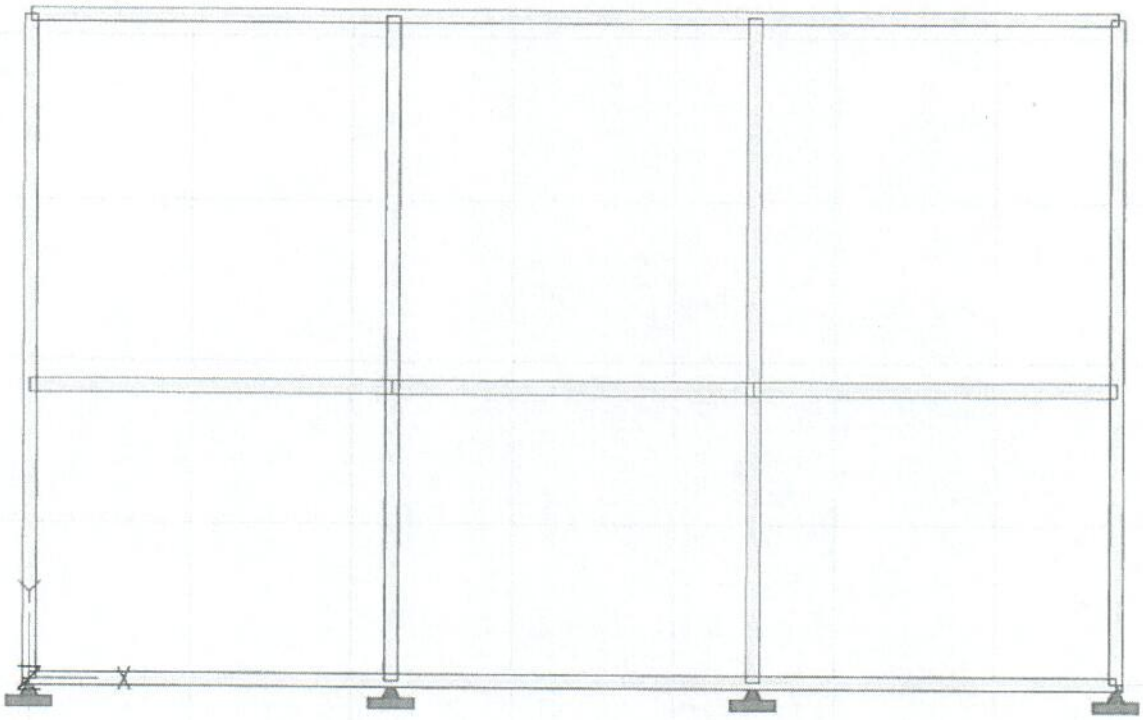
Nodal Extreme Displacements

Node	DX	DY	DZ
	in	in	in
N001	-NA-	-NA-	-NA-
N001	-NA-	-NA-	-NA-
N002	-0.000 (44)	-0.002 (44)	-4.382 (43)
N002	0.000 (24)	0.002 (24)	4.378 (27)
N005	-NA-	-NA-	-NA-
N005	-NA-	-NA-	-NA-
N006	-0.000 (24)	-0.004 (44)	-5.464 (43)
N006	0.000 (44)	0.004 (24)	5.460 (27)
N007	-NA-	-NA-	-NA-
N007	-NA-	-NA-	-NA-
N008	-NA-	-NA-	-NA-
N008	-NA-	-NA-	-NA-
N010	**-0.000 (43)**	-0.002 (44)	-0.009 (24)
N010	**0.000 (27)**	0.002 (24)	0.009 (44)
N012	-0.000 (27)	-0.004 (44)	-0.015 (24)
N012	0.000 (43)	0.004 (24)	0.015 (44)
N013	-0.000 (43)	**-0.004 (44)**	**-5.830 (43)**
N013	0.000 (27)	**0.004 (24)**	**5.826 (27)**
N014	-NA-	-NA-	-NA-
N014	-NA-	-NA-	-NA-
N015	-0.000 (44)	-0.004 (44)	-5.462 (43)
N015	0.000 (24)	0.004 (24)	5.458 (27)
N016	-NA-	-NA-	-NA-
N016	-NA-	-NA-	-NA-
N021	-0.000 (43)	-0.004 (44)	-0.015 (24)
N021	0.000 (27)	0.004 (24)	0.015 (44)
N022	-NA-	-NA-	-NA-
N022	-NA-	-NA-	-NA-
N023	-0.000 (43)	-0.004 (44)	-0.015 (24)
N023	0.000 (27)	0.004 (24)	0.015 (44)
N024	-NA-	-NA-	-NA-
N024	-NA-	-NA-	-NA-
N025	-0.000 (27)	-0.002 (44)	-0.009 (24)
N025	0.000 (43)	0.002 (24)	0.009 (44)
N026	-NA-	-NA-	-NA-
N026	-NA-	-NA-	-NA-
N027	-NA-	-NA-	-NA-
N027	-NA-	-NA-	-NA-
N028	-0.000 (24)	-0.002 (44)	-4.384 (43)
N028	0.000 (44)	0.002 (24)	4.380 (27)

