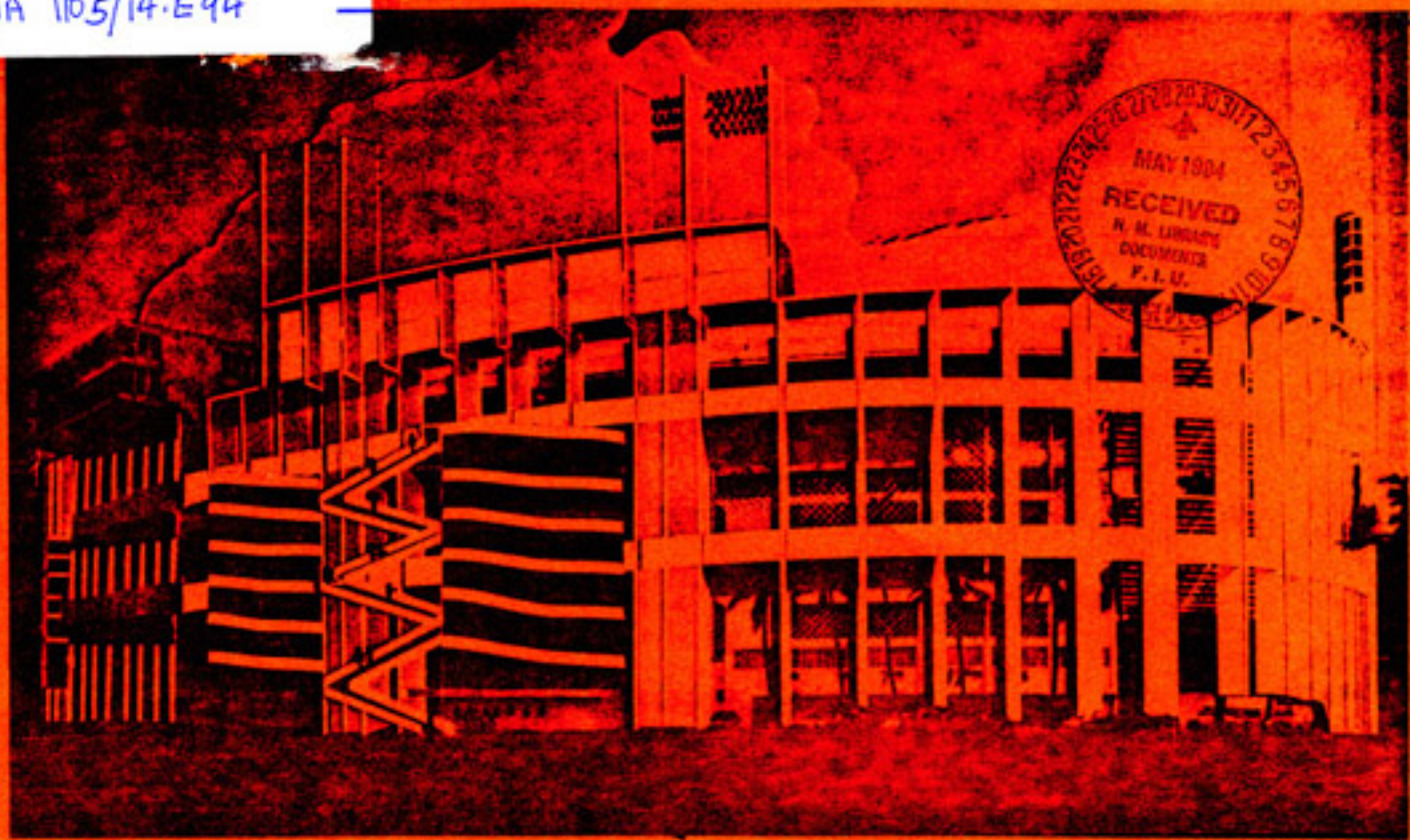


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AN EVEN GREATER ORANGE BOWL FOR MIAMI

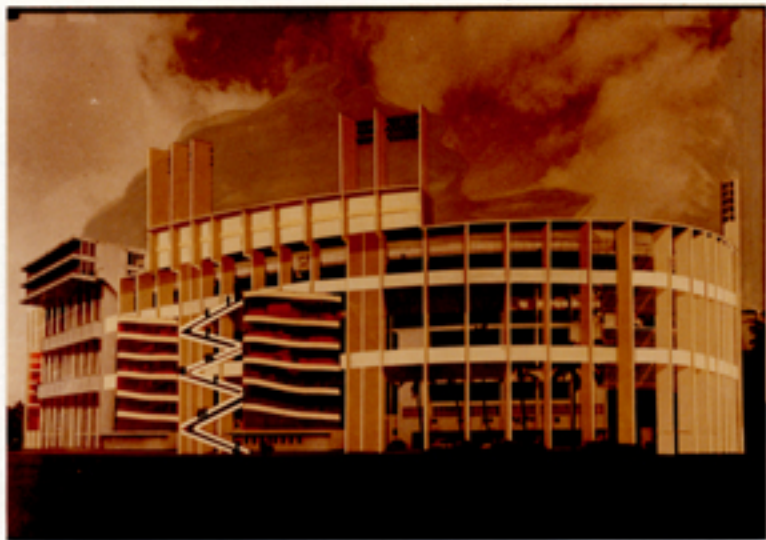
FLORIDA INTERNATIONAL UNIVERSITY



3 1199 00855 3706

M.L. REESE, CITY MANAGER -- MIAMI, FLORIDA

MAY 1973





The Orange Bowl is Miami. For no other structure or attraction in the Magic City is as symbolic of Miami itself as is this 700 foot concrete and steel oval located at the very heart of the City.

The Orange Bowl has served Miamians well and, in return, the taxpayers have an investment in the Orange Bowl that should be preserved. To date, exclusive of land costs, the City has approximately \$7,000,000 invested; which equals less than \$90 per seat. When it is considered that the cost of stadiums being built today is in excess of \$1,000 per seat, it becomes readily apparent that the Orange Bowl is indeed a bargain.

The Orange Bowl is structurally sound, and it is well designed. It lacks only certain improvements to keep pace with today's demands.

Being designed specifically for football (as opposed to a multi-use sports stadium), the Orange Bowl offers maximum desirable seating. In this respect, it compares most favorably with, and in many instances exceeds, the newer highly publicized super stadiums of today.

Properly refurbished, the Orange Bowl can continue to fulfill its most useful function, and it will be able to hold its own against its now more glamorous contemporaries.

The program herein presented describes how the City can achieve this, and how the Orange Bowl can be kept growing as a vital part of the Miami community.

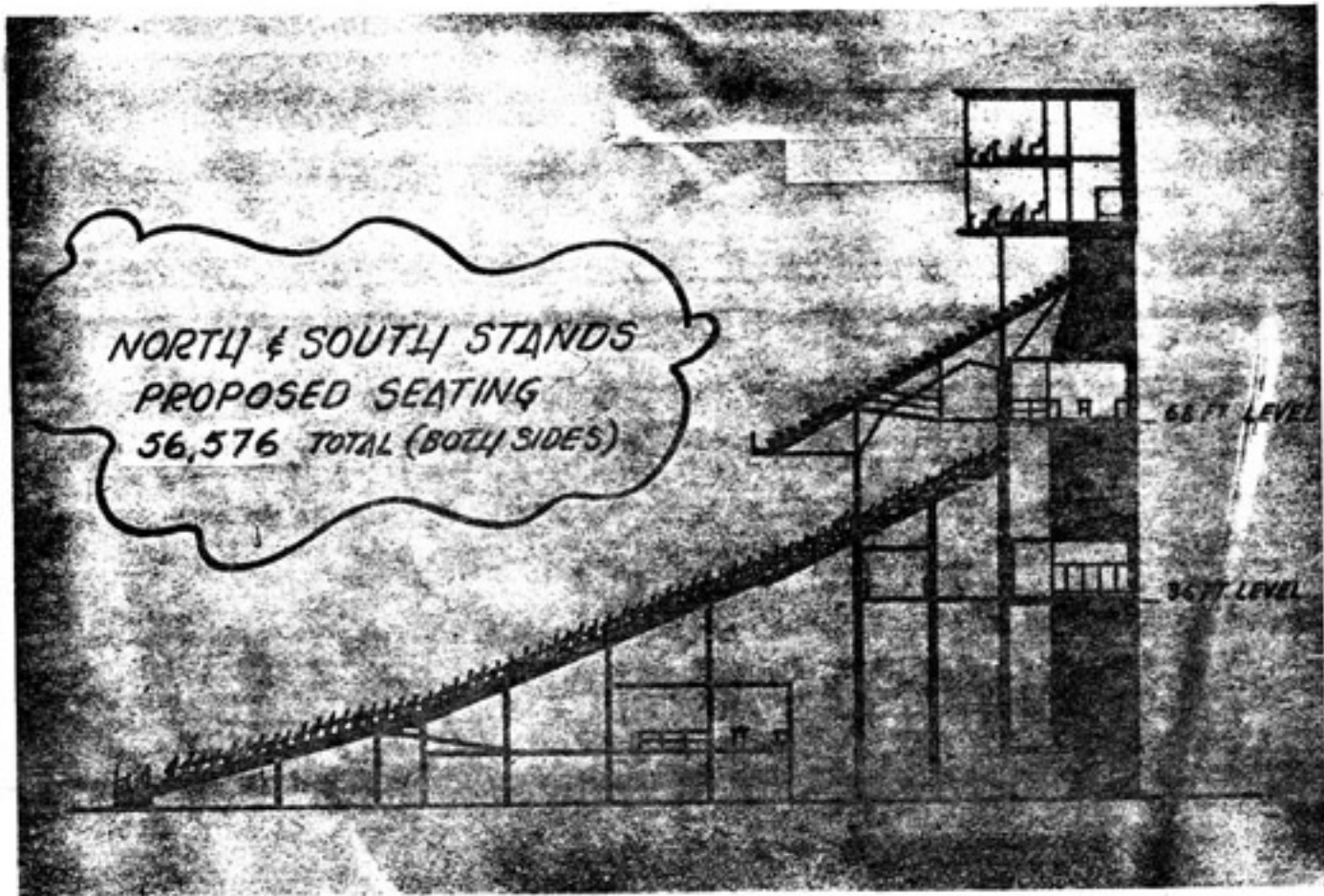
*NORTH & SOUTH STANDS  
EXISTING SEATING  
61,985 TOTAL (BOTH SIDES)*

68 FT. LEVEL

36 FT. LEVEL

First, the seating will  
be vastly improved.

