MCCOY STADIUM
Study

January 26, 2017

Pawtucket, RI

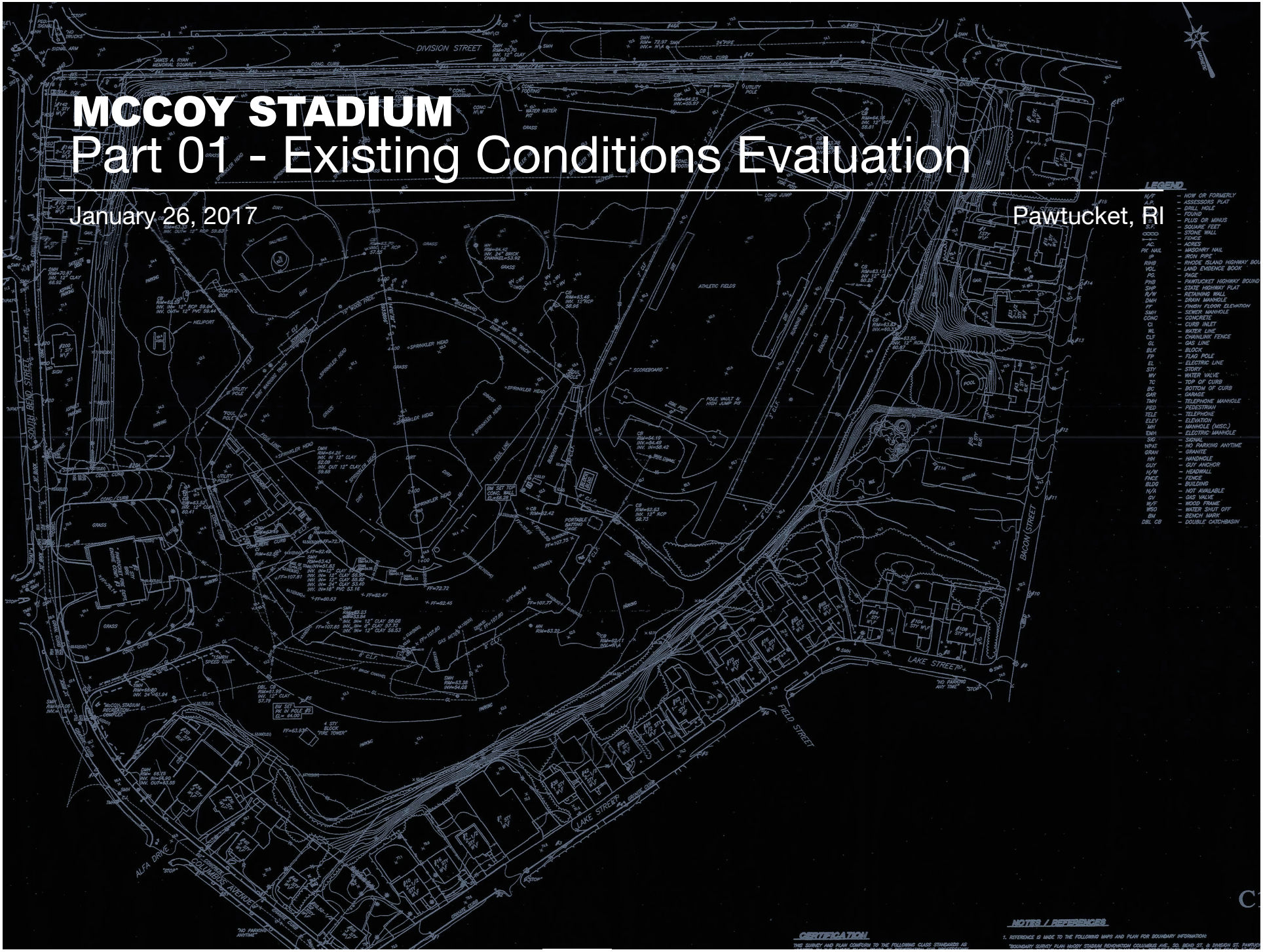
FINAL REPORT

ARORA · Barton Malow · B&D VENUES · BETA ENGINEERING SUCCESS TOGETHER · PENDULUM · SLAM

MCCOY STADIUM
Part 01 - Existing Conditions Evaluation

January 26, 2017

Pawtucket, RI



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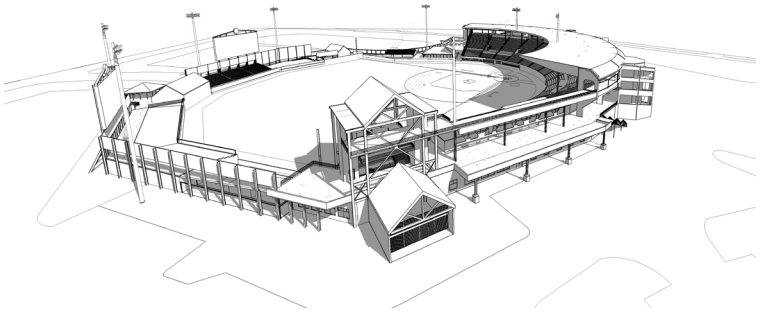

Fig. 000. Stadium McCoy 3D View

PREFACE >>>
McCoy Stadium

The advancement of ballpark design over the last twenty years has revealed shifts in the baseball business model that warrant further discussion. While the mechanics of the game have not changed much, certain aspects of the business have evolved due to new market trends and evolving consumer demands. From the very early history of baseball moving forward to the mid 1990's, ballparks were constructed with a focus on the game being played on the field. Since the mid 1990's the concept of "a day at the ballpark" has drastically changed. Minor League Baseball (MiLB) has revolutionized the way consumers experience outdoor sporting events; the focus has shifted from the game being played on the field to the entertainment that occurs during and in-between innings throughout the ballpark. This "shift" has created a demand for enhanced amenities that maximize the game-day experience for ballpark patrons. Unfortunately, most ballparks that were constructed prior to the mid 1990's exhibit symptoms of aging in the form of limited infrastructure, structural deterioration, and outdated equipment - specifically as it relates to food service and premium amenities that present significant challenges for the tenant/operator in its efforts to maintain competitiveness in the entertainment marketplace.

As we travel across the nation assisting municipalities and facility operators with developing a strategy for curing potential challenges with facility infrastructure, our first task is to assess existing conditions in comparison to 1.) life safety, 2.) current local, State, and international building code regulations, and finally 3.) the National Association of Professional Baseball League's (NAPBL) Facility Design Standards (published in 1992 and updated 2005).

Following our in-depth review of all aforementioned conditions, we provide municipalities and operators with a detailed report that addressees any deficiencies that may leave project stakeholders open to legal exposure. We identify short-term and long-term infrastructure needs that may have an adverse affect on the life span of the facility (i.e. foundation issues, water infiltration, ADA non-compliance items, etc.). Finally, we provide suggestions for reasonable updates to the facility that will maximize the patron experience and maintain competitiveness in the entertainment marketplace.

The images and descriptions that are included in Part 01 of this report are the product of physical analysis of existing conditions through the eyes of Architectural and Engineering professionals with a proven track record in the sports facility design industry. As you give careful consideration to the technical information being presented, please keep in mind that our observations are solely based on elements that are evident and visible to the naked eye. In no circumstance did any member of the team disturb and/or alter existing building assemblies in an effort to investigate/determine the integrity of sub-surface conditions in the field. Therefore there may very well be conditions in the field that we are not aware of that will have an impact on the long-term economic sustainability of the existing structure and building envelope that should be taken into consideration when discussing the twenty year future of McCoy Stadium. Part 02 of this report will address specific design driven recommendations as outlined in the scope of work section that follows.

Fig. 001. Stadium Field Image

Scope Of Work >>

The Pendulum team was commissioned by The State of Rhode Island, The City of Pawtucket, RI, and The PawSox to provide a detailed and comprehensive report in two separate parts that evaluate the following:

> Part 01

- Overall Site Conditions
- Traffic & Parking
- General Structural Systems
- Mechanical Electrical & Plumbing Systems
- Fire Alarms & Technology
- Architectural Elements & Basic Patron Amenities
- Deferred Maintenance
- Current State-Of-The-Art Facility Comparison
- Compliance with MiLB Facility Standards
- Preliminary Cost Model To Cure Existing Conditions

> Part 02

- Recommended renovations associated with bringing McCoy Stadium in line with current state-of-the-art facility standards, including infrastructure and patron amenities without demolishing the existing structure.
- Exploration of the feasibility of demolishing McCoy Stadium and rebuilding a new facility on the current site.

The Pendulum team of consultants includes the following:

Pendulum:	Stadium Architect
BETA:	Civil/Landscape/Traffic
SLAM :	Structural Engineer
Arora:	MEP Engineer
B&D:	Economic Analysis
Barton Malow	Cost Modeling

Fig. 002. Stadium Crowd Image

What We Love About McCoy Stadium >>

Baseball is and always will be America's favorite pastime. It represents everything that we love…being outside from spring through summer, enjoying an ice cold beer, eating a grilled hot dog and roasted peanuts. The precision of the perfectly thrown pitch and the unmistakable crack of the wooden bat when it makes contact with a leather covered ball somehow makes us set aside the anxieties of life and focus on what's good. Anytime we've had to endure tough times as a nation, baseball has always been there for us. Baseball is more than just a game, it's more like emotional muscle memory; for some reason, every time you pass through the ballpark gates you immediately recall the good times. We believe the concept of "emotional muscle memory" is why baseball purists are so passionate about preserving the look and feel of the old time ballpark. It's there to remind us of the good times we had with our fathers and our grandfathers just two generations back. I think that's what McCoy Stadium does for most of us.

There is a strong historic and emotional tie to McCoy that is elegantly cataloged on the walls of the ramp towers and in the corridors of the premium suites. The history, the people, and frankly the evolution of the stadium over the last 75 years make the path forward something that should not be taken lightly.

McCoy was originally built during an era of baseball centered around the game being played on the field. The lines of sight were not always the best, there were often structural columns supporting a roof that obstructed views, the seating bowl was very compact at a steep incline, and all of the action was behind home plate. During this era the concept of entertainment was simple…it was baseball and that was it.

McCoy Stadium was also built in an era where civic pride and community were synonymous with the team. Fans were more likely then to come to the ballpark and watch a "kid" from the neighborhood play, and people looked forward to that.

There are a couple of good examples of this in PawSox history. Lou Merloni *(Fig. 003)* was a popular infielder for the Red Sox in the late 1990's and early 2000's, and actually played in Pawtucket in parts of seven seasons, from 1996 to 2002. He was born in Framingham, Massachusetts, and went on to become a collegiate standout locally at Providence College.

Ken Ryan *(Fig. 004)* was a right-handed reliever who pitched for the PawSox in 1991, 1992, 1993, and 1995. Ken was born in Pawtucket, then became a high school star right across the border at Seekonk, MA High School before embarking on his professional career.

McCoy Stadium reminds us of times when things were much simpler as it related to spending time with family, and dreaming about what we can all strive to become if we just work hard at it. There were no distractions of massive digital media, tablets, Twitter or Facebook. We now face the reality that times have drastically changed and the concept of "neighborhood" is quite a bit different from what we all were used to in the early 1990's. The aforementioned "shift" in the baseball business model with a primary focus on entertainment and much less on the field of play has developed because of the advancement of technology and the diversification of entertainment offerings. The question that all teams partnered with municipalities across the nation face is, "how do we respond to the evolving market demands?" Is there truly a way to show due respect to history and heritage in the local community, while fostering an environment that encourages economic sustainability and true competitiveness in this new baseball business environment? Is another major investment in McCoy Stadium to cure current deficiencies throwing good money after bad? Before we can formulate an answer to these questions, we must first give consideration to the work that has been completed in the recent and distant past.

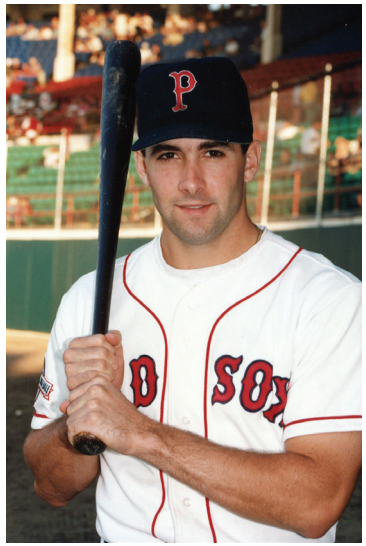

Fig. 003. Lou Merloni - PawSox & Red Sox

Fig 004. Ken Ryan - PawSox & Red Sox

Fig. 005. Existing Stadium Bowl View

Stadium Assessment History >>

Construction of McCoy Stadium began in the early 1940's and was completed in 1942. According to Appendix F of a previous facility assessment authored by HOK Sport in 1996, the following improvements were made to McCoy Stadium between the spring of 1986 and the spring of 1994:

- New Seats Installed - Spring 1986
- New Field Lighting, Upgraded Fire Alarm, and Emergency Lighting System - Spring 1987
- Concrete Repairs, Roof Repairs, Expansion Joints Replaced, Entrance Doors Replaced, Exterior Railings Installed - Fall 1987/Spring 1988
- Press Box Replaced - Spring 1990
- Locker Room Facilities Replaced, Dugouts Upgraded - Fall 1990/ Spring 1991
- Tower 3 Bathrooms Added - Spring 1992
- 600 Bleacher Seats Added - Spring 1994

The 1996 HOK Sport report was very thorough in outlining existing conditions at the ballpark that seem to have been influential in the development of the major renovation strategy that was completed in 1999. However, it interesting to note that while some of the items listed as major facility deficiencies in the 1996 report were resolved in the 1999 renovation including:

- Increased Toilet Fixtures - Water Closets & Lavatories
- Increased Concession Points of Sale
- Increased Concourse Capacity
- New Hospitality Areas (Center Field Picnic Area)
- Playing Field Realignment
- Supplemental Exit/Entry Stairs
- Expanded Team Administrative Spaces
- Field Lighting Upgrades
- Scoreboard Upgrades
- New Main Entry Sequence

Poor execution of the contract documents in addition to ongoing deterioration, deferred maintenance, and unintended consequences linked to areas renovated in 1999 echo almost identical issues reported by HOK in 1996 as follows:

"HOK Sport 1996 Report - Page B.2"
"In general, the site itself does not carry a strong identity as a park or as a desirable destination for the general public much less as a baseball stadium. Visibility of the stadium from the streets is limited due to perimeter site buildings and the suppressed playing field location of the stadium itself."

"HOK Sport 1996 Report - Page B.3"
"Of primary concern is the safety for those who are walking to the game. The existing signage and lack of street-scape development of the two main entry points does little to highlight the fact that the patron is entering the stadium site."

*See Sections 1.01 & 1.02 of this report for current conditions

"HOK Sport 1996 Report - Page B.7"
"The concrete within the bowl has deteriorated over the life of the building due to the number of years that poor drainage has existed within the bowl. This condition has created spalling and roughened the surface in many areas so that tripping or slipping hazards now exist."

* See Sections 1.10 & 1.33 of this report for current conditions

"HOK Sport 1996 Report - Page B.9"
"Restocking of these stands during game time is almost impossible due to the crowds of people on the concourses..."

* See Sections 1.37 & 1.39 of this report for current conditions

"HOK Sport 1996 Report - Page B.12"

"The most common problem at McCoy Stadium is water damage. Long term exposure to standing water and water infiltration into the building has caused a large amount of damage and deterioration to the seating bowl, the steel and concrete structural frame, and enclosed spaces throughout the building."

* See Sections 1.10 & 1.30 of this report for current conditions.

"HOK Sport 1996 Report - Page B.30"

"The majority of the existing mechanical and electrical equipment...would cost more to renovate and place in good working condition than it would cost to replace with new..."

The aforementioned excerpts from the 1996 report clearly do not summarize all of the conditions currently present at McCoy Stadium; however, they do lay the groundwork for a precedent that lends itself to the age old adage that "history often repeats itself." As the reader reviews the Pendulum Design Team's on site observations, many parallels can be drawn to the 1996 summary of conditions. Renovations in 1999 introduced a new set of circumstances that have led to premature deterioration of the building envelope, primarily due to water infiltration at the construction joint between the old and renovated portions of the building. The structural systems evaluation in Section 1.10 describes in detail areas of concern that require immediate repair in an effort to preserve the building envelope and interior spaces from further deterioration.

In July of 2015 Populous performed a facility assessment of McCoy Stadium that briefly summarized existing conditions and physical deficiencies, however the bulk of the report focused on current market trends which were categorized and described with imagery as follows:

Activation Zones

- Walks of Fame (New York, NY)
- Kid's Area/Splash Pads (El Paso, TX)

Bar + Lounge

- Rooftop Seating (Fort Wayne, IN)
- Lounge Spaces (El Paso, TX)

Clubs

- Outdoor Club (Columbus, OH)
- Unique Clubs (El Paso, TX)

Intimate Seating

- Neighborhood Seating (El Paso, TX)
- Terraced Grass Seating (Ft Wayne, IN)

Patio + Decks

- Patio Decks (Ft. Wayne, IN)
- Patio/Picnic Seating (El Paso, TX)

Suites + Premium Seating

- Signature Seating (Red Sox Spring Training)
- Loge Box Seating (Waco, TX)

The balance of the Populous report was focused on the proposed redevelopment of the McCoy Stadium grounds with the intent of modernizing and incorporating current market trends across the board. The proposed redevelopment plans have been extracted from the report and are illustrated in the diagrams in Fig. 006 - 008. On page 005 we have also extracted select section sketches generated by Populous to provide a frame of reference that illustrates the magnitude of the proposed redevelopment. It is clear that existing parking as well as other aspects of the current grounds would be impacted dramatically if the Populous recommendations were to be executed.

The anticipated scope of the changes proposed by Populous was $51.9M to $65.8M (in 2015 dollars).

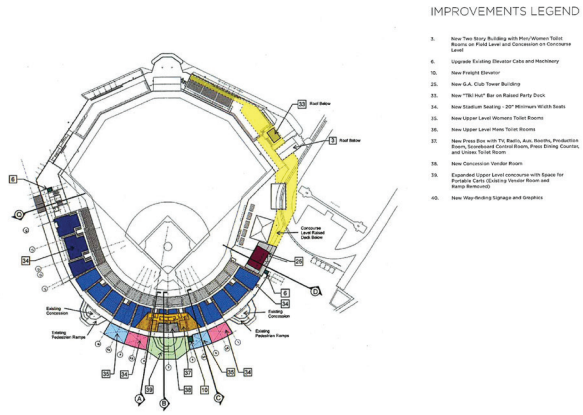

Fig. 006. Populous 2015 Report - Proposed Suite Level

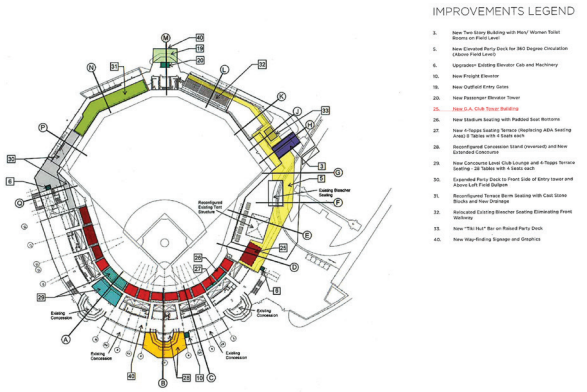

Fig. 007. Populous 2015 Report - Proposed Concourse Level

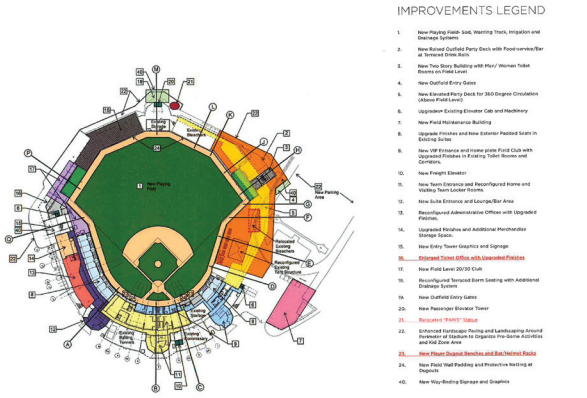

Fig. 008. Populous 2015 Report - Proposed Field Level

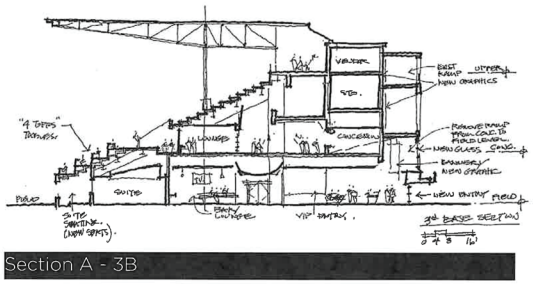

Fig. 011. Populous 2015 Report - Proposed Redevelopment Section

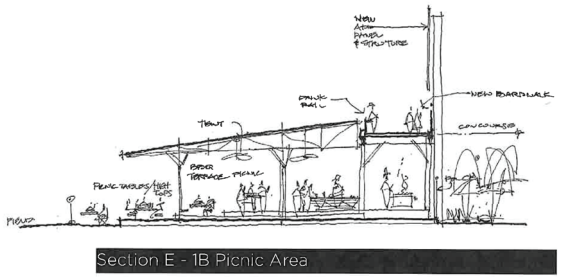

Fig. 014. Populous 2015 Report - Proposed Redevelopment Section

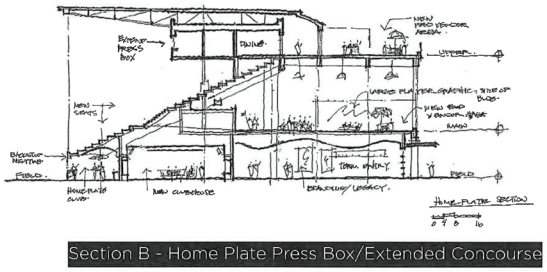

Fig. 010. Populous 2015 Report - Proposed Redevelopment Section

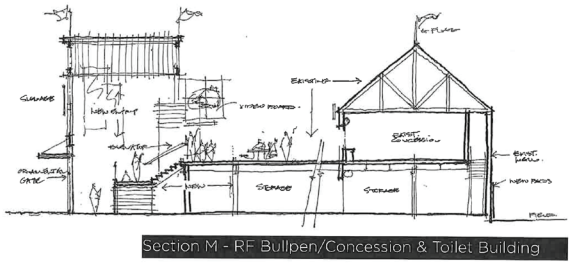

Fig. 013. Populous 2015 Report - Proposed Redevelopment Section

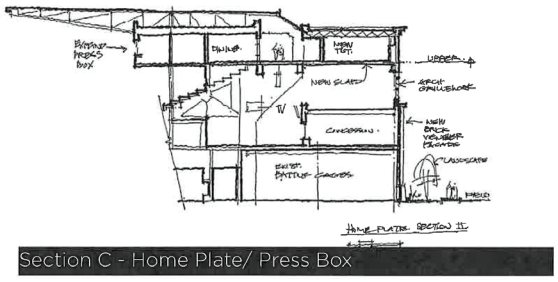

Fig. 009. Populous 2015 Report - Proposed Redevelopment Section

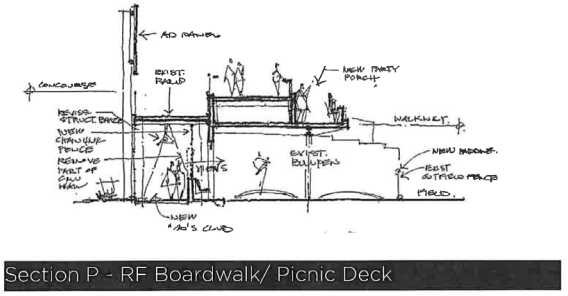

Fig. 012. Populous 2015 Report - Proposed Redevelopment Section

The Path Forward >

Part 01 of this report consists of a compilation of photographs, excerpts from existing technical drawings, and current field reports from Pendulum's team of experts during multiple visits to McCoy Stadium over the course of the study. The purpose of the visits was to analyze existing conditions and conduct interviews with the tenant (PawSox), and Owners (State of Rhode Island & the City of Pawtucket) to ascertain how the stadium currently functions (before, during, and after events), the status of perceived building deficiencies and their impact on daily operations, and the conditions of the overall structure and infrastructure with a goal of extending the stadium's useful life for the next twenty years.