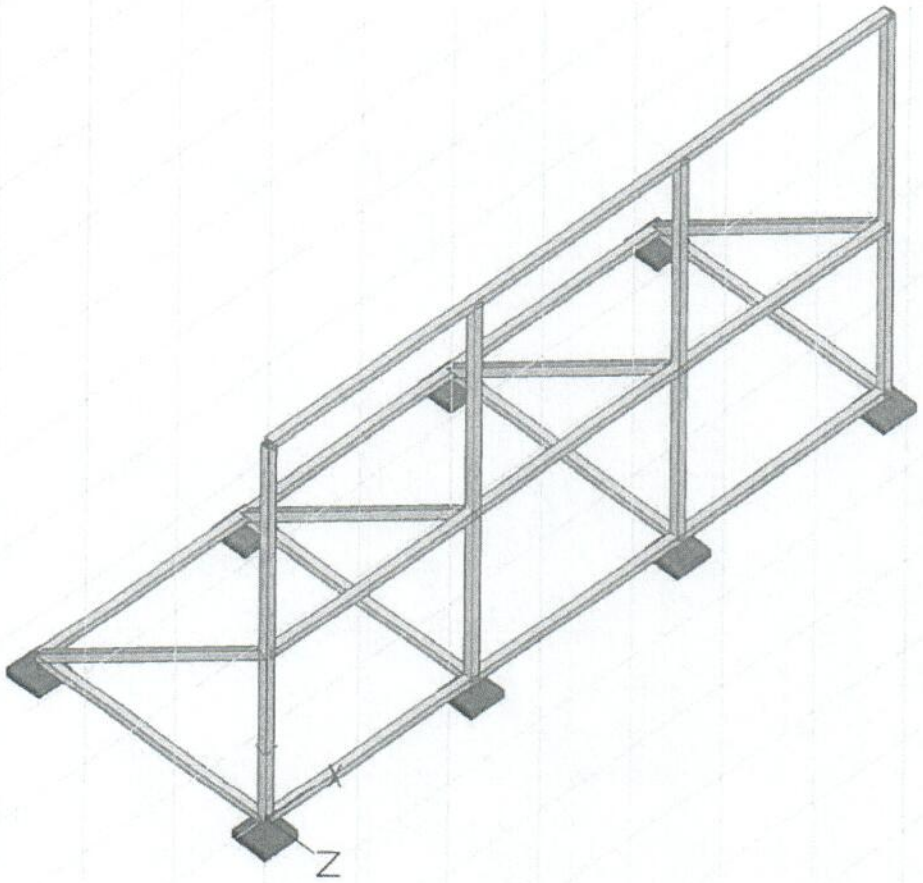
Nodal Extreme Reactions

Node	FX	FY	FZ	MX	MY	MZ
	K	K	K	K-ft	K-ft	K-ft
N001	-0.011 (44)	-0.810 (24)	-0.431 (43)	**-NA-**	**-NA-**	**-NA-**
N001	0.010 (24)	0.860 (44)	0.428 (27)	-NA-	-NA-	-NA-
N005	-0.001 (44)	-1.393 (24)	-0.530 (43)	-NA-	-NA-	-NA-
N005	0.001 (24)	1.460 (44)	0.526 (27)	-NA-	-NA-	-NA-
N007	-0.000 (44)	-1.379 (27)	-1.736 (27)	-NA-	-NA-	-NA-
N007	0.000 (24)	1.404 (43)	1.739 (43)	-NA-	-NA-	-NA-
N008	**-0.026 (43)**	-0.822 (27)	-0.999 (27)	-NA-	-NA-	-NA-
N008	0.026 (27)	0.840 (43)	1.003 (43)	-NA-	-NA-	-NA-
N014	-0.000 (43)	**-1.400 (27)**	**-1.740 (27)**	-NA-	-NA-	-NA-
N014	0.000 (27)	1.423 (43)	**1.743 (43)**	-NA-	-NA-	-NA-