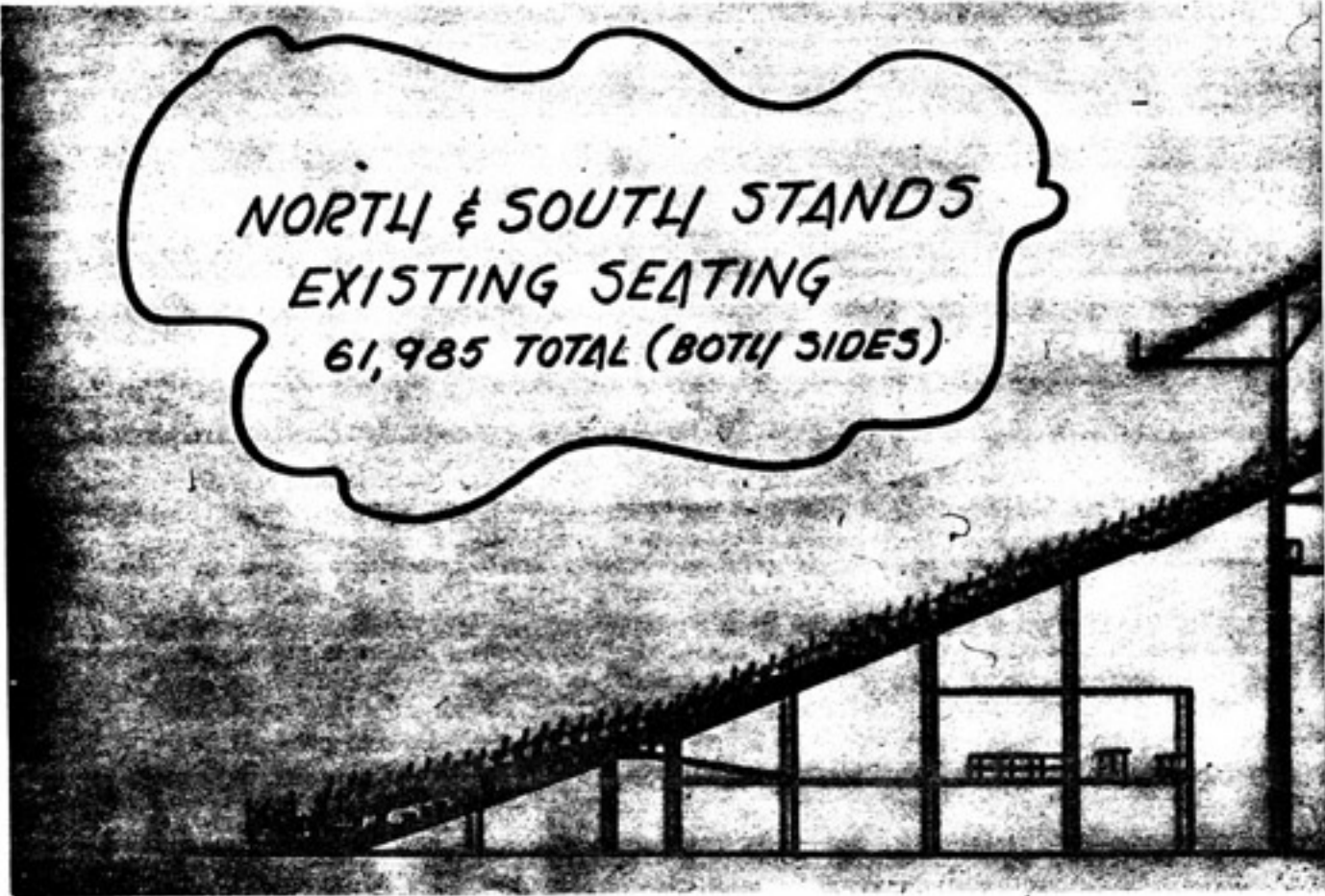
As shown here,  
the present lower  
decks of the north  
and south stands  
each consist of a  
row of box seats,  
2 rows of chair seats,  
13 rows of bench seats,  
6 additional rows of  
chair seats and 45  
rows of bench seats.



Under the proposal:

All bench seats in the lower deck will be removed. The decks themselves will be altered to accommodate the installation of chair seats. The greater space required for chair seats will necessitate giving up one row out of every five now existing. This will mean a loss of 6,500 seat total from the lower decks of the north and south stands. The end result in these two areas will be a capacity of 36,700 spectators in comfortable chair seats.

All bench seats in the upper decks of the north and south stands will be replaced with aluminum seat covers.

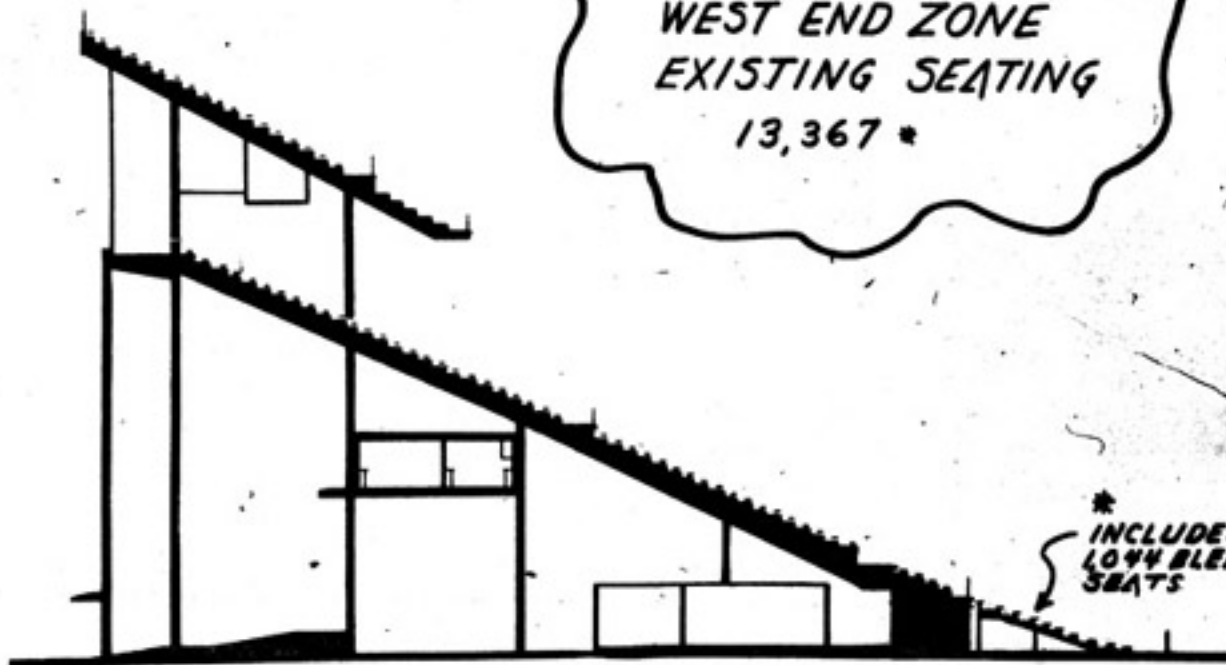


*NORTH & SOUTH STANDS  
EXISTING SEATING  
61,985 TOTAL (BOTH SIDES)*



There have been numerous complaints that the box seats and other lower seats, which should presently be the best available in the stadium, are actually something less than desirable. This is caused by their low elevation in relation to the field. (Eye level is slightly less than six feet above the playing field.)

