

TROPICANA FIELD RENOVATION STUDY

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EXECUTIVE SUMMARY

POPULOUS™

Major League Baseball (“MLB”) has experienced remarkable growth over the past two decades. Overall, MLB attendance has increased from approximately 54.8 million in 1990 to 78.6 million in 2008. At the heart of this growth has been the development of a new generation of ballparks throughout the United States.

From San Francisco to Philadelphia, Denver to Atlanta, and Houston to Cleveland, franchises have been invigorated and strengthened by new ballparks that have increased local revenue capabilities and drawn an increasing number of new fans to the game. These ballparks vary in size, location and type of amenities. However, they all share a core set of attributes that, over time, have become the standard in new ballpark design, providing improved fan comfort, safety, accessibility and enjoyment of the game.

Key attributes of first-class ballparks generally include:

- Open concourses with 360-degree circulation around the facility and unobstructed views of the field
- Adequate seating sizes and a generous tread depth for leg room to support a diverse array of fans
- Structural geometry that optimizes sight lines and maximizes intimacy by putting the fans in seats close to the action
- A good view of the playing field for all seats, and a higher concentration of seats in the lower bowl
- Club lounges with field views and direct access to seating
- Press box located to maximize premium spaces
- Large suites with ample seating in premium areas within the seating bowl
- Pleasant viewing experience in an attractive, naturally lit and ventilated environment
 - Retractable roof in appropriate climates, allowing a real grass playing field
- Fan-friendly site amenities including plazas, landscaping and clear pedestrian and vehicular paths
- State-of-the-art equipment that enhances fan experiences at every level
- Modern, easily maintained equipment, fixtures, and furniture
- Modern, efficient concessions equipment
- Signage, scoreboard and video systems with advanced technology
- Efficient mechanical, electrical and plumbing systems, and enough restrooms for a good fan/fixture ratio.

Tropicana Field does not have many of the key attributes currently found at first-class ballparks. Given the trends in ballpark development and the time lag between its design and construction, Tropicana Field was arguably outdated before it even opened its doors for baseball. Moreover, on a comparative basis, Tropicana Field becomes more expensive to operate and maintain each year. It is simply not competitive with the vast majority of ballparks across the country.

For this reason, the Rays began investigating the option of building a new first-class, major league ballpark. During the course of that effort, the possibility of instead renovating Tropicana Field was frequently raised. This study is an attempt to address that possibility.

In order to address the deficiencies at Tropicana Field, Populous (formerly HOK Sport) developed a series of concept drawings to demonstrate potential design solutions for each of the identified issues at Tropicana Field. The designs in this study are examples of the magnitude of renovation required to completely update the facility.

Based on the Populous concept drawings, Hunt Construction Group, builder of a number of major league ballparks including AT&T Park, Busch Stadium, Chase Field, Safeco Field and CitiField, provided an overview of potential construction costs. Including the addition of a new retractable roof, Hunt concluded that **a complete renovation of Tropicana Field would require an investment of over \$470 million.** The table on the next page highlights the key attributes of first-class MLB facilities and whether they can be achieved in a renovated Tropicana Field.

Hunt Construction Group estimates that a renovation project of this magnitude will take at least 18-24 months. In similar renovations, like Angel Stadium in Anaheim, California and Kauffman Stadium in Kansas City, Missouri, the teams remained at the facilities during construction. Work that required access to the field was scheduled during the off-season. Most of the renovation of Tropicana Field could be similarly performed. The exception would be the addition of a new retractable roof. It would be difficult, if not impossible,

to construct a retractable roof in the off-season, so accommodation would need to be made to play at another facility during some or all of one season.

It is important to note that this study does not quantify lost revenue resulting from construction during a playing season, nor does it investigate the lost revenue from a relocation required for the construction of a retractable roof or costs associated with improvements that would need to be made to a temporary facility to make it suitable for short-term relocation.

This study also does not consider the geographic implications of remaining in Tropicana Field versus moving to another location within the Rays’ market. As other studies have noted, Tropicana Field’s location is not central to the region’s population or employment base. This creates a unique set of challenges in providing convenient access to the region’s population and employment base.

In short, while the upgrades noted in this study would help narrow the competitive gap between Tropicana Field and other ballparks across the league, they would not come without considerable cost. Moreover, significant flaws will still remain, leaving even a renovated Tropicana Field in a class below the current major league standards.

Key Attributes of First-Class Facilities	Found at Tropicana Field	Possible with Tropicana Field Renovation
Open concourse with 360-degree circulation around the facility and unobstructed views of the field	No	Yes: Significant improvements would be required including removing several rows of seats in every lower bowl section, removing five rows of seats in many sections in the upper bowl, and the addition of new structure in several sections.
Adequate seating sizes to support a diverse array of fans <ul style="list-style-type: none"> • General Seating - Minimum Seating size 33" tread depth, 19" seat width • Club/ Suite Seating - Minimum 36" tread depth, 21" seat width 	No No Partially (club seat width meets minimum standards)	Partially: The replacement of all concrete treads in general seating sections would entail replacing the entire seating bowl concrete structure which is not economically viable. However, the removal, recasting and replacement of concrete raker beams and concrete seating treads could allow for larger club seating treads. All existing seats would require replacement.
Intimate seating bowl with optimal views of the playing field from all seats	No	No: Reorienting the seating bowl to optimize views for baseball would entail replacing the entire seating bowl concrete structure.
A higher concentration of seats in the lower bowl, rather than the upper bowl	No	No: Renovations required to create a 360-degree, unobstructed concourse on the lower level, improve premium areas and increase seating sizes would result in a seating distribution even more skewed towards the upper deck.
Club Lounges with field view and direct access to seating	Partially (Whitney Bank Club offers partial field views)	Yes: With seating work noted above, better views from within the club area and direct access to seating would be provided.
Press box located to maximize premium spaces	No	Yes: With the relocation of the press box to the upper bowl, space could be reallocated to suites.
Large suites with ample seating and prime views of the playing field	Partially (six suites on 100 level behind homeplate are on par with other MLB facilities)	Yes: With the complete gutting and renovation of the suite and club level, the seating and interior spaces would be increased, and suites would be better located within the seating bowl.
Natural lighting with synthetic turf playing surface or retractable roof with natural turf playing surface	No	Potentially: Natural light through operable window/wall panels could improve the interior, but would likely have limited impact. The existing roof membrane (now twenty years old) would need to be replaced. Moreover, the addition of a retractable roof would be an extremely expensive option that would entail significant renovation of core structures and systems, but would allow for a natural grass playing field.
Plazas, landscaping and clear pedestrian and vehicular paths	Partially (plaza outside rotunda provides limited amenities)	Yes: Improved plazas, landscaping and exterior circulation could be provided.
Modern, easily-maintained finishes, furnishings and equipment (including signage and video systems)	Partially (Rays have invested over \$20 million in capital improvements over the last 3 years)	Yes: Upgrades typical of a major renovation to technology, signage, food service equipment and FF&E replacement would be possible.
Efficient mechanical systems and enough restrooms for a good fan/ fixture ratio	No	Yes: Upgrades to all systems, including new HVAC equipment with higher efficiency would be possible. Additional restroom fixtures could be installed. LEED-NC certification is an option.

2 INTRODUCTION

The Tampa Bay Rays retained Populous (formerly HOK Sport) to evaluate Tropicana Field for its adequacy relative to more recently constructed MLB stadiums and current trends in stadium design, and to propose concept designs, presented in Appendix A, to mitigate any deficiencies. The Rays have been consulted on what they view these deficiencies to be as occupants, as well as what the public perceives these deficiencies to be. These concept designs have been priced by Hunt Construction Group, whose estimates are presented in Appendix B.

Renovating Tropicana Field into a first-class ballpark presents challenges, particularly given the significant advancements in ballpark innovation over the last twenty years.

The Stadium Concept

Originally planned as a multi-purpose stadium, construction of Tropicana Field, then known as the Florida Suncoast Dome, began over twenty years ago in 1986, with design beginning as early as 1983. The Suncoast Dome was constructed to attract a baseball team to St. Petersburg, and was initially designed and built with no team input. By the 2010 season, it will be the only remaining fully-enclosed ballpark in major league baseball.

While the roof treatments differ, the design of Tropicana Field is often compared to the Seattle Kingdome (1976-2000), Olympic Stadium in Montreal (1976), the Hubert H. Humphrey Metrodome (1979), or the Houston Astrodome (1965). Of these facilities, the Kingdome has been demolished, the Astrodome, and Olympic Stadium are no longer used for baseball. The Metrodome will cease hosting a MLB team when the Minnesota Twins move into a new open-air ballpark next season.

All of the other MLB communities with fully-enclosed stadiums have at one time studied the possibility of dome renovations. For example, in 1996, the "Kingdome Renovation Task Force" of City Council-appointed community and business leaders spent 11 months and approximately \$500,000 investigating the possibility of renovating the Kingdome for the Seahawks after the Mariners received approval for Safeco Field. Its recommendation was to tear down the Kingdome and build a new football stadium. They found

the renovations would have cost \$343 million in 1996 dollars, and a new stadium, \$386 million in 1996 dollars.¹

Prevailing trends in the generation prior to the construction of Tropicana Field in 1990 were for large, circular, multi-purpose facilities. In addition to the domed stadiums noted above, Tropicana Field shares a lineage with these facilities, almost all of which – from New York's Shea Stadium to San Francisco's Candlestick Park, from Riverfront Stadium in Cincinnati to Three Rivers Stadium in Pittsburgh, and from Fulton County Stadium in Atlanta to County Stadium in Milwaukee – have been replaced over the last 15 years. And as Tropicana Field was being constructed, a new type of single-use ballpark was becoming the standard for baseball.



Seattle Kingdome



Hubert H. Humphrey Metrodome



Houston Astrodome



Olympic Stadium

[1] "Task Force on Dome Feels A Bit Unloved," by Elliot Almond, Seattle Times, December 26, 1996

A New Type of Ballpark

Construction of Oriole Park at Camden Yards, often cited as the first of the modern generation of fan-friendly ballparks, began in 1989, one year prior to the opening of the Florida Suncoast Dome (now Tropicana Field). Camden Yards altered the way clubs interacted with fans, and how fans interacted with the play on the field and the community surrounding the ballpark. Upon opening in 1992, it created a benchmark for many ballparks to follow over the next 20 years.

Many of these parks opened before 1998, including Coors Field in Denver, Progressive Field in Cleveland, the Rangers Ballpark in Arlington and Turner Field in Atlanta. These ballparks, and the many to follow, focused on creating a unique experience for every segment of the community – the casual fan, the corporate partner, the baseball fanatic and the active family. In many cases, like Coors Field, these ballparks invigorated an entire community. Much like treasured ballparks of the past, they became places that drew people together for unforgettable experiences.

Over a dozen major league ballparks were constructed between 2000 and 2008 alone. While inspired by the Camden Yards model, these new ballparks have continued to include innovative design techniques that improve the baseball experience for all fans.

Design Challenges

Tropicana Field is already one of the oldest stadiums in all of Major League Baseball.

Constructed prior to the ballpark building boom of the past 15 years, Tropicana Field had many design similarities with the large, multi-purpose stadiums built a generation earlier. These stadiums were not known as baseball fan-friendly parks, and often limited the team’s revenue generating abilities. Some of these challenges inherent in its design include:

- A complex circulation path with narrow concourses that do not connect to each other and dead-end, creating a confusing fan experience and limiting the ability to provide a diverse array of fan amenities
- Compromised views for many seats and premium club and suite spaces
- Little leg/knee room and small seats, some of which do not even meet current minor-league baseball standards
- Poor orientation of seats which often requires fans to turn their bodies to follow the play on the field
- Roof catwalks that interfere with the play on the field
- A general lack of interior and exterior character, including a lack of natural light
- Limited storage and clubhouse space, which hinders functionality of the facility and potential to generate non-baseball revenue
- The lack of a continuous service level which makes daily maintenance and event clean-up complicated and expensive.

The Early Years

Although completed in 1990, the stadium did not have a full-time tenant until 1993, when the region’s National Hockey League



Oriole Park Entrance



Coors Field Exterior



Progressive Field Context



Oriole Park at Camden Yards



Coors Field Context



Progressive Field

team, the Tampa Bay Lightning, made the stadium its home for three seasons while the St. Petersburg Times Forum (then known as the Ice Palace) was under construction. The Tampa Bay Storm also played several seasons in what was then known as the Thunderdome. Between 1990 and 1996, the stadium also housed various concerts and other sporting events.



Lightning at the Thunderdome



Suncoast Dome Concert Set-Up

Preparing for Baseball in Tampa Bay

In 1995, St. Petersburg was awarded a Major League baseball team, and major renovations to the facility, then 5-years old, were necessary.

While part of the renovation was to complete elements of the original 1986 plans (i.e. adding additional escalators), many aspects of the stadium, including concourses, entrances, concession areas, seating sections, lobbies and offices required improvement. Many of these renovations were successful in creating a better environment for baseball, however some created a compromised fan experience.

A new ceremonial entrance, the rotunda, was added to the stadium. While the rotunda, designed to be reminiscent of Ebbets Field, created an improved sense of arrival, this main customer entrance in center field, away from the vast majority of the seating sections, created a confusing circulation pattern for fans. This pattern includes starting at the rotunda entrance at the service level, moving into a narrow concourse and continuing up an escalator to another narrow concourse, all with no view of the playing field to serve as orientation. As fans “travel” to their seats, limited concession and restroom amenities are available.

Two large atria were added to the sides of the ballpark to provide additional concessions and restrooms, but these atria did not address issues with the main concourses and fan circulation as noted above. In essence, these “food courts” further removed fans from the play on the field and created circulation conflicts between the various seating levels.

A variety of premium spaces, not including the original design, were added in the 1996 renovation. These spaces were and continue to be extremely important to revenue generation. The new premium spaces, however, had to fit into an existing structure not originally designed for such use. The result was a premium product that paled in comparison to spaces at Raymond James Stadium and the St. Petersburg Times Forum, which were newly finished or were under construction at roughly the same time.

The improvement project lasted for 17 months, and Tropicana Field opened for baseball on March 31, 1998.

A Tale of Two Expansion Teams

The then-Devil Rays were joined by the Arizona Diamondbacks as MLB’s two expansion teams that began play in 1998. Similar to Tampa Bay, the Phoenix area experienced significant population growth in the latter part of the 20th Century (32% increase in the 8 years prior to 1998 to 2.8 million²), making it a Top 15 media market and viable location for a MLB team. Just as Tampa Bay had found its baseball roots hosting spring training since early in the 20th century, the Phoenix area began hosting spring training in the 1950s. While the two areas share many similarities, there were significant differences in the path each took to acquiring a Major League team. And these differing paths would dramatically impact the success each region would experience upon the arrival of Major League Baseball.

Following MLB’s announcement it would add two expansion teams for the 1998 season, an agreement was reached on February 17, 1994 between Maricopa County (the county in which Phoenix is located) and the prospective expansion team’s ownership for the construction of a new ballpark, conditioned on a team being awarded first. Maricopa County officials worked with the ownership group to evaluate a dozen potential sites for the ballpark, based on a list of criteria provided by MLB and the desires of the team.

Phoenix and Tampa Bay were awarded franchises in March 1995, and Phoenix broke ground on its ballpark shortly thereafter, nine years after construction of Tropicana Field had begun in St.Petersburg. Following 28 months of construction, the baseball -only Bank One Ballpark (now Chase Field) was completed in 1998, just in time for the Diamondbacks’ first season of play. Meanwhile, Tropicana Field underwent renovations to prepare for baseball after half a decade of use as a multi-purpose facility.

Benefiting from advancements in stadium architecture in the years since Tropicana Field was built, Bank One Ballpark featured the second retractable roof (Toronto’s Sky Dome was the first), which opened and closed in just four-and-a-half minutes, and the first natural grass playing field under a roof. Heralded as a technological marvel, the ballpark neutralized the Arizona heat without creating a claustrophobic dome atmosphere. The Diamondbacks contributed approximately one-third of the overall project cost³, including all overruns and had significant input in its design and construction.