N016	-0.000 (24)	-1.377 (27)	-1.734 (27)	-NA-	-NA-	-NA-
N016	0.000 (44)	1.403 (43)	1.738 (43)	-NA-	-NA-	-NA-
N022	-0.000 (44)	-1.395 (24)	-0.581 (43)	-NA-	-NA-	-NA-
N022	0.000 (24)	**1.461 (44)**	0.577 (27)	-NA-	-NA-	-NA-
N024	-0.001 (24)	-1.391 (24)	-0.530 (43)	-NA-	-NA-	-NA-
N024	0.001 (44)	1.459 (44)	0.526 (27)	-NA-	-NA-	-NA-
N026	-0.026 (27)	-0.822 (27)	-0.999 (27)	-NA-	-NA-	-NA-
N026	**0.026 (43)**	0.841 (43)	1.003 (43)	-NA-	-NA-	-NA-
N027	-0.010 (24)	-0.811 (24)	-0.432 (43)	-NA-	-NA-	-NA-
N027	0.011 (44)	0.860 (44)	0.428 (27)	-NA-	-NA-	-NA-

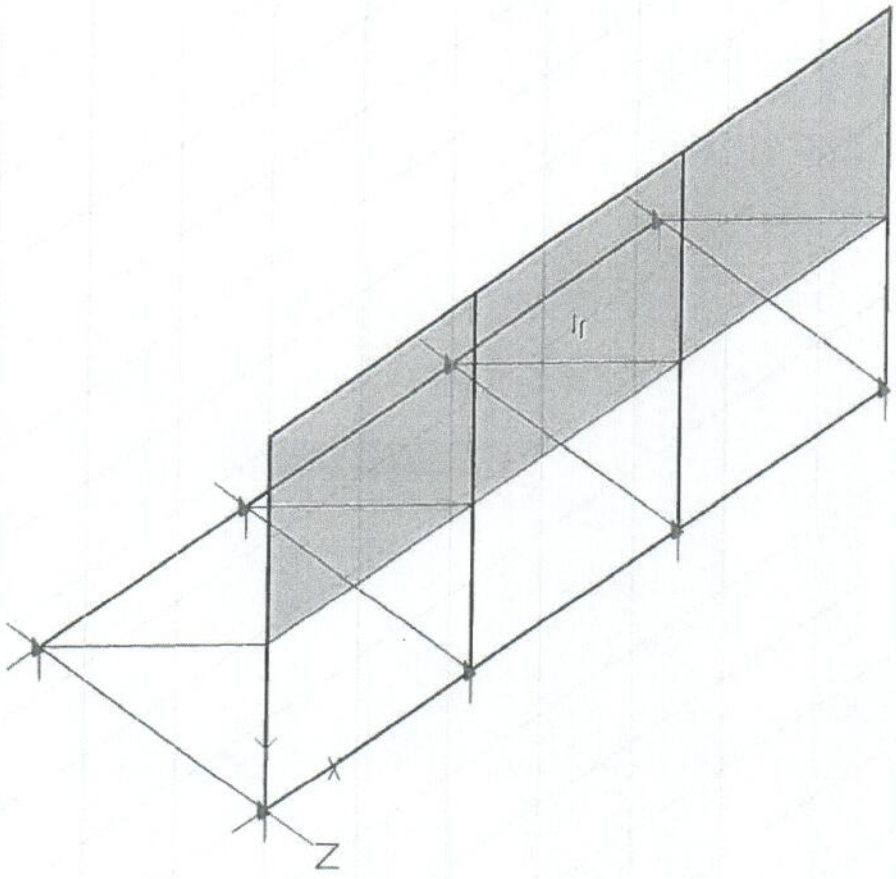
Sign (Updated-ALUM)-2 (Part 2) (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:20 PM
IES VisualAnalysis 11.00.0009