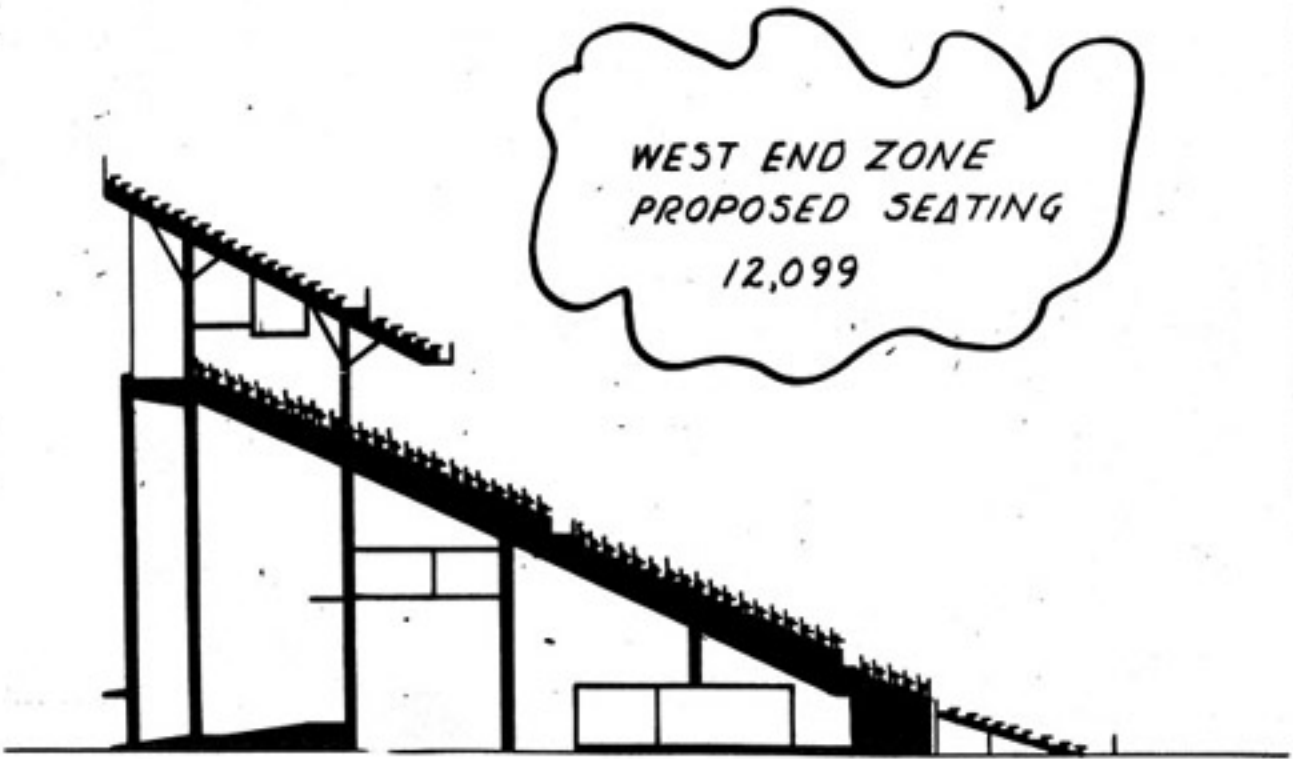
In making the new seat installation, the first 17 rows, including the existing box seats, will be raised and moved forward closer to the playing field, thus making these seats more desirable. In the accompanying sketch, the dark image represents the existing seat levels; the light image is the proposed new level.

A black and white architectural cross-section of stadium seating. The diagram shows a sloped seating bowl with multiple tiers. On the left, there are vertical structural supports. The seating area is filled with a dense pattern of small rectangles representing seats. A cloud-shaped callout box is positioned above the seating bowl. At the bottom right, a curved arrow points to the lower edge of the seating bowl, accompanied by a note.

**WEST END ZONE  
EXISTING SEATING  
13,367 \***

**\*  
INCLUDES  
LOW BLEACHER  
SEATS**

In the west end zone,  
all existing seating, both  
upper and lower decks,  
are benches. In addition,  
there are temporary bleachers  
in front of the lower deck.





Under the proposed improvement, the treads in the lower deck will be altered to accommodate the installation of chair seats in the entire lower deck. The upper deck bench seats will remain unchanged.

The seat loss in the lower deck will amount to approximately one row out of every ten for a total loss of 1,268 seats. Total chair seats to be installed is estimated to be 6,343.

EXISTING  
EAST END ZONE  
BLEACHERS  
4658 SEATS

SPEAKER  
TOWER

SCOREBOARD

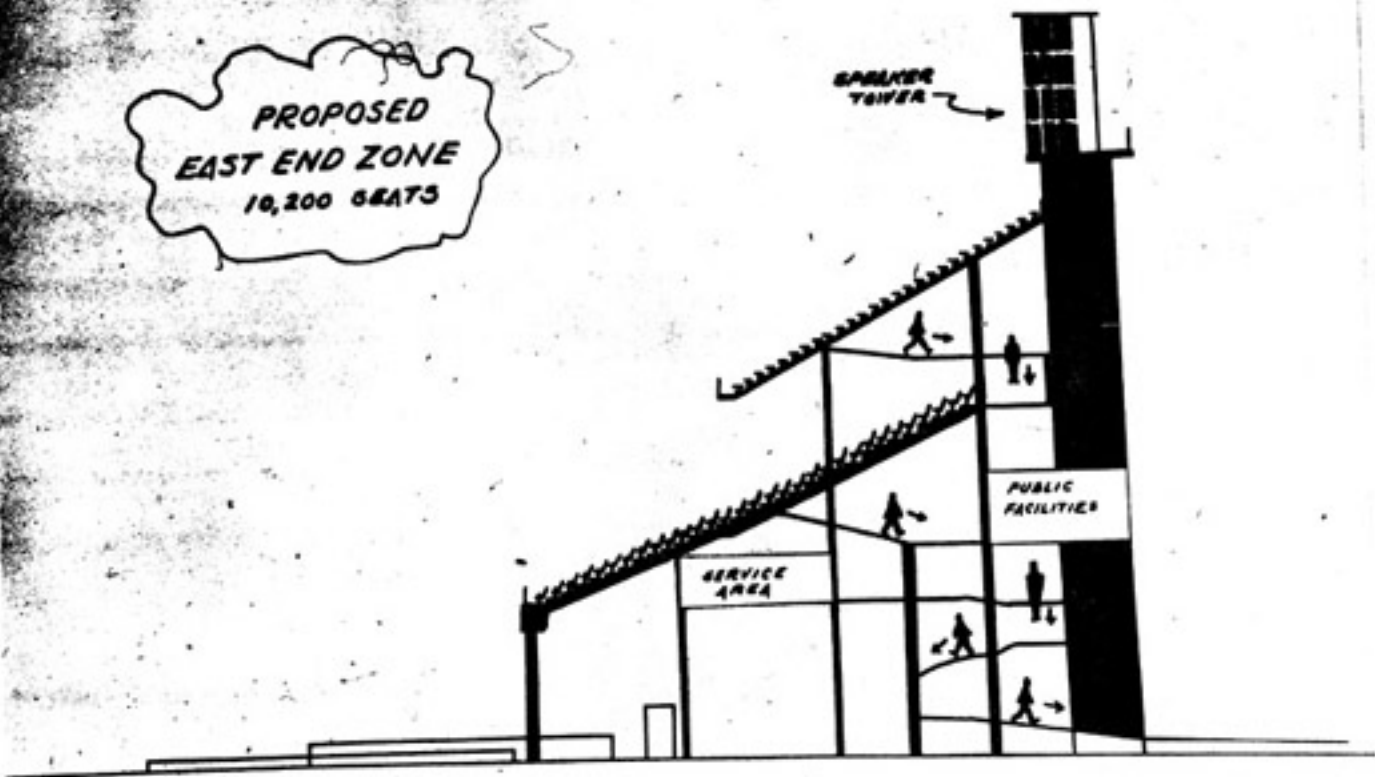
2 FOUNDATIONS

PAVILION

All present seating in the  
east end zone consists of  
temporary bleachers,  
seating 4, 658.

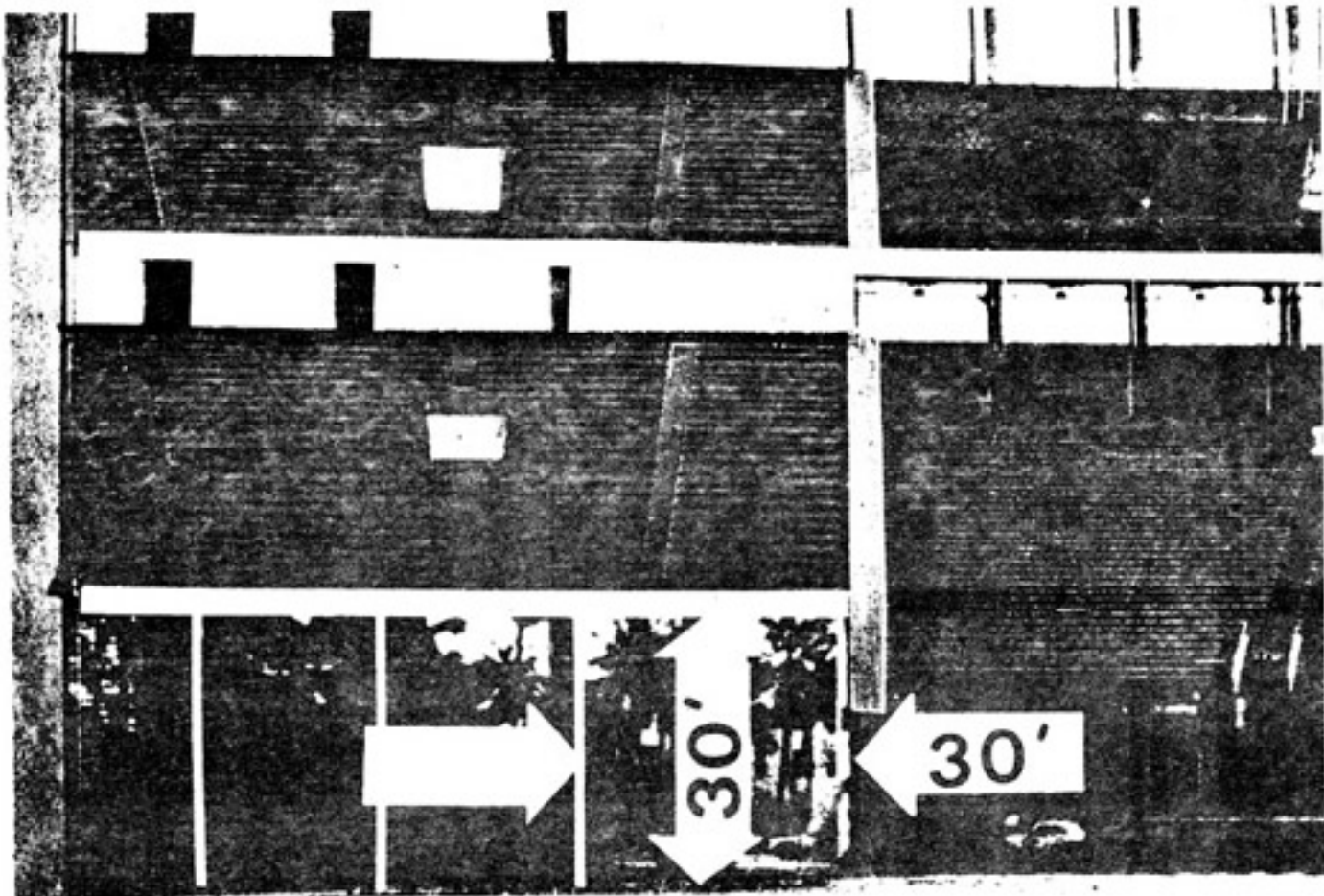
**PROPOSED  
EAST END ZONE  
10,200 SEATS**

**GRAND  
TOWER**





Under the proposal, the oval shape of the Orange Bowl will be completed by the construction of both upper and lower decks in the east end zone. Chair seats will be installed in the lower deck and bench seats in the upper deck. Construction will be such that the east end zone will be open to the 26 foot height, so that prevailing easterly breezes may reach the field and the interior of the stadium.