The Diamondbacks in a similar situation to what is found in the Tampa Bay market indicated that the lack of a large corporate base in Phoenix meant the success of their team would be tied directly to general attendance. They recognized that, to be successful, the ballpark needed to be a destination attracting many types of people with a diverse array of amenities and attractions. Included were a 10,500-square foot interactive baseball theme park, 2,000-square foot Hall of Fame, several different club levels, a children’s playground, and even a swimming pool in the stands.

The team’s smart planning extended to the seating areas as well. Eighty-five (85) percent of the seats are between the foul lines, and as a baseball-only stadium, all the seats are angled to face home plate. Behind the seats, more than 200 concession stands circle the open concourse, and in the outfield a restaurant, beer garden, and 110 picnic tables join the unique swimming pool party area. Furthermore, the design borrowed from the downtown Phoenix warehouse district, with red brick and exposed green structural steel creating an iconic structure representative of the community.

The Diamondbacks drew 3.6 million fans to Bank One Ballpark in their inaugural 1998 season, 2nd highest in the MLB that year, averaging 44,571 per game. In comparison, the Devil Rays drew 2,506,293 to Tropicana Field that season, still a franchise record, but only 14th highest overall, averaging 30,942 per game.⁴

In a city with a large transplant population and no historical investment in their new team, the Diamondbacks recognized that a great experience at the ballpark is essential in building a fan base. In Arizona, a great experience at the ballpark was achieved in the stands through a variety of amenities for all fans and on the field through exciting, championship-level play. The Diamondbacks were able to re-invest revenues from their initial success at the box office to help build a quality team for the future. In 1999, in just their second season, they became the fastest expansion team to win 100 games and a division title. In 2001, the Diamondbacks won the World Series in just their fourth year of existence.

In their eleven seasons through 2008, the Diamondbacks have drawn over 2 million fans each year, averaging 2.7 million per season and 33,453 per game. In comparison, the Rays have only drawn over 2 million fans one time, in the 1998 inaugural season, and have averaged 1.4 million fans over eleven seasons

[2] U.S. Census

[3] “Jerry Colangelo Says Chase Field Helped Put Downtown Phoenix on the Path to Redevelopment,” Phoenix Business Journal, March 21, 2008

[4] www.baseball-almanac.com

at Tropicana Field, or 17,913 per game. Even in 2004 when the Diamondbacks finished with a 51-111 record, Chase Field had become such a regional entertainment destination that it drew 2,519,560 fans despite the team's last place finish. In 2008, the American League Champion Rays drew 1,811,986 fans, while the Diamondbacks who finished in second place in the National League West drew 2,509,924 fans.⁵

Major League Baseball has awarded Chase Field the 2011 All Star Game, an honor reserved for showcasing the game's finest ballparks. Early estimates project the game will bring with it at least \$60 million in extra spending to the City of Phoenix.⁶

Present Day

After Stuart Sternberg acquired the Rays in 2006, millions of dollars in additional renovations were funded by the team to improve the overall fan experience at Tropicana Field. An upgraded scoreboard, the new Whitney Bank Club, additional amenities for families including the Rays Touch Tank, and new seating sections are just a few of the exciting new elements at the stadium.

The Rays' front office continually seeks feedback on how to improve the game experience through comment forms, tracking comments received by phone and e-mail, and conducting surveys and interactive focus groups. Several common themes regarding the stadium run through the fan comments and responses. Specifically, fans would like to see:

- Wider concourses and less congestion in concourses, particularly surrounding concessions, restrooms and seating section entrances
- Wider seats with more leg room
- Improved concessions facilities
- More natural light within the stadium and a retractable roof installed if possible
- More and newer restrooms
- Improved entry points.



Chase Field Interior



Tropicana Field Interior



Chase Field Exterior



Tropicana Field Exterior

[5] www.baseball-almanac.com
 [6] Arizona Republic, April 11, 2009

The purpose of this study is to assess the long term viability of Tropicana Field for its competitiveness with newer first-class MLB stadiums and propose potential improvements. The study will review what has become standard in new ballparks and will compare these now-standard elements to current conditions at Tropicana Field. These standard elements include:

- Open concourses with 360-degree circulation around the facility and unobstructed views of the field
- Adequate seating sizes and a generous tread depth for leg room to support a diverse array of fans
- Structural geometry that optimizes sight lines and maximizes intimacy by putting fans in seats close to the action
- A good view of the playing field from all seats, and a higher concentration of seats in the lower bowl
- Club lounges with field view and direct access to seating
- Press box located to maximize premium spaces
- Large suites with ample seating in premium areas within the seating bowl
- Pleasant viewing experience with natural light
 - Retractable roofs in appropriate climates which allow a real grass playing field
- Fan-friendly site amenities including plazas, landscaping and clear pedestrian and vehicular paths
- State-of-the-art equipment that enhances fan experiences at every level
- Modern, easily maintained equipment, fixtures, and furniture
- Modern, efficient concessions equipment
- Signage scoreboard and video systems with advanced technology
- Efficient mechanical, electrical and plumbing systems, and enough restrooms for a good fan/fixture ration.

A proposed method for correcting or improving any problem areas is presented, as is pricing for these improvements. Several items have viable solutions (e.g., larger suites); however, not all issues can be fully addressed, in which case a compromised solution is presented. It is also important to note that in a number of cases where a viable solution does exist, it does not come without impacts on other aspects of the ballpark's program. For example, a wider lower level concourse can be achieved – but only by removing thousands of prime lower-level seats.

4 KEY ATTRIBUTE ANALYSIS

A. Circulation/ Concourses

>> New Ballpark Standard

Circulation around new ballparks generally begins at an iconic entrance or gateway located on the main concourse. This gateway is often behind home plate, giving fans an immediate sense of arrival.

From the main entrance, new ballparks generally provide an open concourse with a continuous unobstructed view of the game. This open concourse keeps the fans in visual and audible range of the action when they leave their seats and allows fans to take in different vantage points of the game. The main concourse is typically continuous around the ballpark, which provides a clear path of circulation, ease in finding one's seat and ability to experience the park from different vantage points in later innings. This view also allows fans to mingle and still feel in touch with the game on the field.

The open concourse often provides room for and a connection to the various activities both directly associated with the game, like pitchers warming up in the bullpen, and independent of the game, including play areas for children or other such amenities. Fans can walk around and seek out these activities without missing any of the action. Open concourses encourage all fans to explore the ballpark and simply take in the different sights, sounds and smells of the game.

Open concourses have clear and generous connections to all entrances. Restrooms and fixed concession stands are usually located on exterior walls, leaving the circulation areas with uninterrupted views of the field. Main concourses often vary in width (from 32 feet up to 67 feet). However, the typical minimum width used in first-class ballparks is 40 feet. This increased width and connection with the action greatly improves revenue generation. Patrons are more likely to leave their seats for concessions when they know they won't miss a play, families are more likely to attend when parents have the opportunity to keep children engaged within view of the playing field, and the additional concourse width provides space for portable food carts, retail sales and other fan-friendly activities.



Comerica Park Entrance



Comerica Park Entrance



Busch Stadium Entrance



National's Park Upper Concourse



Citizen's Bank Park Main Concourse

>> *Tropicana Field*

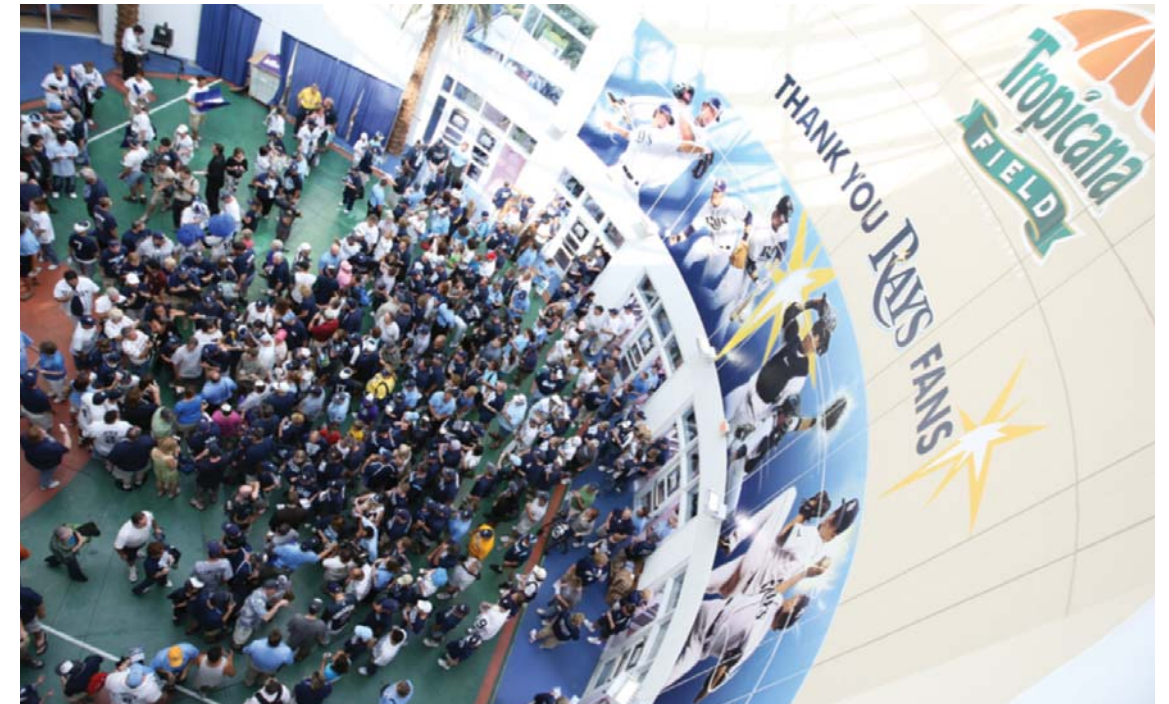
In comparison, the main entrance to Tropicana Field is through the rotunda in the outfield on the service level. This level is similar to all levels in Tropicana Field; it has no views of the field. Improvements have been made to this entrance area, including the addition of a pub and various fan amenities.



Tropicana Field Rotunda Exterior



Tropicana Field Rotunda Amenities



Tropicana Field Rotunda Interior



Tropicana Field Rotunda Amenities

As illustrated by the images on this page, the corridors leading to the seating sections are narrow.

Limited access is available to outfield seats from the service level via hollow metal stairs up to a cross-aisle. These outfield sections were originally designed as movable seating sections, but were permanently affixed as part of subsequent renovations.



Tropicana Field Service-Level Corridor to Seating Section



Tropicana Field Service-Level Corridor to Seating Section



Stairs to Outfield Seating on Right

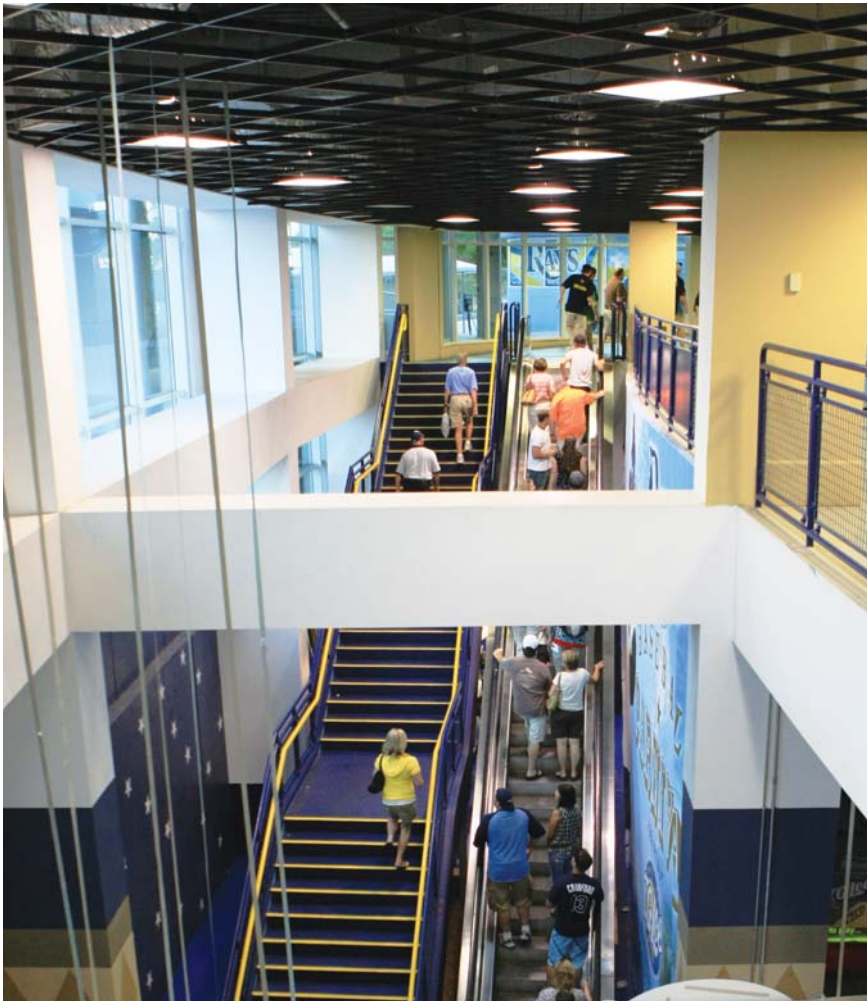


Stairs to Outfield Seating on Left

Fans must either travel down the service level to a set of escalators or walk up exterior ramps to reach the main concourse, which is 23 feet above the entry level.



Right Field Escalator to Main Concourse



Right Field Escalator to Main Concourse



Right Field Escalator to Main Concourse

Tropicana Field does not have an open concourse and its concourse widths are very narrow, measuring at about 20 feet on the main concourse. The renovations in 1996 attempted to improve these narrow conditions by creating two food courts down each baseline, including additional concession stands and restrooms. While this increased the available amenities for fans, it did not clarify circulation, nor did it bring the game experience any closer to the concourse. In fact, these food courts are even further disconnected from the game. Additionally, escalator access to upper levels are from these food courts, creating circulation conflicts between fans trying to access lower level seats and travel down the main concourse, those in line for concessions, and those queuing for the escalators to access upper level seats.



Tropicana Field Main Concourse – Non Game-Day



Tropicana Field Main Concourse – April 13



Tropicana Field Main Concourse – May 1



Tropicana Field Main Concourse – April 18



Tropicana Field Main Concourse – May 1



Tropicana Field Main Concourse – May 1

The main concourse also is not continuous, terminating in left and right field. These terminations often cause confusion for fans and limit the club's ability to develop a more consistent and fan-friendly concessions and amenities plan.

The upper concourse is even narrower, at approximately 18 feet, and also does not have field views. Given its size, there are limited fan amenities on this level. One of the reasons the club has elected to tarp several thousand seats in the upper deck is because, according to the Rays, there are not sufficient amenities on the upper concourse, including concession stands and restrooms, to adequately serve fans. In contrast, Nationals Park in Washington, D.C. which opened last year enjoys a 35 foot wide upper concourse with a full view of the field.



Tarped Upper Level Seating



End of Main Concourse – Left Field



Tropicana Field Upper Level Concourse



End of Main Concourse – Right Field

>> Renovation Plan

To improve the main concourse conditions at Tropicana Field, approximately nine rows of lower level seating above the cross-aisle could be removed, completely opening the concourse to the field. This would provide a wider concourse, enabling better fan circulation and a more diverse array of concessions and fan amenities. In addition, the restrooms which currently split the main concourse on each baseline would be relocated. Unfortunately, this improvement would come at a cost of 1,944 lower-level seats, leaving a higher proportion of seats in the upper bowl as discussed later in this report.

In the outfield, all seating above the cross-aisle, approximately 1,782 seats, would be removed as well, allowing the previously discontinuous concourse to continue 360 degrees around the field at a single level. This wider and continuous concourse would be an improvement, but would not be as seamless as if it had been in the original design. Several issues relating to circulation would also remain, most notably that the majority of fans would continue to enter the building at the rotunda in centerfield. Vertical circulation would need to be added at the rotunda entrance to bring fans up to the main concourse level.