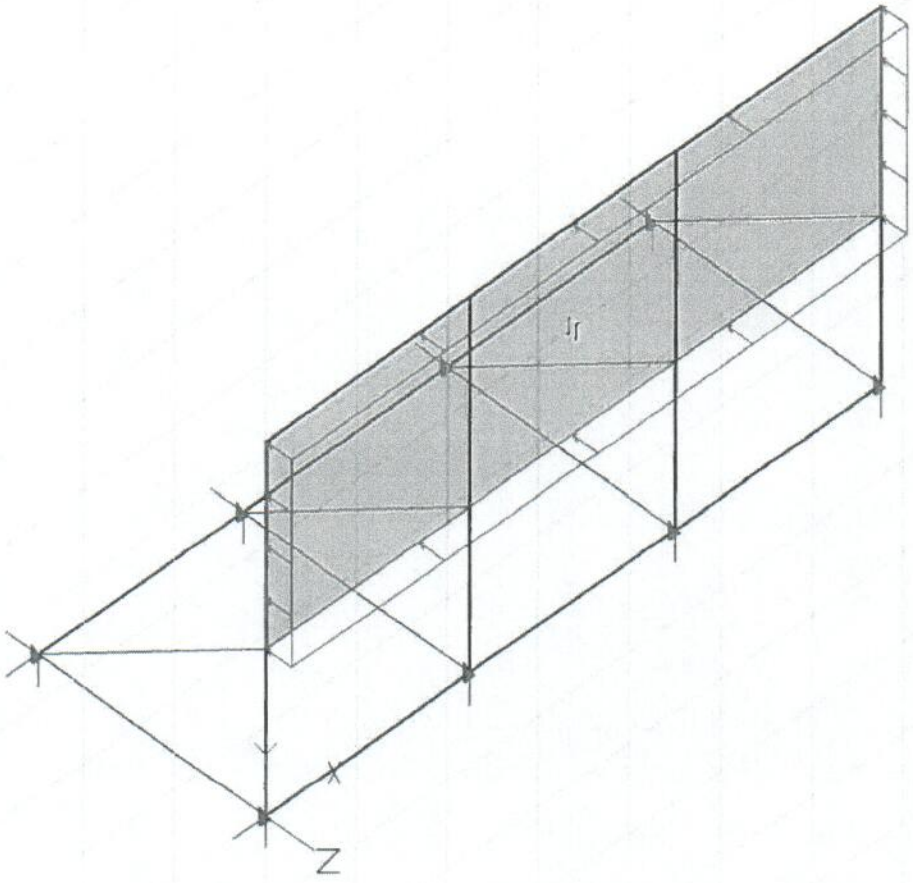
Sign (Updated-ALUM)-2 (Part 2) (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:20 PM
IES VisualAnalysis 11.00.0009



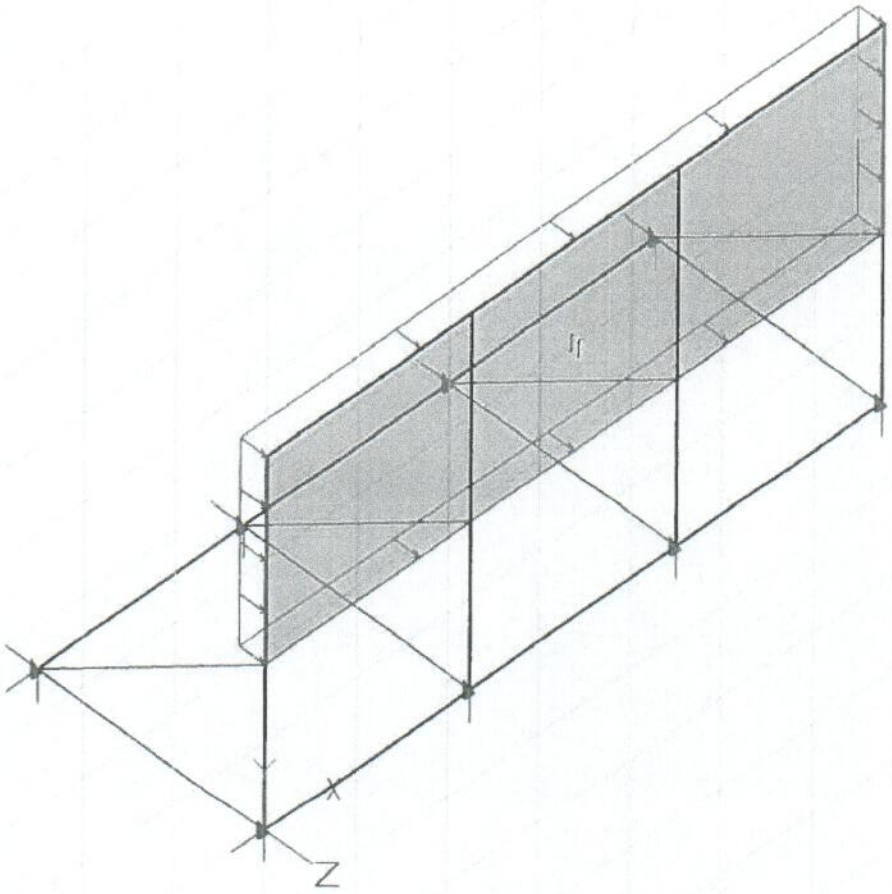
Sign (Updated-ALUM)-2 (Part 2) (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:20 PM
IES VisualAnalysis 11.00.0009