Special openings will be provided at both ends of the east end zone for floats. The fountain and landscaping will remain. However, it will be necessary to relocate the speaker tower and the scoreboard.

This new construction will result in a gain of 5,542 seats in the east end zone.

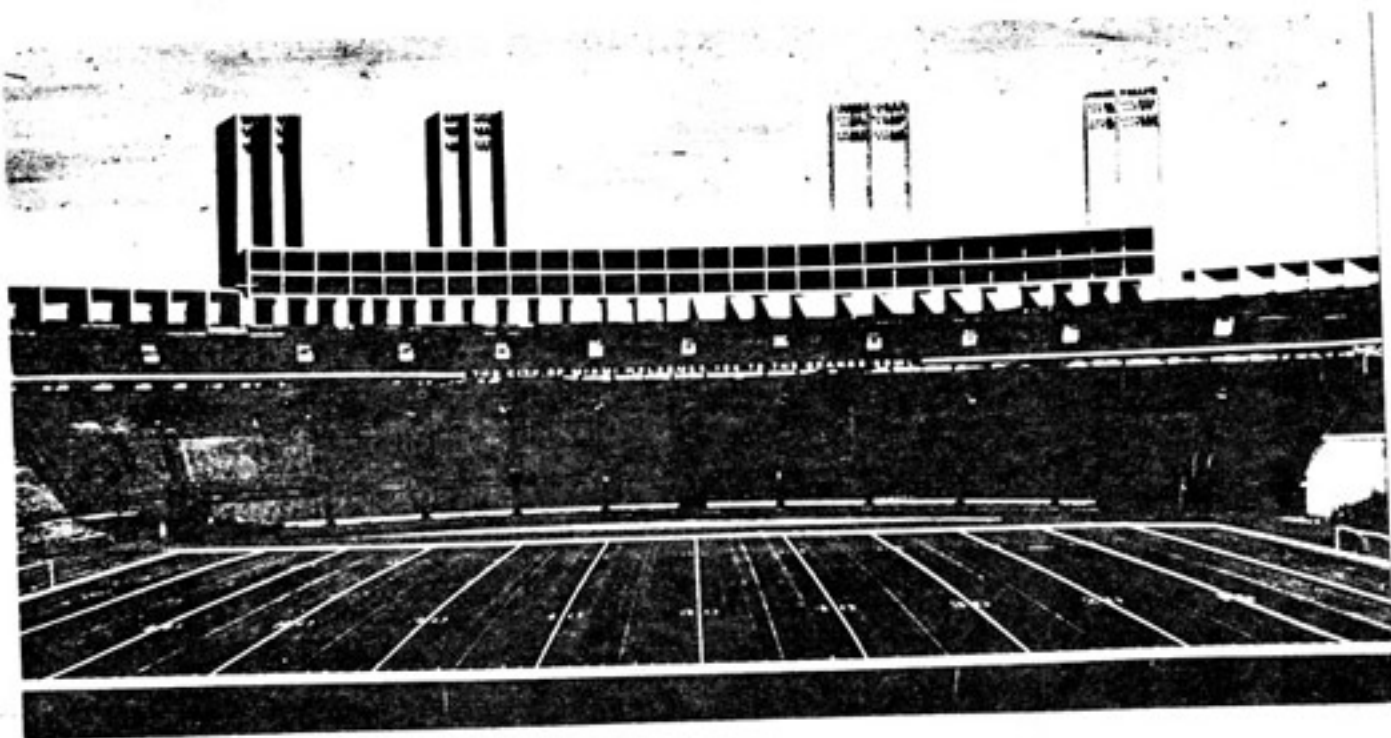
PRESENT  
PERMANENT  
SEATS

PROPOSED  
PERMANENT  
SEATS

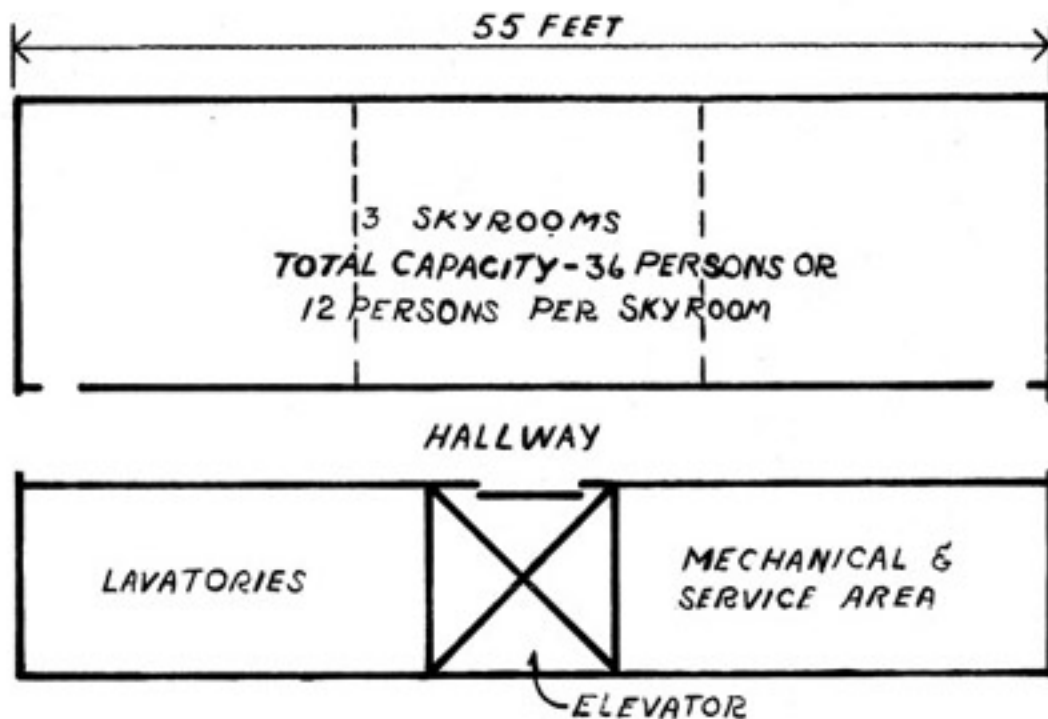
1,044	BLEACHER SEATS	1,044
70,238	BENCH SEATS	28,465
4,070	CHAIR SEATS	48,286
0	NEW SEATS	1,080
<hr/>		<hr/>
75,352	TOTAL PERMANENT SEATS	78,875
4,658	TEMPORARY BLEACHERS	3,000
<hr/>		<hr/>
80,010	TOTAL SEATING	81,875



These seating improvements will be accomplished without any loss of seating in the Orange Bowl. In fact, there will be an overall gain--as shown in the accompanying chart.



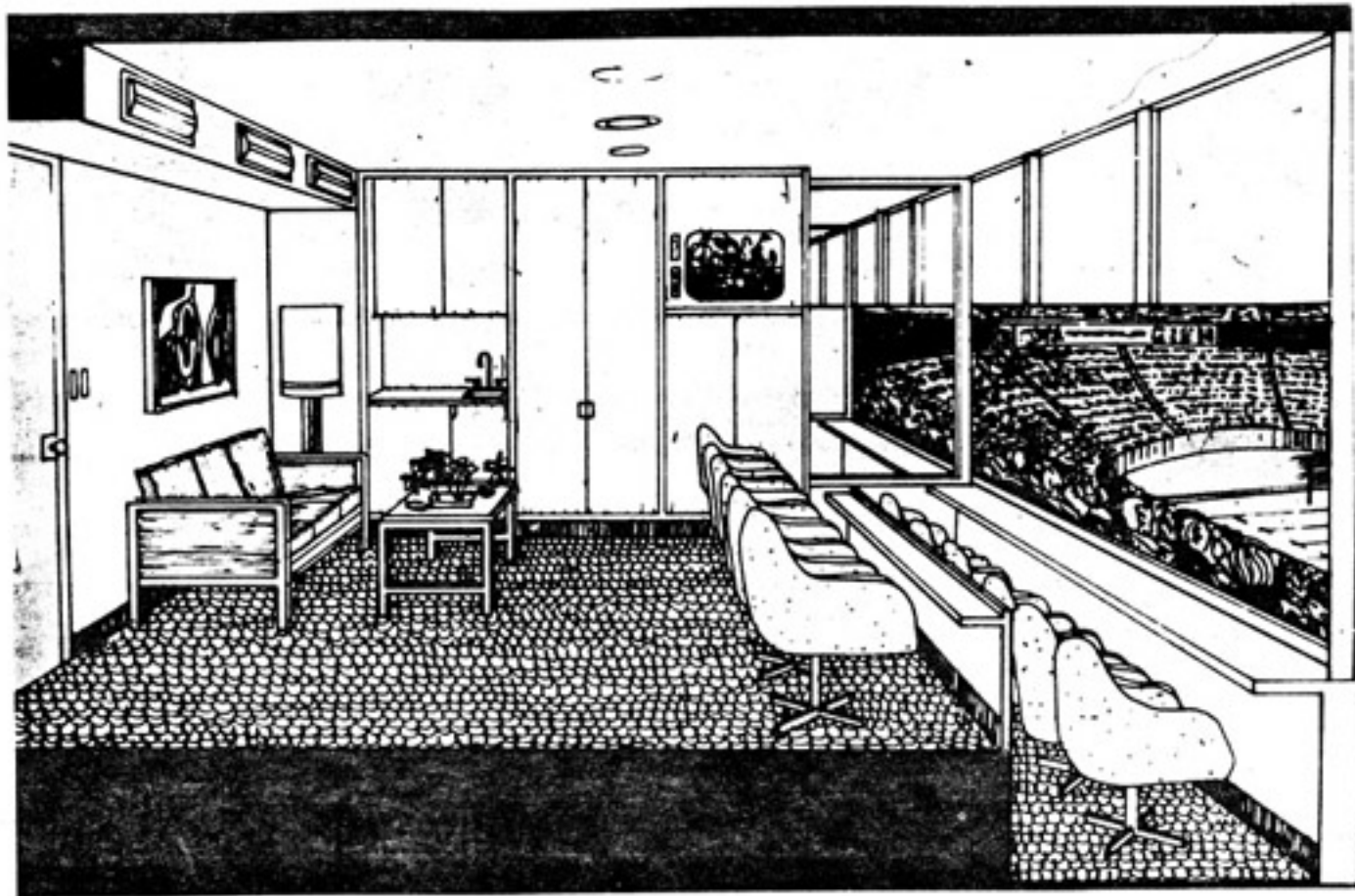
The improved seating is proposed to be further complemented by the addition of the choicest seats of all. This will be through the construction of what might be called the VIP Sky Deck. This will consist of two levels of sky rooms, totaling 90 units with each unit holding 12 spectators.