While designs would need to be further evaluated, this could function similar to the new Jackie Robinson Rotunda at CitiField in New York (see image below).

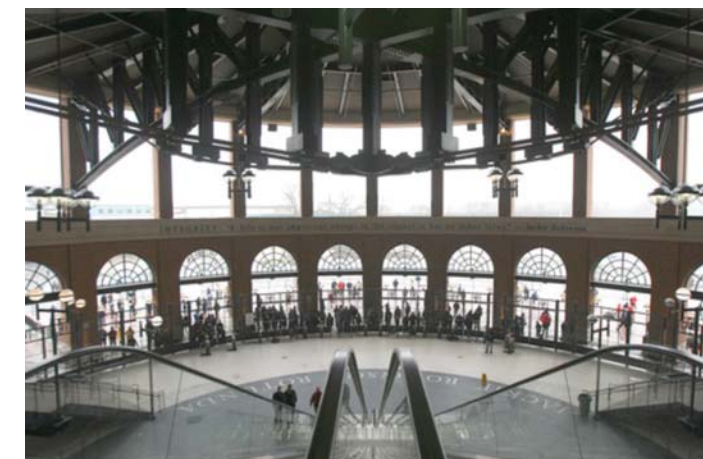
On the upper concourse, five rows of seats in five seating sections on each baseline above the concourse would be removed. This would provide a partially open upper concourse.

When compared to the existing condition of the main concourse, the sketch of the potential renovation on the following page demonstrates how opening up the area to field views could dramatically change the overall character of the facility and improve circulation.

>> Cost Estimate

The total cost of the improvements to the concourses is estimated to be approximately **\$52.7 million**. It includes:

- Removing all seating and associated structure directly above the lower bowl cross-aisle down both baselines and in the outfield, and providing new steel structure and concrete slab on deck in its place
- Removing existing main concourse restrooms and providing new restrooms and concessions as shown, including all required mechanical, electrical and plumbing infrastructure, and relocating HVAC chases
- Removing seating sections for an open upper concourse and providing new steel structure and concrete slab on deck in its place.
- Providing vertical circulation from the street to the main concourse level, 23 feet above grade.



Jackie Robinson Rotunda, CitiField



Jackie Robinson Rotunda, CitiField



Existing Main Concourse



Renovated Main Concourse

B. Seating Size

>> New Ballpark Standard

Tread depth, commonly known as knee space, has become one of the most common concerns among sports patrons. The deeper the tread, the farther one’s knees are from the seat in front. Knee space also governs the difficulty people have in passing by seated patrons on the way to their seats. Tread depth directly impacts fan comfort. While the expectation of fans in general seating areas used to be that the seats could be slightly cramped, this is no longer acceptable. Additionally, premium spaces must provide a more generous seating condition to be marketable. Wider seat widths with ample elbow room are also expected in all areas in first-class ballparks.

The 33” tread and 19” wide seat has been a standard in the seating bowl of new ballparks for over a decade. The biggest change in tread depth has been in the club and suite seating areas where tread depths of 36”, 42” and larger are common. The seat size in these areas has grown as well, with 21”, 22” and 24” wide seats being common in premium spaces.



Tiger Den with 48” Treads at Comerica Park

>> Tropicana Field

The lower seating bowl at Tropicana Field has a 32” tread. While the majority of seats in the lower bowl are 19” wide, there are several hundred 18” seats that fill out the sections. The club level seating sections (Whitney Bank Club, Home Plate Club) also have a 32” tread, but have larger seats. In the upper seating bowl, the tread depth for all but the first few rows is reduced to 31”, which is below even minor league standard for new ballparks. While the 2” difference may seem insignificant, it is the difference for most people between having to stand up when people pass in front of them or remain seated.

>> Renovation Plan

The replacement of all seating treads from 31” or 32” to 33” at Tropicana Field is not possible, as it would entail replacing the entire seating bowl concrete structure. However, modifications to the club and suites for deeper treads and wider seats will be shown in subsequent discussion.

Renovations to approach first-class facility standards would entail the replacement of all seats to ensure more fan comfort. All new seat widths would meet, and most would exceed, the 19” width standard, including the redirected seats (as discussed below in the Seating Bowl Design section).

The renovation would also include a relocated dugout closer to the field on the home and visitor side, providing four additional rows of prime infield seating

>> Cost Estimate

The total cost of the seating size improvements is estimated to be **\$9.5 million**, including removing and replacing over 32,000 stadium seats.



Tropicana Field Seats



Tropicana Field Seats



Home Plate Club with 36” Treads at PNC Park

C. Seating Bowl Design and Seating Distribution

>> New Ballpark Standard

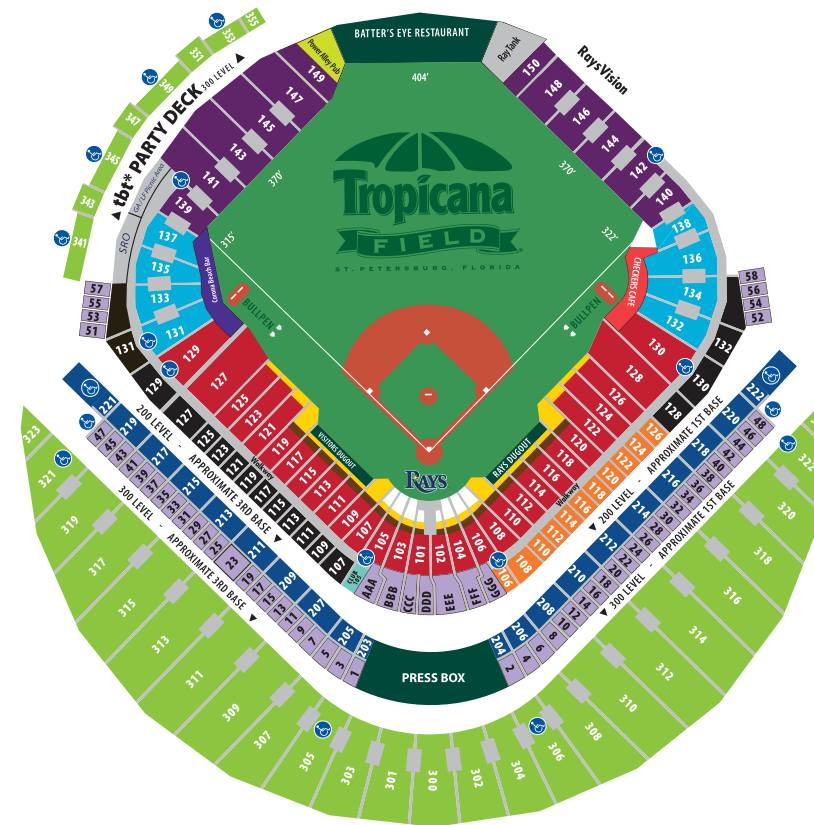
The primary goal when designing a new ballpark is to provide as many seats as close to the action as possible; that is, to minimize outfield and upper bowl seats and maximize lower bowl seats. Excluding club seats, an average seating ratio of recent ballparks is approximately 59% lower bowl to 41% upper bowl. Additionally, the geometry of the seating is designed so that all seats are angled to face the infield, allowing for a more comfortable game experience. The trend for intimate ballparks with few upper deck seats can be seen at PNC Park, with 69% lower to upper bowl ratio, Nationals Park, with 67%, and the new Twins stadium, with a proposed 65% ratio. The Rays proposal for a new ballpark at Al Lang Field similarly envisioned a 2:1 ratio of seats in the lower to upper bowl.



PNC Park Seating Chart



Nationals Park Seating Chart



Tropicana Field Seating Chart

>> Tropicana Field

Tropicana Field's seating distribution concentrates more seats in the upper bowl. The seating ratio is 53% lower bowl to 47% upper bowl. Because the upper bowl is larger than the average new ballpark's upper bowl, there are more fans farther from the game, having a compromised experience, thereby discounting the value of the seats from a revenue standpoint.

The geometry of the seating bowl for baseball is also compromised. The stadium was originally designed to accommodate a mix of uses, including football. As a result, the baseline seating is spread at a 90 degree angle and parallels the baselines, rather than turning in towards the infield. The fan sitting down either baseline has to watch the game with his head constantly turned to keep an eye on the infield. During the 1996 renovation additional seats were added closer to the baseline, but these added seats still orient towards the outfield.

>> Renovation Plan

To correct the alignment of the seating bowl down the baseline, the entire seating bowl on one baseline would need to be removed. Such an extensive change is not economically feasible. An alternate improvement would be to use "redirected" seats, which are turned to better face the field. Only two sections of redirected seats were added in the 1996 renovation. There are no redirected seats in the upper bowl.

The proposed renovation would reduce total capacity to about 34,000 by removing seats in some places and adding them in others. Unfortunately, this redistribution of seats combined with other improvements noted in subsequent sections would actually create a greater disparity in the seating distribution between upper and lower bowl. Combined with other improvements discussed in this report, the revised seating ratio excluding suite or club seats would be 52% lower bowl to 48% upper bowl. Moreover, it would leave the building with only approximately 16,500 lower bowl seats, one of the smallest in Major League Baseball.

>> Cost Estimate

Reorienting the seating bowl down each base line is not an economically feasible option. The redirection of the seats is included in the cost to remove and replace all of the fixed seats.

D. Club Lounges

>> New Ballpark Standard

New, first-class ballparks contain a plentiful number and variety of club spaces and suite types. The particular market conditions of a region generally drive the number and type of premium spaces. This variety creates an ability to better address the end customer’s entertainment needs.

In the past decade, club lounges behind home and dugout suites have become more popular. With all club seating, a direct adjacency between the club seats and their associated lounge is required. This lounge typically contains higher end finishes, provides a greater assortment of food choices, and generates significant revenue. Clubs and suites have been one of the major changes in stadium layout in the last decade.

Premium spaces and the associated seating, like clubs and suites, are extremely important from a revenue generation standpoint. They effectively subsidize the majority of other seats, and allow teams to keep a very large inventory of seats available at value-oriented, family-friendly prices. The ability to use these spaces for other functions has become an important revenue generator as well.

Additionally, new, more casual club levels have become a standard component of new ballparks. These lounges can often be found down the lines or on a mezzanine level, and cater to small businesses and groups.



Club Seating Busch Stadium



Club Lounge at Kauffman Stadium



Club Seating at Angels Field of Anaheim



Club Lounge at Busch Stadium



Outfield Club at Chase Field



Tiered Club at Progressive Field

It's important to note that in the Tampa Bay market, both the Tampa Bay Buccaneers and Tampa Bay Lightning have large, first-class club spaces with generous amenities and premium, convenient seating.



Club Level at Raymond James



Club Level at Raymond James



Club Level at St. Pete Times Forum



Club Level at St. Pete Times Forum

>> *Tropicana Field*

The Home Plate Club at Tropicana Field has a small associated lounge space, totaling less than 500 square feet, with no direct view of the field. Those sitting in Home Plate Club seats also have access to the newly finished Whitney Bank Club via elevator, but that access is not convenient to the seating section.

In 2006, the Rays funded the construction and fit-out of the Whitney Bank Club. While the renovations provide a first-class interior club experience on par with other MLB ballparks, full views of the playing field and video board are obstructed by the seating deck above. Wider seats have been added, but tread depths are comparable to general seating sections. Given these issues, the Rays are unable to fully capitalize on the value of this club space.



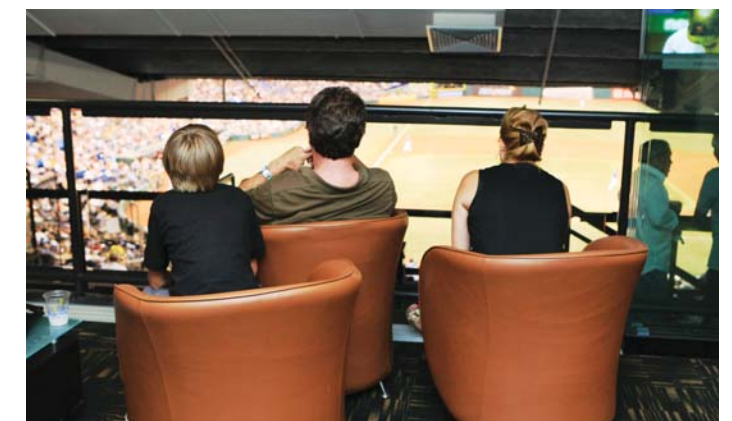
Whitney Bank Club



Whitney Bank Club



Home Plate Club Seating



Whitney Bank Club

>> **Renovation Plan**

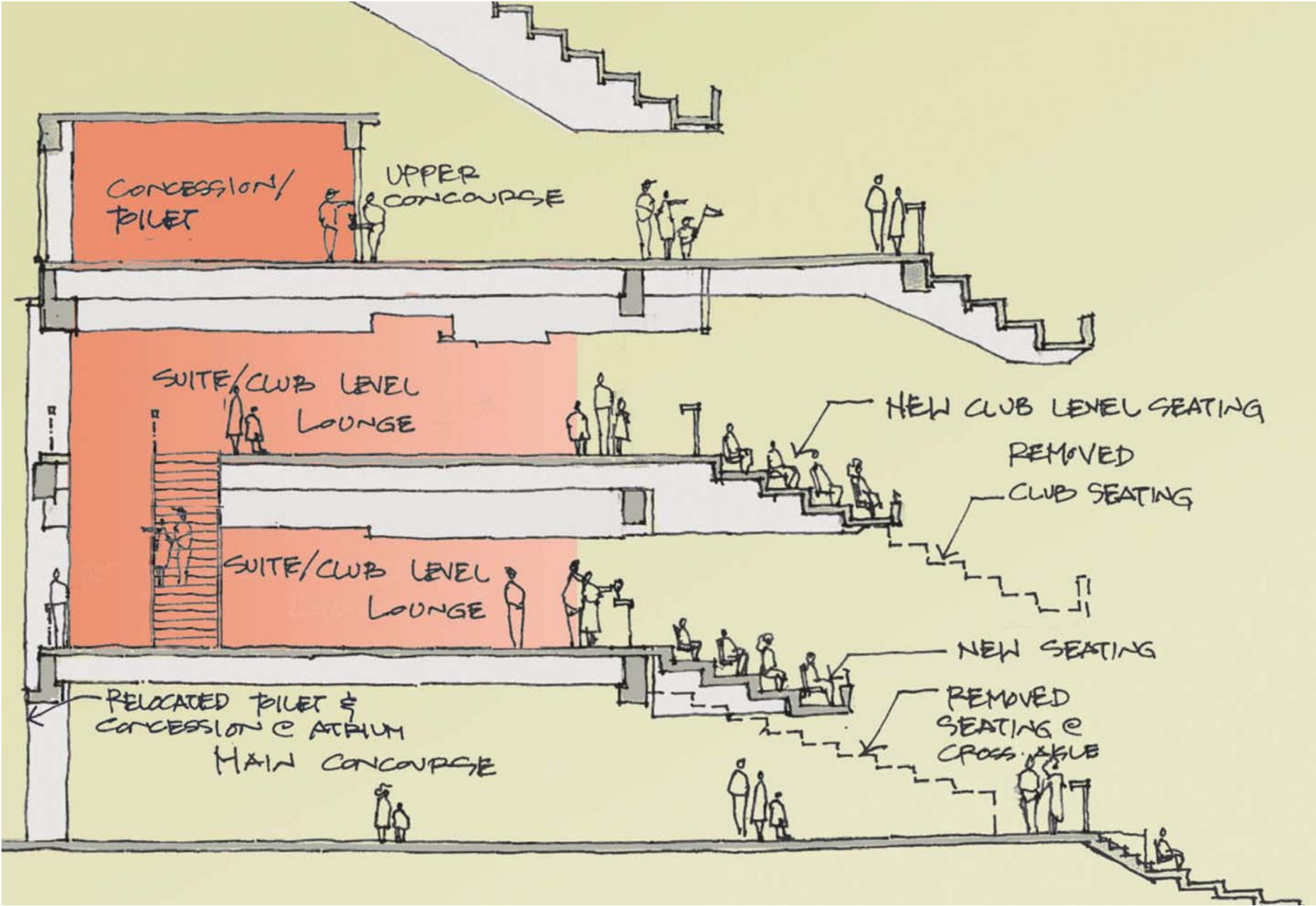
Tropicana Field is currently lacking any functional, premium lounge space associated with the most desirable seats located directly behind home plate. The proposed solution would be to create a new premium club behind home plate. Seating between the dugouts would be removed and replaced with 1084 more generously sized seats on 39" and 42" treads. A new 12,000 square foot lounge would be provided on the service level with direct access to these seats.