This report will outline in a very comprehensive manner a scope of magnitude associated with curing any observed deficiencies to prevent further deterioration of the building while ensuring safe conditions for the tenant and patrons who visit the stadium. The aforementioned scope will be categorized and outlined in a reasonable anticipated cost range based on the information that our team has at its disposal (conditions visible to the eye) at this time which excludes altering or damaging current building assemblies or engaging in more in-depth exploration below the surface of in place materials.

Part 01 of this report excludes any modifications to the stadium that go beyond basic building needs to meet life-safety, Americans with Disability Act (ADA) requirements, basic building operations, and the minimum standards as outlined by the National Associations of Professional Baseball Leagues NAPBL 2005 recommendations - Appendix B.

Part 03 of this report addresses in great detail our recommendations to bring the facility in line with current marketable professional baseball facilities.

SECTION 1.00
Site Conditions

1.01A >
Traffic & Parking Overview

- Weekday games typically start at 7:00 PM, but next April and May the PawSox plan to try 6:00 PM weekday starts.
- Two driveways on South Bend Street **(A)** are closed with barricades during arrival time. The driveways are opened back up during the third or fourth inning so that they can be used by exiting vehicles.
- There is typically one police officer directing traffic at the Division Street/ Ashton Street driveway intersection **(B)**. For games with higher anticipated attendance, two additional officers direct traffic at Division Street, South Bend Street, and Ben Mondor Way **(C)**.
- Ben Mondor Way is used for VIP, Suite, and Bus Parking **(D)**.
- On-site stadium parking lots get filled first. Parking there is free. Four or five parking attendants direct traffic. The lot gets filled from west to east.
- Staff members park in the stadium lot.
- The portion of the lot east of the main parking entrance (next to the football field) gets used for BBQ's and fireworks setup - at which time the lot must be vacated of vehicles **(E)**.
- The games with fireworks have the highest attendance (typically 7,000 - 8,000 patrons).
- After the stadium parking lot is filled, vehicles are directed to the school parking lot at the corner of Division & Ashton Street. Parking here is free **(F)**.
- After the school lot is filled, the factory at Division and Delta Drive is used **(G)**; there is a charge to park in this lot. An attendant collects payment at the entrance. Stadium staff have a key to the gate. Drivers are instructed to not park in employee spaces.

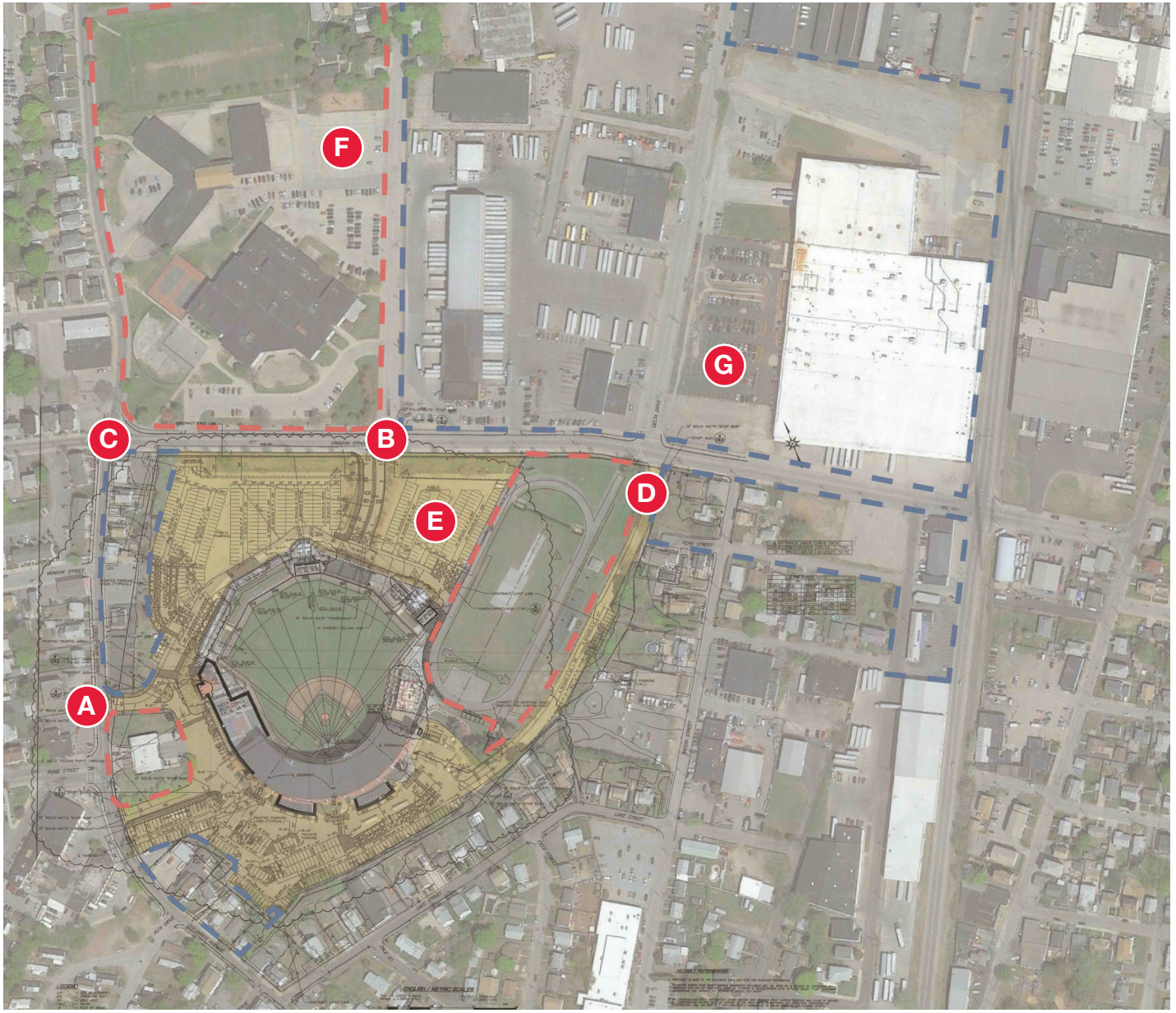

Fig. 015. Site Plan

- If the previous lot is filled, there is additional parking on George R. Bennet Memorial Drive **(H)**. There is a fee to park there.
- Tommy's (southwest corner of George R Bennet & Division Street) **(J)**, a lot on Bacon Street **(K)**, and a lot on Alfa Drive **(L)** offer private parking for a fee.
- On street parking is available for free on Ashton Street and Delta Drive **(M)**.
- The lot of the business on the north side of Division Street (between Ashton and Delta Drive) **(M)**, cannot be used for game day parking.
- Division Street can back up during high turnout games. For these games the staff line up traffic cones along the curb to prevent on street parking. **(N)**. Prior to game time they adjust the cones to facilitate two lanes. (Two lanes on Eastbound approach).
- The South Bend Street & Pond Street intersection **(O)** experiences some congestion during higher turnout games.
- Attendance was approximately 4,000 on the night the design team attended. Traffic was observed to be operating efficiently with minimal congestion.

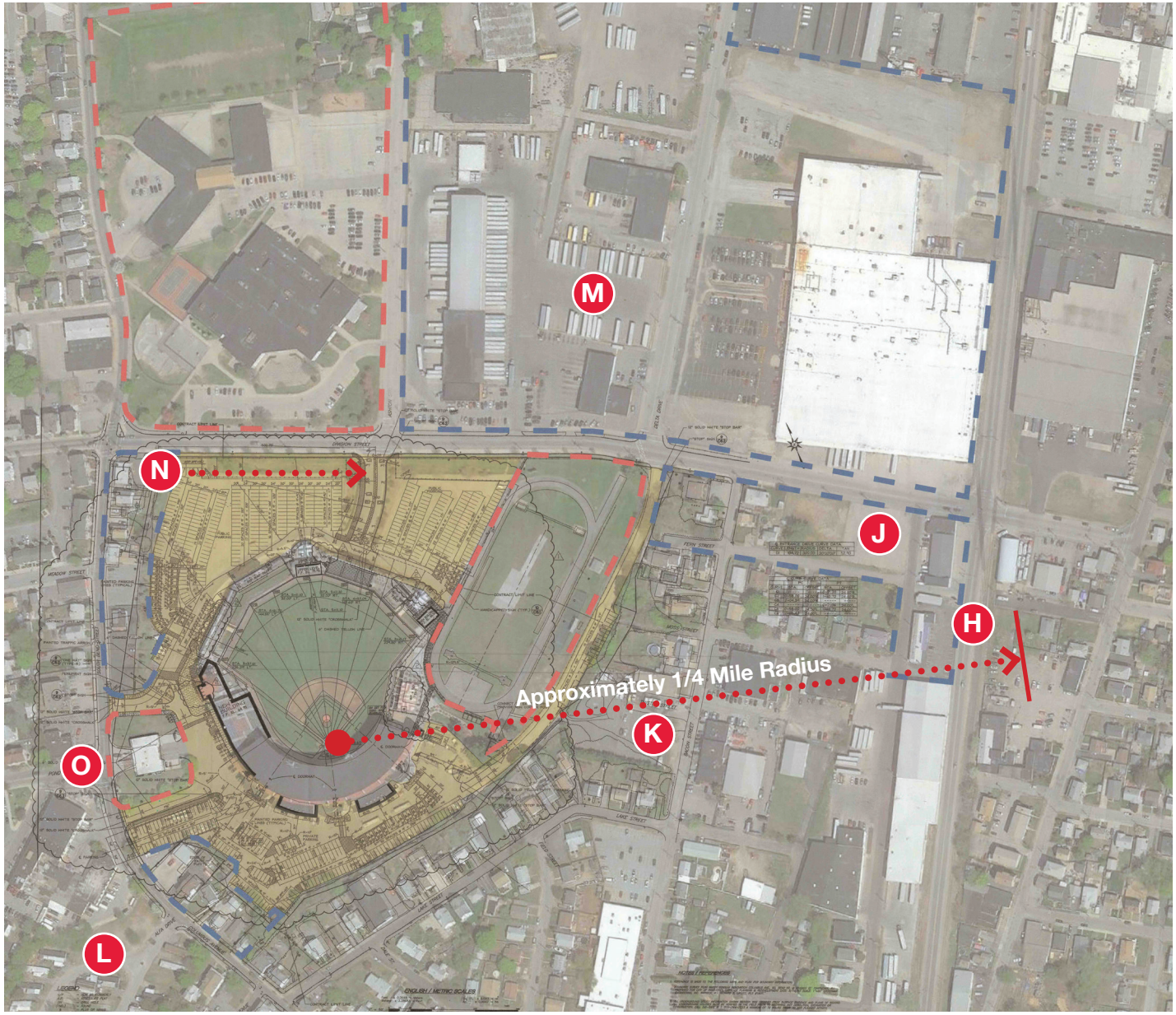

Fig. 016. Site Plan

1.01B > Traffic & Parking Assessment

>Site Access

Prior to games all vehicles accessing the McCoy Stadium site do so via the Division Street driveway. Ben Mondor Way is utilized by a limited number of fans including VIP attendees, suite ticket holders, private buses, and physically disabled patrons. Two additional driveways on South Bend Street are barricaded preventing entry, however the barricades are removed during the third or fourth inning and drivers are able to use these driveways to exit the site.

The stadium is located approximately one mile from I-95. Many fans traveling to the stadium on I-95 subsequently access the stadium via Division Street. Other key corridors for local traffic traveling to and from the stadium include South Bend Street, Columbus Avenue, and George Bennet Highway.

The stadium site is bounded by Division Street to the north, South Bend Street and Columbus Avenue to the west, housing to the south, and housing and a business to the east.

> Geometric Conditions & Traffic Control

Key intersections on access routes to the stadium are described below in terms of the geometric conditions and traffic control:

> George Street/I-95 South Exit Ramp/Cedar Street

George Street includes two northbound lanes and two southbound lanes. The I-95 Exit Ramp and Cedar Street are one-way westbound. The I-95 Exit Ramp approach to the intersection consists of three lanes including a channelized right turn lane. The intersection is traffic signal controlled.

> George Street/I95 North Entrance Ramp/Marin Street

The northbound approach consists of three lanes including a channelized right turn lane. The southbound approach includes two through lanes. The eastbound approach is one-way eastbound with three through lanes. The westbound approach includes a left turn lane and a right turn lane. The intersection is traffic signal controlled.

> Grace Street/Pleasant Street

The northbound and southbound Pleasant Street approaches each consist of a single lane. The eastbound Grace Street approach consists of two lanes including an exclusive left turn lane. The westbound approach contains a single lane. The intersection is traffic signal controlled.

> Division Street/Water Street

Water Street is one way southbound with two lanes. Division Street consists of two lanes including a channelized right turn lane on the eastbound approach and two lanes on the westbound approach. The intersection is traffic signal controlled.

> Division Street/School Street

School Street is one way southbound with two lanes. The eastbound and westbound approaches each include two lanes. The intersection is traffic signal controlled.

> Division Street/Prospect Street

Bowers Street is designated one way northbound with three lanes. The eastbound Division Street approach consists of two lanes including an exclusive left turn lane while the westbound approach includes two lanes with one being a channelized right turn. The intersection is traffic signal controlled.

> Division Street/Summit Street

The intersection consists of a single lane on all approaches and is traffic signal controlled.

> Division Street/South Bend Street

The intersection consists of a single lane on the northbound, southbound, and eastbound approaches. The westbound approach consists of two lanes including a channelized right turn lane. The intersection is traffic signal controlled however for high attendance games a police officer directs traffic at this location.

> Division Street/Ashton Street/ McCoy Stadium Driveway

All approaches consist of a single lane. However, for high attendance games traffic cones are used to create two eastbound travel lanes. The intersection is stop sign controlled on the northbound driveway approach and on the southbound Ashton Street approach. A police officer directs traffic at this intersection on all game days.

> Division Street/Ben Mondor Way/ Delta Drive

The intersection consists of a single lane on all approaches. The northbound Ben Mondor Way approach and the southbound Delta Drive approach are stop sign controlled.

> Division Street/George Bennett Highway

The intersection consists of a single lane on all approaches and is traffic signal controlled with a railroad crossing the eastern leg.

> Columbus Avenue/George Bennett Highway

The intersection consists of a single through lane on all approaches and is traffic signal controlled with a railroad crossing the eastern leg.

> George Bennet Highway/Armistice Boulevard

The northbound and southbound approaches on George Bennett Highway each consists of a single lane while the eastbound and westbound approaches on Armistice Boulevard consist of two lanes. The intersection is traffic signal controlled with a railroad crossing the eastern leg.

> Columbus Avenue/Pond Street

The intersection consists of a single lane on all approaches and is traffic signal controlled.

Fig. 017 Google Map of Area

> Capacity

Figure 017 shows a Google Maps representation of typical traffic on a weekday at the hour of 6:00 PM. The figure represents traffic on a non-game day and therefore only addresses background volumes. Segments shown in green indicate no delay. Those shown in orange experience a medium amount of traffic. Segments shown in red would be experiencing delay, although there are no such areas in the McCoy Stadium area at this time on a non-game day.

The orange areas, which experience moderate amounts of traffic, include the eastbound and southbound approaches to the Division Street and South Bend Street intersection as well as the northbound approach exiting the South Bend Street, Columbus Avenue, and Pond Street intersection. Additional data including at a minimum turning movement counts, signal plans, and signal timings would be required in order to conduct a more detailed capacity analysis.

Traffic conditions were observed during a game with typical attendance on Saturday, September 3rd, 2016 (traditionally Saturday games are well attended). Traffic on the roadways adjacent to the stadium was observed to be operating efficiently with minimal delay. PawSox staff report that for games with higher attendance (7,000 to 8,000 fans) delay has been observed on the eastbound Division Street approach to the entrance as well as at the intersection of South Bend Street, Columbus Avenue, and Pond Street.

> Public Transit

The Rhode Island Public Transit Authority (RIPTA) provides bus service for fans making use of public transit. Stops within a short walking distance of the stadium include the Armistice Boulevard Line's stop at the intersection of George Bennett Highway/Columbus Avenue and the Central Avenue Line's stops at the intersections of George Bennett Highway/Armistice Boulevard and Summit Street/Pond Street.

> Parking

On-site parking currently consists of a larger parking area located to the north of the stadium utilized by general ticket holders and staff and a smaller parking area located to the south of the stadium designated for VIP attendees, suite ticket holders, private buses, and physically disabled attendees. The special use patrons access the southern on-site parking area on Ben Mondor Way via Division Street. A PawSox employee stationed at the intersection of Ben Mondor Way and Division Street checks the credentials of all fans wishing to park in this area. The southern parking area contains approximately 250 parking spaces.

The northern parking area is accessed by fans via a driveway off of Division Street across from Ashton Street. Typically, four to five flaggers direct fans to open parking space. This parking area is also utilized for barsbecues and for setting up games that fireworks are utilized. Once all of the approximately 500 parking spaces in this area are filled, arriving fans are directed to one of several off-site parking lots.

The first off-site lot to be utilized is the Joseph Jenks Middle School parking lot. The lot contains approximately 200 parking spaces which are typically available for PawSox use weekday evenings and on weekends. The Jenks Middle School parking lot is accessed by fans via Ashton Street.

Once the school parking lot is filled, fans are directed to a second off-site parking lot located at 60 Delta Drive. The parking lot is owned by Delta Holdings LLC and utilized by Packaging Graphics LLC and VPI Logistics. There is no long-term agreement ensuring the lot will continue to be available.

An attendant collects the two dollar charge required for fans to park in this lot. There are approximately 500 spaces in this lot although a portion of them are reserved for Packaging Graphics LLC and VPI Logistics employees.

If the 60 Delta Drive parking lot is filled fans are then directed to park at the Ecological Fiber parking lot located off of York Avenue. The lot, owned by York Realty Corp., is located off of York Avenue, and provides approximately 50 additional spaces. There is a fee to park in this lot.

In addition to the lots described above several much smaller establishments offer paid private parking independent of the PawSox organization. This includes facilities on India Street, Bacon Street, and Alpha Drive. On street parking is also available on nearby streets including Ashton Street and Delta Drive.

> Pedestrian Facilities

Most game day pedestrian activity occurs in the area north of the stadium as fans parking in one of the several overflow lots access the stadium. Sidewalks on the south side of Division Street are in good condition with recently installed concrete, brick pavers, and ADA compliant ramps. However sidewalks on the north side of Division Street, on Ashton Street, and on Delta Drive are in need of improvement as evidenced by numerous fractures, damaged curbing, and lack of ramps.

1.02 >
Civil Engineering & Landscape Architecture

> Storm Drainage:
McCoy Stadium is located in a "bowl", with the adjacent streets and properties at a higher elevation draining into the site. There is an existing grass swale that runs easterly along the north side of the property along Division Street. The swale discharges into a system of catch basins/ yard drains. *(Fig. 018)*. This system appears to be operating sufficiently (although not observed during a rain event).

The existing storm drainage collections system in the parking areas has not been maintained. The basins were full of sediment and debris when observed. The structures are in disrepair and failing *(Fig. 019)*. There are areas of puddling in the unpaved sections of the parking area that create ongoing issues with pedestrian and vehicular traffic *(Fig. 020)*.

>> Recommendations:
- Conduct a thorough inspection of the drainage system.
- Collect background data and mapping of the existing system, including the City's culvert.
- Conduct a subsurface soils investigation (test pits, borings, etc.) including soil permeability tests to determine the potential for subsurface infiltration of storm drainage runoff.
- Prepare geotechnical report outlining proposed pavement sections.
- Perform field survey of the existing site, including the storm drainage system upstream and downstream of the site.
- Perform drainage analysis of the site and field drainage systems.
- Prepare a report of the system deficiencies in the existing system based upon the collected data and make recommendations for repair options.