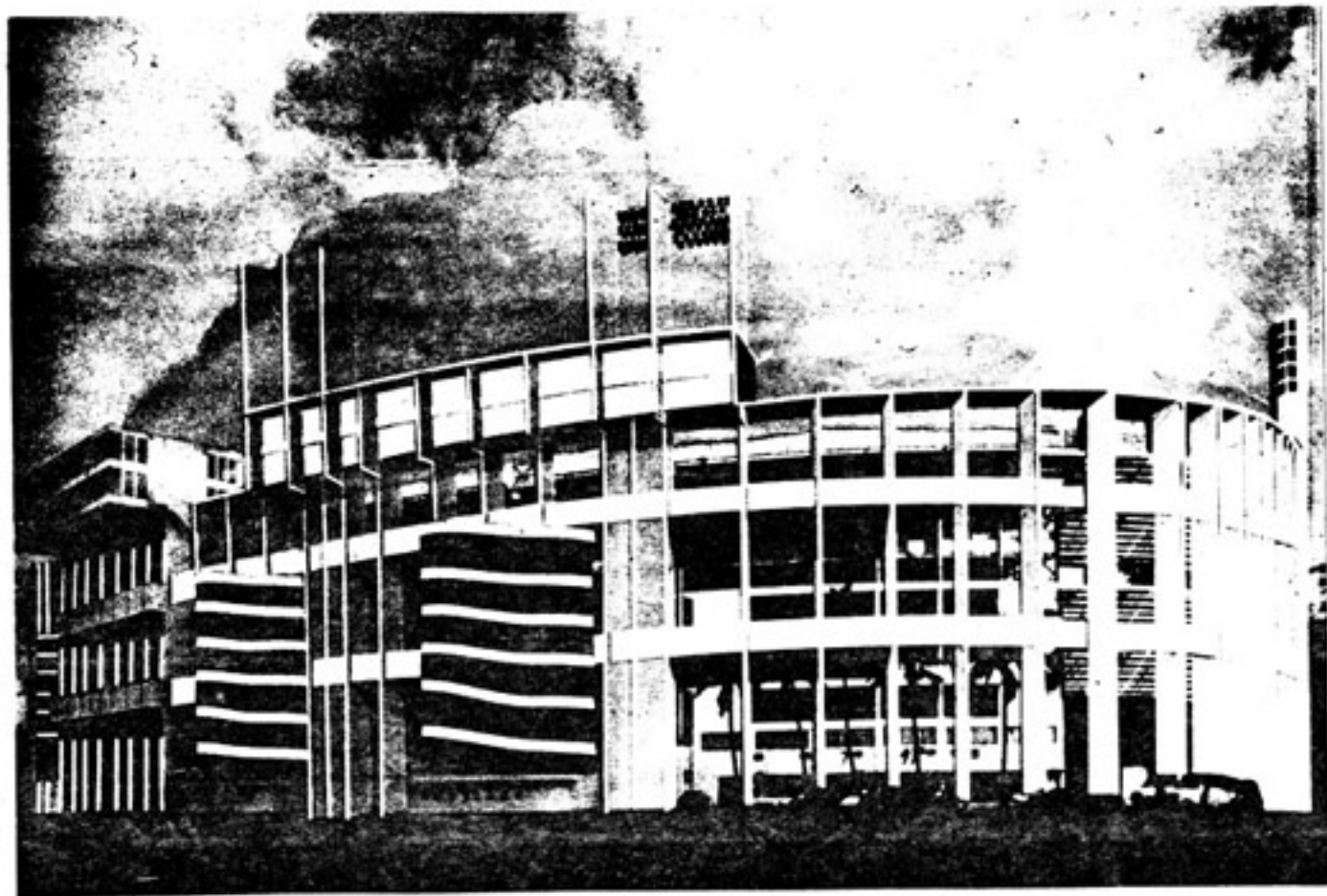
# SKY ROOMS



Access to the sky rooms will be by elevator and each cluster will have its own lavatory facilities and mechanical and service areas. Sky room design will be flexible to allow side by side units to be opened, or up and down units interconnected to form a larger room or deluxe suite.



Each individual unit will be constructed only as a shell with basic utilities. This will be leased on a long term basis, with the lessee finishing the interior as he desires. These will be similar to the "Circle Suites" which have proven to be so successful in the Texas Stadium.



The sky room construction will be similar to that of the Orange Bowl's new upper press box, whereby their support is through the construction of aesthetically designed exterior columns. This in itself will constitute a decorative facade surrounding the existing concrete and steel shell. These will further serve as towers for the improved lighting. The addition of decorative mesh between the columns will complete the aesthetic treatment of the Orange Bowl's outer surface in the area where the sky boxes are constructed. The remaining periphery of the Orange Bowl beyond the sky deck areas will be aesthetically treated by a continuation of the installation of the decorative mesh.

SPONSOR

27 HOME 10:39 VISITOR 25  
3DOWN 14TO GO BALL ON38 QTR2  
YDS GAINED HOME-229 VIS-184

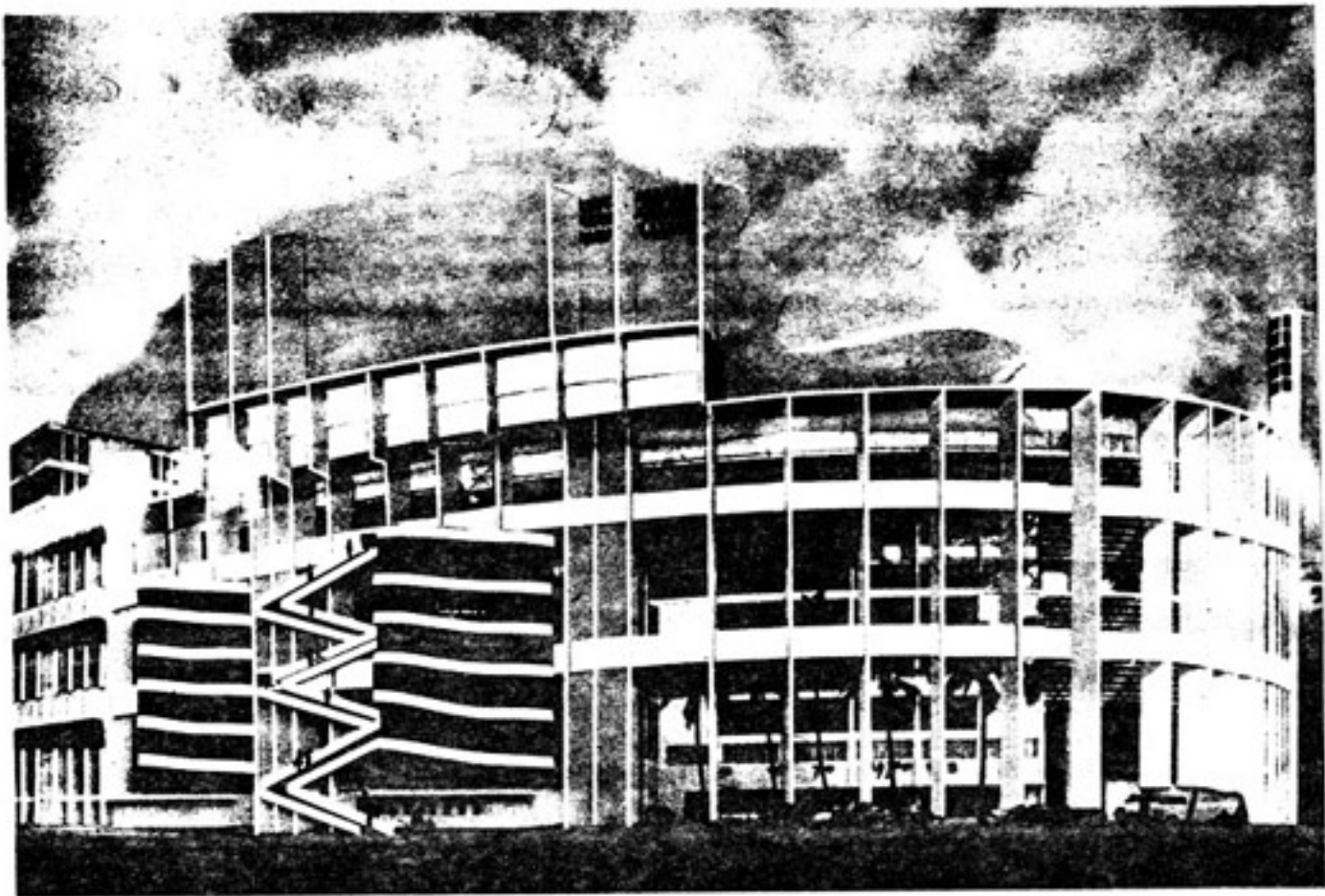
**CHARGE!**

SAMPLE ILLUSTRATION

In addition to the seating improvements, other proposals which will round out the program include:

A new, contemporary electronic scoreboard will be installed in the west end zone and supplemental auxilliary scoreboards at other strategic locations.