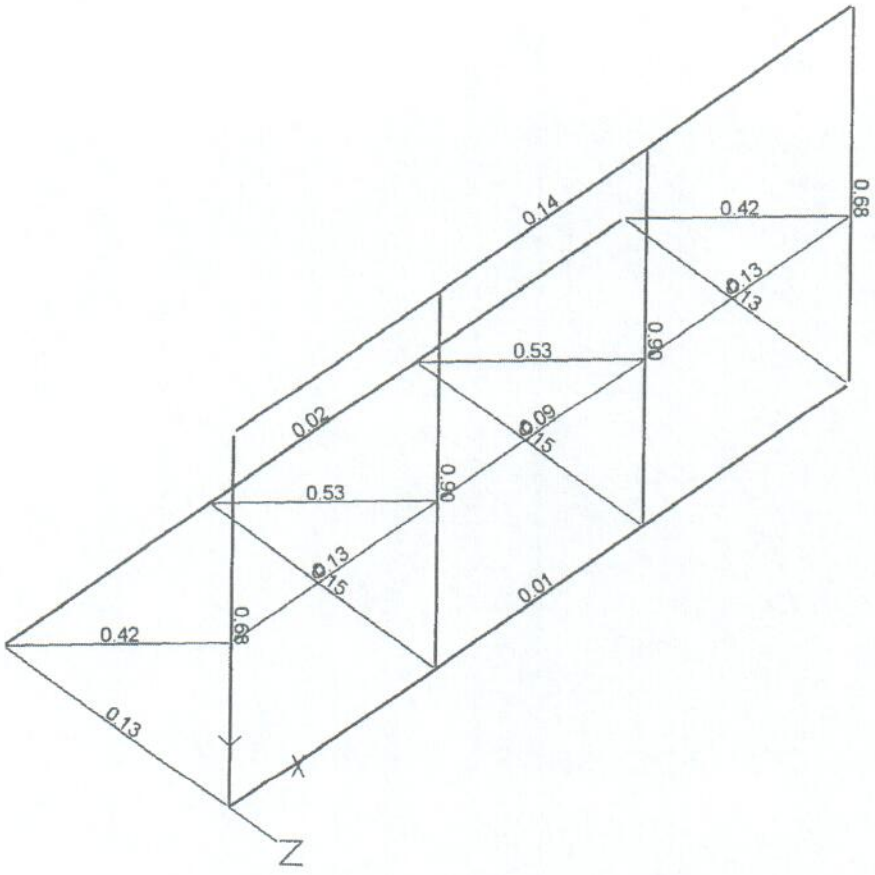
Sign (Updated-ALUM)-2 (Part 2) (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:20 PM
Load Case: W+Z
IES VisualAnalysis 11.00.0009

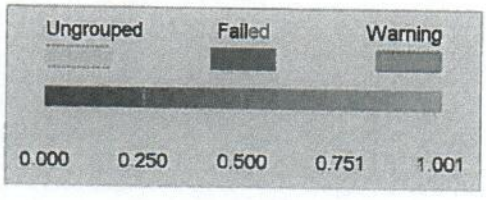


Sign (Updated-ALUM)-2 (Part 2) (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:21 PM
Load Case: W-Z
IES VisualAnalysis 11.00.0009



Sign (Updated-ALUM)-2 (Part 2) (175 mph)
YH CONSULTING ENGINEERS, Haidar
Apr 13, 2016; 04:21 PM
Design View, Unity Checks
IES VisualAnalysis 11.00.0009