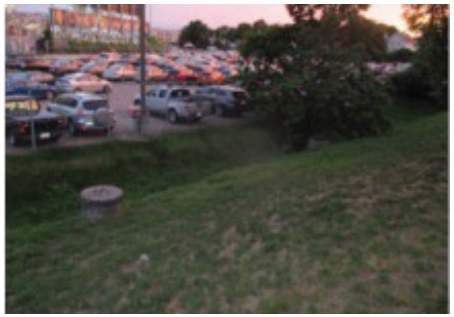

Fig. 018. Sample Catch Basin/Yard Drains

Fig. 019. Sample Deteriorating Basin

Fig. 020. Example of Ponding Water

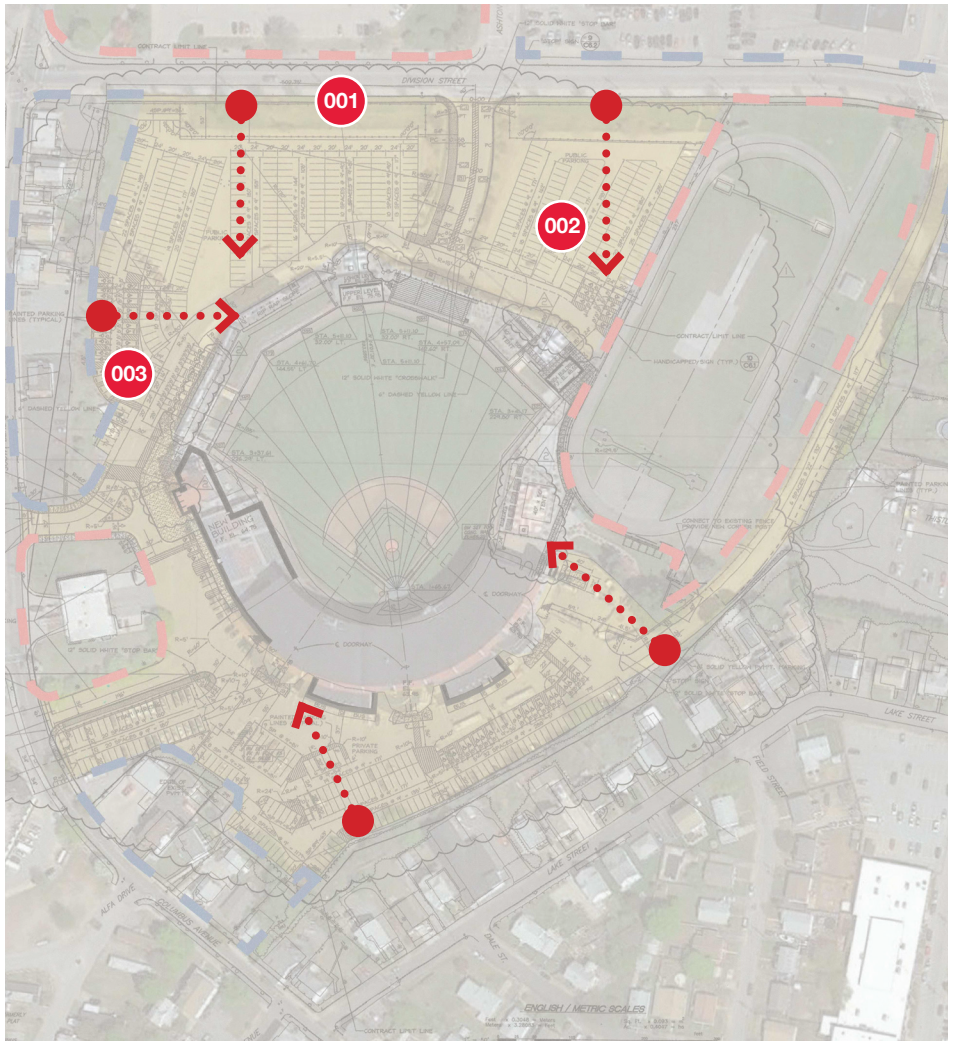

Fig. 021. Enlarged Site Plan: Red arrows indicate direction of sloped drainage

> Pavement:

The existing pavement on site is in fair to good condition. There are areas of significant cracking *(Fig. 022)*. However, large scale pavement failures were not observed.

The parking area at the northwest and northeast corners of the site are not paved. They are graded poorly and have inadequate drainage, causing large puddles that last a significant amount of time due to the soil being overly compacted. Also, due to the lack of pavement, any pavement markings are quickly eradicated. This causes the need for facility staff to direct the parking of vehicles during games in order to maintain aisles for the safe maneuvering of vehicles and pedestrian travel *(Fig. 023)*.

The surrounding roadway pavements are also in fairly good condition.

>> Recommendations:

- Conduct a subsurface soils investigation (test pits, borings, etc.) to evaluate the existing pavement structural and base soils.
- The investigation should also include soil permeability tests to determine the potential for subsurface infiltration of storm drainage.
- Prepare geotechnical report outlining proposed pavement sections.

> Sidewalks/Pedestrian Access:

The concrete sidewalks immediately adjacent to the stadium appear to have been recently repaired/replaced and are in good condition *(Fig. 024)*. The concrete walks entering the site from Columbus Avenue also appear to be in good condition. However, the bituminous sidewalks accessing the site from Division Street are in very poor condition. In consideration of the fact that Division Street acts as the main pedestrian way, the aforementioned poor conditions presents operational issues and potential safety hazards to the operator and stadium owner.

The site should be reviewed for conformance with ADA requirements. It was observed that many of the ramps and walkways do not meet the current ADA guidelines, in terms of grading, width of travel way, etc. Crosswalks and other striping and signage are required for the safe passage of pedestrians throughout the site. *(Fig. 025 & Fig. 026)*.

The sidewalks on the south side of Division Street and along Columbus Avenue are in good condition overall. However, it should be noted that the sidewalks on the north side of Division Street are in very poor condition. Since the majority of the available off street parking for patrons accessing the stadium site are located north of Division Street, the lack of sidewalks presents additional concerns from an operations and patron safety perspective.

>> Recommendations:

- Conduct a thorough review of sidewalks and pedestrian travel paths.
- Review site survey with an emphasis on pedestrian access and ADA compliance.

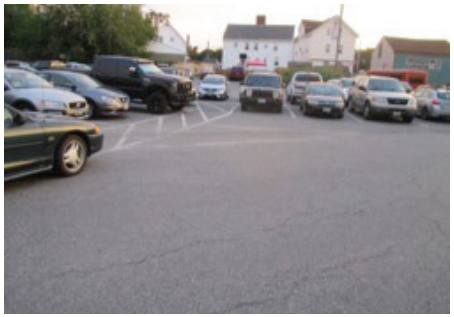

Fig 022. Example of Typical Pavement Cracking

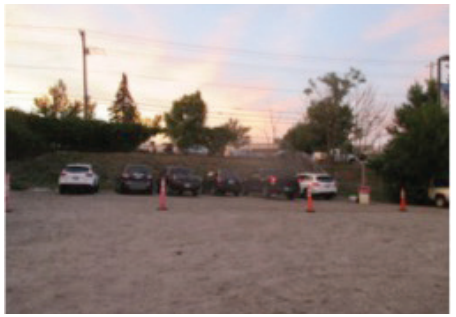

Fig 023. Example of Non-Paved Parking

Fig 024. Fairly Recent Concrete Sidewalk/Paving

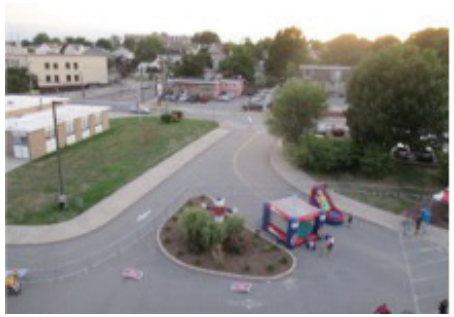

Fig 025. Example of Missing Signage

Fig 026. Example of Missing/Deteriorated Striping

Fig 027. Example of Pavement Differential Settlement

1.03 >
Site Conditions Anticipated Costs

The anticipated costs outlined below align with the descriptions of existing conditions mentioned in Sections 1.01 & 1.02. This scope of work includes repair and/or replacement of existing conditions in an effort to prolong the useful life of the facility by twenty years.

ITEM	Units	Estimated Quantity	Unit Cost	Total Cost
Excavation, Grading & Backfill				
Unclassified Excavation	CY	5,000	$ 20.00	$ 100,000.00
Borrow	CY	1,000	$ 13.00	$ 13,000.00
Total Excavation, Grading & Backfill				**$ 113,000.00**
Drainage & Utilities				
15" RCP	LF	1,200	$ 75.00	$ 90,000.00
18" RCP	LF	600	$ 100.00	$ 60,000.00
6" Roof Leaders	LF	2,500	$ 50.00	$ 125,000.00
12" PVC	LF	3,000	$ 60.00	$ 180,000.00
Manholes	EA	4	$ 5,000.00	$ 20,000.00
Catch Basins	EA	60	$ 3,500.00	$ 210,000.00
Stadium Flooding Repair	LS	1	$ 1,750,000.00	$ 1,750,000.00
Subsurface Infiltration Units	SF	25,000	$ 8.00	$ 200,000.00
Water Quality Treatment	LS	1	$ 100,000.00	$ 100,000.00
Misc. Utilities	LS	1	$ 100,000.00	$ 100,000.00
Total Drainage & Utilities				**$ 2,835,000.00**
Relocate 30" Combined Sewer				
30" RCP	LS	680	$ 125.00	$ 85,000.00
Manholes	EA	4	$ 5,000.00	$ 20,000.00
Total Relocate Combined Sewer				**$ 105,000.00**
Roads & Walks				
Main Parking Lot - Full Depth Pavement	SY	9,400	$ 47.75	$ 448,850.00
Overflow Parking - Full Depth Pavement	SY	4,900	$ 47.75	$ 233,975.00
New Parking - Field - Full Depth Pavement	SY	17,500	$ 47.75	$ 835,625.00
Existing Pavement				
Full Depth Reconstruction	SY	21,000	$ 47.75	$ 1,002,750.00
Pavement Markings (stalls, crosswalks, etc.)	LS	1	$ 15,000.00	$ 15,000.00
Concrete Sidewalk - On-Site	SF	22,500	$ 12.00	$ 270,000.00
Concrete Sidewalk - Exterior Roads	SF	15,500	$ 12.00	$ 186,000.00
Concrete Sidewalk Ramp - On-Site	SF	960	$ 20.00	$ 19,200.00
Concrete Sidewalk Ramp - Exterior Roads	SF	350	$ 20.00	$ 7,000.00
Staight Granite Curb - On-Site	LF	7,500	$ 50.00	$ 375,000.00
Staight Granite Curb - Exterior Roads	LF	3,100	$ 50.00	$ 155,000.00
Radius Granite Curb - On-Site	LF	1,000	$ 65.00	$ 65,000.00
Radius Granite Curb - Exterior Roads	LF	120	$ 65.00	$ 7,800.00
Reconstruct Roadway at Curb	LF	3,100	$ 25.00	$ 77,500.00
Total Roads & Walks				**$ 3,698,700.00**

ITEM	Units	Estimated Quantity	Unit Cost	Total Cost
Sitework				
Mobilization	LS	1	$ 25,000.00	$ 25,000.00
Clearing & Grubbing	LS	1	$ 25,000.00	$ 25,000.00
Site Preparation and Demolition	LS	1	$ 100,000.00	$ 100,000.00
Construction Staking	LS	1	$ 30,000.00	$ 30,000.00
Fencing - Chainlink	LF	3,200	$ 25.00	$ 80,000.00
Fencing - Wrought Iron Picket	LF	1,500	$ 50.00	$ 75,000.00
Grading	SY	5,000	$ 2.00	$ 10,000.00
Topsoil & Seeding	SF	100000	$ 0.45	$ 45,000.00
Total Sitework				**$ 390,000.00**
Traffic & Signage - Roadway				
M & P Traffic	LS	1	$ 35,000.00	$ 35,000.00
Police Officer Present	LS	1	$ 50,000.00	$ 50,000.00
Pavement Markings (lanes, crosswalks)	LS	1	$ 8,000.00	$ 8,000.00
Way-Finding Signs	LS	1	$ 15,000.00	$ 15,000.00
Total Traffic & Signage				**$ 108,000.00**
Site Improvements (landscaping, lighting, branding features) By Area				
West Side Entry	LS	1	$ 8,000.00	$ 8,000.00
North Side Entry	LS	1	$ 5,000.00	$ 5,000.00
Secondary Pedestrian Access	LS	1	$ 2,500.00	$ 2,500.00
Landscaping in North Parking Lot	LS	1	$ 2,000.00	$ 2,000.00
Landscaping in South Parking Lot	LS	1	$ 2,000.00	$ 2,000.00
Total Site Improvements				**$ 19,500.00**
Contingency	LS	1	$ 200,000.00	$ 200,000.00
Sub-Total				**$ 200,000.00**
Total Estimated Cost				**$ 7,469,200.00**

DISCLAIMER - All budget numbers included in this cost model are preliminary in nature. Additional testing, study, survey and documentation are required prior to establishing a final cost opinion. Pendulum and its counterparts shall be held harmless for ANY variations in cost included in this documents. A complete set of engineered documents must be completed accompanied by bidding documents by a licensed contractor.

* See Appendix A for list of common abbreviations

BETA
ENGINEERING SUCCESS TOGETHER

SECTION 1.10
Structural System

1.11 >
Current Structural Conditions

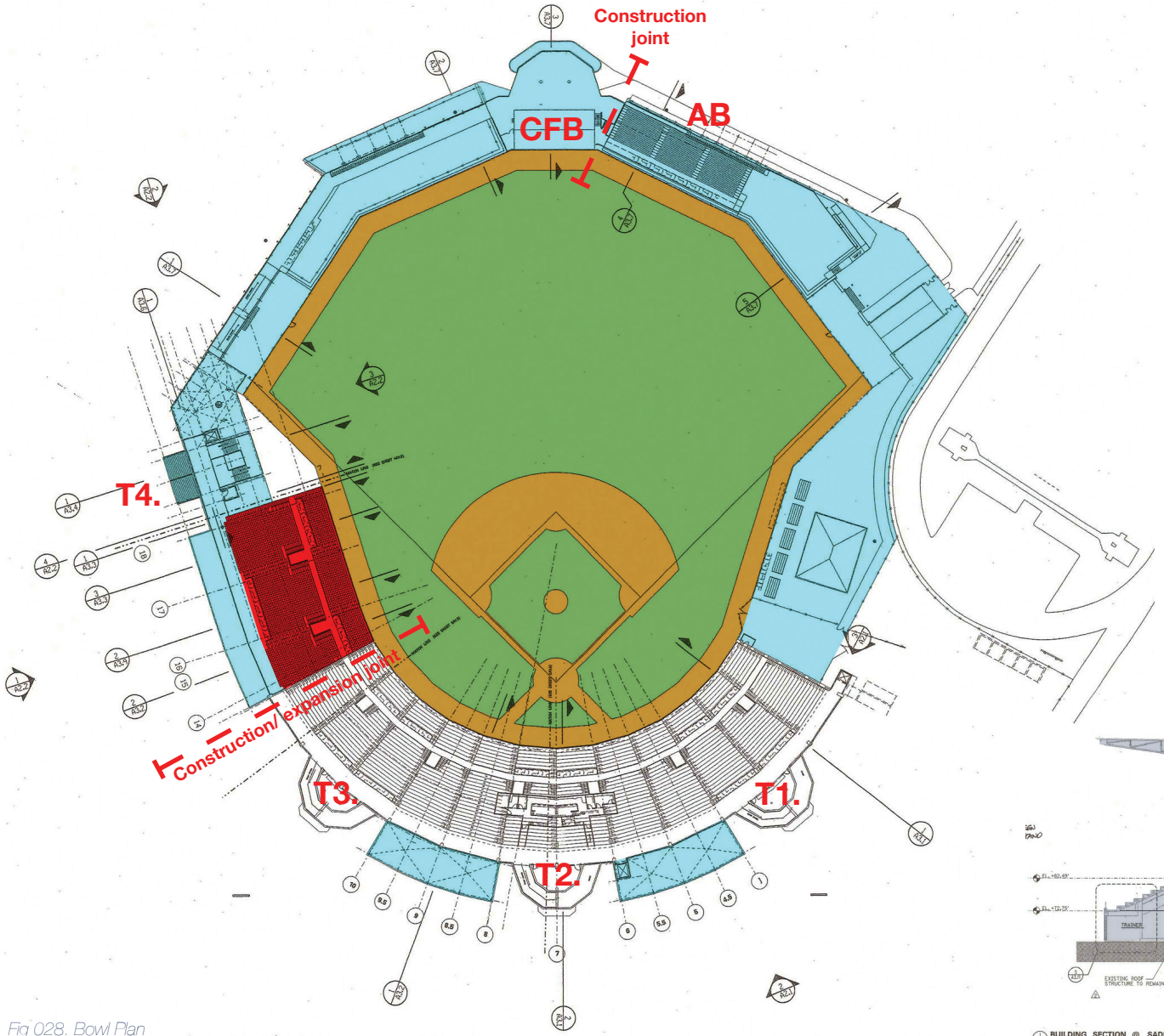

Fig 028. Bowl Plan

Basic Parameters >>

The original structural system of McCoy Stadium consists of concrete columns bearing on pile caps, a combination of concrete raker beams and steel trusses supporting the main seating bowl behind home plate, and a steel truss supporting a tongue and groove wood roof (see Fig. 029 section cut - shaded area designated 1942).

In 1999, a separate structure behind home plate was added that consists primarily of a load bearing masonry exterior facade and an elevated slab supported by steel beams, columns, and spread footings. The upper TPO roof over the new outboard concessions stands are supported by steel bar joists - (see Fig. 029 section cut - red lined area designated 1999).

The original concrete ramp towers (T1, T2, & T3) were deemed non-compliant with code regulations for ingress during public events so new steel pan stairs were added at the exterior first and third base lines to accommodate pedestrian ingress and egress.

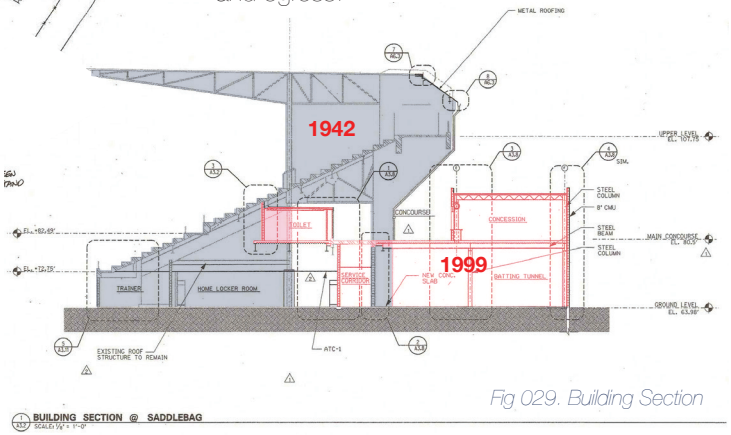

Fig 029. Building Section

Fig 030. McCoy Main Entry

Tower 4 (T4) was added in the 1999 renovation and is currently used as the primary entry point for patrons entering and exiting the stadium. The structural system consists of steel columns and horizontal beams with a gable roof structure framing the main entry portal.

As you travel down the left field line approaching center-field, there are a number of grade changes that are constructed primarily of slab on grade flat-work. The center field building (CFB) that was added in the 1999 renovation is constructed of load bearing masonry supported by steel frame and spread footings. The roof of the center field structure consists of bar joists and composition shingle roofing material.

The aluminum bleacher system (AB) located at right-center (RC) consists of a prefabricated structural system down to the foundations which are typically concrete piers. Due to an approximate 5'-0" grade change at this location the construction joint between the structured slab and the aluminum systems exhibit significant signs of damage/deterioration due to corrosion caused by exposure to standing water *(Fig. 031)*.

The uneven and deteriorated pavement at this location is not in compliance with local code that calls for no more than 1/2" differential between adjacent surfaces on an accessible and/or pedestrian route. As can be noted from in the picture taken during our investigation *(Fig. 033)*, there have been attempts to patch this area, however the damage caused by corrosion associated with recurring water infiltration at this location has resulted in a tripping hazard for patrons who visit the stadium and employees who work there. More investigation is needed to determine the source of the problem; however, based on the information we have now, we conclude that the installation of an area drain at this location that discharges to the storm drainage system coupled with the replacement of the damaged slab with a new concrete surface with positive drainage will be helpful. While the structural steel that supports the concrete slab is exposed, investigation into the presence of additional rust and corrosion should be carefully considered to determine if the structural integrity of the overall assembly has been compromised.

There are numerous examples along the pedestrian route within the secure line of the stadium where uneven pavement presents a tripping hazard to patrons and a threat of liability issues to the tenant and owner *(Fig. 032, Fig. 033)*. The overarching structural concern we have on all counts is the presence of water that may be at the root of the cause of settlement.

Fig. 031. Bleacher Construction Joint

Fig 032. Uneven Pavement Exceeding 1/2"

Fig 033. Uneven Pavement Exceeding 1/2"

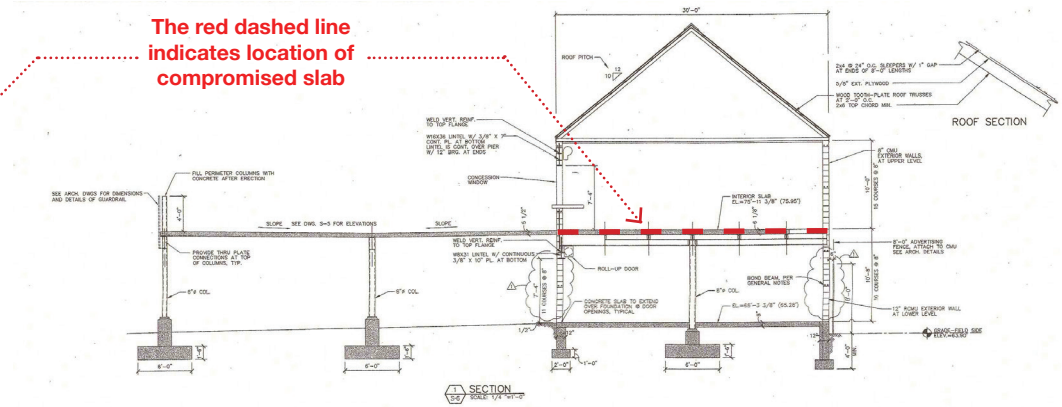

Fig 034. Outfield Building Section

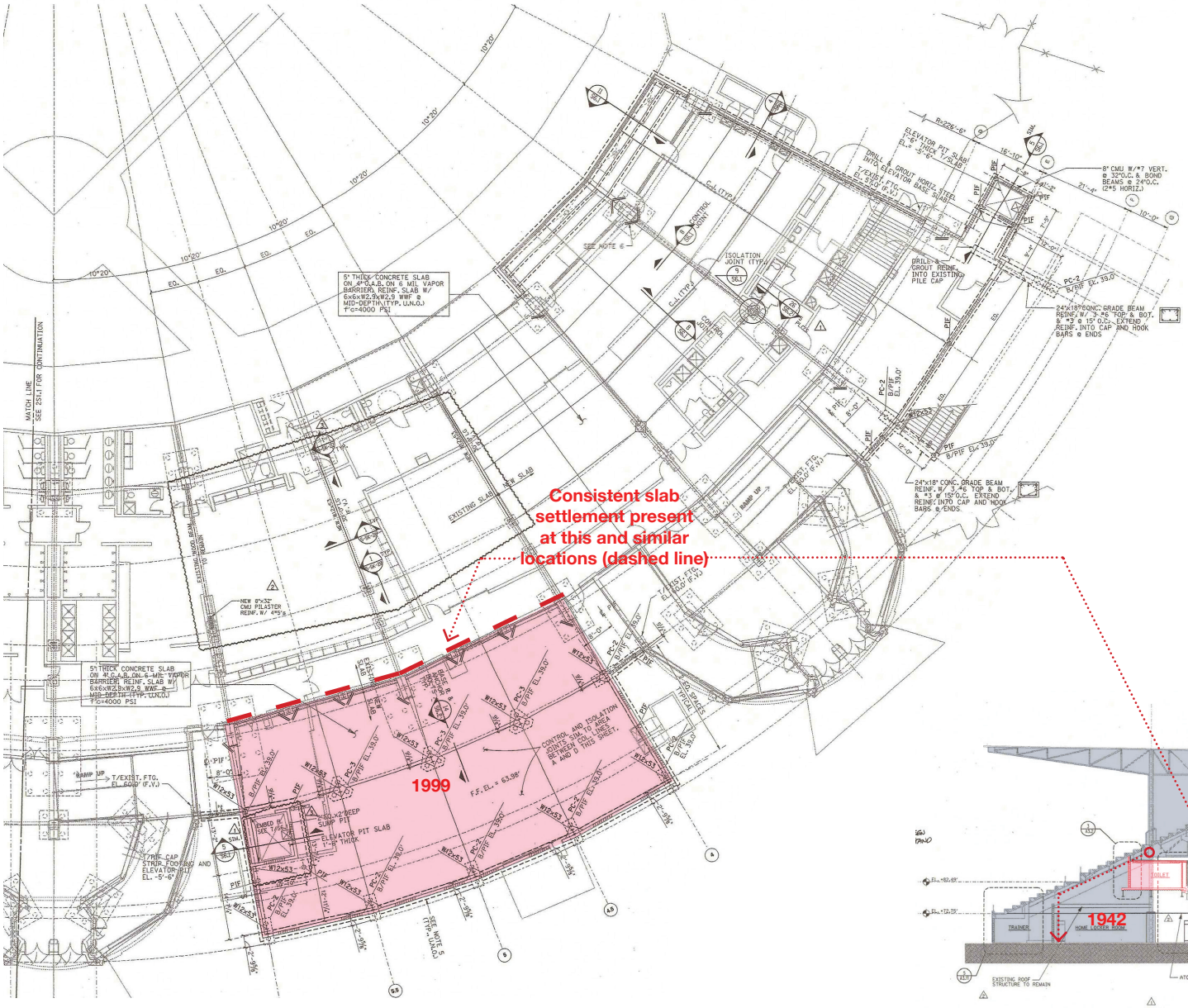

Fig 035. McCoy Grade Level Plan

1942/1999 Transition >>

Water infiltration through cracks in concrete slabs and vertical construction joints will be a consistent theme throughout this report, and was a prevalent theme mentioned in the 1996 HOK Sport report for very similar reasons. Based on what we were able to observe during our on-site investigations, the collision or "construction joint" between the original 1942 structure and the 1999 renovation is one of the major areas for water infiltration. We've noted conditions as illustrated by the plan diagram on the left where water has traveled down the structure and perhaps pooled below the slab on grade resulting in differential settlement on either side of a wall (see section cut - yellow vertical dashed line).