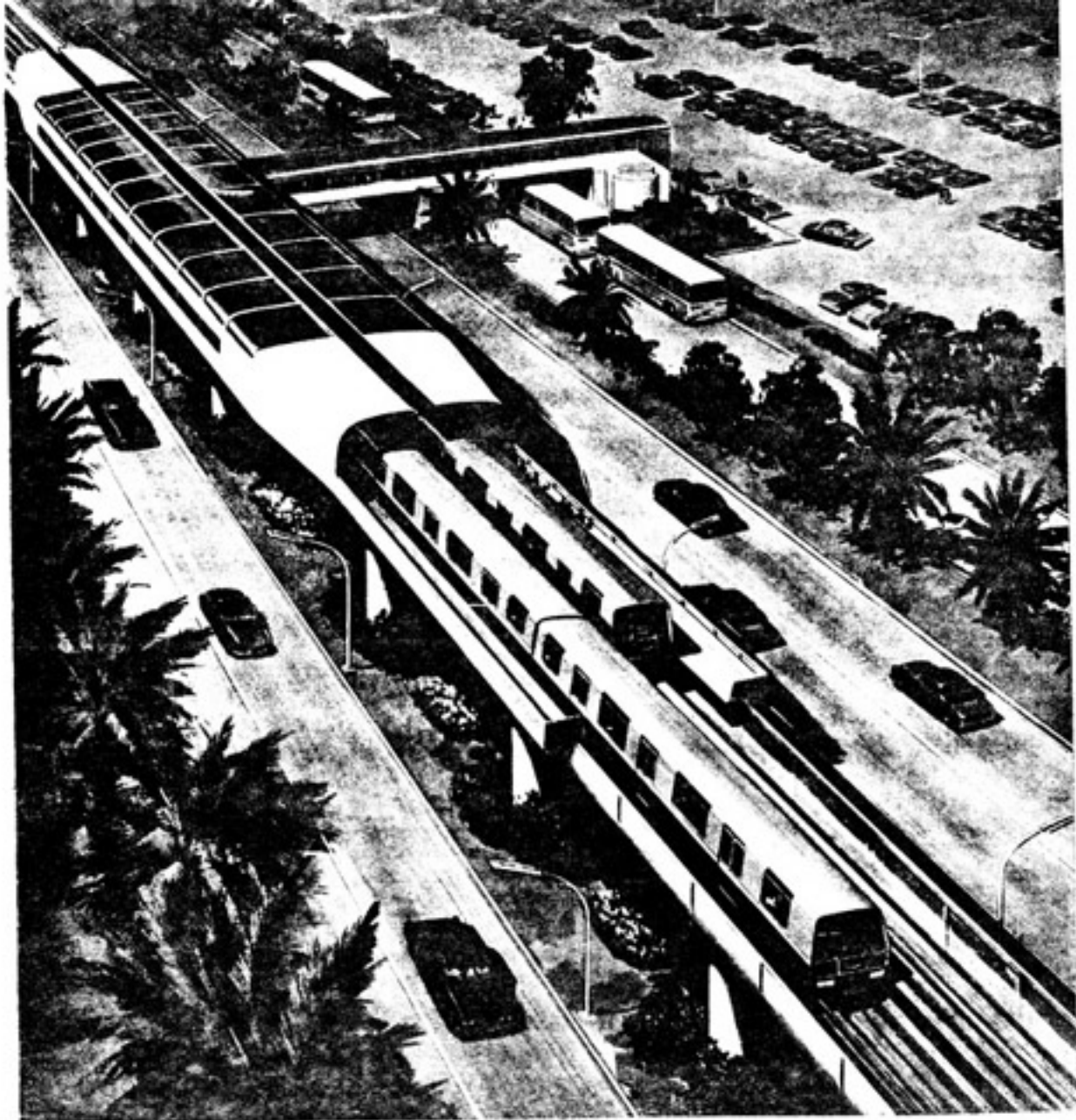
The facing plate is a sample illustration only. Actual scoreboard design would be a part of the sponsor's proposal.



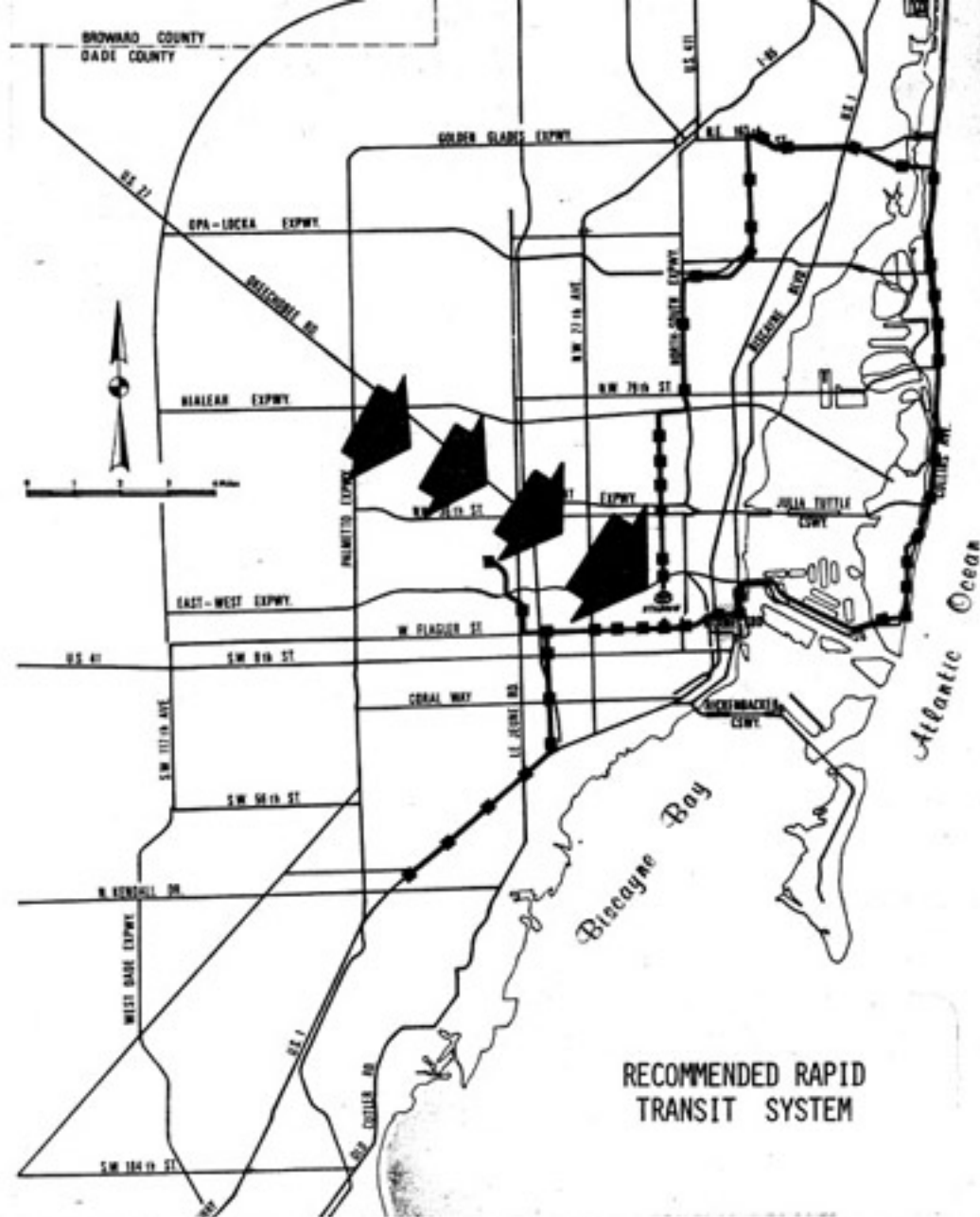


Field lighting will be replaced with a more efficient type, resulting in an increase in the field illumination of 100%.

The existing fixed ramps will be supplemented by the installation of moving ramps at four locations designed to serve both upper and lower decks. These will be reversible so as to move in the direction of the pedestrian flow.



From time to time, it has been suggested that the Orange Bowl should be relocated to an area of better transportation facilities. The answer lies not so much in increasing vehicular access to the stadium (which in turn only creates more parking, and ingress and egress problems), but rather in providing a means of alternate transportation which gives the public a choice and reduces vehicular congestion.