In addition to creating a new Home Plate Club, improvements would be made to the club levels. The suggested solution to create a modern, accessible club level is:

- Removing the first four rows of seating currently in front of the Whitney Bank club as part of the plan to create 360 degree circulation around the stadium
- Replacing the remaining rows of seating in front of the Whitney Bank club with four wide rows of seating overlooking the open concourse
- Removing the front four rows of seating in the section directly above the Whitney Bank Club, allowing for acceptable sightlines from within the club and from the club seats
- Replacing the remaining seating on the section directly above the Whitney Bank Club with four wide rows of club seats
- Removing the suites on the 1st base side on the section directly above the Whitney Bank Club, enabling the development of a two-story, open club lounge connected to the Whitney Bank club
- Relocating the restrooms on the Whitney Bank Club and level above to open up the new two-story club to the 3-story glass enclosure facing the exterior of the building, thus bringing light into and through these spaces, which will greatly improve the premium and general fan experience.

The section view to the right illustrates the proposed improvements for the club levels.

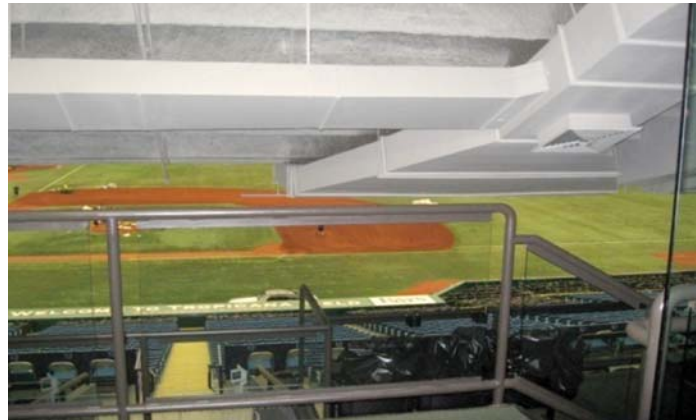
As shown here, when compared to the existing condition of the main club level at Tropicana Field, the Whitney Bank Club, the sketch of the potential renovation demonstrates how the new club space would become a vastly improved premium destination within the stadium.



Section showing New Seating in front of Club Level Lounges- 1st baseline Side

>> *Cost Estimate*

The estimated cost to renovate and construct new club areas at Tropicana Field is approximately **\$35.5 million**, including approximately \$13 million for a newly constructed, first-class Home Plate Club.



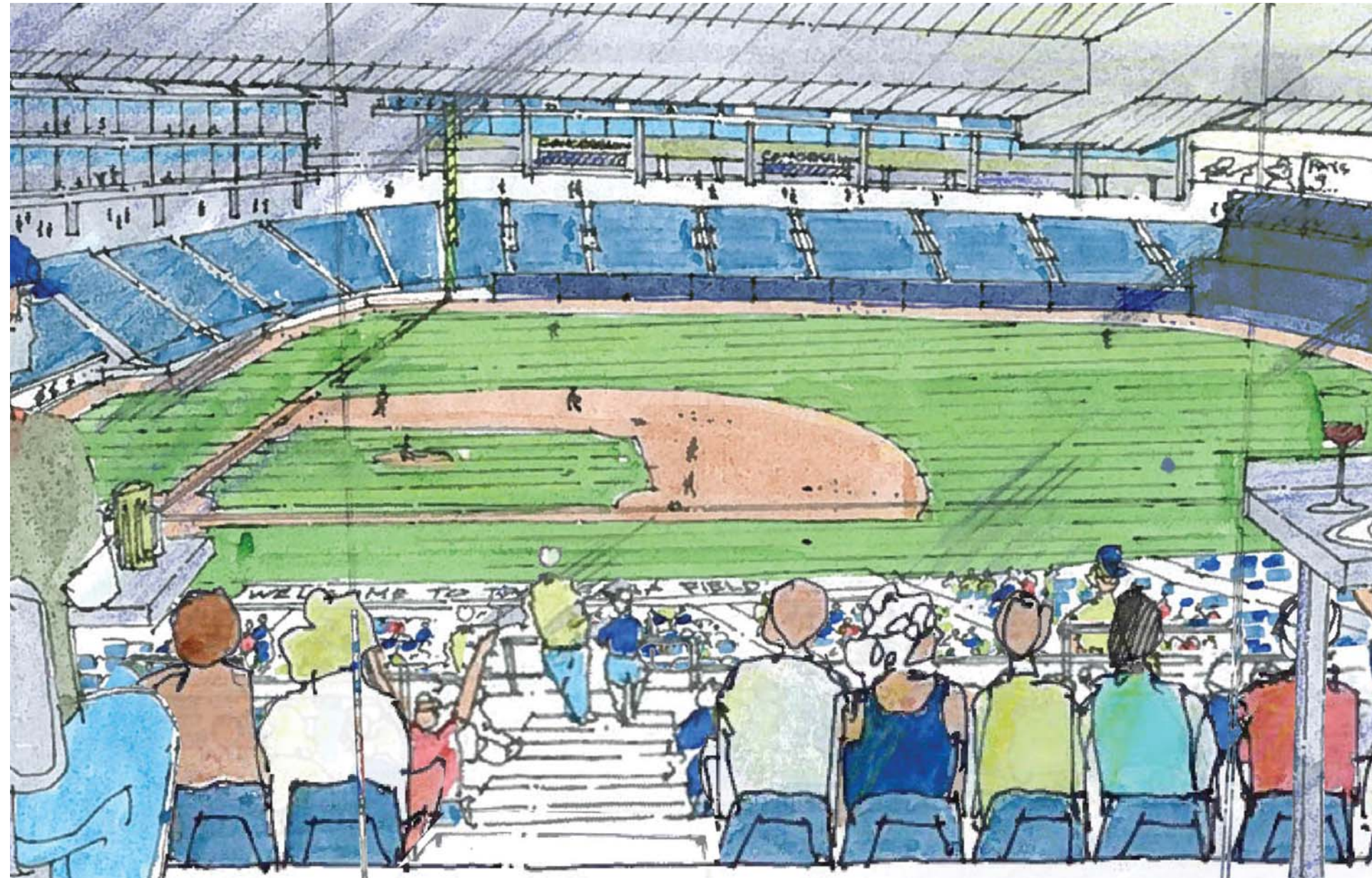
Existing Club View to Field



Existing Club View to Field



Existing Club View to Field



Renovated Club View to the Field

E. Press Box

>> New Ballpark Standard

The press box is generally located behind home, though as premium spaces have become more desirable, the press box is frequently placed further back in the seating bowl. In many cases, press boxes are now being located in the upper deck.

>> Tropicana Field

The press box at Tropicana Field occupies premium space on two levels behind homeplate, directly above the lower bowl, thus limiting revenue generating opportunities.



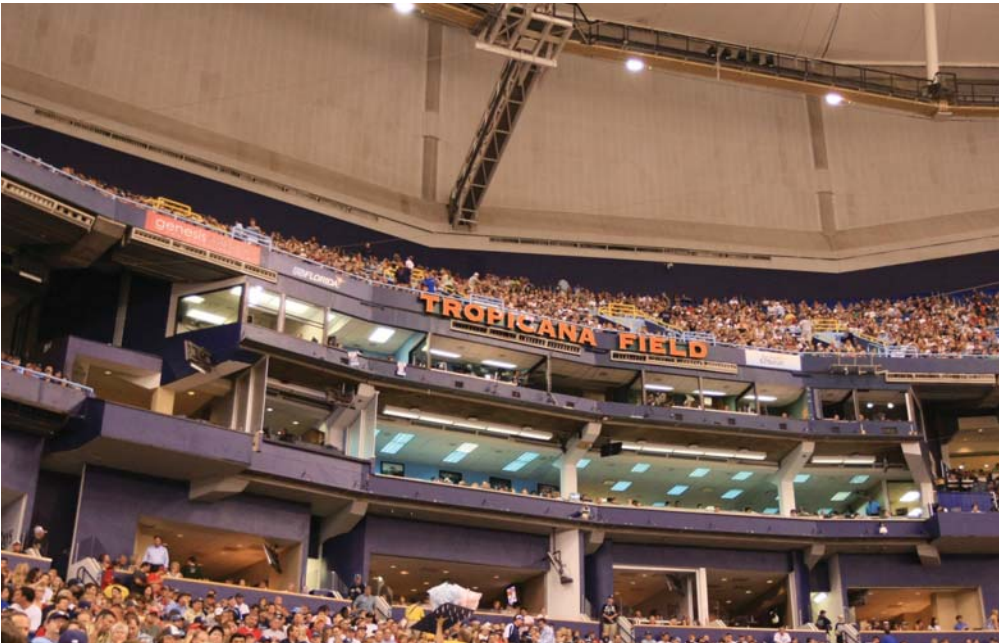
PNC Park Press Box



Nationals Park Press Box



Tropicana Field Press Box



Tropicana Field Press Box

>> Renovation Plan

Relocating the press box to the upper bowl would free up this valuable location for additional suites as noted in the following section.

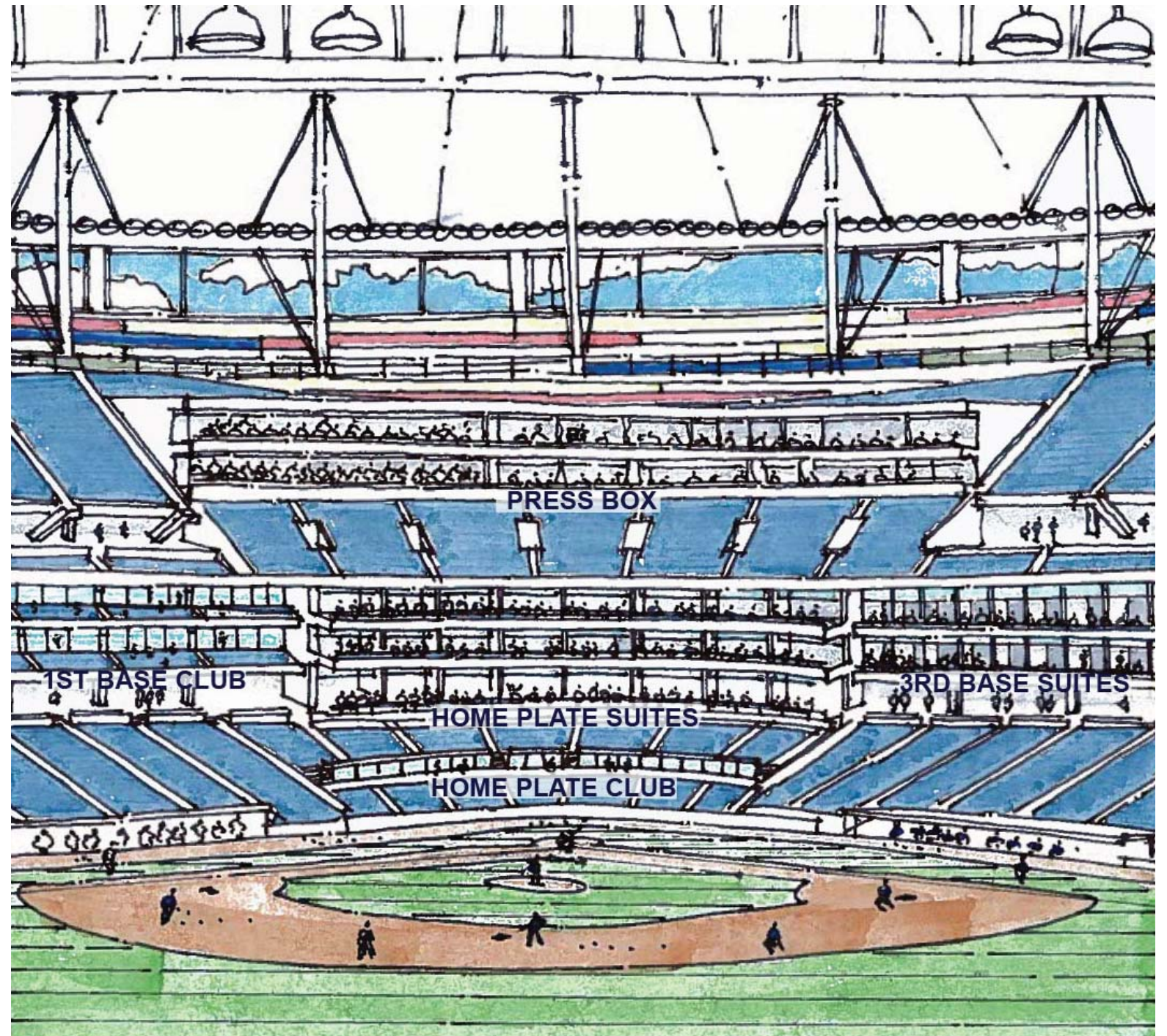
As shown on the next page, the relocation of the Press Box would create an opportunity to truly open up the home plate experience and would allow for the renovation of the existing home plate suites and the creation of 16 new premium home plate suites. Also highlighted is the premium location of the renovated suites and club levels down the lines.

>> Cost Estimate

The estimated cost to create a new press box at the front of the upper deck is approximately **\$13.8 million**.



Existing Press, Club and Suite Levels



Renovated Press, Club and Suite Levels

F. Suites

>> New Ballpark Standard

The average size of suites in new ballparks is about 500 square feet including the outside seating. These are roughly 14' x 28' rooms with 2 rows of seating in front. Suites are most often located behind home plate and directly down the lines, with superb sightlines and easy access to all ballpark amenities, including, in many cases, club spaces noted above. Primarily used for business entertainment purposes, suites have a menu of amenities, including serving stations, restrooms and interior gathering spaces. Dedicated suite elevators typically serve the suite level, which is also convenient to suite-holder parking.

As noted above, like club spaces, suites help generate necessary revenue to enable teams to offer a very large inventory of inexpensive seats throughout the ballpark.

>> Tropicana Field

Most suites at Tropicana Field are small by current MLB standards. At approximately 290 square feet, they generally do not include many of the amenities typically found in suites at other ballparks, including separate restrooms, adequate serving spaces, and modern gathering spaces. Aside from the suites behind home plate on the lower seating level, much of the suite inventory is not located in prime viewing territory, particularly behind home plate and within the infield dirt.