We also see evidence of the condition on the concrete slab above where the horizontal joint has been treated with an elastomeric coating; however, the presence of standing water at this and similar conditions *(see Fig. 037)*, make this condition very difficult to control.

There is evidence of shifts/movement in the load bearing portions of the structure,

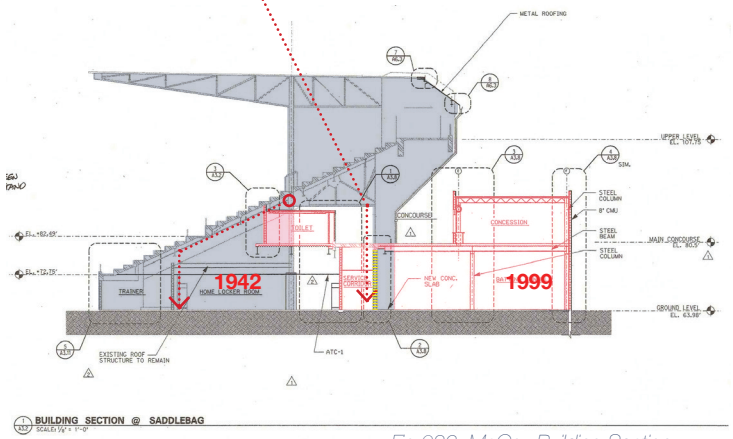

Fig 036. McCoy Building Section

Note stained ceiling tile indicating presence of water at this location

Fig 037. Sample Construction Joint

Fig 038. Example Of CMU Wall Movement

Fig 039. CMU Wall Shifted Out Of Plumb

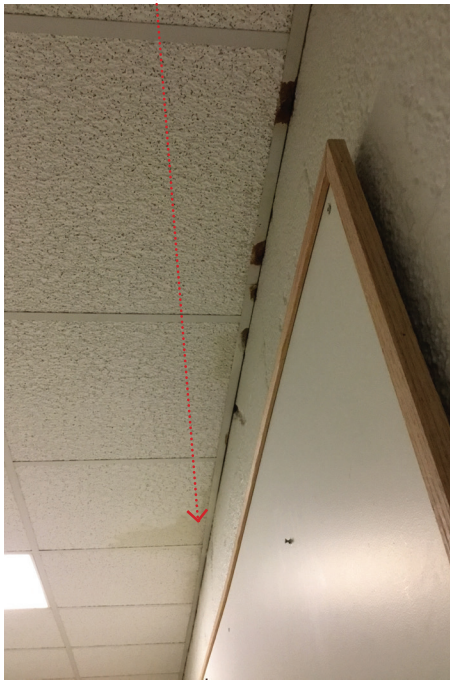

Fig 040. Rusted ACT - Signs Of Water Infiltration

specifically at the new concrete masonry unit (CMU) party wall that transitions the 1942 building to the 1999 building *(Fig. 038, Fig. 040)*. As noted by the red arrow in the corridor wall with major shifts and cracks in it *(Fig. 039)*, we observed a significant dip in the concrete slab. This leads us to believe that there is either water accumulating beneath the slab thus compromising sub-grade bearing capacity of the soil and/or the compaction of the soils at this location never reached the appropriate levels to withstand the load of the 1999 new walls. The structural document in Fig. 035 suggests that grade beams were not called for or constructed at this and other similar locations.

The building section shown in Fig. 041 illustrates an example of a potential weak point in the 1999 structure. The transition between the interior and exterior slab assembly, the CMU wall bearing above a cast in place beam, combined with the lack of positive drainage of the exterior slab seem to be allowing water infiltration down the CMU wall at the playing field level resulting in the conditions we see illustrated in the photographs above *(Fig. 038, Fig. 039, Fig. 040)*. The building section suggests that a topping slab sloped to drain was scheduled at this location. Further exploratory investigation is required to confirm the existence of a fluid applied membrane. If one exists, the fix could be as simple as repairing the membrane where the slab meets

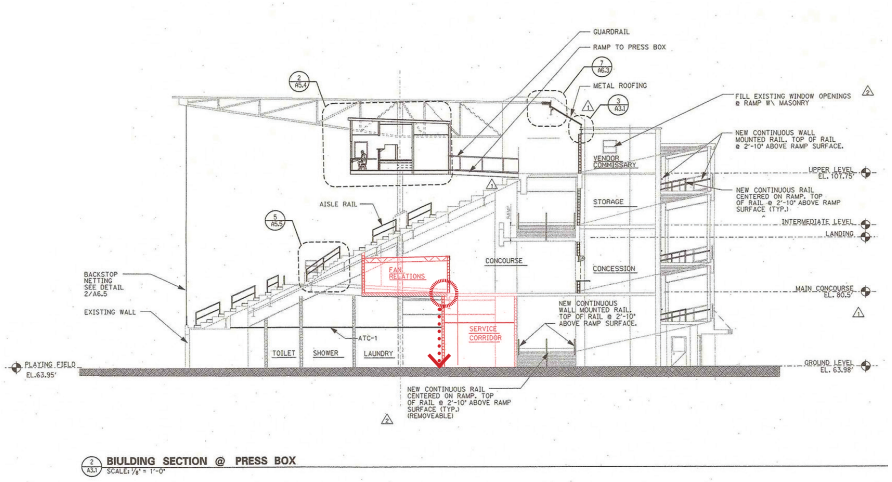

Fig 041. McCoy Building Section

the load bearing wall. If a fluid applied or rubber membrane was not applied beneath the topping slab we recommend a complete demolition of the topping material and the installation of a continuous self healing-fluid applied membrane and a new concrete topping slab sloped to drain with a continuous elastomeric coating. Although this may seem like a "belt-and-suspenders" approach, it is the only way to increase the probability of avoiding future water infiltration into finished spaces below.

It is clear from our investigations that the 1942 structure seems to be shifting/moving at a different rate than the elements added in the 1999 renovation. The images on the right *(Fig. 042, 043)* are examples of conditions observed in numerous locations beneath the 1999 seating bowl. Shims that are typically used to level the precast seating sections have started to involuntarily work their way from the space between the structural steel frame and the precast concrete seating. Sizable chunks of precast concrete are also falling to the concourse in a number of areas where once again it seems that corrosion due to water infiltration has deteriorated portions of the structure. This condition is of immediate concern because it presents a safety hazard to patrons visiting the stadium. If a chunk of spalled concrete were to break loose and strike a patron on the head (similar to the case in Chicago at Wrigley Field), there could be significant liability issues facing the owner of the stadium. Fig. 044 illustrates the typical location we encountered spalling concrete in the 1999 portion of the renovated stadium. One can conclude from the typical location of the damage at the intersection of slab and beam at the top of the bowl that positive drainage is not being achieved at this location and therefore the steel frame is deteriorating from corrosion.

We observed evidence of corrosion in numerous locations throughout the stadium, which leads us to believe that water infiltration is the number one priority for slowing down the aging process of the building as it relates to useful life over the next twenty years. The areas of immediate concern as it relates to life-safety are items that if allowed to further deteriorate could fail in time. *Fig. 045 and 046* illustrate load bearing conditions where structural failure could result in loss of life. These and like conditions should be given immediate attention.

The ADA platform shown in *Fig. 047* illustrates a typical area that has been subject to standing water due to lack of positive drainage. Water seems to have worked its way through the grouted cavity of the cored rail support and weakened the load bearing CMU wall at the face of the assembly. This and like conditions are a concern and should be checked for compliance with the code required 200 lbs. of force resistance at the guardrail condition. Although it may meet this requirement now, continued exposure to water infiltration and corrosion will cause an unsafe condition for patrons that visit the stadium in the future.

Fig. 048 will be discussed in greater detail in Section 1.33, but it is important to keep in mind that exposed and rusting rebar currently present in the seating bowl could also provide water infiltration into the structural slab and weakening of the overall structural system.

Shifts in the structural frame has caused precast shims to fall to the ground involuntarily - this is an example of a shim working its way out

Fig 042. Example Of Shifting Structure

Fig 043. Example of Spalled Concrete

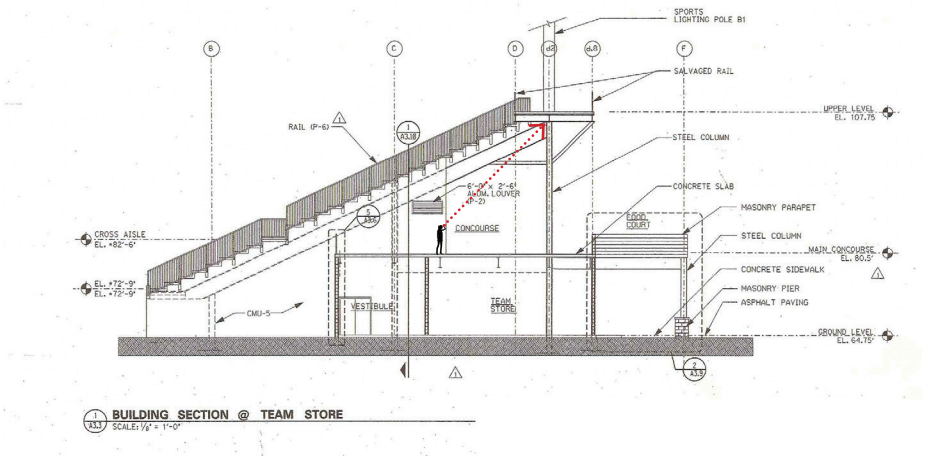

Fig 044. McCoy Building Section

Fig. 045. Tower Ramps - Steel Beam Corrosion

Fig. 046. Failing Lintel Support

Corrosion/rust most likely caused by improperly grouted railing, allowing water infiltration and damage to load bearing structure below

Fig. 047. Corrosion Due To Water Infiltration

Fig. 049. Shims Involuntarily Moving

Fig. 048. Exposed Rebar - Rust/Corrosion

Fig. 050. Shims Involuntarily Moving

Fig. 051. Cracking & Exposed Rebar With Rust

1.12 >
Structural System Anticipated Costs

The anticipated costs outlined below align with the descriptions of existing conditions mentioned in Section 1.11. This scope of work includes repair and/or replacement of existing conditions with in an effort to prolong the useful life of the facility by twenty years.

1.12 Structural Systems

No.	Item	Unit	Qty	Cost	Total Cost
1.12A	Steel Corrosion Repair	TON	692	$630.00	$435,960.00
1.12B	Steel Prime & Paint (TNEMEC)	TON	692	$450.00	$311,400.00
1.12C	Repair Precast Bearing - Replace Shims	LS	10,060	$2.50	$25,150.00
1.12D	Replace Seating Bowl Railings	LF	3,720	$110.00	$409,200.00
1.12E	Frame Reinforcement - Shifting Structures	TON	25	$2,800.00	$70,000.00
1.12F	Concrete Bowl Patch & Repair	GSF	40,876	$4.50	$183,942.00
1.12G	CMU ADA Seating Reconstruction	EA	8	$5,000.00	$40,000.00
1.12H	Main Concourse Slab Demo & Reconstruction	GSF	24,890	$18.00	$448,020.00
1.12J	Outfield Concourse Slab Reconstruction	GSF	6,953	$8.50	$59,100.50
1.12K	Interior Slab Reinforcement & Repair	GSF	4,177	$15.00	$62,655.00
1.12L	Roof Decking Demo & Replace	GSF	40,000	$7.50	$300,000.00
1.12M	Retaining Wall Repair - Outfield	GSF	4,050	$5.00	$20,250.00
1.12O	New RF VIP Structure	TON	40	$2,800.00	$112,000.00
1.12P	Misc. Steel Framing @ Naming Rights Signs	EA	8	$5,000.00	$40,000.00
1.12Q	New Outfield Entry Pavilion	TON	10	$2,800.00	$28,000.00
	Sub-Total				$2,545,677.50
	Contingency	15%			$381,851.63
	Total				**$2,927,529.13**

* See Appendix A for list of common abbreviations

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SECTION 1.20
Mechanical, Electrical, Plumbing & Technology

1.21 > Mechanical, Electrical, Plumbing & Technology

Facility Overview >>

Overall, the condition of the HVAC, Plumbing, Electrical, Fire Alarm, and Fire Protection systems are proportional to their age. There is some apparent deterioration due to widespread unmitigated moisture conditions across all building systems. The majority of this equipment has reached or passed both its design and useful life. Operation of this equipment long-term will continue to increase in inefficiency, cost, and needed repairs.

Beyond physical condition, there are several instances of deficient installation, proximities of exhaust to the building, lack of proper equipment protection, and other less than ideal features around the facility. These conditions will be addressed briefly under each specific section in this narrative.

General items of note were a tendency to have high humidity levels, especially in the field-level spaces in summer, water leakage at building expansion joints, and resultant damage to ceiling tiles, walls, and finishes. Depending on severity, this humidity will have an adverse effect on any building services including electrical or electronic devices, ductwork, piping, and insulation where direct moisture would form and/or be in contact with these systems. Several areas of corrosion on mechanical and electrical systems were visible. We do note that while HVAC systems can remove moisture and maintain reasonable humidity conditions, correcting levels of gross moisture intrusion is essential by eliminating or minimizing the source(s) of the moisture. An HVAC system is limited in this regard. Repairs to structural systems (i.e. roof, expansion joints, etc.) are required.

Fig. 052. Exterior Package Unit

HVAC Systems >>

The majority of the McCoy Stadium HVAC needs are provided by packaged electric-cooling/gas-fired heating units distributed in multiple locations around the facility. One unit is on the roof serving the Press Box. The remainder of the units are installed around the building's perimeter, both singly and in clusters, on on-grade concrete pads near the gate piers and adjacent to the playing field surface. The age of major equipment (air handling units, boiler and condensing units) range from 1998 to 2011, so between 5 and 18 years old. The largest group of equipment dates predominantly between 1998 and 1999.

The natural gas supply to the mechanical equipment is at an undetermined elevated pressure. This is evidenced by the relatively small pipe sizes and pressure-reducing regulators and pressure relief vents at each point of use. Having a higher gas pressure available on-site is an asset because it gives options regarding a variety of gas-burning equipment.

Of the HVAC units, one (AHU-8) is variable-air volume (VAV) type unit serving administrative offices and club suites. VAV systems automatically adapt to changing space or zone demands and save energy in the process. This VAV unit and system AHU-8 are supported by a 440,000 BTUH capacity hot water boiler, directed to zone hot water coils and local unit heaters. We find this appropriate given the extended hours and year-round use of these areas.

The remaining HVAC units are Constant Volume airflow type systems which, while mechanically simpler, do not adapt to space/zone needs and typically use more energy than comparably sized VAV units.

There are three (3) heat pump units, HP-6, 7 and 8, serving support spaces, connected to exterior refrigerant condensing units on grade which serve support spaces. Heat pumps typically operate efficiently, but are useful in a limited range of temperatures. Heat pump units are less effective in cold temperatures below 32 degrees (F) or above 95 degrees. In cooler temperatures these units typically require supplemental electric heating coils. In hotter temperatures, and high humidity, heat pumps are limited to reducing air temperatures by a maximum difference of 20 degrees from the outside ambient temperatures.

The concessions food/beverage and promotions storage areas are heated and ventilated by direct-fired (un-vented) gas air handling units, which include combustion products in the air-stream to be removed by an exhaust fan. These have a return fan inlet we presume for morning warm-up. This, if the case, would be prohibited practice. This type of unit is best suited for kitchen make-up and factory use where constant exhaust is present to remove the build-up of combustion products and associated moisture. If replaced, we recommend an indirect-fired source of heating. There is no facility-wide building management control system. All controls are local to each piece of equipment and

their related systems. There is no indication of equipment failure or if a room temperature should drop below a critical point and risk freezing *(Fig. 53)*

There are approximately three dozen exhaust fans of various capacities distributed around the facility to serve toilet rooms, concession spaces, and electric rooms. Several electric room fans were observed to use thermostatic control for cooling, while smaller toilet room fans were apparently interlocked with light switches. It was not clear what controlled the larger fans serving distributed toilet room groups.

Elevators penetrating up to three stories do not require venting per IBC 3004.1 and those penetrating more than three shall have venting of smoke and hot gases to the outer air. None of the McCoy Stadium elevators are in this height category and so do not required venting by code. However, the elevator machine rooms do require venting and cooling, per 2012 IBC 3006.4. No specific venting or colling equipment was noted in the three elevator machine rooms at McCoy.

Plumbing System >>

The main water service entering McCoy Stadium is 4 inch diameter in size. This main enters the Stadium to the west of Ramp Tower 1. Once inside the building, the water service immediately splits into a potable system for building use and a metered branch for non-potable irrigation use. The meter is subtractive from the total water bill to offset sewer charges, which is normal practice. The potable (domestic) water supply includes a double check valve assembly and the non-potable water branch includes a reduced pressure backflow preventer, both per code including annual inspections. Street pressure was observed at 88 psig and

Fig. 053. 1998 Vintage On-Grade AHU - Damaged Coils & Corrosion - Note Pressure Relief Vents & Gas Regulators

Fig. 054. Water Service Entry W/ Non-Potable Water Branch In Foreground - Note Corrosion

Fig. 055. Actively Leaking Domestic Hot Water Heater

was reduced to 75 psig. This is per code which requires building water pressure to not exceed 80 psig in the building. Uninsulated portions of bare piping had noticeable red rust corrosion, which would be expected due to condensation *(Fig. 54)*.

The incoming water service is subject to periodic fouling from sediment in the local utility water piping. It was reported that when the local fire station, adjacent to the stadium, performs a hydrant test or drill, this stirs up sediment which is flushed into the stadium water system. This has caused chronic problems with fixture fill valves, flush valves, and we suspect from our experience, the gas-fired water heater. The condition that causes this is not specifically known to us, but we offer as a hypothesis that this location, a former pond site, is a natural low point for the area where settling sediment would be more likely to collect in the corresponding low points of the municipal water distribution system.

To address the sedimentation problem, the solution in our opinion would be primarily external to the building, such as a pressurized buried sediment separating tank with manhole access. Secondarily, an in-building high pressure sand filter, much like a pool filter with backwash and retention, could be considered. Because the cause of the fouling is not known, these approaches are very broad in nature but with a high probability of success. We would caution on taking action on this issue without a substantially broader investigation.

Hot water is generated in the building by a model gas-fired hot water heater manufactured by A.O. Smith Berkay that was installed in 2010. The heater is actively leaking and spilling to the floor drain. We were told that replacement was to occur in the days after our visit. Being just over six years old, sediment is a possible cause of heater failure in that, depending on composition, foreign material can collect on heat transfer surfaces and create hot spots, surface boiling and cavitation pitting, in addition to general corrosion. This is simply an opinion out of experience, not a statement of cause. We also expect it has had significant through-put duty of water to be heated. Nevertheless, we find it unusual that a heater of this nature would fail relatively early in its life *(Fig. 55)*.

Fig. 056. Domestic Hot Water Heater Vent Termination Below Roof And Above Walkway - Note Proximity To Generator

The venting of the water *(Fig. 56)* was deficient in that it terminated below the roofline over a covered walkway. The venting was of a Type B Category I gas vent with mushroom cap. In best practice it would be conducted above the high roof or discharged horizontally away from the building with a power-vent device.

Plumbing fixtures are conventional commercial porcelain including wall-hung fixtures for appropriate floor cleaning. There were ADA-compliant partitions in most toilet rooms. However, there are some passages that are too narrow in a couple of locations *(Fig. 57)*.

Fig 057. PVC Plumbing Piping Exposed within The Out-Building Electrical Room

Plumbing sanitary piping material, where visible, appears to be PVC plastic *(Fig. 31)*. While permissible as a material per the International Plumbing Code (to which Rhode Island subscribes, predominantly, with amendments), there was at least one electric room where there was visible PVC plumbing piping from the floor above. This would violate fire separations in our opinion and would require either a replacement with an approved metallic piping system or a fire-resistive enclosure to meet the room rating.

Plumbing storm piping material, where visible, appeared to be a mixture of PVC and ABS plastic, with some aluminum downspout conductors to below-grade piping. The storm water entry ports are a mixture of deck drains, a few trench drains, scuppers, gutters, and downspouts. The pitch of slabs to drains was notably deficient with ponding observed in addition to sediment patterns from prior wet periods. Facilities staff noted that in extreme deluges, the surrounding street storm piping becomes surcharged and flows back into the facility, flooding the field and some internal spaces.

Electrical Systems >>

Generally, the electrical systems are in good condition, considering that lighting and power systems were replaced in 1999. Some corrosion was noted but it appears to be cosmetic. We anticipate the need to replace/upgrade this item within the next 10 years.

> Normal Power System 1

The main power supply to the facility is from a pad-mount utility transformer located outside the building. It appears that the transformer is a 1000kVA unit. The utility meter is located outside near the transformer. The main 480/277 volt switchboard is rated at 2500 amperes. The main power feeders consist of 6-600kcmil (2520 Ampere capacity). Available full load capacity of the main power wiring and main switchboard is 1666.7 Amperes (1388 kVA). The power capacity to the facility through this switchboard could be increased to take full advantage of switchboard capacity, but only with a utility service upgrade.