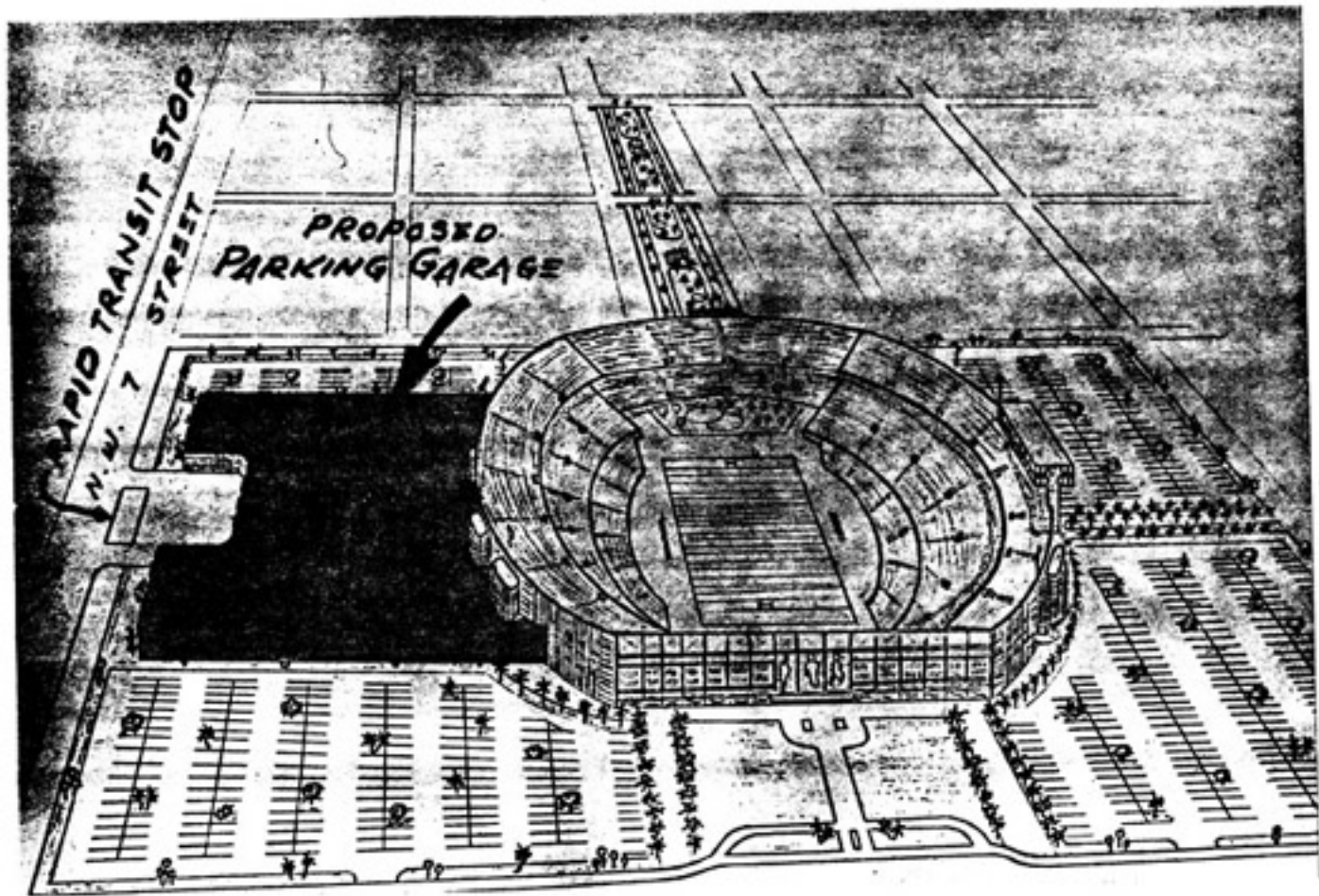


RECOMMENDED RAPID  
TRANSIT SYSTEM

Such a move is already under way.

The planned rapid transit system for Greater Miami proposes a station at the Orange Bowl.

Thus, from Dadeland to Sunny Isles, and from the Airport to South Beach, a whole new, and rapid, means of attending the Orange Bowl will be made available; and without the need of vehicular congestion.



Since the rapid transit stop would work both ways, increased use of the Orange Bowl as a mass transit stop (for a park and ride operation) could justify the construction of revenue producing garage parking facilities which, in turn, could be used for added parking during Orange Bowl events.

The existing surface street and expressway system which now handles a stadium crowd of 80,000 plus, will prove more than adequate when supplemented by rapid transit. And, it will not be necessary to relocate the Orange Bowl to the boondocks; it can stay where it belongs, within convenient reach by rapid transit, bus, private motor vehicle, and even by foot.

THE NEW ORANGE BOWL IMPROVEMENT PROGRAM  
1973 ESTIMATED COST

INTERIOR PROGRAM

EAST END ZONE STANDS	\$ 2,250,000	
LOWER DECK CHAIR SEAT CONVERSION	3,200,000	
UPPER DECK ALUMINUM BENCH SEATS	100,000	
IMPROVED FIELD LIGHTING	700,000	
OTHER INTERIOR IMPROVEMENTS	750,000	
ELECTRONIC SCOREBOARD	-	\$ 600,000

TOTAL INTERIOR PROGRAM	\$ 7,000,000	
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EXTERIOR PROGRAM

MECHANICAL RAMPS TO UPPER LEVELS	\$ 2,400,000	
OTHER EXTERIOR IMPROVEMENTS	600,000	
SKY DECK WITH ELEVATORS - 90 ROOMS	-	\$5,400,000

TOTAL EXTERIOR PROGRAM	\$ 3,000,000	
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TOTAL IMPROVEMENT PROGRAM	\$10,000,000	\$6,000,000
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## FINANCING

Modernizing the Orange Bowl Stadium financially outweighs any other plan for providing the community with a reconstructed sports facility. The Orange Bowl's prior cost when added to the proposed new investment will extend the life of the City's Orange Bowl for many years at a substantially reduced cost when compared to an investment in a totally new super stadium, such as Kansas City, New Orleans, the Astrodome, or Texas Stadium. Such stadiums, at today's inflated prices, would fall in the \$100 million cost category.

What will this program cost the City?

The interior program, including the east end zone stands, the lower deck chair seats and conversions, the upper deck aluminum benches, improved field lighting and other internal improvements would cost approximately \$7 million.

The mechanical ramps to the upper level plus other exterior improvements would cost an estimated \$3 million.

The construction of the sky rooms would represent approximately \$5.4 million, and the new electronic scoreboard approximately \$600,000.

This makes a total estimated cost of this program, at 1973 prices, of \$16 million.

More detailed breakdowns of these costs will be found in the appendix.

The next question, obviously, is: how is it proposed that this program be funded? There are four basic elements that must be put together in order for this project to be achieved.

The first ingredient would be the renegotiation of the FP&L franchise which, at the present time, terminates in February, 1984. A longer period of time should be negotiated. This would improve the City's borrowing power so that the City could go into long term financing in using this franchise money. Experience with this franchise revenue up to this point indicates that it would not be necessary to obligate all this franchise revenue over the 30 year period. Incidentally, the franchise money can be used only for construction purposes, it cannot be used for operating purposes. These funds would be used for the east end zone stands, the new seating (both lower deck chair seats, and upper deck aluminum bench seats), the improved field lighting, the mechanical ramps to the upper level, and other interior and exterior improvements.

The second ingredient, that is very necessary, is long-term written contracts with the Miami Dolphins, the University of Miami and the Orange Bowl Committee. This would be a guarantee that these organizations would continue to use the Orange Bowl, which is necessary to demonstrate to the money lenders that sufficient revenues will be generated over a long period of time to keep the Orange Bowl financially sound.

The third ingredient is the sky rooms which would be built by the City who would either (1) lease them out on a long term lease at a fee that would show an amortization of these facilities, or (2) set them up as condominiums, so that a person would own them for a long period of time after which they would revert back to the City. It is planned that this would be set up for a period of 20 to 25 years. It is not expected that the lessee has to pay

a lump sum, but rather could make payment over a given period. This spreading out of financing could be handled either by the City, or through an outside agency. The main objective is, of course, the guarantee of eventual full payment. It is expected that the fee on these structures would be adequate to finance their construction. This proposal will, of course, have to be first checked out from a legal standpoint.

Annually, the lessee would have to purchase 12 season tickets for events under contract with the City, such as football games by the Miami Dolphins and the University of Miami Hurricanes, as well as 12 tickets for the Orange Bowl Game and the Orange Blossom Classic.

The electronic scoreboard, estimated to cost \$600,000 is proposed to be financed through a sponsoring advertising firm. This would be through advertising included as an integral part of the scoreboard. Such a plan has tremendous potential. The location of the scoreboard above the west end zone will give it exceptional advertising exposure from outside the stadium, particularly if it is lighted at night. This, coupled with exposure to 80,000 plus, live spectators, and several million television viewers, gives this scoreboard great advertising value. This will be on a long-term lease basis, which would be necessary to warrant this kind of an expenditure.

The last element, and one of the most important, is a positive aggressive action by Metropolitan Dade County on its mass transportation program. This would include giving top priority to the station at N. W. 7 Street, as well as early construction of the entire system that would serve this station. By opening up this whole new means of access to the stadium,

two important benefits would be achieved. (1) There would be reduced vehicular congestion by lessening the number of persons arriving by private motor vehicle, and (2) the use of this site in the rapid transit system could justify the construction of a parking garage. It is estimated that a garage at the N. W. 7 Street area of the Orange Bowl would increase parking spaces by approximately 1100. There is no reason why a program couldn't be set up (and this would not be in competition with the Off-Street Parking Program) whereby it would be feasible for people living in certain areas to leave their car at the stadium garage, out of the weather, and go down town by mass transit. The construction of such a garage for this purpose would permit its use for additional parking during Orange Bowl events.

This, in brief, is the proposed program, and the logical sequence of steps that would have to be taken for it to reach fruition.



A P P E N D I X

ESTIMATED 1973 BREAKDOWN COST OF IMPROVEMENTS TO ORANGE BOWL STADIUMEAST END ZONE STANDS

The east end zone stands will consist of a reinforced concrete lower deck, starting approximately thirty feet above the ground and built upon reinforced concrete supporting columns. This is to provide for field ventilation, and openings for the ingress and egress of floats and equipment. The upper deck will be constructed of structural steel, similar to the existing upper decks. The lower deck will contain approximately 5,250 chair back seats, and the upper deck will contain approximately 4,950 aluminum bench type seats. This addition will also contain ramps, service areas, public facilities, and supports for relocated speaker tower.