Suite Interior at Minute Maid Park, Houston, TX



Suite Interior at Angel Stadium, Anaheim, CA



Typical Tropicana Field Suite



Typical View from Tropicana Field Suite

>> **Renovation Plan**

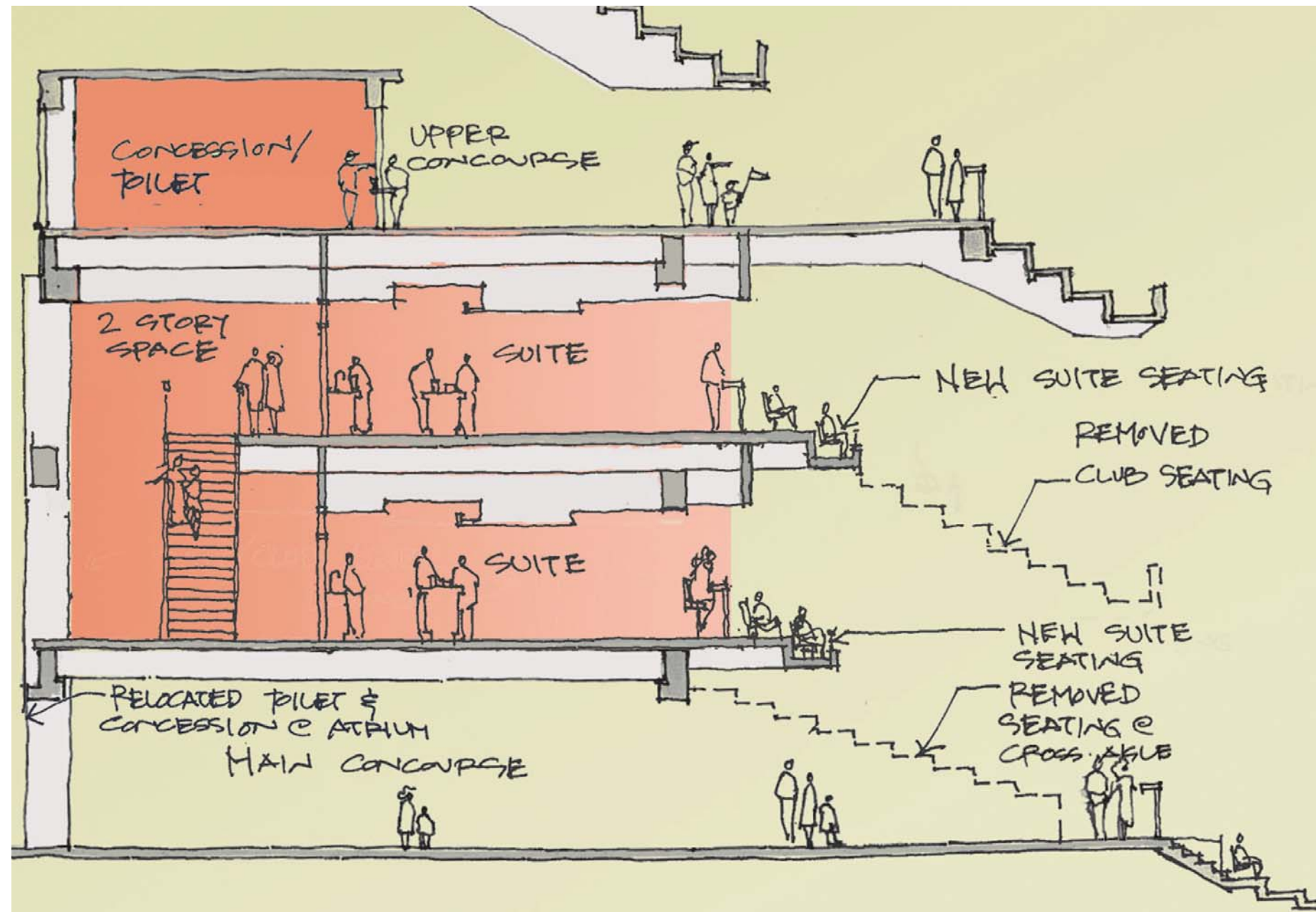
To improve the suite experience at Tropicana Field, the suites would be increased to 500 square feet in size. The suggested solution to create modern, accessible suites includes:

- Removing the seats above the cross-aisle as part of the plan to create 360 degree circulation around the stadium
- Replacing the existing suites on the lower level directly behind home plate with eight new suites with access from the main concourse
- Replacing the existing press box as discussed in the previous section to create two additional levels of eight suites each behind home plate
- Creating 15 new suites on the level directly above the main concourse down the third base line by removing the raker beam below the existing suite seating and the front six rows of the seating directly below the existing suites (200 level seats)
- Demolishing the existing suites down the third base line and creating an expanded, two row seating section where the 200 level seats are currently located
- Connecting the new two-story suite level on the 3rd base side to the new two-story club space on the 1st base side.

Excluding the existing six left field and right field suites that will remain, the renovation plan would yield a total of 54 suites, all close to the infield dirt.

>> **Cost Estimate**

The estimated cost to improve the suites at Tropicana Field is **\$21.6** million, not including new furnishes, fixtures and equipment.



Section showing New Seating in front of Suite Level Section

G. Natural Light

>> New Ballpark Standard

Of the 30 Major League ballparks in use today, 23 parks are traditional, outdoor fields with natural grass. Five ballparks have retractable roofs, and the majority of those parks allow for significant transparency even when the roofs are closed. Two are fully enclosed with limited views and connections to the surrounding environs. The two indoor ballparks are located in Minneapolis-St. Paul and in Tampa Bay. With the opening of Target Field in Minneapolis next season, Tropicana Field will be the sole remaining fully-enclosed stadium in Major League Baseball.

The preferred viewing condition for baseball is open air with views of the surrounding city or natural terrain. Retractable roofs have become popular in warmer or cooler climates, preserving the most desirable viewing condition, but permitting games in inclement weather.

Because grass cannot grow beneath most typical roof membranes, completely indoor ballparks require that some form of artificial turf be used as the playing surface. It is well documented that artificial turf is not preferred by players. Additionally, first-class facilities with retractable roofs have tall, clear-span structures over the playing field, negating any interference with the play on the field.



Transparent Outfield Wall at Chase Field, Phoenix, AZ



Transparent Outfield wall at Minute Maid Park, Houston, TX



Transparent Outfield Wall at Miller Park, Milwaukee, WI



Open Outfield Wall at Safeco Field, Seattle, WA

>> **Tropicana Field**

Tropicana Field has a slightly translucent membrane roof. The exterior walls are metal panel that limit visual connections to the outside environment.

>> **Renovation Plan**

In order to create a more pleasant baseball experience at Tropicana Field, the existing membrane would be replaced with a newer generation of architectural roof fabric, which would provide greater light transmittance and reduce the thermal heat gain. Additionally, operable windows and glass or other transparent walls in the exterior wall of the stadium would bring daylight and breezes into the interior.

As shown on the next page, when compared to the existing condition of the interior environment at Tropicana Field, the sketch of the potential renovation demonstrates how bringing a high level of transparency into the dome would alter the look and feel of the facility.

>> **Cost Estimate**

The estimated cost to bring in natural light and improve the overall viewing experience at Tropicana Field is approximately **\$100 million**, including replacement of the roof membrane.



Tropicana Field Outfield Wall Left Field



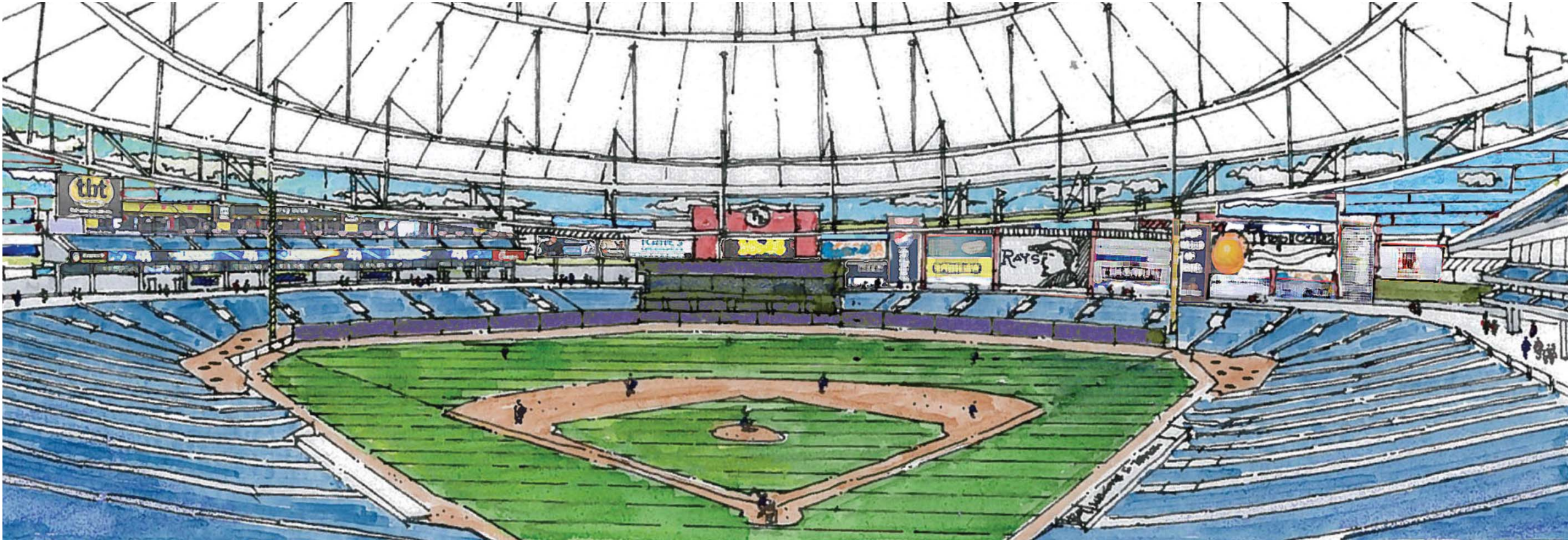
Tropicana Field Outfield Wall Right Field



Tropicana Field Outfield Wall Left Field



Existing Outfield Wall



Renovated Outfield Wall

G.i Retractable Roof Option

It is important to note that the renovation plan described above will not dramatically improve the interior conditions at Tropicana Field. Baseball was simply meant to be played outdoors on natural grass. The only real solution to create a viewing environment at Tropicana Field on-par with other first-class ballparks given the frequency of summertime rain in the Tampa Bay area is to replace the existing fixed roof membrane with a retractable roof system. This system must also eliminate any impacts to the play on the field. Over the last 11 seasons, almost one-hundred balls in fair territory have struck the catwalks under the roof, necessitating unique ground rules governing how the game is played, and in some cases, potentially impacting the outcome of the game.

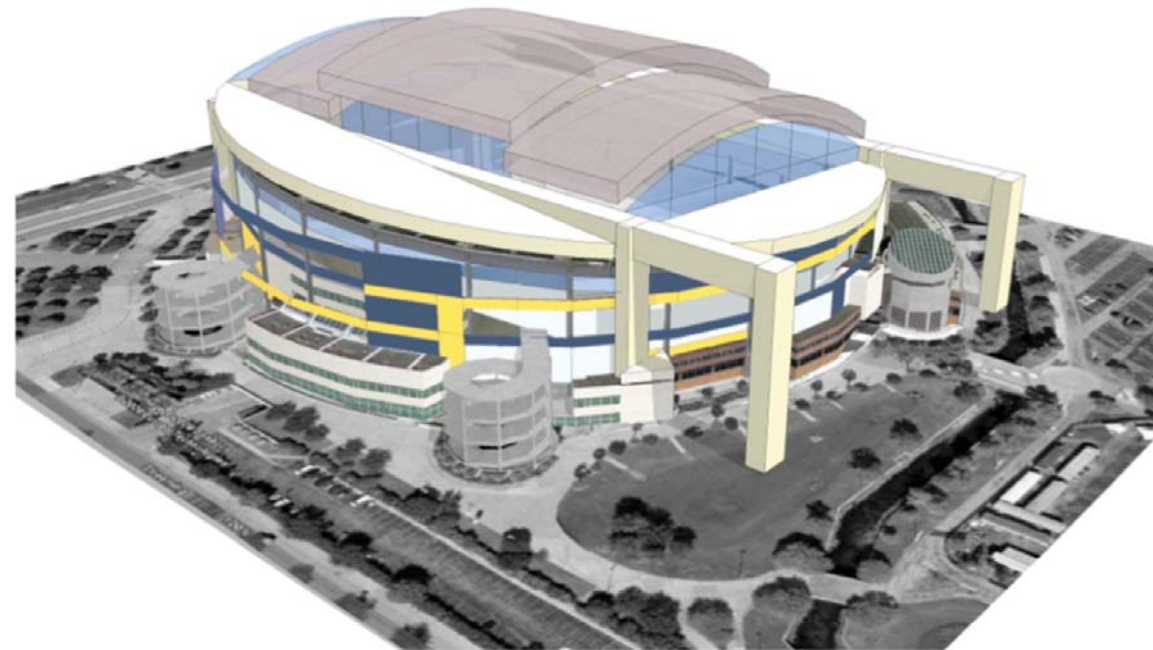
Installing a retractable roof at Tropicana Field would be an extremely complicated endeavor that would impact virtually every component of the facility. Preliminary analysis and designs indicate the following:

- New structure, foundations, power and operating systems would be required
- New field systems, including field lights, house lights, sound system and scoreboard would be required
- With the introduction of rain and humidity in an otherwise interior building, the seating bowl would require a “sub-roof” or weatherproof sheathing below it, with guttering to catch rain and wash down migrating through joints in the seating bowl
- Any interior elements not protected by the seating bowl sub-roof would require weatherproofing (seating bowl, front of suite and press box, etc.)
- The field would be replaced with natural turf, and a new drainage system would be installed. Note that the introduction of additional stormwater from new project elements including the natural grass playing field would likely require treatment and trigger review by regulatory agencies.

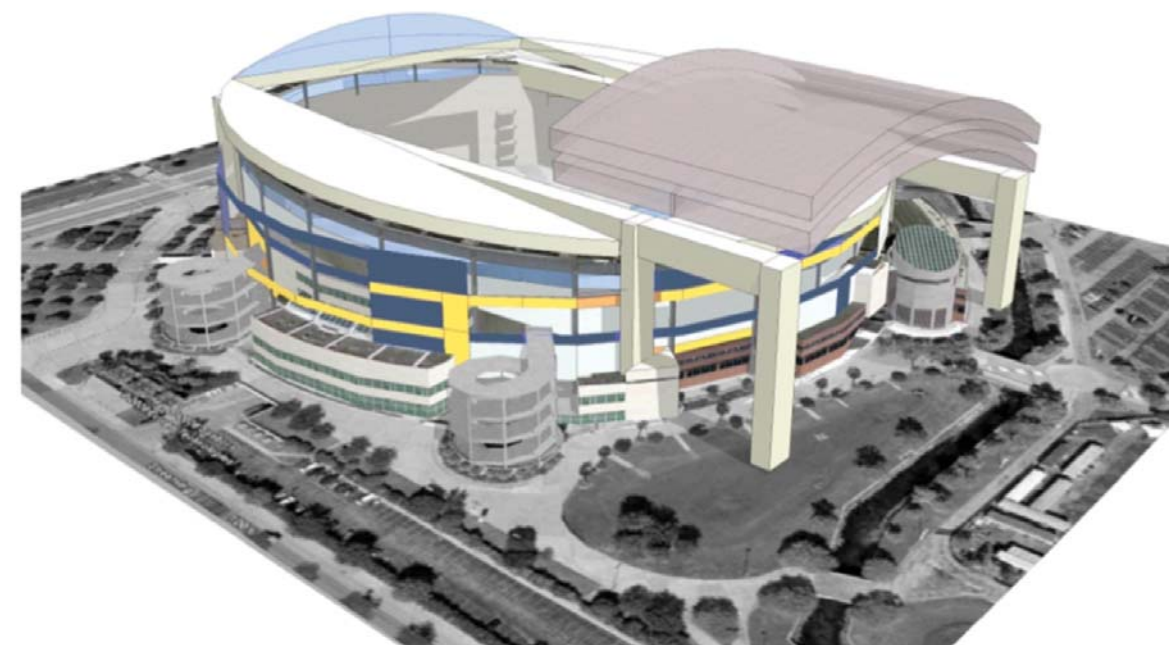
The concept drawings on this page highlight one potential design solution for a retractable roof at Tropicana Field. It is important to note that detailed engineering plans would be necessary to confirm the overall feasibility of such an endeavor.

>> Cost Estimate for Retractable Roof

The estimated cost to replace the existing roof at Tropicana Field with an operable roof is approximately **\$150 million**. This cost does not include providing operable glazing on top of exterior walls and the new exterior and interior metal panel cladding noted above, which is recommended either with or without a new roof system. Additionally, a new retractable roof would eliminate the need to replace the existing roof membrane, which would yield a cost saving of approximately \$28.7 million on the base ballpark renovation estimate. Netting out this \$28.7 million, the cost of a retractable roof with all of the other improvements noted in this study would be an additional \$121 million.



Concept Retractable Roof in Closed Position



Concept Retractable Roof in Open Position

H. Site Amenities

>> New Ballpark Standard

New ballparks provide clear, direct and attractive access from parking or transit stops to entrances. From the point of arrival, the patron should be able to access a pedestrian walkway which is not in conflict with vehicular or other traffic.