Project: Sign (Updated-ALUM)-2 (Part 2) (175 mph)

Haidar , YH CONSULTING ENGINEERS April 13, 2016

Y:\2015\MISC\H152110 (Bass Neon Sign)\DESIGN PHASE\Calculations\Visual Analysis\

Design Groups

Group/Mesh	Elements	LL Factor	Unity	Design Shape	Overstrength	Specification
Aluminum_Beam X_G04	5	1.000	-NA-	-NA-	No	ADM LRFD (2010) - Building Structure
Aluminum_Beam Z_G04	5	1.000	-NA-	-NA-	No	ADM LRFD (2010) - Building Structure
Aluminum_Column_G 02	4	1.000	-NA-	-NA-	No	ADM LRFD (2010) - Building Structure
Aluminum_V Brace_G01	4	1.000	-NA-	-NA-	No	ADM LRFD (2010) - Building Structure

Load Cases

Load Case	Design Checks	Seismic Type	Results	Analyze?	Envelope?
(1)D	-NA-	-NA-	Yes	Yes	No
(24)W+Z	-NA-	-NA-	Yes	Yes	No
(27)W-Z	-NA-	-NA-	Yes	Yes	No
(34).6D+.6W »+Z	Allowable (ASD)	-NA-	Yes	Yes	No
(35).6D+.6W »-Z	Allowable (ASD)	-NA-	Yes	Yes	No
(36).6D+.7Di	Allowable (ASD)	-NA-	Yes	Yes	No
(37).9D+Di	Strength (LRFD)	-NA-	Yes	Yes	No
(38).9D+W »+Z	Strength (LRFD)	-NA-	Yes	Yes	No
(39).9D+W »-Z	Strength (LRFD)	-NA-	Yes	Yes	No
(40)1.2D+.5L+Lpa+.5S+Di	Strength (LRFD)	-NA-	Yes	Yes	No
(41)1.2D+1.6Lr+.5W »+Z	Strength (LRFD)	-NA-	Yes	Yes	No
(42)1.2D+1.6Lr+.5W »-Z	Strength (LRFD)	-NA-	Yes	Yes	No
(43)1.2D+W+.5L+Lpa+.5Lr »+Z	Strength (LRFD)	-NA-	Yes	Yes	No
(44)1.2D+W+.5L+Lpa+.5Lr »-Z	Strength (LRFD)	-NA-	Yes	Yes	No
(45)1.4D+.9H	Strength (LRFD)	-NA-	Yes	Yes	No
(46)D+.6H	Allowable (ASD)	-NA-	Yes	Yes	No
(47)D+.6W »+Z	Allowable (ASD)	-NA-	Yes	Yes	No
(48)D+.6W »-Z	Allowable (ASD)	-NA-	Yes	Yes	No
(49)D+.75(L+.6W+Lr) »+Z	Allowable (ASD)	-NA-	Yes	Yes	No
(50)D+.75(L+.6W+Lr) »-Z	Allowable (ASD)	-NA-	Yes	Yes	No