The cost estimate for this portion of the stadium improvements is based upon the construction cost of the west end zone lower and upper decks, which were built in 1963 and 1967 respectively. The west end lower deck contains 8,655 bench seats and was built for \$758,200; or for a cost of approximately \$87.60 per bench seat. The upper deck was constructed at a cost of \$473,800 and contains 4,712 aluminum bench seats; or a cost of \$100.50 per seat. Service areas costs are based on the City's (updated) 1968 construction costs for like construction, and from Robert S. Means 1973 Building Construction Cost Data Manual.

1963 Construction Cost per Bench Seat	=	\$100.00
Average 10 year inflationary cost of 5% per year	=	50.00
Chair Back Seats - over Bench Seats	=	35.00
<b>Total Cost per Chair Seat</b>		<b>\$185.00</b>
1. 5,250 Chair Seats (lower deck)	x \$185/seat	= \$971,250.00
2. 4,950 Bench Seats (upper deck)	x \$155/seat	= 767,250.00
3. Service Areas - 2400 square feet	x \$38/sq. ft.	= 91,200.00
4. Public Facilities - 1600 sq. feet	x \$40/sq. ft.	= 64,000.00
5. Shear Wall Columns - 16 Columns	x \$14,125 ea.	= 226,000.00
6. Relocating Speaker Tower		= 100,000.00
<b>TOTAL EAST END ZONE STANDS</b>		<b>\$2,219,700.00</b>
	<b>USE</b>	<b>\$2,250,000.00</b>



LOWER DECK CHAIR SEAT CONVERSION

The lower deck chair seat conversion will require two types of alterations to the lower deck of the north and south sides of the stadium, and one to the west stands lower deck. In order to install chair seats in all locations, it is necessary to widen the existing treads to accommodate chairs where bench seats now exist. In the north and south stands, this will result in a loss of one row of seats in every five rows. In the west end zone the loss will be one row out of every ten. This will be accomplished by adding riser sections to each tread (rows) throughout the north, south, and west stands; and installing chair seats. Additional alterations of north and south stands forward of row 18 will be made, requiring the complete rebuilding of this portion of each side. As a result of this, each row of chairs will be raised, with the box seats being elevated approximately two feet and moved forward approximately four feet.

The cost estimate for this work is based upon a 1965 contract wherein the City altered rows 18 thru 22 and installed chair seats in the present north and south stands. It is proposed using the existing lower steel deck section as a temporary sand form support and pouring a new reinforced concrete deck thereon, with additional supports being installed through the existing steel deck. The steel deck could then be removed and salvaged. This system of construction for lower section of chair seats should reflect some savings in cost per chair seat (Item 2 below).

1965 cost per Chair Seat was	= \$47/seat
Average 8 year inflationary cost of 5% per year	= <u>\$18.80</u>
Total Cost per Chair Seat	\$65.80
1. New Chair Seats above row 22, north and south stands, and in west end zone is 28,800 at \$66/seat	= \$1,900,800.00
2. Chair Seats and Deck Alterations from row 18 toward field and boxes is 10,200 at \$127	= <u>\$1,295,400.00</u>
TOTAL LOWER DECK CHAIR SEAT CONVERSION	\$3,196,200.00
	USE \$3,200,000.00

ALUMINUM BENCH SEATS

Aluminum bench seats will be installed in the upper deck north and south stands in place of the existing fiberglass covered wood bench seats. The west end zone upper deck now contains aluminum bench seats and the new east end zone will have the same type bench seats installed. It will be necessary to remove all existing benches and modify the existing support brackets to accommodate the new aluminum seat boards.

In 1967 the City constructed the west end zone upper deck and installed gold anodized aluminum bench seats at an approximate cost of \$2.50 per seat for the aluminum boards plus \$0.50 per seat for installation. Estimating an inflationary increase of approximately 5% per year, therefore:

1967 Cost per Bench Seat was	= \$3.00	
Average 6 year inflationary cost of 5%	= <u>.90</u>	
Total Cost per Bench Seat	\$3.90	
1. Removal of existing fiberglass and wood bench seats, 18,803 seats @ 20¢		= \$ 3,760.00
2. Modifying seat board brackets (average 4 seats per bracket), 18,803 ÷ 4 = 4,700 @ \$5.00/bracket		= \$ 23,500.00
3. Installation of 18,803 bench seats @ \$3.90		= <u>\$ 73,331.00</u>
TOTAL COST FOR ALUMINUM BENCH SEATS		\$100,591.00
	USE	\$100,000.00

IMPROVED FIELD LIGHTING

Improved field lighting will consist of installing approximately 80 new metal Halide high performance floodlights on each of 8 new towers. These will be approximately 185 feet above ground level, and about 50 feet above the new sky deck roof. The new shear walls (the columns supporting the sky decks) will be designed to also support the new flood lighting. The existing floodlights and towers will have to be removed to allow for the installation of the sky decks.

The following cost estimate for the wiring and for the construction of additional height of the towers above the sky decks is based upon (1) the current catalog list prices of the Halide high performance floodlight fixtures, and (2) the 1973 issue of Robert S. Means Building Construction Cost Data.

Halide lighting fixtures: 640 @ \$355.50 each	= \$227,500.00
Wire, conduit, labor, etc: 8 towers @ \$17,800 each	= 142,400.00
Additional height of 8 towers (shear walls extended beyond sky decks) with 2 walls for each tower: 16 shear walls @ \$20,000 each	<u>320,000.00</u>
<b>TOTAL COST FOR IMPROVED FIELD LIGHTING</b>	<b>\$689,900.00</b>
	USE \$700,000.00

OTHER INTERIOR IMPROVEMENTS

Other interior improvements consist of new modern service areas and public facilities at the 36 and 68 feet levels. These areas will be built in conjunction with the shear walls (supporting columns) of the sky decks, supplemented by some added facilities within the existing stadium on the 36 feet level walkways in all four quadrants.

The following estimates are based upon the updated cost of some service areas built in the stadium in 1968, together with current bid prices received in the past 6 months for some other public facilities.

A.	36 foot and 68 foot walkway level Service Areas	
	36 ft. level: 7200 sq. ft. @ \$38.00/sq. ft.	= \$273,600.00
	68 ft. level: 3600 sq. ft. @ \$42.00/sq. ft.	= 151,200.00
B.	36 foot and 68 foot level Public Facilities	
	36 ft. level: 3600 sq. ft. @ \$42.00/sq. ft.	= \$151,200.00
	68 ft. level: 3600 sq. ft. @ \$47.00/sq. ft.	= <u>\$169,200.00</u>
	TOTAL OTHER INTERIOR IMPROVEMENTS	\$745,200.00
	USE	\$750,000.00

ELECTRONIC SCOREBOARD

It is anticipated this electronic scoreboard will be installed above the west end zone stands on supporting columns integrated with the new exterior treatment of the Bowl. Additional auxilliary units may be installed on internal facia of the upper decks.

The cost of this facility is based solely upon similar installations throughout the country and could cost from \$350,000 to \$2,000,000. The cost of supporting such a scoreboard is also a variable cost, depending upon the size and/or elaborateness of the scoreboard.

Electronic Scoreboard	\$500,000.00
Construction of Supports	<u>100,000.00</u>
TOTAL COST FOR ELECTRONIC SCOREBOARD	\$600,000.00



MECHANICAL RAMPS TO UPPER LEVELS

Mechanical ramps to the upper levels will be installed in each of the four quarters of the stadium to supplement the existing ramps. They will be reversible and will serve both the 36 foot level walkway and the 68 foot level. It is anticipated they will be approximately 6 foot wide.

The estimated cost of this facility is based upon inquiry from Otis and Montgomery Elevator Companies; and verified by calculations from Robert S. Means 1973 Building Construction Cost Data manual.

6 foot wide Mechanical Ramps (4 required)	
560 lin. ft. /each x 4 @ \$600.00/lin. ft.	= \$1,344,000.00
Reinforced concrete structures to carry ramps - 4 @ \$264,000 each	= <u>\$1,056,000.00</u>
 TOTAL COST FOR MECHANICAL RAMPS TO UPPER LEVELS	 \$2,400,000.00

SKY DECKS WITH ELEVATORS

Sky decks with elevators will consist of two levels containing a total of 90 sky rooms with attendant service areas, public facilities and mechanical rooms for air conditioning and elevator equipment. These sky decks and elevators will be supported upon shear walls (supporting columns) which will also maintain the louver facade design of the proposed stadium exterior improvements.

The cost of this facility is based upon the updated square foot construction cost of the Press Box which was built in 1968 for \$152.00 per square foot.

24,750 square feet @ \$215.00/sq. ft. = \$5,321,250.00

TOTAL COST OF SKY DECKS  
WITH ELEVATORS \$5,321,250.00

USE \$5,400,000.00

ADDITIONAL EXTERIOR IMPROVEMENTS

The additional exterior improvements will be the cosmetic treatment consisting of grillwork on the exterior of the existing ramps, and colored vinyl-coated mesh between new louver-like columns to complete the entire exterior facade of the Bowl.

The cost estimate for this treatment was determined by calculating costs from Robert S. Means 1973 Cost Data manual, together with the cost of a similar treatment of ramps in 1968.

1. Grillwork on ramps:		
50,000 sq. ft. @ \$5.00/sq. ft.		= \$250,000.00
2. Vinyl-Cote mesh in columns:		
67,700 sq. ft. @ \$3.00/sq. ft.		= 203,000.00
3. Additional louver-like columns:		
16 @ \$9,000 each		= <u>144,000.00</u>
TOTAL ADDITIONAL EXTERIOR IMPROVEMENTS		\$597,000.00
	USE	\$600,000.00