Additionally, new first-class ballparks have generous plazas at entries to accommodate queuing at gates as well as pregame functions. These plazas also accommodate amenities that help expand the brand, maximize revenue sources and connect with the surrounding community. Festive entrances and plazas are often used for other civic, cultural, community and entertainment events throughout the year.



Busch Stadium Entrance



AT&T Park Entrance



Great American Ballpark Entrance



Comerica Park Entrance

>> Tropicana Field

Pedestrian circulation to the main axial mosaic walkway approaching Tropicana Field from the main parking lot is too remote from the edges of the lots to encourage all fans to use it. Many landscaping amenities like benches and pedestrian lights are nearing the end of their useful life, and entry plazas are too small for pregame activities.



Tropicana Field Entrance Walkway



Tropicana Field Entrance Plaza

>> Renovation Plan

In order to create a more inviting gateway and upgrade and replace other site amenities, additional pedestrian walkways, additional landscaping amenities, and more generous plazas would be provided. The east entry plaza outside the rotunda would be enlarged to accommodate pre-game functions and non-game day activities. Landscaping and canopies providing shade would be added as well as colorful paving and interactive water features.

>> Cost Estimate

The estimated cost to improve site amenities at Tropicana Field is approximately **\$8.4 million**.

I. Technology

>> New Ballpark Standard

All first-class ballparks have state-of-the-art equipment that helps enhance fan experiences at every level. New technology has dramatically improved how the game is transmitted via television and radio broadcasts. It has also improved how the team communicates with fans through the in-game experience.

>> Tropicana Field

Most of the stadium technology, including back-of-house technology is reaching the end of its useful life.

>> Renovation Plan

A technology overhaul is needed for virtually every communications system within the stadium, including the sound system, closed circuit TV system, security and surveillance systems, broadcast systems, data distribution systems and fire alarm system. Distributed sound systems are “state of the art” in MLB facilities and provide the clearest most intelligible sound. The renovation plan would allow for replacement of the majority of existing systems in addition to installing audio in locations previously not provided for.

Suite and Club Level locations would be provided with an IPTV (Internet Protocol Television System) which allows internet interactivity and can be associated with food service ordering and interactive baseball statistics. Video replay and scoreboard control will be updated using newer processing or “head end” equipment.

>> Cost Estimate

The estimated cost to improve overall technology at Tropicana Field is approximately **\$20.5 million**.

J. Interior Fit-Out and Renovation

>> New Ballpark Standard

All aspects of a first-class ballpark reflect the team image down to every last detail. From the carpet to the furniture to the walls, the ballpark truly becomes an extension of a team.

>> Tropicana Field

The Tampa Bay Rays have a brand which is modern, clean and fresh. Many of the finishes at Tropicana Field need to be updated to reflect the team’s brand. Most finishes are out-of-date and furniture is reaching the end of its useful life.

>> Renovation Plan

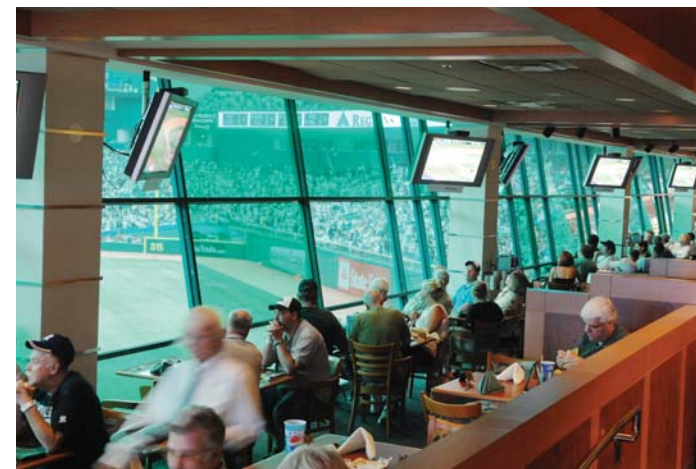
As part of a major renovation, new furniture and fixtures to fit out the newly renovated spaces within the stadium, including suites, clubs, restaurants, offices, seating sections, etc. is needed. This also includes an allowance for new finishes for 30% of unimproved spaces, like the Batter’s Eye, to make it both more functional and attractive.

>> Cost Estimate

The estimated cost for interior fit-out and space renovation at Tropicana Field is approximately **\$17 million**.



Club Level at Tropicana Field



Club Level at Tropicana Field



Club Level at Jacob’s Field



Outfield Amenity at Chase Field

K. Food Service Equipment

>> New Ballpark Standard

New ballparks have a variety of modern concessions equipment, including portable stands, all of which are necessary to provide quality food and beverage products and generate revenue. The current trend is to present a high level of transparency in the food preparation process, highlight the sights and smells of the food, and offer off-the-grill items ensuring product freshness.

>> Tropicana Field

Much of the concessions equipment at Tropicana Field is reaching the end of its useful life and is often in need of repair. The majority of the cooking is done in the back of stands or in the commissary. There is not a uniform look or quality to portable concession stands.

>> Renovation Plan

As part of the overall renovation plan, the majority of food service equipment will be replaced.

>> Cost Estimate

The estimated cost to replace 75% of the food service equipment at Tropicana Field, including kitchen equipment and the final connections, renovating food service areas, a new point of sale system and 30 new portable carts is approximately **\$13.4 million**.



Pizza Oven at Citi Field

L. Signage and Video Board Systems

>> New Ballpark Standard

Signage packages and scoreboard/HD Video presentation are key components of new ballparks. Signage is an integral part of every new ballpark. More than just providing direction and identification, signage helps complete a design and tell the story of the ballpark. New screen printing methods allow photographs and drawings to bring a ballpark to life.

>> Tropicana Field

While the scoreboard at Tropicana Field was updated a couple of years ago, by the time the renovation plan is executed, it will be outdated. Additionally, much of the signage needs to be improved, and additional capabilities for the video board are required.

>> Renovation Plan

In addition to a complete signage overhaul, including a new state-of-the-art video and scoreboard system, a new HD video replay system would be added to enhance the overall quality of in-game entertainment.

>> Cost Estimate

The estimated cost to improve the signage and video capabilities at Tropicana Field is approximately \$23.3 million.



Yankees Great Hall



Ribbon Board at Kauffman Stadium



Signage at Citi Field



Citi Field scoreboard



Busch Stadium scoreboard



Kauffman Stadium scoreboard

M. MEP Systems

>> New Ballpark Standard

All new first-class facilities have modern, efficient mechanical, electrical and plumbing systems. These systems not only help teams save money on operating expenses, but also reduce the overall carbon footprint of the ballpark.

Building systems that dramatically reduce energy and water consumption are becoming standard business practice. The Washington Nationals new ballpark has achieved a LEED Silver certification by the US Green Building Council. The Minnesota Twins new ballpark is also expected to achieve LEED Silver certification when it opens next year, and the Marlins have committed to LEED certification for their new park.

>> Tropicana Field

While the Rays have continued to invest in new energy management systems, the overall condition of the mechanical, electrical and plumbing systems within Tropicana Field is poor. Substantial and costly capital repairs occur on an annual basis. Additionally, the carbon footprint created by an air conditioned facility the size of Tropicana Field is substantial, in part due to the existing physical plant which is now at least a generation behind new HVAC technology.

>> Renovation Plan

A complete overhaul of the building's MEP systems would be undertaken. More efficient systems would help reduce overall operating expenses and costly capital repairs. Because this overhaul would dramatically improve the efficiency of the building, LEED certification would be pursued.

>> Cost Estimate

The estimated cost to upgrade the MEP systems is approximately \$33.6 million.

Whether to build a new stadium or renovate an existing one is a question several teams and cities have entertained over the last decade

Some of the factors in the decision-making process are:

- Is the location appropriate to the market?
- Is the base building, primarily the seating bowl, well-designed?
- Is there sentimental/historical value to the building?

Every city with a domed stadium like Tropicana Field, when presented with this question, concluded that major renovation for baseball did not make sense.

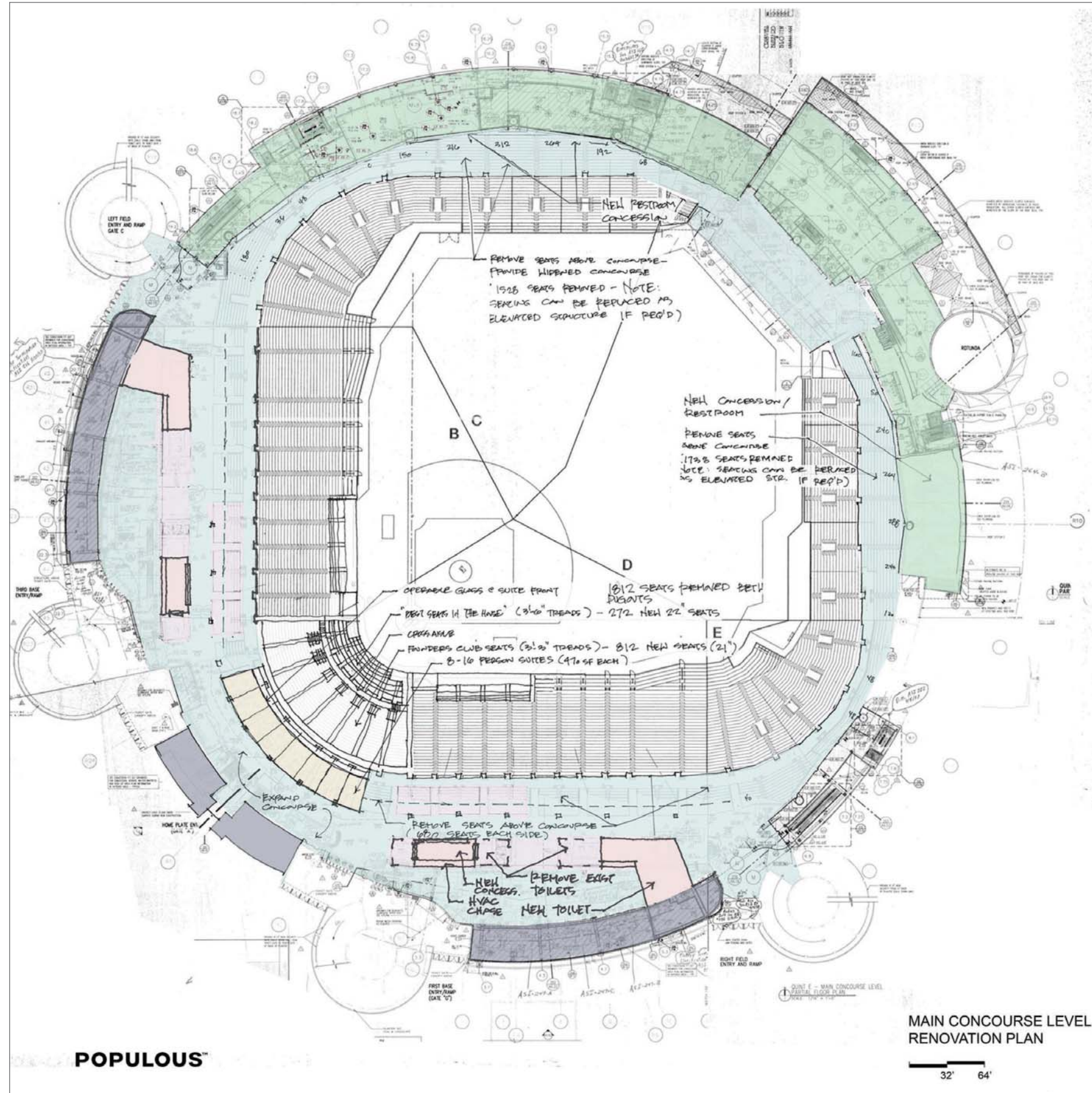
As noted before, this study does not analyze the geographic location of Tropicana Field and its appropriateness within the overall Tampa Bay area. Nor does it attempt to gauge the sentimental or historical value of the building. Rather, this study looks at the base building deficiencies compared to first-class MLB ballparks and potential solutions to remedy the current problems that exist. This renovation plan should be viewed as a potential long-term solution, not a menu of short-term fixes. The cost estimate found in Appendix B outlines pricing for every component of the renovation plan.

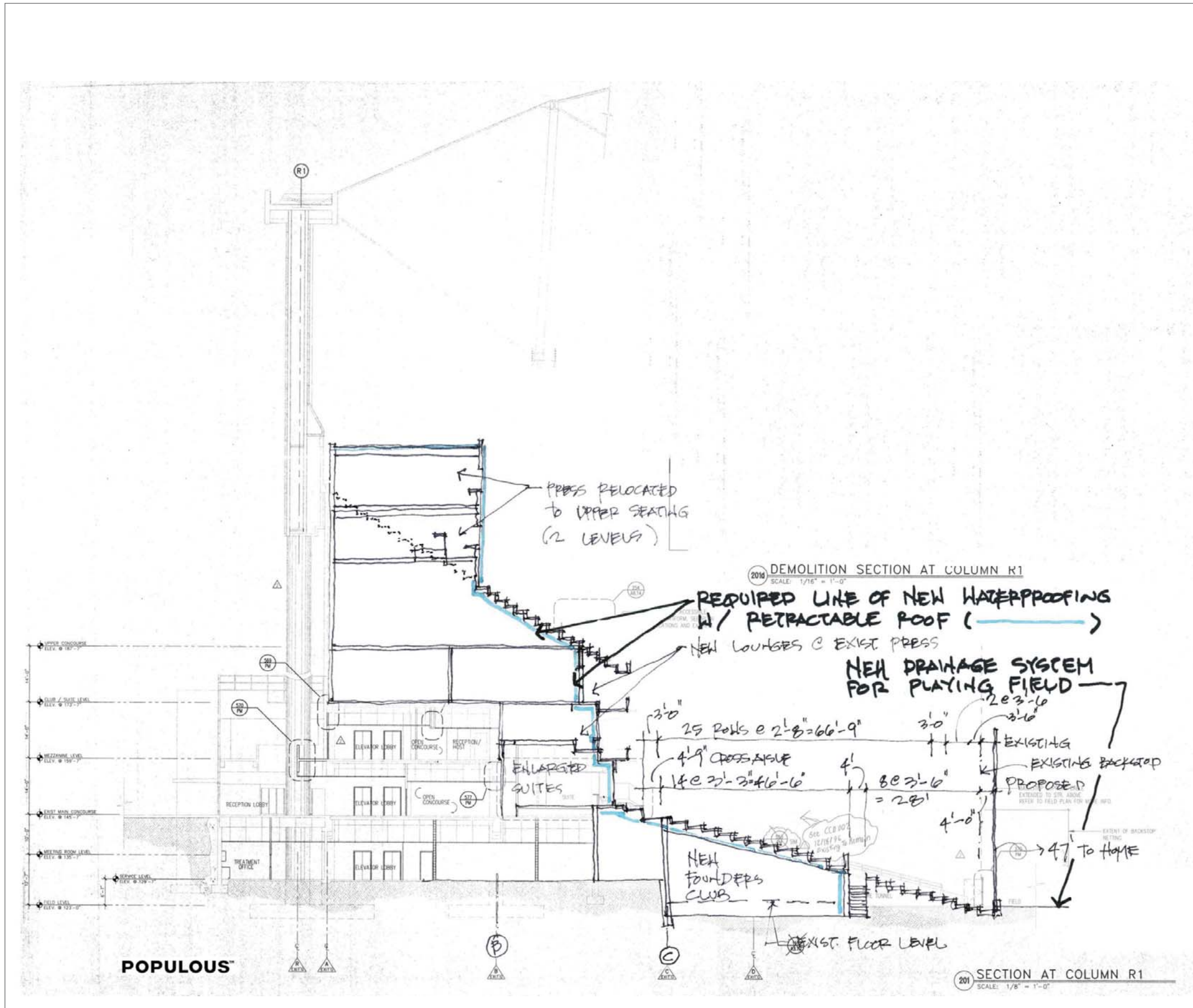
Tropicana Field does not have most of the key attributes of first-class MLB ballparks. However, significant improvements could be made to the facility.