The average ampere reading on the main switchboard at 2:00 PM was 877.7 amperes (731 kVA) which is not a peak cooling load day and not representative of the total demand. Panel boards are in good condition and are of a manufacturer and age that replacement parts are still available.

The data system equipment is located in the same rooms as the normal power equipment, which is not a recommended practice due to potential frequency interference. There is also significant plumbing drainage and other piping in the room, which is of major concern to us. An evaluation of clearances per the National Electric Code is recommended.

The existing power usage when the stadium is in full operation probably approaches the existing utility transformer rating, with little apparent room or tolerance for expansion or to handle unforeseen loads that might be imposed.

> Normal Power System 2

There is a separate utility service and metering located in an out-building, with the utility pad-mount transformer and meter is located some distance from the out-building across a paved drive path. This service supplies the field lighting, scoreboard, sound system, and field emergency lighting. There is no back-up system for this service but is needed.

> Lighting System

Lighting fixtures throughout the facility were replaced in 1999. Lighting fixtures inside are in overall good condition, however some exterior building lighting wall packs are no longer operational. The field lighting is fed from a second power supply (as stated in Normal power system 2 narrative above).

> Emergency System

The emergency generator is located outside in close proximity to the building *(Fig. 58)*. The exhaust piping consists of a short section from the generator housing. This leads to diesel exhaust penetrating the building.

The emergency feeders, emergency automatic transfer switch and emergency panel are not separated f,rom the normal power equipment as required by current electrical code.

Fig 058. Generator Exhaust To Be Extended To Roof

Additionally, the automatic transfer switch is located approximately three feet from the main power switchboard and without physical separation. Current code requires the normal and emergency power systems to be in separate rooms with the emergency systems being enclosed in a 2-hour fire rated compartment room.

Based upon the normal power electrical panel labeling the field's quartz emergency lights are fed from the field lighting normal power panel and are not on emergency backup.

> Life Safety System

Fire alarm system consists of a Simplex brand main fire alarm control panel (FACP), manual and automatic initiation field devices, audible and visual notification field devices, all connected to a Radio Alarm Box manufactured by Signal Communications (SigCom),Inc.

The main fire alarm control panel is a Simplex 4100U, manufactured by Simplex. The initiation circuit utilizes addressable type field devices for the initiation of a fire alarm. The audible and visual notification appliances are conventional type devices and powered solely by the main fire alarm control panel. The fire alarm system presently indicates 2 fault conditions which should be investigated by appropriate technicians:

- Ground Level Sec 4 A/C Money Room M3-2 Heat Detector Wrong Device.
- Card 2, Power Supply Charger Negative Earth Ground Abnormal.

At the time of the assessment, it was noted various notification devices showing signs of fading due to exposure. It is undetermined, at this point, if the exterior notification devices are rated for the applications. Also, condensed moisture leads to deterioration and unpredictable performance.

In addition to the overall facility fire alarm system functions, the main fire alarm panel also monitors the following:

- Sprinkler system: Water flow alarm and valve tamper supervision.
- Kitchen suppression systems (located in multiple concession and kitchen areas throughout the stadium): Activation alarm, status supervision.

The fire alarm controls multiple control outputs in the event of a fire alarm activation. The outputs consist of, but are not limited to:

- Elevator recall to the ground level.
- HVAC shutdown to avoid the possible spread of smoke. Note: we were advised that these shutdown conditions do occur and so are in place. However, once the alarm condition has passed, the HVAC equipment must be manually re-started.
- Initiation of the programmed alarm signal to the responding station via the Radio Alarm Box.

> Basic Fire Alarm System Architecture

The Fire Alarm system is comprised of a single node that resides in the Entry Corridor (123) located on the field level, Sector 2. Per building operations personnel, Simplex no longer services nor do they warranty the panel. Rather, the stadium operators use a local electrician to service the system.

The fire alarm panel is comprised of hardware necessary to accept system inputs and provide system outputs, as described below. The infrastructure of the system Signaling Line Circuit (SLC) and Notification Appliance Circuit (NAC) field wiring is installed in conduit. Most manufacturers can reuse virtually any wire and cable if it is in sound condition.

> Initiating Devices

The initiating devices on the system are comprised of manual pull stations, smoke detectors, heat detectors, monitor modules for water flow switches, monitor modules for valve tamper switches and monitor modules for the various kitchen suppression systems. The building is partially sprinklered, limited to the three small warehouse and storage spaces located on the field level in the Entry Corridor and are connected internally to addressable loop card(s). The detection devices are of compatible models.

> Notification Appliances

The notification and signaling system is accomplished through an internal power supply located within the main fire alarm control panel. Field devices consist of strobes and horn/strobe combination devices. The spacing and coverage must be evaluated to meet requirements of the 2013 NFPA-72 standards. The strobe system is accomplished using the internal power supply and fed to each level and area. It has not been determined if the Strobe System is synchronized per the 2013 edition of NFPA-72 standards. The spacing and coverage could not be assessed at the time of our survey, and shall be evaluated in depth in a separate design phase to confirm the requirements of ADA 2012 and the 2013 edition of NFPA-72 standards are being met.

> System Interfaces

The Fire Alarm System has modules that monitor and control 3rd party system in the building. The systems are HVAC, Wet Pipe Sprinkler Systems, Suppression Systems, and Elevator Control. Control Modules are present for the shutdown of the HVAC units and the initiation of elevator recall to the ground floor in a Fire Alarm condition. These control modules are wired to the SLC circuits and are activated through programming.

Smoke or heat detectors are not present in the elevator lobbies; however, heat detectors are present in the elevator shafts and machine rooms for elevator recall. The present configuration has primary and alternate recall. The functionality to flash the fireman's hat inside the elevator car has not currently been reviewed.

The HVAC interfaces are configured to shut down the fans upon the activation of a fire alarm. There are no duct smoke detectors inputs visible on the fire alarm system although dome detectors were evident in the discharge ducts of the H&V

units. We surmise that these were for local shut-down control but we could not determine if there was a specific FAS interconnection.

> System Communications

There are no firefighter phone jacks located for communicating to the main fire alarm control panel in the event of a fire-fighting scenario.

> Sprinkler System Conditions

The sprinkler riser is located in Sector 1 of the field level. The sprinkler protection is limited to two branch risers for the protection of three small warehouse/ storage areas. Each of the branch risers is serviced by an individual water flow and tamper switch, which sends the appropriate alarm or supervisory signal back to the fire alarm system.

There is no fire pump or associated controls. Street pressure was noted as being in excess of 100 psig, which at least is a minimum. We did not have any flow test information to determine actual residual pressure (pressure under flow conditions) to determine adequacy. This type of information likely exist from previous test, but without current data, no determination can be made.

The sprinkler system is considered a "wet" system. No air compressors, pre-action valves or other indication of dry/protected systems were evident. As such, the building or the piping itself must remain heated to prevent freezing, regardless if spaces are occupied. At the time of the assessment, other than a noted missing sprinkler head, there were no major issues with the sprinkler system other than normal maintenance requirements.

Fig. 059. PVC Plumbing Piping Exposed within The Out-Building Electrical Room

Fig. 060. Exposed PVC Piping Within The Out-Building

Fig. 062. Areas Of Water Infiltration @ Deck Drains

There is no sprinkler coverage in the elevator machine rooms and hoist ways, which should be reviewed with the AHJ based on several interpretations of NFPA-13. Some jurisdictions require them and some, based on a lock of combustible materials or fluids, do not. The existing elevators are hydraulic, using hydraulic oil but of an unknown flammability.

> Fire Department Connections (FDCs)

There are a series of five (5) FDC connections, concentrated around the outer radius of the original "bowl" and additional seating areas. There are multiple stand-pipe connections throughout the stadium, also concentrated around the original "bowl" and expanded seating area stairways.

Typical Conditions >>

On the next several pages we have included pictures of items in the building that caught our eye as it relates to items previously mentioned in the report, areas of concern, and/or items that require immediate attention in Part 02 of this report.

Fig. 061. Exposed PVC Piping @ Rear Of 1999 Toilet Room Addition

Fig. 063. Boiler Scheduled For Replacement - Much Sooner Than Typical (6 Years Old)

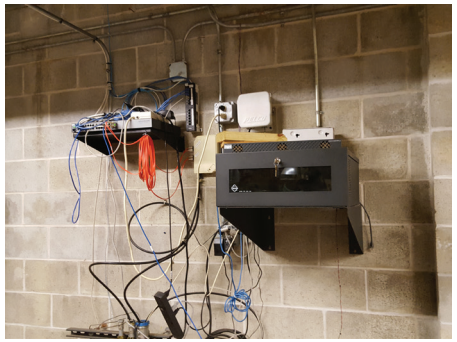


Fig. 064. Technology Equipment In Electrical Room

Elevator cab lighting is malfunctioning - also note standing water & cracking in CMU wall

Fig. 066. Areas Of Water Infiltration @ Deck Drains

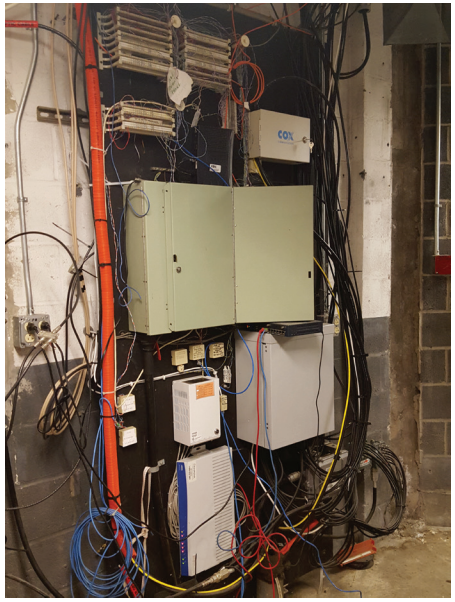


Fig. 065. Areas Of Water Infiltration @ Deck Drains

Wood Frame Built To Protect HVAC Package Unit From Falling Snow From Roof Above

Fig. 067. Example Of At Grade HVAC Unit

Fig. 068. HVAC Equipment Exposed @ Exterior

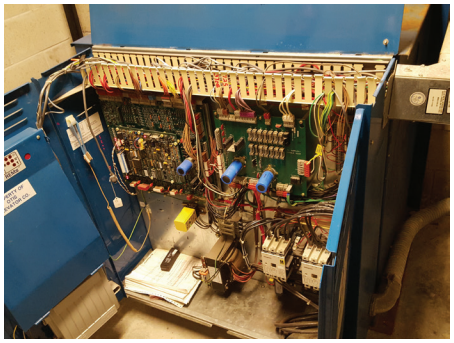


Fig. 069. Areas Of Water Infiltration @ Deck Drains

Fig. 070. Example Of At Grade HVAC Unit

Fig. 071. Exposed HVAC @ Field Access Area

Fig. 072. Trash Adjacent To Public Concourse

Fig. 073. Example of Inoperable Wall Packs

Exterior Equipment Exposed To Elements Invite Opportunities For Water Infiltration

Fig. 074. Exposed Electrical Switching

1.22 > MEP & Technology Summary & Conclusions

HVAC Assessment

The majority of the HVAC equipment is approaching the end of its economical useful service life. Typically, a rooftop type air conditioning unit (which in the case of McCoy are mounted at-grade), has a median useful service life of 15 years, so any equipment dating prior to 2001 should be slated for replacement. There are other factors such as protection, exposure, levels of maintenance, total hours of operation, and duty cycling which factor into a longer or shorter life. Please refer to the attached ASHRAE Equipment life expectancy Chart (Appendix A01) for guidance.

Where visible, HVAC ductwork appears to be in satisfactory condition although the several duct joints we observed did not have visible sealant to a degree that would be recommended by most designers and/or manufacturers. Multiple points of moisture damage were noted on ceilings throughout the facility. While some of these can be attributed to structural gaps in expansion joints, the generally noted high humidity in these spaces can create condensation on insulated ductwork, particularity at any deficient insulation points.

The lack of a facility-wide HVAC system control system contributes to a decline in response time to operational issues, alerts to staff of immediate problems, and delays preventative maintenance until conditions worsen. One example is a chronic condition where the fire alarm system appropriately shuts down all HVAC air handling equipment upon activation of an alarm. While this is the desired operational procedure, the lack of a master control system requires manual intervention to re-start all pieces of the HVAC equipment individually one the alarm is cleared. This can put the building at some risk of freezing during cold temperature season, but it also creates very long recovery warm-up times to regain space comfort. An automated system could re-start the systems by remote and annunciate which systems would be off when not intended. Another facet of such a control system is the scheduling function for fans and systems, to limit their hours of operation to occupied hours and save labor time to manually turn the fans on and off.

HVAC Estimated Order of Magnitude (EOM) - Repair & Replacement Costs

>> AHU Replacement Cost:

A typical Air Handling Unit (AHU) cost for comparable equipment based on an empirical price range of $2,00 to $2,500 per ton:

Outright replacement of units between 4, 7.5, 10 and 25 nominal tons will amount to $270,000 to $300,000 for AHU equipment only.

Outright replacement of units older than the 2011 renovation, we suggest will range from $225,000 to $250,000 for AHU equipment only.

Total anticipated AHU Replacement cost: $495,000 to $550,000 *(1.22A)*.

>> Related AHU Costs:

With electrical, rigging, sheet metal work, gas and related controls at $6,000 to $10,000 per unit, an EOM Budget of $350,000 *(1.22B)* seems reasonable.

>> Facility Wide Building Management (Controls) System:

There are a wide range of systems available which are not simple to quantify. A base-level cost of $15,000 to $20,000 for a front-end web-based control system is commonly seen in our experience. Beyond the base system and cost, which could not support buildings of much larger size, factors of wiring, distance, number of equipment items to be controlled, degree of control (e.g. on-off or adjustments by remote), are cost drivers. A typical air handling unit controller monitoring 20 or so points, can easily run more than the cost of a smaller air handling units but can be justified on larger units. For the purposes of this report, we suggest a budget EOM placeholder of $200,000 *(1.22C)* to allow monitoring of AHUs, automatic reset after an alarm shut-down, and alarm notification for inconsistent status or temperature/freeze conditions.

>> Cooling of Elevator Machine Rooms:

A typical system we would specify would be a "Ductless Mini-Split", as they are commonly known. A representative size of 1.5 to 2.0 tons and within 25 feet of the building. A cost per system of $10,000 to $12,000 per system has been common in the current marketplace. An EOM cost for the three (3) elevator machine rooms of $30,000 to $36,000 *(1.22D)* seems reasonable in our opinion.

>> Extended Venting of Domestic Water to the Roof:

The existing Type B-Vent with mushroom cap, in that size and configuration, if extended to the roof, would have an EOM cost of approximately $20,000 to $25,000 *(1.22E)* including supports.

>> Electrical Systems Estimated Order of Magnitude (EOM) - Repair & Replacement Costs:

Lack of separation of the emergency and normal equipment is of significant concern. To retrofit the entire electrical system to meet present code requirements would require substantial electrical cost and architectural work to provide separate rooms/closets for the emergency equipment. We anticipated an EOM of $440,000 to $500,000 *(1.22F)*.

Lack of emergency power back-up for the field emergency lighting is also an area of major concern as it relates to life-safety for patrons. To upgrade to provide safe field emergency lighting we anticipate and EOM of $150,000 to $200,000 *(1.22G)*.

Extending the emergency generator exhaust to the roof level is necessary to meet current building codes as mentioned in our report. We anticipate an EOM of $35,000 to $40,000 *(1.22H)*, which includes supports, guides, and thermal shielding.

>> Fire Alarm Upgrade & Replacement Considerations:

Fire alarm systems have finite lives, both equipment, wiring, technology and expansion limitations. Periodically, they must be upgraded due to old age, nuisance alarms, lighting damage, or because of a building expansion. Whatever the reason, there are numerous issues to consider before the system can be upgraded successfully.

In some cases, upgrading the fire alarm system triggers the need to upgrade other building features as well. For example, the elevator system and current elevator codes, space detectors, new sprinkler zones, ADA and related accessibility upgrades and amendments. Installation considerations include evaluating compatibility of new devices, re-use of existing devices, locations to meet current codes, and lines of sight.

If the original system or portions thereof were installed prior to 1990, which is true in the case of McCoy Stadium, it may not fully comply with ADA requirements. Manual pull stations may have to be lowered to the proper height, and strobe lights may have to be added. Upgrading a fire alarm system might trigger additional upgrades to the building to meet current ADA requirements, thus voiding any grandfather clauses currently in place.

Mass Notification:

Information on mass notification systems (MNS) is the latest addition to the codes. NFPA 72 added a new annex on mass notification systems in its 2007 edition. This type of system is used when there may be a need to notify many people quickly for emergencies other than a fire condition. NFPA 72 added language that would allow a fire alarm system to be used for mass notification purposes so an additional system would not be required. In fact, there is a new language that will allow a mass notification system to take priority over a fire alarm signal.

The extent to which the code will require an upgrade or implementation of a newer MNS is not yet determined. It may be a function of Authorities Having Jurisdiction, based on the degree of other renovations or other triggers. At the extremes, the existing system might be "grandfathered" as existing, non-confirming, or a full upgrade might be required within a certain timeframe. There are other factors beyond the fire alarm scope that may trigger this, so the above paragraph is simply to highlight some elements to be discussed with a wider group. Integrated systems combine the functions of the fire alarm, security, and building management into one design and these aspects should be integrated when the opportunity presents itself.

While a program device replacement over time can add years of life to any system, because Simplex is no longer the active service agent, the facility should consider installing a new, UL listed system with less proprietary addressable devices. This would be installed by licensed and factory-trained personnel. Such a system would include a new front end Fire Alarm Control Panel (FACP), terminal detection input devices, and output annunciation devices, including a Mass Notification System integrated. We recommend that existing conduits/raceways/wiring pathways be maintained where conditions allow but pull all new wiring in exterior pathways.

>> Fire Alarm (FACP) (EOM) - Repair & Replacement Costs:

We anticipate an EOM of $60,000 to $75,000 *(1.22J)*, which includes interface panel, software, and installation, plus furnishing and installing new devices in existing locations, using existing wiring pathways and new wire in exterior locations.

At a rough estimate of $250 per device, installed and allowing 360 devices for this portion of work we anticipate an EOM of $150,000 *(1.22K)*.

>> Surveillance Camera Equipment EOM):

We anticipate an EOM of $300,000 *(1.22L)*, which includes installation of camera, monitoring, and recofing devices.

>> Wired & Wireless Networking (EOM):

We anticipate an EOM of $200,000 *(1.22M)* and $250,000 *(1.22P)* for installation of backbone and horizontal cabling associated with the above mentioned complete system.

>> Distributed Sound System (EOM) - Repair & Replacement Costs:

We anticipate an EOM of $850,000 *(1.22N)*, which includes complete replacement of individually amplified and aimed speakers, control consoles, amplified rack system, pole mounted speakers in remote outfield areas, etc.

>> Broadcast Equipment EOM) - Repair & Replacement Costs:

We anticipate an EOM of $400,000 *(1.22O)*, which includes installation of broadcast pedestal, support conduit, and routing to press area for direct linkage.

1.23 >
MEP & Technology Anticipated Costs

The anticipated costs outlined below align with the descriptions of existing conditions mentioned in Sections 1.21 & 1.22. This scope of work includes repair and/or replacement of existing conditions with in an effort to prolong the useful life of the facility by twenty years.

1.22 MEP Systems

No.	Item	Unit	Lump Sum Cost
1.22A	AHU Replacement Costs	LS	$550,000.00
1.22B	AHU Related Costs	LS	$350,000.00
1.22C	Buiding Control System	LS	$200,000.00
1.22D	Elevator Machine Room Cooling	LS	$36,000.00
1.22E	Domestic Water Vent Extension	LS	$25,000.00
1.22F	Electrical Systems Repair & Lighting	LS	$430,000.00
1.22G	Emergency Power Back-Up	LS	$200,000.00
1.22H	Emergency Generator Exhaust Extension	LS	$40,000.00
1.22J	Fire Alarm Repair/Replacement	LS	$75,000.00
1.22K	Fire Alarm Devices	LS	$150,000.00
1.22L	Security Integrated Solution	LS	$300,000.00
1.22M	Wired & Wireless Networking	LS	$200,000.00
1.22N	Distributed Sound System Replacement	LS	$850,000.00
1.22O	Broadcast Equipment Repair	LS	$400,000.00
1.22P	Backbone/Horizontal Cabling	LS	$250,000.00
1.22Q	Fixture Replacment	LS	$150,000.00
	Sub-Total		$4,206,000.00
	Contingency	15%	$630,900.00
	Total		**$4,836,900.00**

* See Appendix A for list of common abbreviations

DISCLAIMER - All budget numbers included in this cost model are preliminary in nature. Additional testing, study, survey and documentation are required prior to establishing a final cost opinion. Pendulum and its counterparts shall be held harmless for ANY variations in cost included in this documents. A complete set of engineered documents must be completed accompanied by bidding documents by a licensed contractor.

SECTION 1.30
Architectural Conditions Assessment

1.31 > Architectural Overview

Fig 075. Stadium View

Pendulum has had the privilege of conducting site observations and conditions assessments for a number of ballparks including:

Park	Location	Class
AutoZone Park	Memphis, TN	AAA
Herschel Greer Stadium	Nashville, TN	AAA
Lackawanna County Stadium	Scranton, PA	AAA
Smokies Park	Knoxville, TN	AA
Northeast Delta Dental Park	Manchester, NH	AA
The Hoover Met	Birmingham, AL	AA
Lewis Gale Field	Salem, VA	A
Luther Williams Field	Macon, GA	A
Fair Grounds Field	Shreveport, LA	A
Joannes Stadium	Green Bay, WI	*NA
Tinker Field	Orlando, FL	*NA
Rickwood Field	Birmingham, AL	*NA

** "NA" = Not Affiliated*

Goals Analysis >>

The common thread in all of the assessments Pendulum has been involved with to date is the goal of analyzing each facility with honesty and integrity. In some cases, the facilities that we assessed moved forward with substantial renovations based on our recommendations. In other cases, only some of our recommendations were deemed suitable for consideration based on the long-term goals of the municipality and/or tenant. Finally, in some cases the decision was made to entertain the feasibility of pursuit of a totally different location.

Our goal with any facility assessment is to visit the facility a number of times, observe and analyze the data we collect, and then document said data in a format with which our clients can reasonably and objectively determine path(s) that best serve the end user/community.

McCoy Stadium presents an interesting challenge because it is rich in history. While in many ways it represents a point in time that has been surpassed by technological advancements and a changing mindset of its current patron, the same can be said of the coliseum in Rome, yet many of the basic principals that were pioneered by its designer many centuries ago are still relevant and the foundation of cutting edge design used today.

Just because something is old doesn't mean that it is no longer useful; however, we also have to give careful consideration to and balance in our minds and owners, tenants, and patrons; where are we headed next? Can investors wisely invest funds into curing deficiencies for the long-term overall good?