Member Extreme Results

Member	Fx (lc)	Vy (lc)	Vz (lc)	Mx (lc)	My (lc)	Mz (lc)
	K	K	K	K-ft	K-ft	K-ft
BmX004-c1	-1.264 (43)	-0.153 (43)	-0.025 (27)	-0.014 (43)	-0.116 (43)	-0.675 (44)
BmX004-c1	1.256 (44)	0.155 (44)	0.025 (43)	0.014 (27)	0.115 (27)	0.669 (24)
BmX004-c4	-0.000 (27)	-0.118 (43)	-0.002 (44)	-0.005 (44)	-0.014 (44)	-0.303 (43)
BmX004-c4	0.000 (43)	0.115 (44)	0.002 (24)	0.005 (24)	0.014 (24)	0.297 (27)
BmX004-c15	-1.264 (43)	-0.153 (43)	-0.025 (43)	-0.014 (27)	-0.115 (27)	-0.675 (44)
BmX004-c15	1.256 (44)	0.155 (44)	0.025 (27)	0.014 (43)	0.116 (43)	0.669 (24)
BmX004-c16	-2.183 (43)	-0.197 (43)	-0.001 (27)	-0.001 (43)	-0.007 (43)	-0.872 (44)
BmX004-c16	2.175 (44)	0.199 (44)	0.001 (43)	0.001 (27)	0.007 (27)	0.866 (24)
BmX004-c17	**-2.183 (43)**	**-0.197 (43)**	-0.001 (43)	-0.001 (27)	-0.007 (27)	**-0.872 (44)**
BmX004-c17	**2.176 (44)**	**0.199 (44)**	0.001 (27)	0.001 (43)	0.007 (43)	**0.866 (24)**
BmX032	-1.493 (44)	-0.001 (24)	-0.526 (44)	-0.068 (44)	-2.216 (24)	-0.004 (24)
BmX032	1.444 (24)	0.001 (44)	0.526 (24)	0.068 (24)	2.216 (44)	0.004 (44)
BmX033	-1.494 (44)	-0.001 (44)	**-0.526 (44)**	-0.068 (24)	**-2.216 (24)**	-0.004 (44)
BmX033	1.444 (24)	0.001 (24)	**0.526 (24)**	0.068 (44)	**2.216 (44)**	0.004 (24)
BmX050	-0.896 (44)	-0.008 (24)	-0.371 (43)	**-0.138 (43)**	-1.648 (43)	-0.023 (24)
BmX050	0.859 (24)	0.010 (44)	0.367 (27)	0.138 (27)	1.648 (27)	0.025 (44)
BmX056	-0.000 (27)	-0.014 (44)	-0.005 (43)	-0.006 (43)	-0.017 (43)	-0.030 (43)
BmX056	0.000 (43)	0.014 (44)	0.005 (43)	0.006 (27)	0.017 (27)	0.029 (27)
BmX057	-0.000 (24)	-0.007 (45)	-0.006 (43)	-0.009 (43)	-0.022 (27)	-0.006 (44)
BmX057	0.000 (44)	0.007 (43)	0.006 (43)	0.009 (27)	0.022 (43)	0.004 (43)

BmX061	-0.006 (44)	-0.008 (43)	-0.340 (27)	-0.133 (44)	-0.347 (44)	-0.008 (44)
BmX061	0.005 (24)	0.007 (43)	0.340 (43)	0.133 (24)	0.347 (24)	0.005 (24)
BmZ001-c3	-0.000 (27)	-0.145 (43)	-0.001 (44)	-0.001 (44)	-0.004 (44)	-0.377 (43)
BmZ001-c3	0.000 (43)	0.142 (44)	0.001 (24)	0.001 (24)	0.004 (24)	0.371 (27)
BmZ001-c4	-0.000 (27)	-0.145 (43)	-0.001 (24)	-0.001 (24)	-0.004 (24)	-0.377 (43)
BmZ001-c4	0.000 (43)	0.142 (44)	0.001 (44)	0.001 (44)	0.004 (44)	0.371 (27)
BmZ002	-0.000 (27)	-0.115 (44)	-0.002 (24)	-0.005 (24)	-0.014 (44)	-0.303 (43)
BmZ002	0.000 (43)	0.118 (43)	0.002 (44)	0.005 (44)	0.014 (24)	0.297 (27)
COL007	-0.896 (44)	-0.010 (44)	-0.371 (43)	-0.138 (27)	-1.648 (43)	-0.025 (44)
COL007	0.859 (24)	0.008 (24)	0.367 (27)	0.138 (43)	1.648 (27)	0.023 (24)
COL011-1	-0.022 (43)	-0.010 (44)	-0.352 (24)	-0.041 (24)	-0.301 (24)	-0.020 (43)
COL011-1	0.021 (27)	0.010 (43)	0.352 (44)	0.041 (44)	0.301 (44)	0.016 (27)
COL011-2	-0.022 (43)	-0.006 (45)	-0.284 (24)	-0.000 (24)	-0.224 (24)	-0.006 (44)
COL011-2	0.021 (27)	0.006 (45)	0.284 (27)	0.000 (27)	0.224 (44)	0.004 (43)
COL011-3	-0.022 (43)	-0.010 (43)	-0.352 (44)	-0.041 (44)	-0.300 (24)	-0.020 (43)
COL011-3	0.021 (27)	0.010 (44)	0.352 (24)	0.041 (24)	0.301 (44)	0.016 (27)