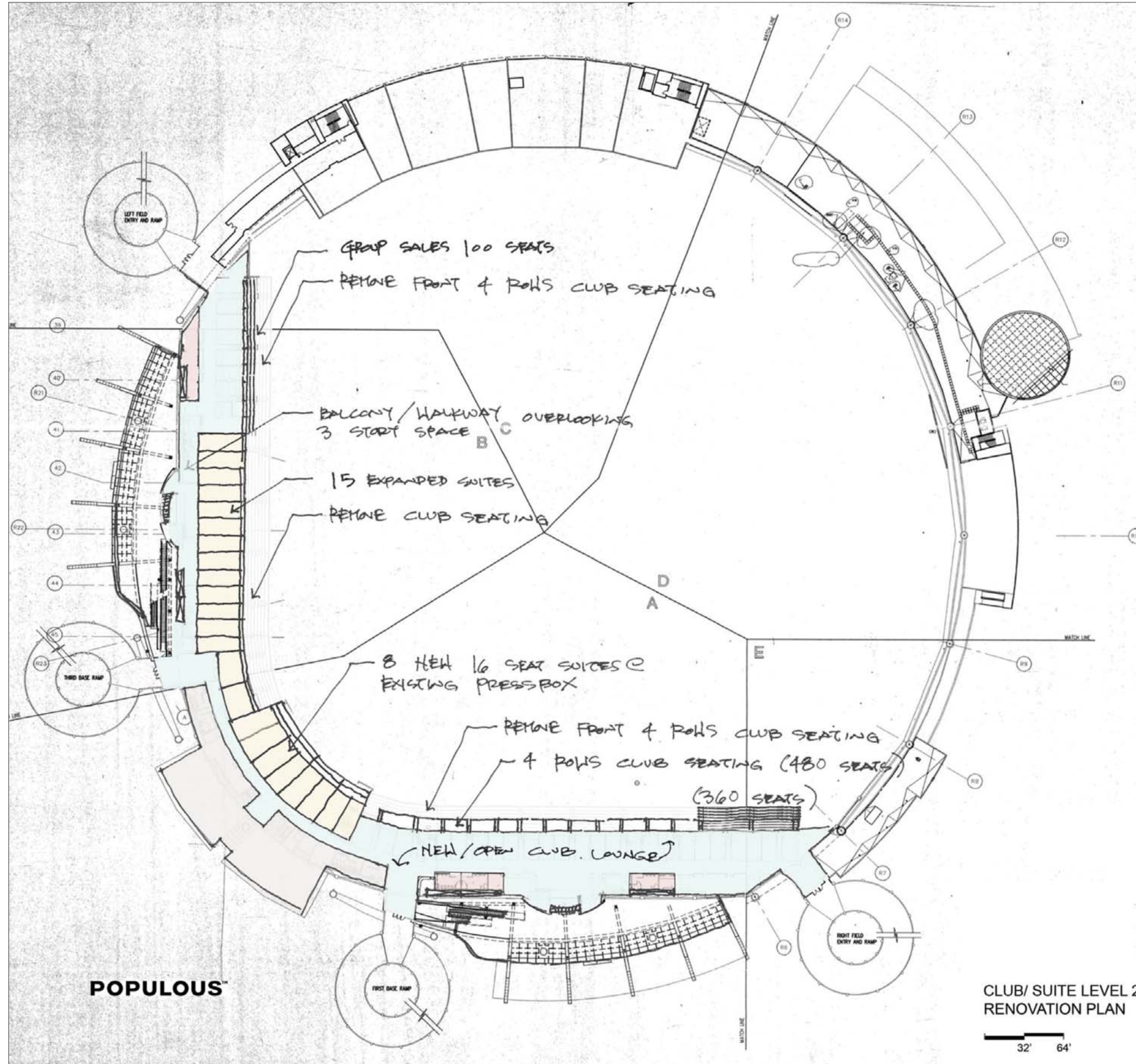
Seating sections and rows from both the upper and lower levels could be removed and new structure built to support new open concourses that improve overall circulation. New seats, better directed toward the play on the field could be installed. Extensive renovation of the club and suite levels could yield a product that's comparable to others within the Rays' market. Bringing natural light into the facility could dramatically improve the overall stadium experience. Creating better plazas and gathering spaces could bring new amenities to both the team and the surrounding community. Improving the efficiency of mechanical, electrical and plumbing systems could help reduce overall operating and maintenance costs and reduce the stadium's carbon footprint. And upgrading the stadium's finishes, furnishings and equipment, including major renovation to technology, signage and food service equipment, would help create a better game experience for everyone that walks through the doors.

Tropicana Field would undoubtedly be a better facility, both in its ability to entertain fans and generate revenue, with an approximately **\$350-470 million** (depending on whether a retractable roof is included) renovation. However, the multi-purpose seating bowl geometry, overly narrow seating treads, compromised seating sections, and poor distribution of lower and upper level seats would still yield a ballpark with substantial flaws.

APPENDIX A

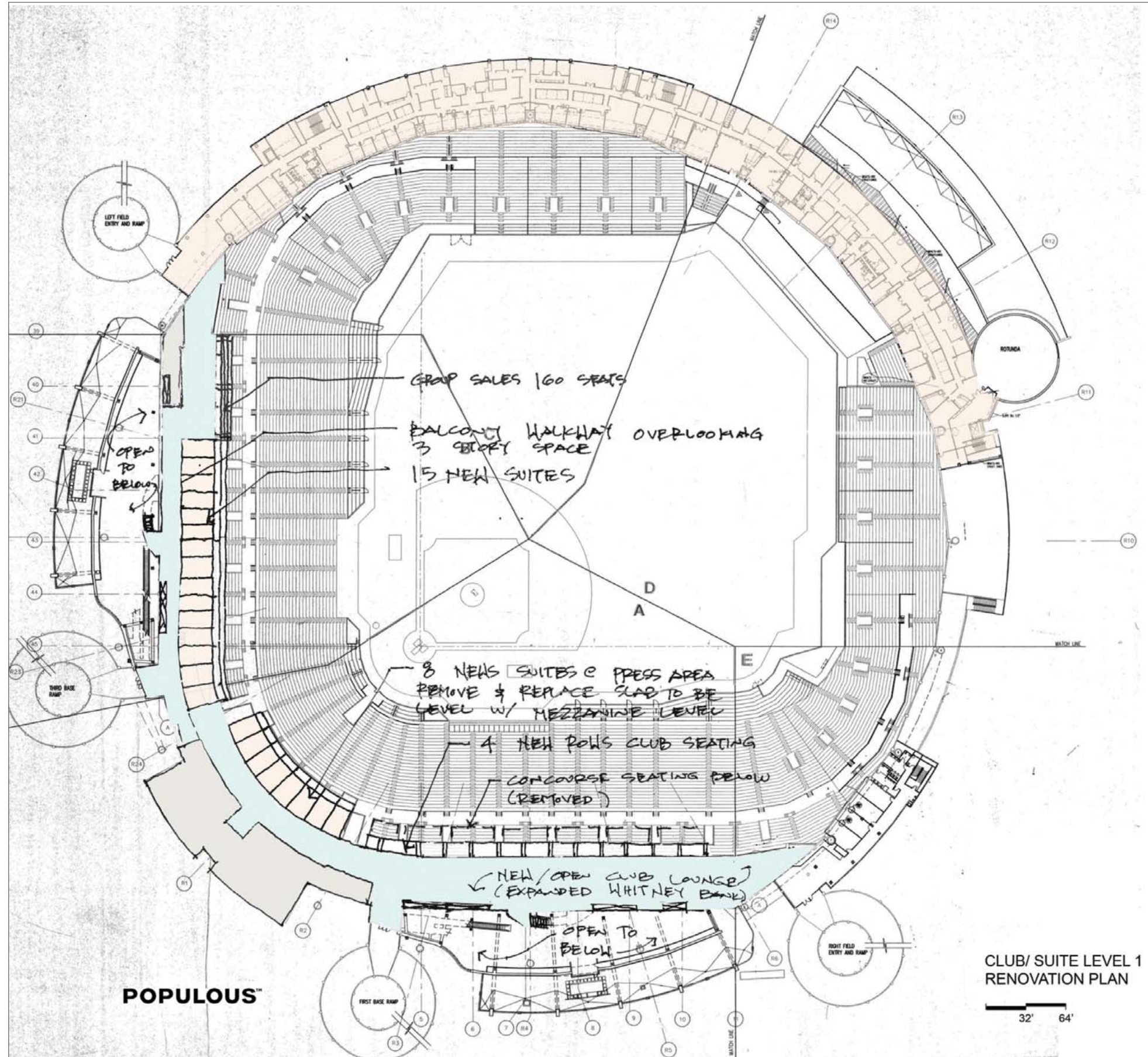






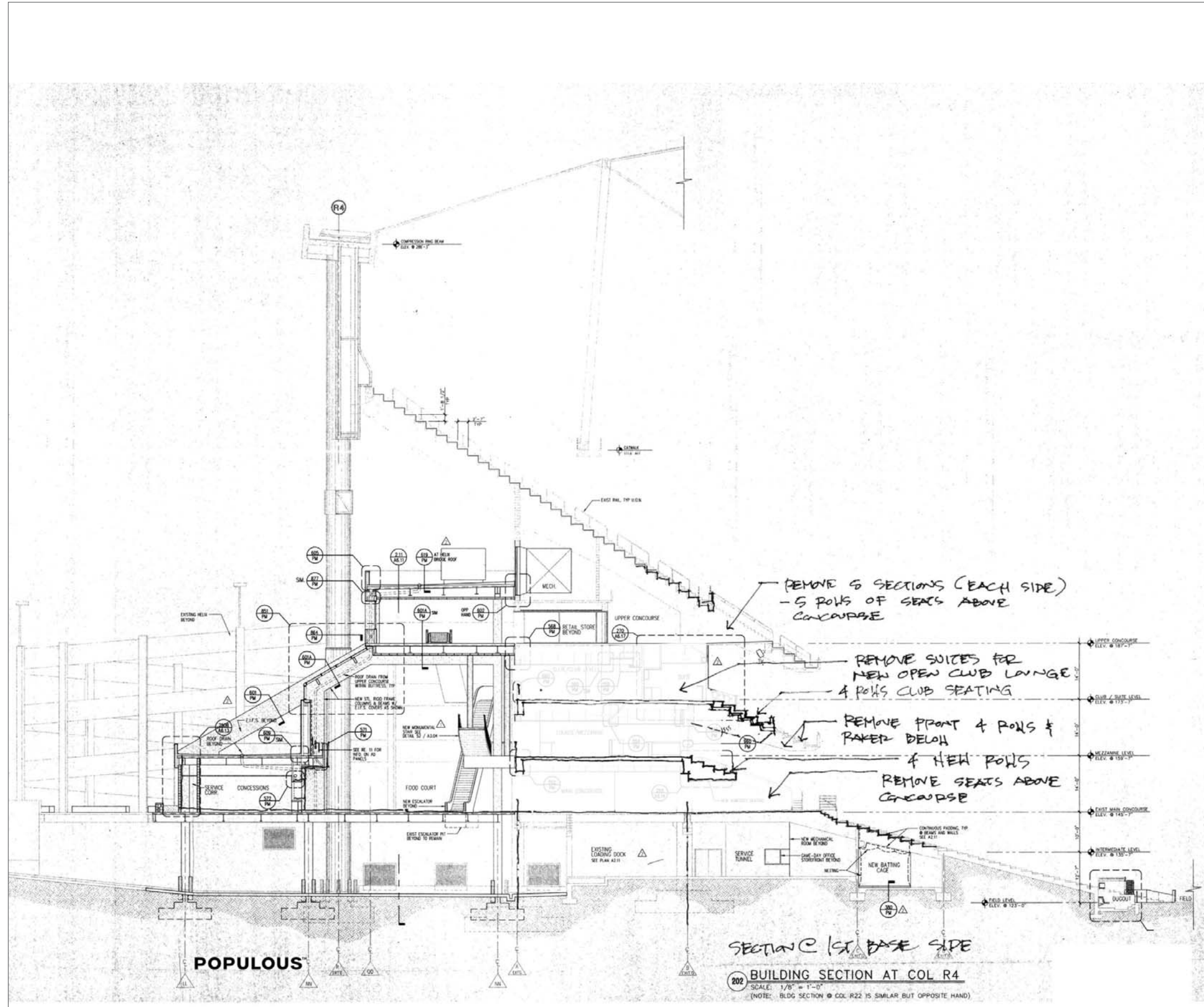
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CLUB/ SUITE LEVEL 2
RENOVATION PLAN



CLUB/ SUITE LEVEL 1 RENOVATION PLAN

32' 64'

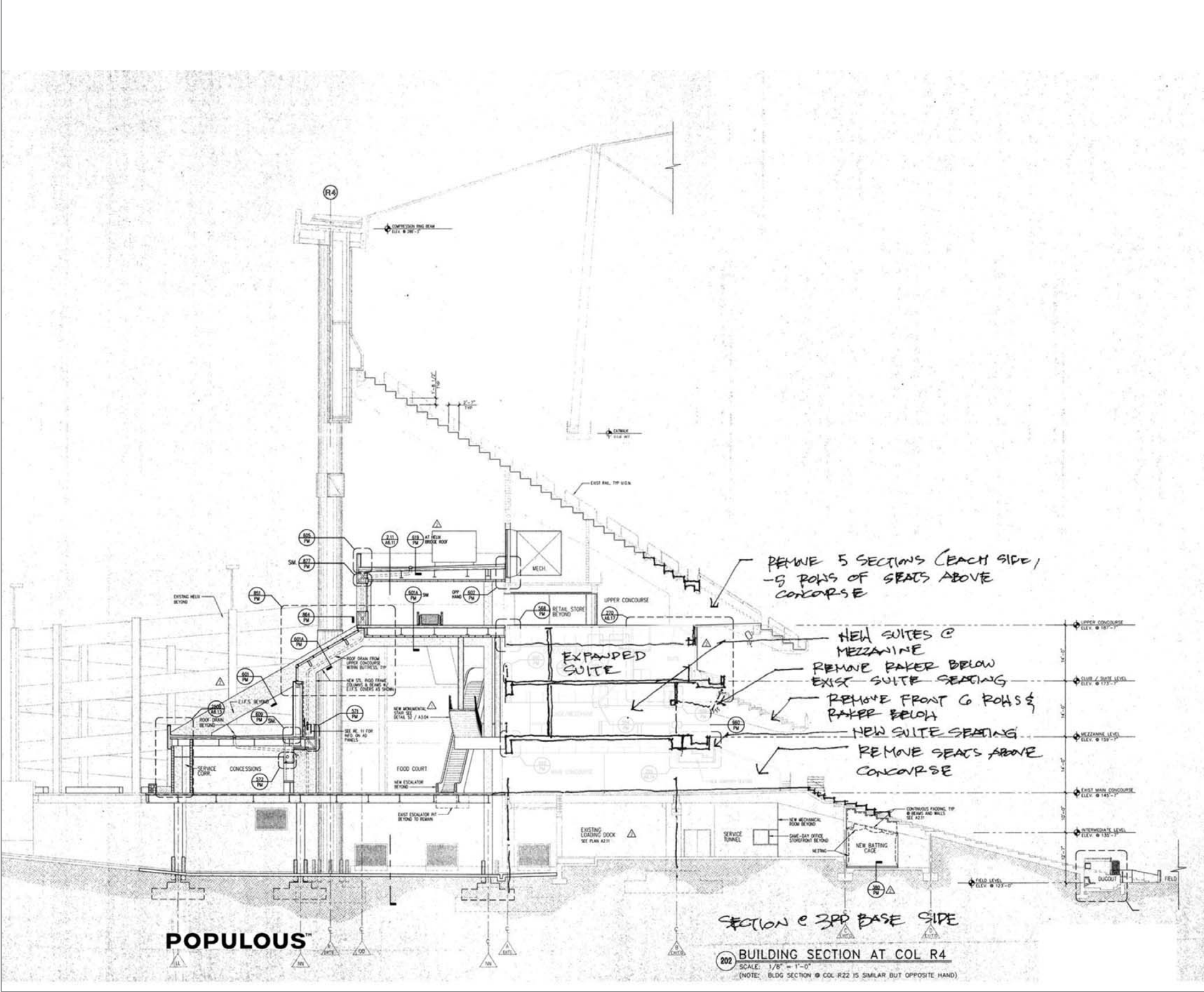


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SECTION C (ST. BASE SIDE)