Fig 076. Stadium View From Premium Suite

Is the public investing good money after bad (diminished return)? These and other questions have most likely crossed all of our minds from time to time, and we are certain there will be differing opinions depending on your personal vantage point. It is our hope that the data that we have presented in previous sections as well as the data that will be presented in the following sections will be informative and instrumental in aiding the readier to reach an educated opinion that leads to collaborative conversation as we move toward Part 02 of our report.

Please keep in mind that the parameters set for Part 01 are strictly centered around: **1.)** What are the current issues and deficiencies encountered in the current stadium conditions? **2.)** What are the recommended options associated with curing said conditions and deficiencies to extend the useful life of McCoy Stadium for the next twenty years? **3.)** What are the probable costs associated with said cures? What kinds of features exist in similar Class AAA markets with ballparks that have been built within the last 5 to 10 years?

Part 02 takes the data collected from Part 01 and makes recommendations associated with facility amenity upgrades to allow for an apples to apples comparison with modern Class AAA ballparks illustrated in Sections 2.00 - 2.05. Our approach will be analyzed in two separate approaches:

A.) What is involved in maintaining the existing infrastructure of existing McCoy Stadium but also embarking on a renovation that may or may not include expansion into existing parcels of land around the current stadium grounds?

B.) What is involved in demolishing the existing McCoy Stadium in its entirety and rebuilding a new stadium on the same grounds?

Document Organization >>

The sections that follow have been organized by amenity in an effort to accurately describe each element of McCoy Stadium as we observed them in the field.

We endeavored to use as few technical terms as possible, however where this could not be avoided we have made brief descriptions of each term to assist in providing the reader with a clear understanding of what we are communicating. We have included a number of plan and section diagrams as well as pictures that document our findings. As is the case with previous sections we have included brief descriptions of each image to help the reader get a clear understanding of where and what we reference in our body of text.

1.31A > Stadium/Baseball Operations Assessment

McCoy Stadium in its current condition presents a number of challenges related to facility operations. As is described in Section 1.20 (MEP & Technology), virtually all aspects of the facility from a mechanical and technology standpoint are well beyond their useful life, which impacts the overall efficiency of day-to-day operations. The lack of central conrols associated with heating, cooling, security, fire alarm, and technology makes it very difficult to maximize the use of the facility on a year-round basis, which is a minimum standard for facility operators that desire to yield positive revenue streams on an annual basis.

As is mentioned in Section 1.36 (Team Administration), the lack of enclosed offices and a formal board room/conference room presents a number of operational issues for the current tenant. The staff controller/accountant shares an enclosed office with another staff executive. The chairman's office is currently used as a boardroom, and is also used for staff lunches because there is no staff lounge. This space is also used during game day operations to entertain premium patrons. Although to some degree one can assume that there is at least a little novelty in the idea that premium patrons are allowed to share space with team executives, from an overall operational standpoint it would be much more suitable and profitable for the space to be dedicated to revenue generating inventory.

In Section 1.34 (Grounds Storage & Operations), page 48, Figure 117 identifies an issue that currently exists that from an operational standpoint is unacceptable. VIP patrons circulating from the grade level suites to the VIP tent down the first base line are required to walk adjacent to the central trash area for the entire facility. During our five visits to McCoy Stadium we personally experienced the unbearable stench of garbage in our path of travel. This condition reflects very poorly on the facility, yet in its current configuration there is very little that can be done to resolve and/or improve the situation. This problem is magnified by the incredible shortfall of basic storage for the facility. Due to the lack of enclosed storage space, the groundskeeping staff is required to store expensive equipment in open air locations, which has an adverse effect on maintenance equipment and shortens its useful life. The tenant has done a good job of attempting to cloak some of these conditions with graphic wrapped fenced-in areas. They have also purchased several shipping containers for temporary in-season storage and long-term off season storage; however, from an overall brand presentation standpoint these and similar conditions fall short of a stellar and top tier organization.

From our multiple visits to McCoy Stadium there was an overall feeling that patrons are very loyal because they are devout fans of the game, and frankly fans of the Red Sox as an organization. From my personal and candid conversations with a number of patrons it is clear that they have "gotten used to" the facility being less than top tier. Although there is a great deal of history that is prominently displayed throughout the facility in a very attractive and nostalgic manner, the "energy" that we are used to experiencing at a well sited facility, i.e. Charlotte, NC or El Paso, TX, is just not present at McCoy Stadium.

This leads us to believe that drastic change is required to recapture that "lightning in the bottle" feeling that was likely present at McCoy Stadium in earlier years.

We also took the opportunity to interview a number of the staff members who work at McCoy Stadium on a day to day basis, all of whom were very polite and courteous. In a very similar manner to what was described in our candid conversations with patrons, staff members have also settled into a "make the best of it" approach. As it relates to overall efficiency of operations it is clear that the deteriorated conditions present at McCoy Stadium have a detrimental consequence on staff's ability to generate revenues from a sponsorship, corporate sales, season ticket, and group sales perspectives. This reality, coupled with very limited amenities and premium inventory, again lead us down a path that screams drastic measures are required.

>Stadium Amenities Assessment

The 1999 renovation of McCoy Stadium accomplished a great deal in addressing the "potty parity" shortfalls/lack of appropriate toilet ratios between male and female patrons. It also significantly increased the number of concession points of sale to a point that we feel exceeds the minimum ratios as outlined by the NAPBL recommendations (see Appendices). As outlined in Section 1.37 (Food Service) pages 053 - 054, the overall useful life of the cooking equipment and cold storage accommodations of the facility are near the end. An overall refresh from a food service standpoint is imminent if not past due based on the frequency of use and levels of service they have maintained since 1999. There are areas of concern as it relates to health code (see Fig 84, page 054), which we believe should be addressed immediately as it relates to open air cooking and the potential for airborne particulates (bugs and or bird feces) to taint food product. There has also been note by the tenant of a decent rodent and other animal problems that can and should be addressed in the short term.

Technology in the form of wireless and wired network technology is currently a major challenge from a daily operation standpoint for the tenant, and from an amenity standpoint for visiting patrons. Section 1.21 (MEP & Technology) pages 023 - 028 provides a very detailed and comprehensive accounting of the challenges that currently exist.

Section 1.35 (Player Facilities), pages 049 - 050, provides a fair assessment of current conditions. Overall, the facilities are within the minimum requirements of MiLB, although they are trending approximately 15% (on average) smaller than modern facilities. Due to the age of the facility and frequency of use we believe a remodel is in order in an effort to make McCoy Stadium at least competitive with similar venues/ballparks.

>Hospitality Amenities Assessment

Most architects who specialize in the design and development of sports facilities are very particular about how each facility is categorized. A facility that accommodates outdoor (and in some cases indoor) American Football or European Football (soccer) are referred to as "stadiums". A facility that accommodates baseball being played on the field (indoor or outdoor) is traditionally referred to as a "ballpark". In my opinion there are key differences between a stadium and a ballpark as it relates to function and focus.

Fig. 077. Kid Eating Hot Dog

A "stadium" is all about the action on the field, while a "ballpark" is not only about the action on the field but everything else going on around you. Especially at the MiLB level, it's all about the entertainment.

McCoy Stadium is just that…a stadium, more so than a ballpark. Although the staff does a good job of executing between innings fanfare and shenanigans, it is clear that McCoy Stadium was purpose built to suit the style of baseball viewing that was common in the mid 1940's. At that time patrons attended baseball games in suits, were spectators, and in almost every case they were keenly interested in every play and every statistic. Accommodations were sparse at best, and due to limitations in technology, seating was downright uncomfortable. As we fast-forward 75 years, the game on the field is for the most part the same, but from a spectator perspective the overall experience is drastically different. Patrons today are in search of intimacy… the closer they can get to interact with the players, the better. They also want to experience the "ballpark" from many different vantage points.

Baseball is no longer a game where just the men go to the game and leave the wife and kids at home. MiLB today is at the top of the list of affordable family fun and the target audience for most top notch operators is the family of five. This target market has changed the way operators package tickets as well as offer accommodations from food and beverage all the way to the types of seating inventory available. The "Great American Ballpark" of today MUST offer diversity in seating inventory. The one-type-suits-all era is obsolete.

McCoy Stadium is very one dimensional in its offerings and amenities across the board. Similar to the strategy of assessment of ballparks by a recognized industry leading website www.ballparkdigest.com, we have organized standard ballpark amenities into categories, and shall rate those that are present at McCoy Stadium accordingly (A+ being the highest possible grade, F being the lowest).

a. Seating Inventory - Grade: D

- McCoy Stadium's seating inventory consists of fixed armchair seats behind home plate and down each baseline. There are metal bleachers/grandstands in the outfield (bench only, no backs), there are miscellaneous picnic tables situated throughout the facility, and there is an area of grass berm seating in left field.
- Due to the fact that the fixed armchair seating stock is no longer manufactured, broken seats are difficult, if not impossible to repair. As mentioned in Section 1.33 (Seating Bowl) of this report, the deterioration of the concrete seating bowl due to water infiltrations presents hazardous conditions in some cases to patrons.
- The metal grandstand seating has no shade cover, and the surface is slippery when wet and uncomfortable due to the fact that there are no backs.

b. Semi-Premium Inventory - Grade: B

- The tent area down the first base line is very close to the action, which is very appealing. The tent provides overhead protection from inclement weather, which is a nice feature.
- Being required to walk adjacent to the foul odors of the trash area is a major downgrade of the space.
- Limited connectivity as it relates to electrical outlets (power) and wireless Internet is rather inconvenient and translates to slower service at points of sale (POS).

c. Premium Amenities (Suites/VIP Experiences) - Grade: C

- The premium suites at the field level are the only form of premium inventory available. The deteriorated interior finishes due to constant water infiltration make the spaces feel dated.
- The vantage point of being behind home plate right at the level of the action is appealing however the geometry of the seating bowl above presents awkward viewing angles.

d. Banqueting/Catering - Grade: D

- A number of limitations contribute to the low grade as it relates to catering. Lack of an enclosed area that seats at least 200 with views to the field makes it impossible to compete with other venues in the region.
- Facilities like Appleton WI, which was originally built in 1995 and renovated in 2013 adding a banquet facility that accommodates 400 and six (6) premium suites with unobstructed views to the playing field surface, have reported incredible increases in annual revenues. The lack of this kind of amenity at McCoy has a detrimental impact on the tenant's ability to generate revenue.

e. Group Areas/Activation Spaces - Grade: B

- There are a number of areas along the concourse that have been set up to attract small to mid size groups. Although space is limited, the tenant is utilizing every inch of available space.

f. Kids Fun Zone - Grade: D

- A kid's fun zone is very common in almost all top tier ballparks. McCoy Stadium does not have a designated area for playground within the secure lines of the facility with views to the playing field surface.
- The tenant has designated an area in the parking lot down the left field line for bounce houses and other temporary apparatuses that seems to be enjoyed by patrons; however, blocking off this area for fun zone use has an impact on parking and traffic as mentioned in Section 1.01 (Traffic & Parking) of this report.

g. Unique Interactive Spaces - Grade: F

- Overall, the ballpark lacks intimacy. On nights that are not well attended, small crowds make the stadium look and feel huge.

h. Corporate Hospitality/Meeting Spaces - Grade: D

- The premium suites on the field level can be used for meetings and other events in a non-game day situation. This use is limited primarily because of deterioration and water damage in a few of the key areas down the left field line.
- The tenant mentioned that the batting tunnels have been used for group events; however, water infiltrates this area on a consistent basis and the lighting levels must be increased in an effort to provide an experience consistent with what would be considered VIP.

i. Multi-Media Offerings - Grade: C

- Overall the media boards are functional; however, it has been reported that repair and replacement parts are almost impossible to secure because the original manufacturer sold to a new company that no longer supports the parts. We'd anticipate the need to replace the entire system within two seasons.

j. Sponsor Offerings - Grade C

- Overall the location and scope of the sponsor boards in outfield are consistent with the offerings at many modern ballparks.
- The main area for concern is the deterioration of the materials. As mentioned in Section 1.39, page 056, the signs need to be replaced. The pressure treated lumber to which vinyl sign materials is mounted to is peeling in numerous areas.
- Due to the orientation of the stadium and its overall location, far removed from I-95, there is significantly reduced opportunity for major naming rights sponsorship. This can be perceived as a significant negative impact to potential revenue. Pendulum was the architect of record for "Jimmy John's Field" located in Utica, MI (approximately 45 minutes outside of downtown Detroit, MI) but located on a prominent corner lot adjacent to the highway. The team (a non-affiliated up start league) secured a naming rights deal of "six figures" from the Jimmy John's Corporation in its inaugural season (2016). see Fig. 078.

Fig. 078. Jimmy John's Field Rendering

k. Destination Based Offerings - Grade: C

- Overall the patron to point of sale (POS) ratio at McCoy Stadium is pretty good. The issue that presents itself as mentioned in Section 1.39 (Hospitality & Concourses), page 056, is the fact that narrow concourses make pedestrian circulation difficult on even moderately attended games.
- The lack of branded/sponsored and well lit hospitality destinations contribute to the overall lack of "energy" at the facility.
- The need for an updated signage, way-finding, and graphics package also contributes to the lack of sense of place when traversing the concourses.

l. Multi-Use Offerings - Non Baseball Events - Grade: D

- Overall, McCoy Stadium is capable of hosting concerts and other non-baseball events on the playing field surface. The major limitation of the facility is the playing field surface and its poor draining capabilities as identified in Section 1.32 (Playing Field Surface), page 004. The tendency to flood down the right field line and well into the parking lots along Division Street have caused baseball and non-baseball events to be canceled in the past (see Fig. 083, page 042).

1.31B > Architectural Site Evaluation

Fig. 079. McCoy Stadium Aerial Photo

As was mentioned in Section 1.00 (Site Conditions), page 008, McCoy Stadium is bounded by education and heavy industrial buildings to the north, single family home residential (old stock) to the east and due south, and light commercial (old stock) followed by single family home residential to the west. For all intents and purposes McCoy Stadium exists on its own island in an area that has not aged gracefully over the last twenty years. Based on our observations there was a period of time when the entire neighborhood surrounding McCoy Stadium was occupied by a strong middle class that was most likely employed by the industrial businesses that border the residences. Over time as the economy shifted and fluctuated, it seems that the surrounding building stock has never refreshed, but instead seems to be fairly static and aged, in fact trending toward a decline from upper middle class to lower income. With little to no visibility from I-95 or any other major thoroughfare coupled with very low curb appeal, McCoy Stadium is struggling to be the "spark" or catalyst for community activity and energy that most modern ballparks are able to be.

As indicated in Section 1.32 (Playing Field Surface), page 04, one of McCoy Stadium's major downgrades is the current orientation and overall siting of the facility. The orientation of home plate to center field is approximately 15 degrees west of due north, which presents a number of operational challenges related to fan comfort. The setting sun shines directly on the first baseline which also presents issues for the first baseman and patrons behind him. Traditionally the best orientation for baseball is North/Northeast from home plate to center field which places the setting sun behind home plate. The current siting and structural composition of McCoy Stadium presents limitations as it relates to attracting potential new development. The examples listed in Section 2.00 (Competitive Class AAA Facility Analysis), provides instances of several modern "ballparks" with development purposefully configured with views/vistas into the facility as well as a measure of transparency that encourages pedestrian activity along the perimeter and in some cases allows the casual pedestrian/neighbor/business person to penetrate the secure line and interact with the facility. In some cities such as Fort Wayne, IN, the concourse is open daily to the public allowing joggers and walkers (young and old) to use the facility as a walking trail and even a place to have lunch. McCoy Stadium in its current configuration is not capable of such accommodations, and in fact based on the way the facility is structured (closed concourse versus open concourse - see Section 1.33 page 036), even with a major renovation there would be no way to accommodate this type of amenity.

Based on the site conditions outlined in Section 1.00 and the architectural limitations described in Section 1.30, one can conclude that new development on this site is highly unlikely without a major investment in infrastructure and a major increase in new density (refreshed housing stock) along the eastern and southern borders of the site. A conscious effort would need to be made to energize the northern boundary of the site (Division Street) with commercial/retail, followed by mixed use along the western boundary. This "oasis" approach would require a great deal of development incentive and investment to succeed, which would need to be coupled with a drastic shift in theory as it relates to how McCoy Stadium is oriented on the site. That being said we still have major concerns associated with lack of visibility and proximity to I-95.

>>City of Pawtucket Master Plan

Upon review of the "City of Pawtucket Comprehensive Plan 5 - Year Update 2011" are findings are as follows:

>>Land Use

The stated goal of the plan as it relates to land use is "to preserve successful land uses - established residential neighborhoods; viable industrial areas; and public open space and recreation areas - and to revitalize the downtown and riverfront." The plan mentions that "in the past Zoning Ordinances have been amended to accomplish the goal of protecting established residential neighborhoods."[1] Throughout the plan there is a repeated suggestion that downtown redevelopment and "the reuse of under-utilized mill buildings"[2] and other uses within walking distance of the proposed rail station should be key strategic components moving forward.

Historically speaking, according to the plan "Downtown Pawtucket was a thriving cosmopolitan downtown in the late nineteenth century, until the late 1950's when it began an economic decline that was influenced by suburbanization, competition from southern textile mills and the construction of Interstate 95."[3]

In addition to "Mill Building Redevelopment", the plan puts a great deal of emphasis on Riverfront Redevelopment. Public Recreation Opportunities were specifically mentioned specific to riverfront redevelopment in two specific sites (State Pier & Town Landing).[4]

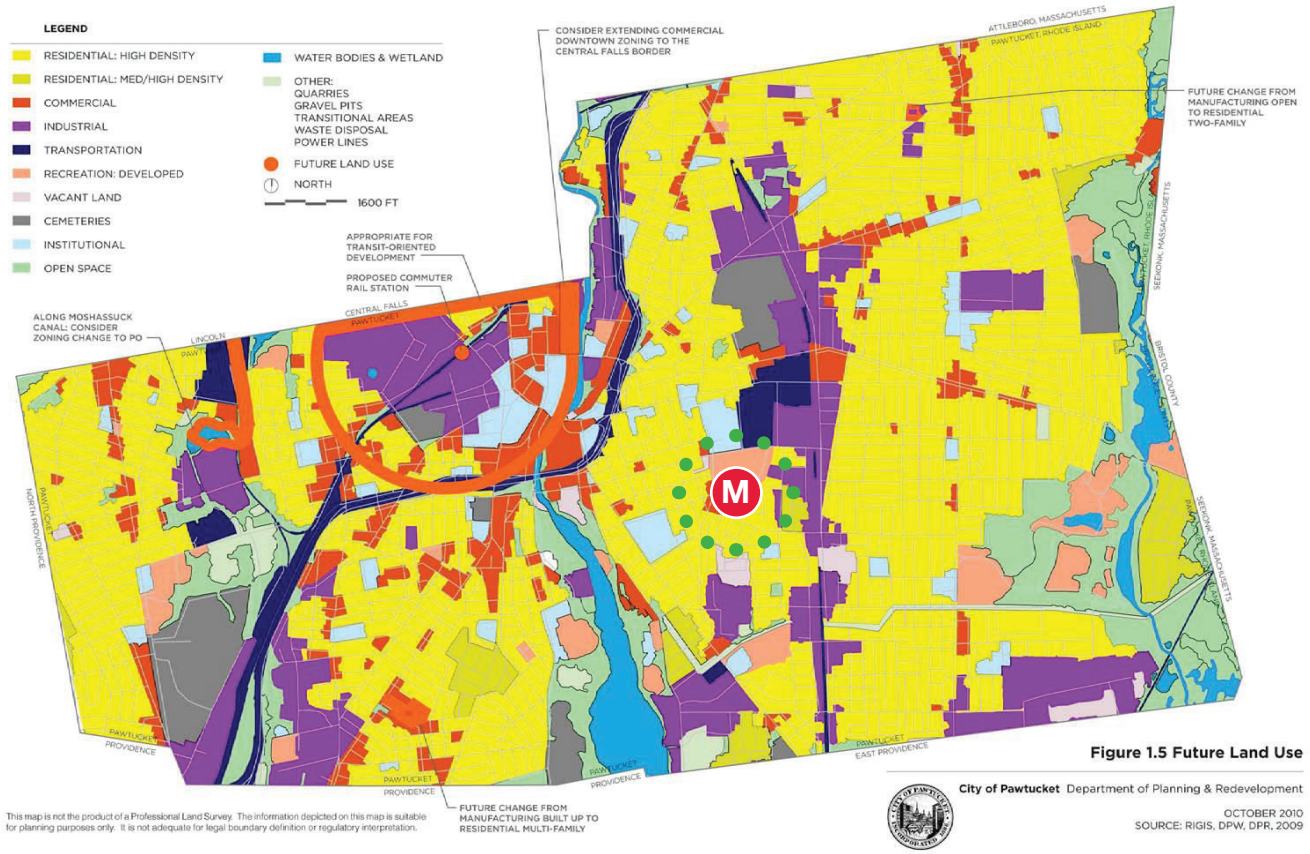
(1) City of Pawtucket Master Plan, Page ES-1 "Summary of Chapters" Land Use
(2) City of Pawtucket Master Plan, Page ES-2 Paragraph 1
(3) City of Pawtucket Master Plan, Pages 1-3 Paragraph 1
(4) City of Pawtucket Master Plan, Pages 1-4

Funding at the State and local level has been identified for said improvements of docks and other facilities including environmental cleanup. However, McCoy Stadium was not included in this particular discussion. Similar to our findings in Part 01 of the report, the City of Pawtucket Comprehensive Plan identified challenges associated with downtown redevelopment. The Plan states "the challenges moving forward are to try to encourage the redevelopment of the existing historic downtown buildings. The cost of the improvements required by the fire code and building code within these buildings can be a deterrent to their redevelopment. The City will likely want to balance the preservation the historic character of the downtown and increases in redevelopment costs."[1]

The map in Fig. 080 is an excerpt from the City of Pawtucket Comprehensive Plan which illustrates current land use[2]. We noted that the main area anticipated for future land use/development is encapsulated by the heavy red line. McCoy Stadium is located to the east of this area across the river in the pink colored trapezoidal shape.

>> Housing

According to the Comprehensive Plan, McCoy Stadium is located in District 6/ East Riverview and Quality Hill and Beverage Hill/Plains which includes "census tracts 167 and 171."[3] As can be noted in Fig. 080, McCoy Stadium is surrounded by multi-family and single family homes at the southern and western boundaries.



1-15

Fig. 080. City of Pawtucket Land Use Map

According to the census data included in the comprehensive plan 56% of said dwellings are renter occupied. One of the interesting stated objectives in the land use section of the Comprehensive Plan "No conversions of residential to commercial within established residential neighborhoods." So as one thinks about the redevelopment potential in the areas directly adjacent to McCoy Stadium, consideration will need to be given to the zoning strategy of said redevelopment with this objective in mind.

The northern boundary of McCoy Stadium is designated as "institutional uses" (school), and the eastern boundary is a combination of transportation and industrial uses.