Member Unity Checks

Member	Unity	Controlling Case	Check	Model Shape	Design Shape	Material	Reference	Specification
BmX004-c1	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX004-c4	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX004-c15	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX004-c16	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX004-c17	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX032	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX033	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX050	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX056	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX057	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmX061	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmZ001-c3	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmZ001-c4	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
BmZ002	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
COL007	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
COL011-1	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
COL011-2	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure
COL011-3	-NA-			RT2.00x2.00x0.250	-NA-	6061-T6-E		ADM LRFD (2010) - Building Structure

Nodal Extreme Displacements

Node	DX	DY	DZ
	in	in	in

N001	-NA-	-NA-	-NA-
N001	-NA-	-NA-	-NA-
N002	-0.000 (24)	-0.002 (44)	-3.289 (43)
N002	0.000 (44)	0.002 (24)	3.285 (27)
N008	-NA-	-NA-	-NA-
N008	-NA-	-NA-	-NA-
N010	-0.000 (27)	-0.002 (44)	-0.008 (24)
N010	**0.000 (43)**	0.002 (24)	0.008 (44)
N017	-0.000 (24)	-0.004 (44)	-4.183 (43)
N017	0.000 (44)	0.004 (24)	4.179 (27)
N018	-NA-	-NA-	-NA-
N018	-NA-	-NA-	-NA-
N019	-0.000 (44)	**-0.004 (44)**	**-4.183 (43)**
N019	0.000 (24)	0.004 (24)	**4.180 (27)**
N020	-NA-	-NA-	-NA-
N020	-NA-	-NA-	-NA-
N025	-0.000 (27)	-0.004 (44)	-0.014 (24)
N025	0.000 (43)	0.004 (24)	0.014 (44)
N026	-NA-	-NA-	-NA-
N026	-NA-	-NA-	-NA-
N027	-0.000 (43)	-0.004 (44)	-0.014 (24)
N027	0.000 (27)	**0.004 (24)**	0.014 (44)
N028	-NA-	-NA-	-NA-
N028	-NA-	-NA-	-NA-
N029	**-0.000 (43)**	-0.002 (44)	-0.008 (24)
N029	0.000 (27)	0.002 (24)	0.008 (44)
N030	-NA-	-NA-	-NA-
N030	-NA-	-NA-	-NA-
N031	-NA-	-NA-	-NA-
N031	-NA-	-NA-	-NA-
N032	-0.000 (44)	-0.002 (44)	-3.289 (43)
N032	0.000 (24)	0.002 (24)	3.285 (27)

Nodal Extreme Reactions

Node	FX	FY	FZ	MX	MY	MZ
	K	K	K	K-ft	K-ft	K-ft
N001	-0.010 (24)	-0.750 (24)	-0.377 (43)	**-NA-**	**-NA-**	**-NA-**
N001	0.011 (44)	0.799 (44)	0.373 (27)	-NA-	-NA-	-NA-
N008	-0.026 (27)	-0.760 (27)	-0.929 (27)	-NA-	-NA-	-NA-
N008	**0.027 (43)**	0.779 (43)	0.933 (43)	-NA-	-NA-	-NA-
N018	-0.002 (43)	-1.296 (27)	-1.635 (27)	-NA-	-NA-	-NA-
N018	0.002 (27)	1.321 (43)	1.638 (43)	-NA-	-NA-	-NA-
N020	-0.002 (27)	-1.296 (27)	**-1.635 (27)**	-NA-	-NA-	-NA-
N020	0.002 (43)	1.321 (43)	**1.638 (43)**	-NA-	-NA-	-NA-
N026	-0.002 (44)	-1.305 (24)	-0.475 (43)	-NA-	-NA-	-NA-
N026	0.002 (24)	1.374 (44)	0.471 (27)	-NA-	-NA-	-NA-
N028	-0.002 (24)	**-1.306 (24)**	-0.475 (43)	-NA-	-NA-	-NA-
N028	0.002 (44)	**1.375 (44)**	0.471 (27)	-NA-	-NA-	-NA-
N030	**-0.027 (43)**	-0.760 (27)	-0.929 (27)	-NA-	-NA-	-NA-
N030	0.026 (27)	0.778 (43)	0.933 (43)	-NA-	-NA-	-NA-
N031	-0.011 (44)	-0.750 (24)	-0.377 (43)	-NA-	-NA-	-NA-
N031	0.010 (24)	0.799 (44)	0.373 (27)	-NA-	-NA-	-NA-

22nd STREET
PARK AVENUE
COLLINS AVENUE
21nd STREET