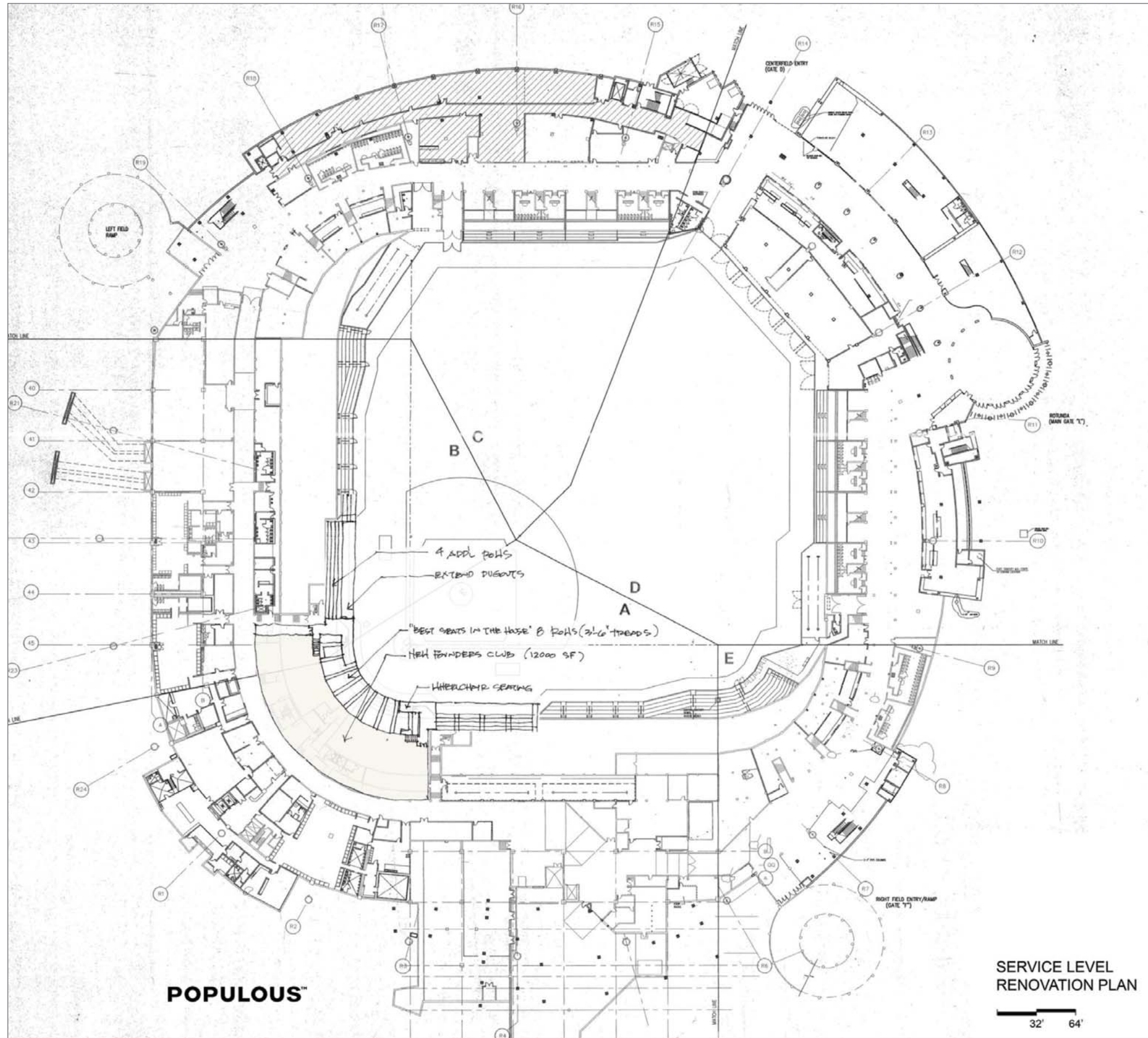
202 BUILDING SECTION AT COL R4

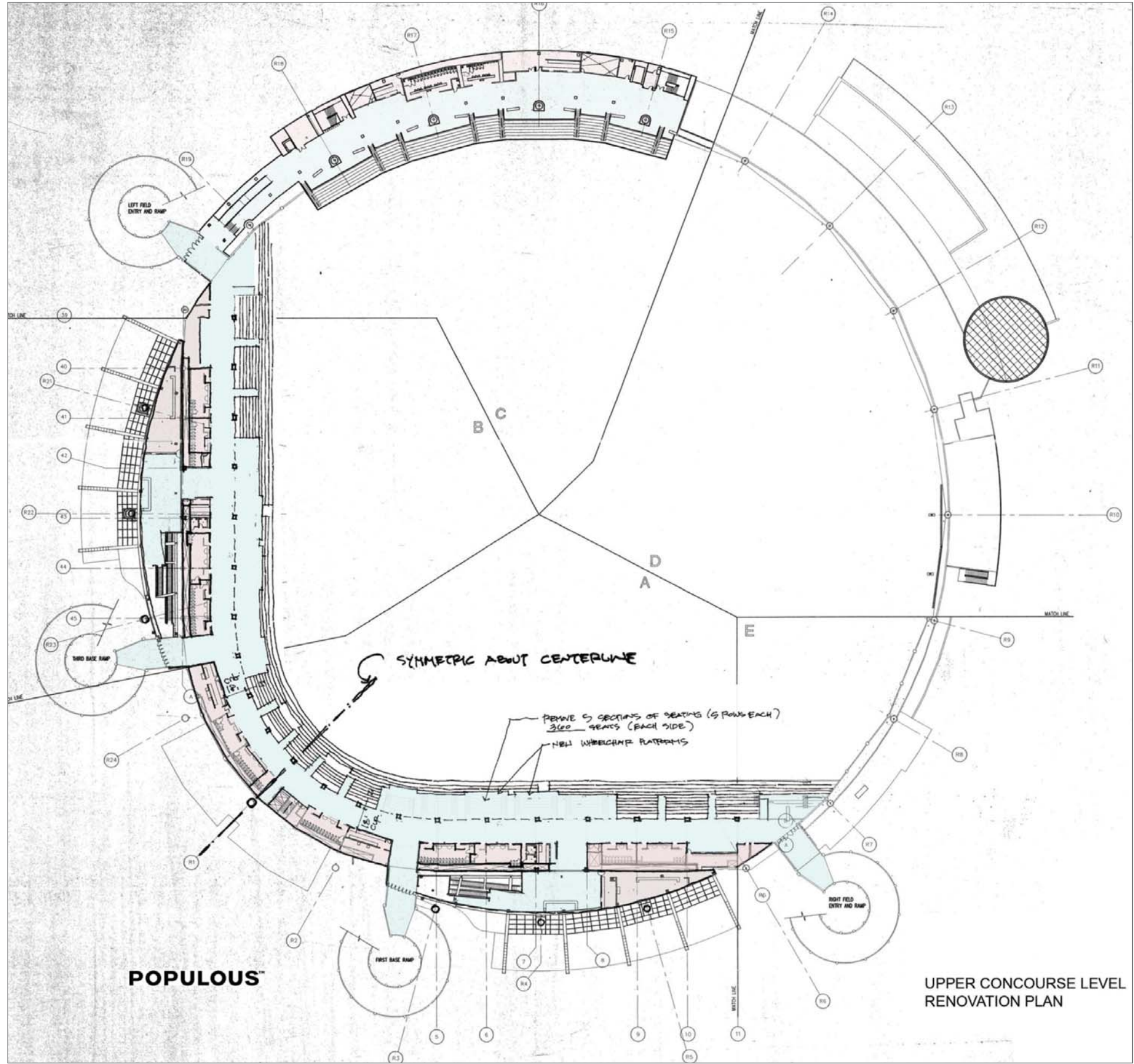
SCALE: 1/8" = 1'-0"
 (NOTE: BLDG SECTION @ COL R22 IS SIMILAR BUT OPPOSITE HAND)



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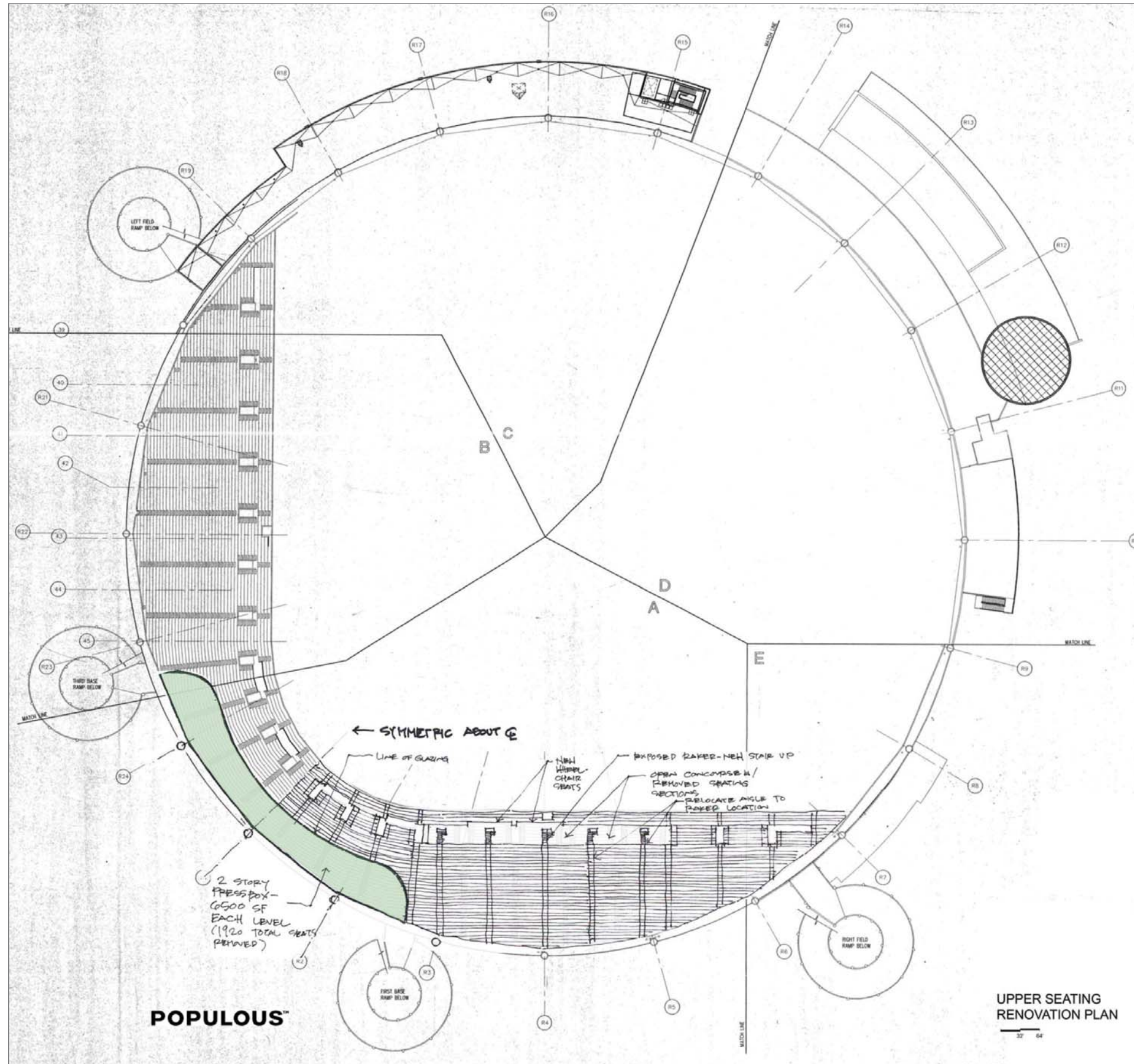
SECTION @ 3RD BASE SIDE
 BUILDING SECTION AT COL R4
 SCALE: 1/8" = 1'-0"
 (NOTE: BLDG SECTION @ COL R22 IS SIMILAR BUT OPPOSITE HAND)





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UPPER CONCOURSE LEVEL RENOVATION PLAN



APPENDIX B



June 12, 2009

Mr. Norman Friedman
 Populous
 300 Wyandotte, Suite 300
 Kansas City, MO 64105

Subject: Tropicana Field Renovation Study Estimate dated 6/12/09

Dear Norman,

Attached please find our preliminary estimate for the Tropicana Field Renovation Study prepared by Hunt Construction Group. As you know, Hunt Construction Group has been constructing facilities throughout the country for over 65 years and was the Construction Manager on the project when Tropicana Field was first built and also when it was renovated in 1996.

This Tropicana Field renovation estimate is based on the renovation plans submitted to Hunt by Populous. The estimate was prepared by our in-house staff based upon the Populous documents and derived by conceptual estimating and historical cost data.

The total projected cost of the complete renovation project, including both indirect and Owner's soft costs is estimated to be \$470,869,623. The value includes escalation for a 2013 opening, construction and Owner contingencies, design fees and reimbursables, professional liability and insurance coverage, and testing and inspections.

After you have had a chance to review the estimate, please do not hesitate to contact us should you have questions, need additional information, or wish to further discuss the Project.

Sincerely,

Kenneth L. Johnson
 Vice President

Hunt Construction Group, Inc.

6/12/2009

Estimate Summary

Tropicana Field Modifications
 Tampa Bay, Florida
 Cost Model

	KEY ELEMENTS	DIRECT COST	W/ INDIRECT & SOFT COST
A	Circulation / Concourses	\$34,429,141	\$52,743,589
B	Seating Size	\$6,217,095	\$9,524,255
C	Seating Bowl Design and Seat Distribution	\$0	\$0
D	Club Lounges (incl Home Plate Lounge)	\$23,148,990	\$35,463,006
E	Press Box Relocation	\$9,034,974	\$13,841,093
F	Suites	\$14,098,196	\$21,597,677
G	Natural Light	\$65,170,800	\$99,838,155
Gi	Operable Roof	\$79,415,535	\$121,660,321
H	Site Amenities	\$5,483,073	\$8,399,772
I	Technology	\$13,350,000	\$20,451,481
J	Interior Fit-Out and Renovation	\$11,129,155	\$17,049,266
K	Concessions Equipment	\$8,740,000	\$13,389,209
L	Signage / Scoreboard / Video System	\$15,200,000	\$23,285,581
M	MEP Systems	\$21,950,000	\$33,626,218
	DIRECT COST SUBTOTAL	\$307,366,959	\$470,869,623
6.00%	CM General Conditions (6%)	\$18,442,018	
	Preconstruction Services	\$1,045,000	
0.00%	Permits N/A	\$0	
5.50%	Construction Contingency (5.5%)	\$16,905,183	
3.50%	Design Completion Contingency (3.5%)	\$10,757,844	
6.00%	Escalation 2013 Opening (6%)	\$18,442,018	
1.20%	General Liability Insurance (1.2%)	\$4,847,907	
2.25%	Builder's Risk Insurance (2.25%)	\$9,089,826	
0.85%	CM Payment & Performance Bond (0.85%)	\$3,433,934	
3.50%	CM Fee (3.5%)	\$13,661,574	
	CONSTRUCTION ESTIMATE TOTAL	\$403,992,262	
	Owner's Soft Cost		
5.00%	Owner Contingency (5%) of Direct Cost	\$15,368,348	
7.50%	Design Fees and Reimbursables (7.5%) of Estimate Total	\$30,299,420	
1.75%	Professional Liability OPP Program (1.75%)	\$7,069,865	
1.50%	PII, Deductible Pool, Misc Insur (1.5%)	\$6,059,884	
2.00%	Testing, Inspection, Consultants (2%)	\$8,079,845	
	CONSTRUCTION BUDGET TOTAL	\$470,869,623	

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TAMPA BAY RAYS **TROPICANA FIELD RENOVATION STUDY**