>> Economic Development

According to the City Master Plan, the city's current economic development efforts are focused in the downtown, arts, and the riverfront. The current economic climate is making it challenging for the appropriate investment to revitalize. The city is taking this opportunity to plan for the future by identifying access and parking improvements to the downtown and preparing a marketing strategy which promote the City's resources.

Based on our observations gleaned from the overall Comprehensive Plan it is our

(1) City of Pawtucket Master Plan Pages 1-6 Paragraph 4
(2) City of Pawtucket Master Plan Pages 1-15
(3) City of Pawtucket Master Plan Pages 2-7 Paragraph 5

perception that the commuter rail station is also a key part of this. It is however unclear how McCoy Stadium fits in to the "big picture" being so far removed from the riverfront which as indicated above and on previous pages seems to be ground zero for the redevelopment efforts.

Even when you take into consideration the areas designated as "Local Historic Districts" as illustrated on the map on the next page, McCoy Stadium is just outside the zone. This leads us to believe that if redevelopment were to be seriously considered on the McCoy Stadium site, efforts would need to be aggressively pursued to strengthen the link to downtown "ground zero". Major infrastructure improvements to Division Street seems to be the most sensible play.

Based on the population data outlined on pages 5-9 of the Comprehensive Plan, of the 70,086 individuals within the City of Pawtucket, 12,649 are in the age range of 5 to 19; 3,645 are in the age range of 20 to 24; 23,618 are in the age range of 25 to 44; and 16,207 are in the age range of 45 to 64, all of which fall within the primary target market of the Paw-Sox. This leads us to believe that if the aforementioned, connection to downtown were strengthened, an enhanced demand in redeveloped housing stock in a "ballpark district" may have potential.

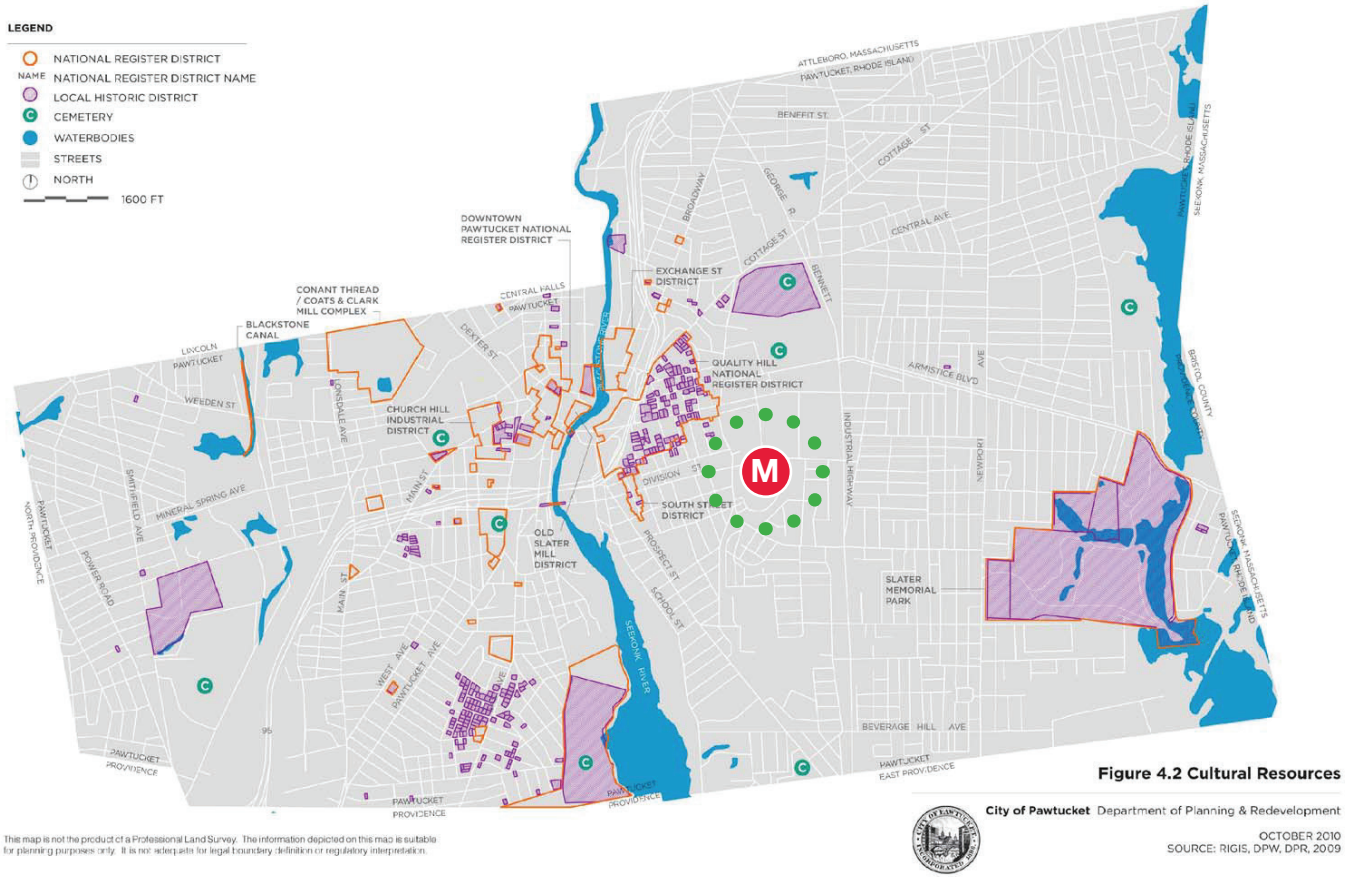


Figure 4.2 Cultural Resources

City of Pawtucket Department of Planning & Redevelopment

OCTOBER 2010
SOURCE: RIGIS, DPW, DPR, 2009

Fig. 081. City of Pawtucket Historic District Map

1.32 >
Playing Field Surface

To the naked eye, McCoy Stadium's field seems to be in fairly good condition primarily because the grounds staff has done a very good job of maintaining the surface to provide a safe environment for the players thus avoiding the potential for injury as much as possible. However, when you go below the surface, figuratively and literally our team has encountered issues that must be addressed in an effort to extend the useful life of the stadium for the next twenty years.

Beginning with the playability of the field there are a couple items that immediately stand out. As illustrated by the plan drawing on the right side of the page, the field orientation of McCoy Stadium from home plate to center field is approximately 15 degrees west of true north which is typically unacceptable in modern stadium design practice. This orientation exposes the first baseman to setting sunlight in his field of view which could have a drastic effect on his ability to see ball in play. The ideal orientation that maximizes shade on the infield taking full advantage of the setting sun during evening games in the summer is a north/northeast orientation from home plate to center field. The small McCoy Stadium plan at the upper right hand corner of this page illustrates the correct field/stadium orientation that would foster the safest conditions on the field as well as the most favorable/comfortable conditions for patrons. This orientation is further explored in Part 02.

The radial seating bowl in contrast to the orthogonal geometry of the playing field which was very popular in early stadiums creates a great deal of foul territory down each base line which reduces the overall intimacy for patrons in the seating bowl.

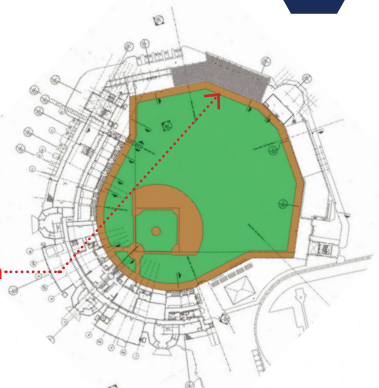


Fig. 082. Correct Field Orientation Plan

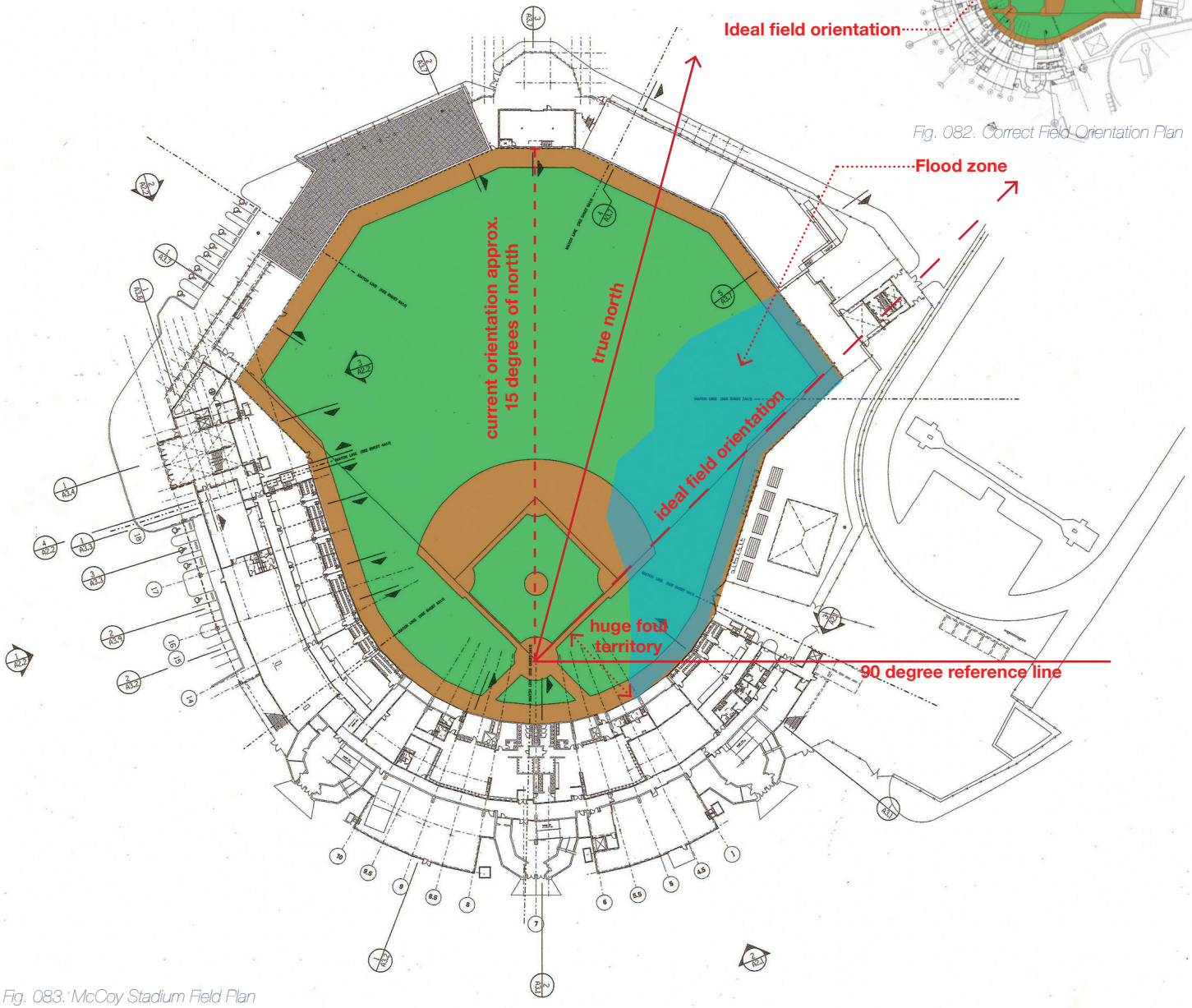


Fig. 083. McCoy Stadium Field Plan

Although this condition does not have a direct effect on the life safety of patrons or the direct useful life of the stadium, it does have a significant impact on the enjoyment of the game in contrast to what would be anticipated at a more modern ballpark.

From a field maintenance perspective it has been brought to our attention that the sub-surface soil conditions of the playing field has become overly compact over time which has affected its ability to appropriately drain water away from the stadium. It has also been noted by the grounds staff that once you excavate beyond the root zone of the playing field it is almost impossible to penetrate the compact material (approximately 6 to 8 inches below the field surface) without the use of a pick-ax or other heavy duty equipment.

This condition coupled with poor/insufficient storm drainage in the surrounding parking lots and perhaps even beyond the parking lots in the Division Street right of way as described in Section 1.02 (Civil Engineering & Landscape Architecture) of this report has resulted in flooding conditions and canceled games/events at the stadium. The floor plan on the previous page illustrates the areas compromised by this condition.

There is also evidence of compromised drainage laterals just below the field root zone. The standard details shown in Fig. 089-094 on the right side of this page illustrate standard/common details associated with the playing field surface, root zone, warning track, and irrigation systems used at modern ballparks.

We recommend the outright demolition, over-excavation, and replacement of McCoy Stadiums playing field in conjunction with the recommendations made in Section 1.02 (Civil Engineering & Landscape Architecture) of this report as it relates to storm sewer improvements, to resolve the drainage and irrigation issues currently being experienced. This replacement shall also include technology upgrades to accommodate modern monitoring and control protocol in line with similar facilities constructed in the last ten (10) years.

Fig. 083. Flooded VIP Tent Area

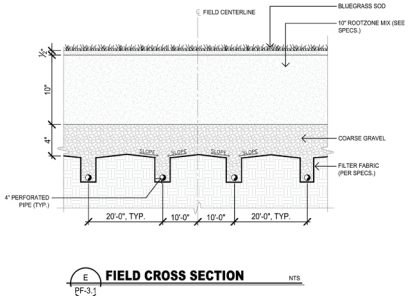


Fig. 091. Modern Playing Field Section

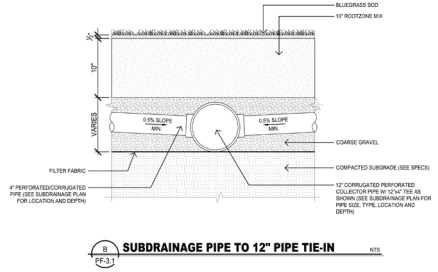


Fig. 090. Modern Playing Field Section

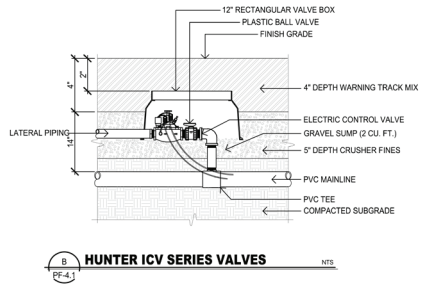


Fig. 089. Modern Playing Field Section

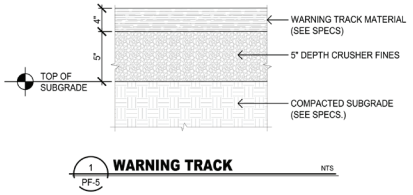


Fig. 094. Modern Playing Field Section

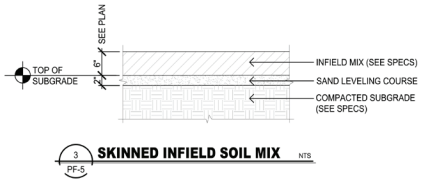


Fig. 093. Modern Playing Field Section

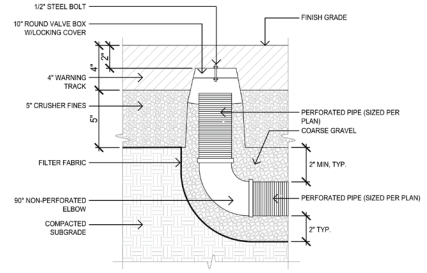


Fig. 092. Modern Playing Field Section

1.33 > Seating Bowl

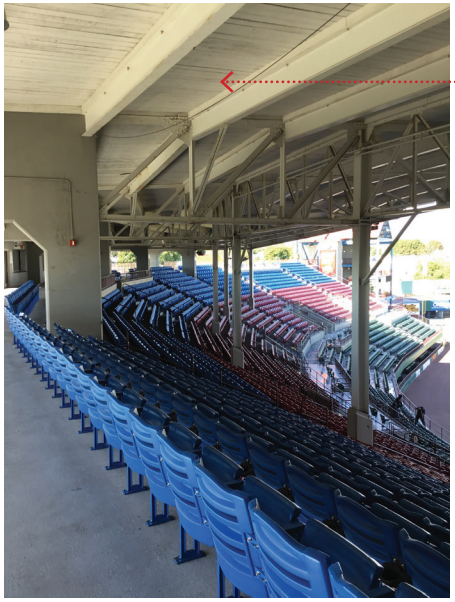


Fig 095. 1942 Seating Bowl Behind Home Plate

The McCoy Stadium seating bowl is comprised of 3 separate sections serving the majority of patrons during games. The 1942 portion is located directly behind home plate and is covered by a tongue-in-groove wood roof that provides shade and weather protection for approximately 75% of the seating bowl.

While the roof does a great job of shielding patrons from inclement weather, it also presents a few areas of concern that we feel warrant further discussion. As it relates to long-term upkeep for the next twenty years, there are a number of boards throughout the roof that require patch, repair, and/or replacement. This presents a rather expensive issue because the lumber used is not a standard nominal dimensions as is readily available

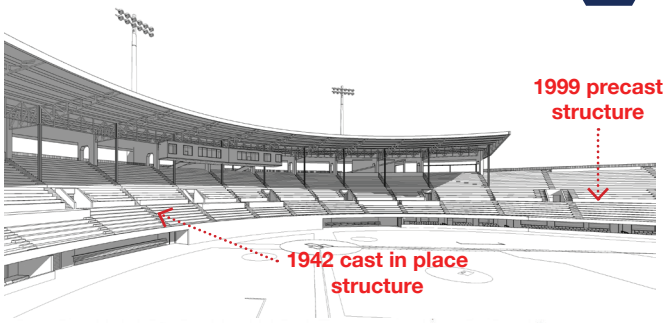


Fig. 098. McCoy Bowl 3D View

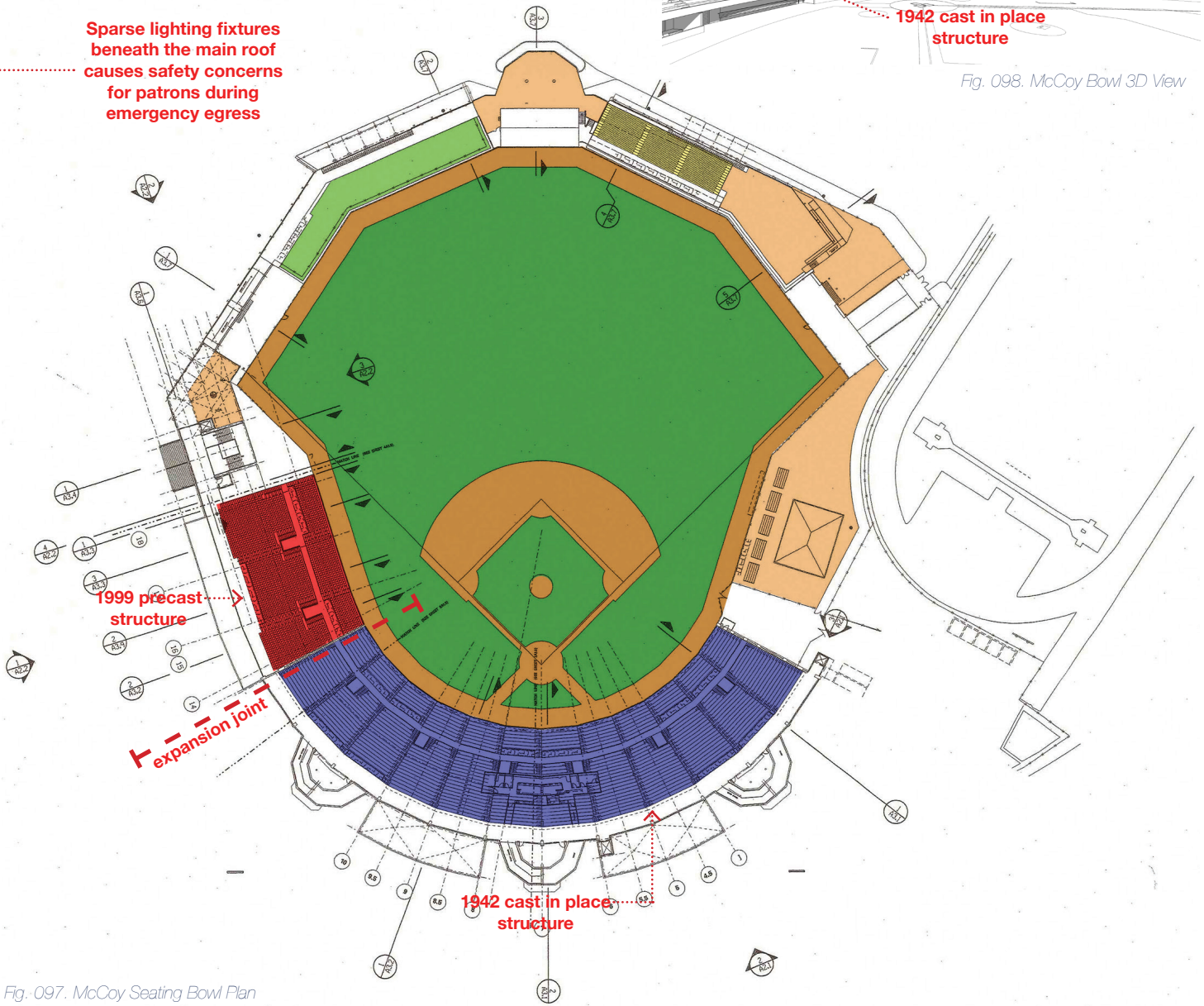


Fig. 097. McCoy Seating Bowl Plan

at common lumber yards. Instead it is a true dimensional lumber that must be custom cut to fit each application. We also noticed a number of areas where the painted surface is starting to peel which leads us to believe that exposure to inclement weather and water infiltration is a fairly uniform issue. The only way to resolve this issue is expose the area of water infiltration on the outer face of the roof assembly and uniformly patch the damaged area. This action shall be followed by scraping away damaged and peeling surfaces down to the raw wood material and then prime and paint the entire surface with a commercial grade high weather resistive primer followed by several coats of a finish paint.

The second area of concern as it relates to the roof above the 1942 seating bowl is the lack of emergency egress and basic ambient lighting fixtures. It is our understanding that when the field lighting system was upgraded in 1999 and perhaps subsequently thereafter, the technology of the new Musco lighting system was far superior to that which was originally used. The prior system offered a great deal of light spillage into the seating bowl which provided comfortable ambient light for patrons. The technology implemented in the Musco lighting system provided for a much more aimed path for the lighting concentrated on the field of play thus in compliance with the MiLB required 70/100 standard for Class AAA stadiums. The unintended consequence of this upgrade was very poor lighting beneath the roof over the seating bowl. A few things that require further investigation but were briefly mentioned in Section 1.22 (MEP & Technology) is the need to upgrade the ambient lighting levels beneath the bowl, which may require additional adjustment in the electrical service to accommodate.

The configuration of the 1942 seating bowl which set the precedent for the new seating bowl installed in 1999 is a "closed concourse". This condition is illustrated in the McCoy Stadium typical building suction on the upper right hand corner of this page. Patron circulation occurs behind the seating bowl and hospitality areas such as public restrooms and service areas are tucked beneath very similar to an indoor arena. This is a very common structural configuration for seating bowls in stadium of this era however, the key disadvantage is the fact that it cuts of the visual line of site of patrons to the field of play when they are circulating the concourse in search of concessions and/or other hospitality services.

Common practice in modern ballparks in similar markets within the past ten (10) years is the "open concourse" configuration illustrated in the Huntington Park Class AAA building section on the lower right portion of this page. In this configuration premium amenities are raised above the concourse by structural steel columns, hospitality and food service program is pushed to the perimeter secure line, and the first row of the seating bowl is pushed all the way down to the playing field surface. This seating bowl configuration creates a much more intimate setting for patrons that allows them to circulate the concourse and maintain a visual connection to the field of play at all times. This configuration adds to the excitement of the game.

In contrast, the first row of seating at McCoy Stadium is elevated approximately 9'-0" above the playing field surface - very similar to what would be traditionally designed for a football stadium with the intent of providing clear lines of sight over the shoulders of standing players at the side line bench.

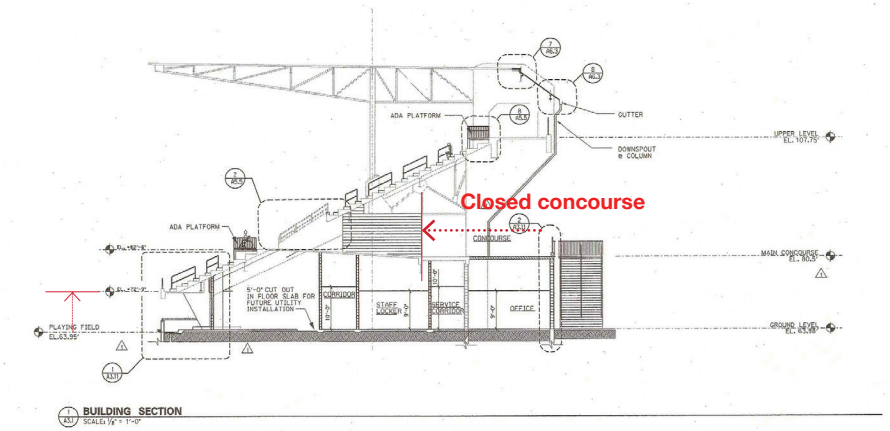


Fig. 100. McCoy Stadium Typical Building Section

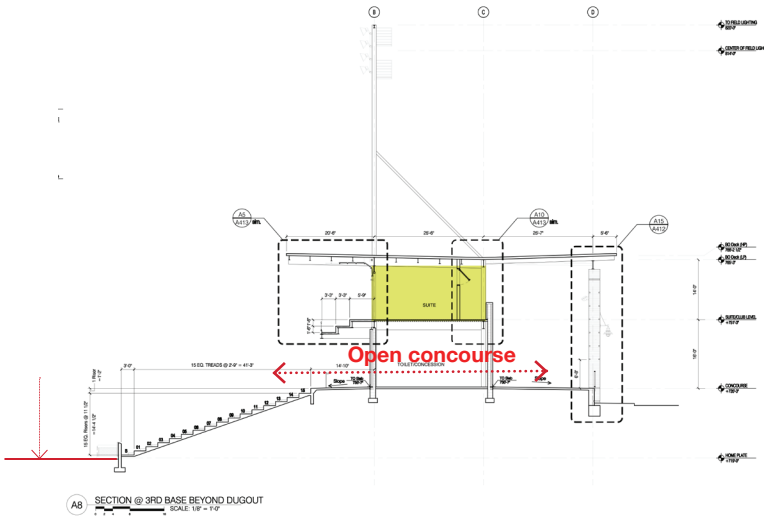


Fig. 099. Modern Ballpark Building Section

In the preface of this report it was mentioned that the number one issue factor in the continued deterioration of this facility is water infiltration. One of the key contributers to this condition is the seating bowl (1942 & 1999).

The 1942 seating bowl is constructed of cast in place concrete. During the original construction process wood forms were built, rebar reinforcement was installed and the concrete was poured above the form. The presence of a self healing fluid applied or continuous rubber sheet good with the slab is not evident and based on our knowledge of construction during this era, was not common practice. In many cases we have observed evidence of poor form work in the original construction indicated by exposed and rusting rebar at the face of the seating risers (this condition is common all over the 1942 bowl). Although the bowl is covered by the roof and thus is not directly exposed to moisture from inclement weather, the post-game cleaning of the seating bowl that is typically executed by power washing (standard practice at all facilities), puts the bowl in direct contact with moisture. The presence of rust on structural rebar acts as a cancer to the structural integrity of the seating bowl and as a consequence provides a weak point that welcomes water infiltration into the structural system. When this condition is introduced in cold weather climate areas such as Rhode Island there are additional deteriorative impacts to the structure in a freeze thaw cycle that lead to spalling concrete as was discussed in Section 1.11 (Structural Systems).

The McCoy Stadium building section in Fig. 101 illustrates a two key areas that we have investigated and highlighted as key areas of water infiltration in the seating bowl that has most likely been accelerated by the 1999 renovation. Although the foundation system for the original 1942 structure and the 1999 addition are very similar (pile caps), the framing system is very different (1942 = concrete cast in place rakers versus 1999 structural steel beam and column). There is evidence that both structures are moving independent of each other which creates a conflict because as illustrated by the building section the two systems are intertwined. The images in Fig. 105- 111 taken during our field observations support our thoughts. We commonly encountered stress cracks that are more substantial that what we'd anticipate from standard movement.

The most substantial condition that has caused a great deal of water damage in the field level suites down the third baseline is the expansion joint that exists between the original 1942 structure and the 1999 renovation. Fig. 106 illustrates its condition that is complicated even further by fixed seating elements that straddle the joint. Fig. 108 illustrates the field level suite on either side of the expansion joint between buildings. On several of our visits to McCoy Stadium including the day of our interview, the ceiling as well as the carpeted floor were saturated with water due to failure in the expansion joint assembly coupled with our hypothesis of continuous shifts in the independent structure that may very well exceed the limits of the joint assembly.

There are also a number of hand rails, and broken fixed seating assemblies that require immediate replacement or repair to comply with code required life safety regulations.

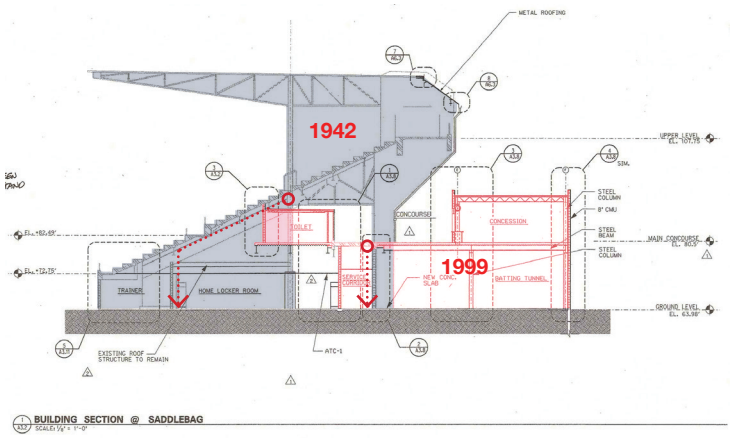


Fig. 101. McCoy Stadium Building Section

Fig. 102. Seating Straddling Expansion Joint

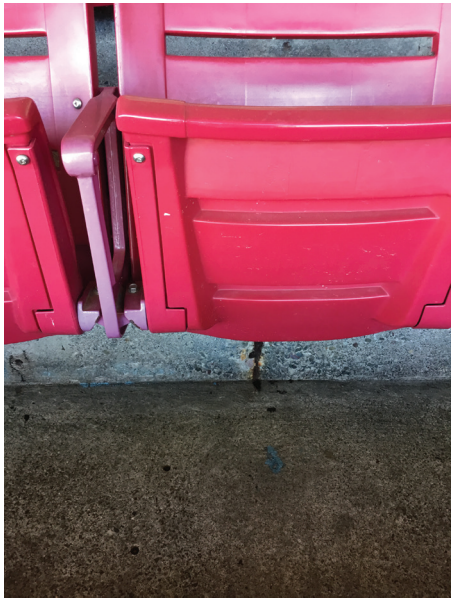


Fig. 103. Exposed & Rusted Rebar

Fig. 105. Cracked Concrete = Water Entry

Fig 107. Major Chips & Cracks At Columns

Fig. 109. Missing Fixed Seating Hardware

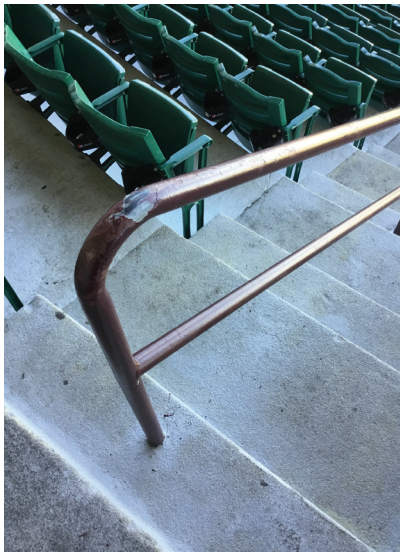


Fig. 111. Dangerous Railing Conditions

Fig. 104. Major Cracks In Horizontal Assembly

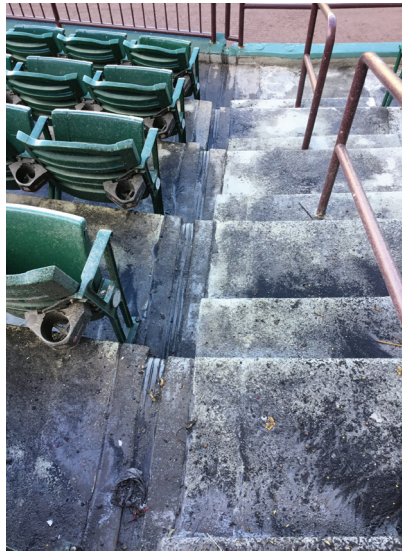


Fig 106. Example of Expansion Joint Condition

Fig. 108. Major Water Damage At Suites

Fig. 110. Moss Crowing Due to Standing Water

1.34 > Grounds Storage & Operations

Fig. 112. Promotions/Retail Storage Room

The primary "grounds storage" area at McCoy Stadium is located directly adjacent to the visiting team dugout on the first base line and is approximately 288 SF (lower right plan). The room is accessed through a six (6) foot wide metal roll down door that opens directly to the warning track. The grounds storage room is also adjacent to "promotions/retail storage" that is approximately 1,440 SF. The primary function of this space is to provide ready access to promotional materials needed for between inning on-field promotional entertainment (i.e. games, mascot materials, etc.)

The current space was originally intended for other uses however during the 1999 renovation the groundskeeping program was not included in the project. Due to the small size of the "grounds storage" room in comparison to similar current facilities, the "promotions/retail storage" is used interchangeably with "grounds storage", which presents a number of operational inefficiencies, placing the tenant at a severe disadvantage in consideration of the fact that the playing field surface is the most important element of the stadium... if there's no field, there's no game, which decreases the likelihood of the presence of patrons.

Groundskeeping & Operations Area At Average Modern Ballparks Is Approximately Four (4) Times Larger Than McCoy

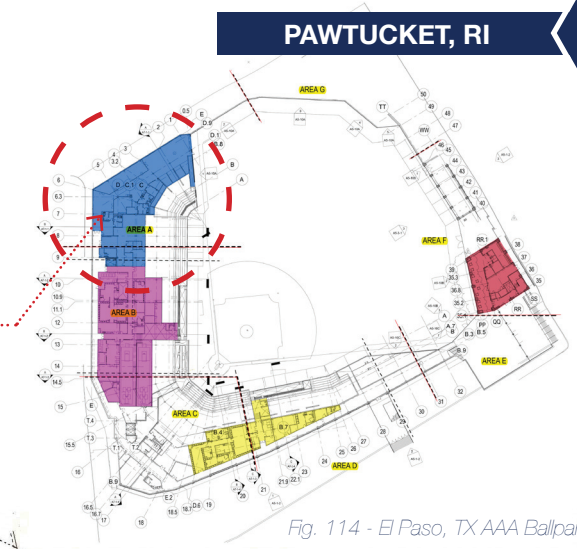


Fig. 114 - El Paso, TX AAA Ballpark Plan

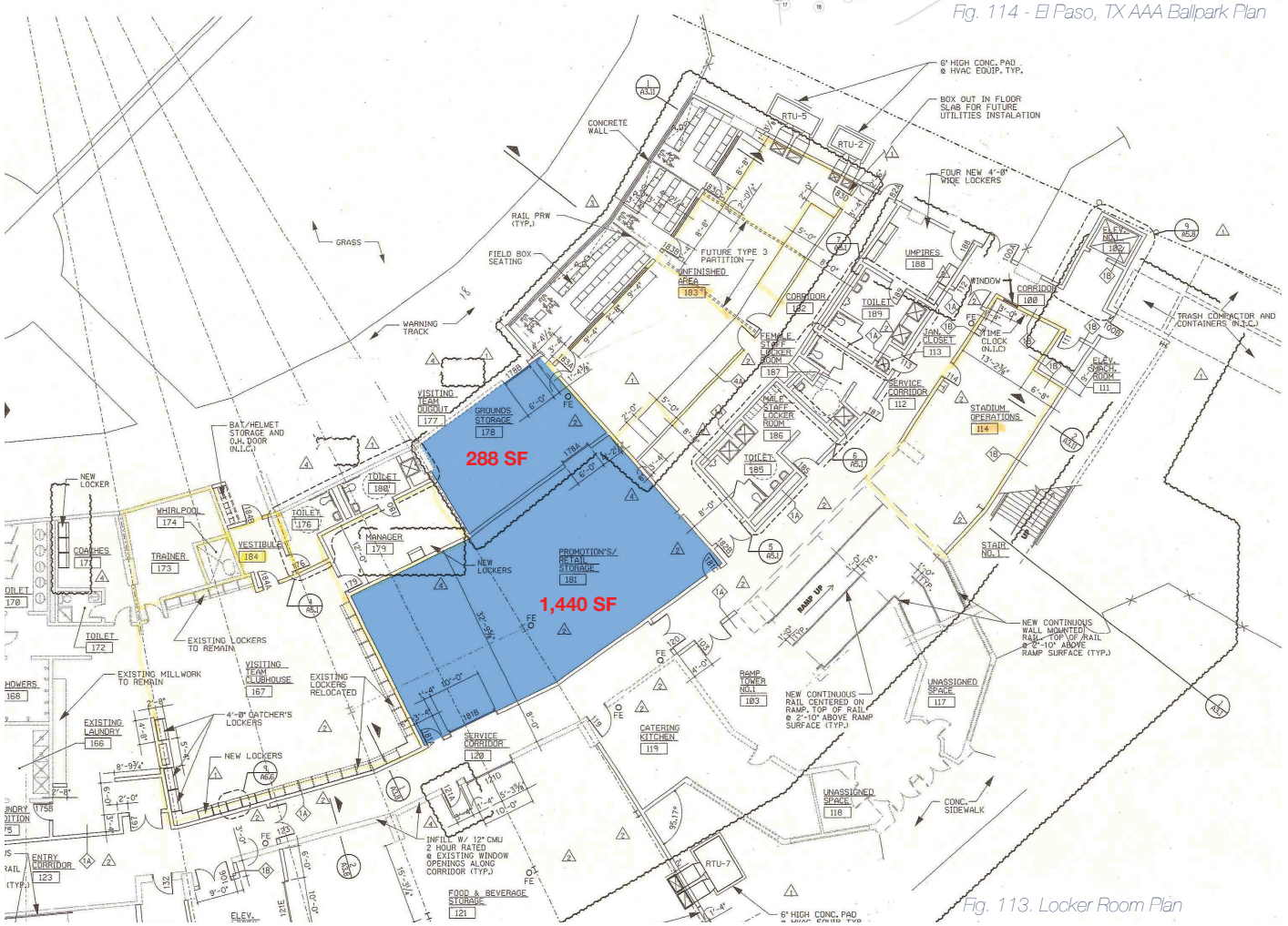


Fig. 113. Locker Room Plan

Excess soils, warning track materials, and sand for use on the field is located at an exterior storage site near the dumpster area and VIP tent further down the first base line. Tractors, mowers, and other field utility equipment are also temporarily stored in this exterior area due to lack of suitable interior space. Although this area is fenced in as illustrated by the photo at the bottom right of this page, it is not secure and therefore not suitable for long-term storage. At the conclusion of events most of the field maintenance equipment is relocated to the to the "grounds storage" room illustrated on the previous page.

A floor plan of the "grounds storage" and operations wing of Southwest University Class AAA Ballpark in El Paso, TX has been provided on the previous page to illustrate the spacial difference between it and McCoy Stadium. You'll note that the soil bins are located at the interior of the building and are directly adjacent to an interior holding area for tractors, mowers, and other related field equipment. In addition, adjacent program areas include a workshop area for service and repair of items on site, operations staff lockers and toilet area, general storage, dedicated MEP equipment rooms, indoor storage for the batting shell, and a spacious receiving/loading dock area.

The spatial deficiencies between more current ballparks (built in the last 10 years), and McCoy Stadium are certainly not surprising. As was mentioned in the preface of this report, there have been many significant shifts in stadium technology and trends over the past 20 years, not to mention in the last 75 years. The important thing to note as it relates to this assessment is the impact on stadium operations, which puts McCoy stadium at a severe disadvantage when giving consideration to the useful life of the building over the next twenty years.

Typically the grounds storage/operations area is comprised of the following program:

• Tractor Storage Area	700 SF
• Flammable Storage	100 SF
• Soil Storage Bins (3@64)	256 SF
• Groundskeeper Office	120 SF
• Grounds Lockers (2@225)	500 SF
• Workshop	400 SF
• Receiving/Loading Dock	400 SF
• Broadcast Pedestal Room	100 SF
• On Field Promo Room	400 SF
Total	2,976 SF

Fig. 116. VIP Party Tent Adjacent To Dumpsters

Fig 115. Concourse Stair To VIP Party Tent

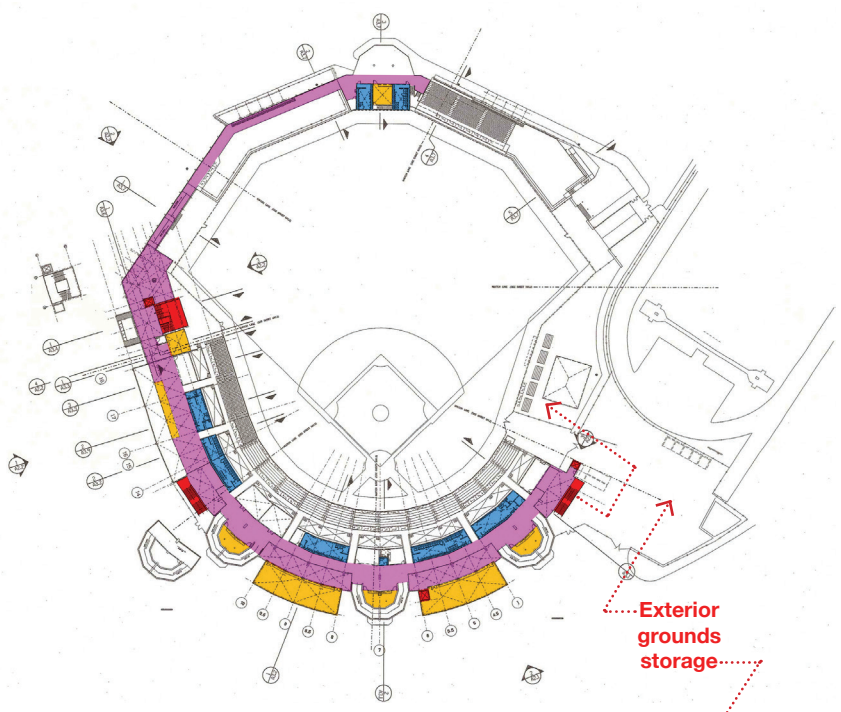


Fig 118. McCoy Stadium Concourse Plan

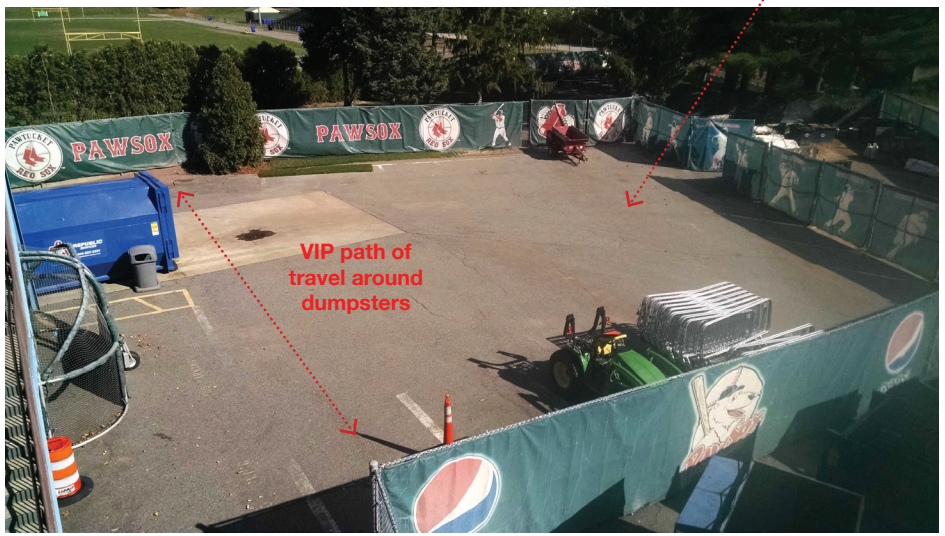


Fig. 117. Exterior Grounds Storage

1.35 > Player Facilities

The home team locker rooms at McCoy Stadium are overall in compliance with MiLB Facility Standards (Appendix B, page A03) as it relates to general square footage and amenities. Due to the home locker room location and the installation of a suspended metal drip pan system above the acoustical ceiling tile (1999 renovation), there has not been significant damage due to water infiltration as has been the case in other regions of the stadium. However, there are still ares of concern from an overall building infrastructure standpoint, such as slab settlement just outside the locker room in the player circulation corridor as described in Section 1.11 (Structural Systems).

The majority of the items listed below speak directly to mostly cosmetics upgrades required at McCoy in addition to a few items associated with infrastructure repair to extend the useful life of the stadium for the next twenty years:

- Repair common water leaks in batting tunnels.
- Increased lighting levels in batting tunnels for required use by players.
- Add temperature control to batting tunnels - currently none installed.
- Repair significant leaks at laundry area.
- Update clubhouse kitchen - casework & finishes.
- Update player showers and toilet fixtures.
- Replace floor coverings (tile & carpet) at all areas.
- Replace lockers at all areas.
- Update coach/manager lockers - all finishes.
- Supplemental clubhouse storage required.

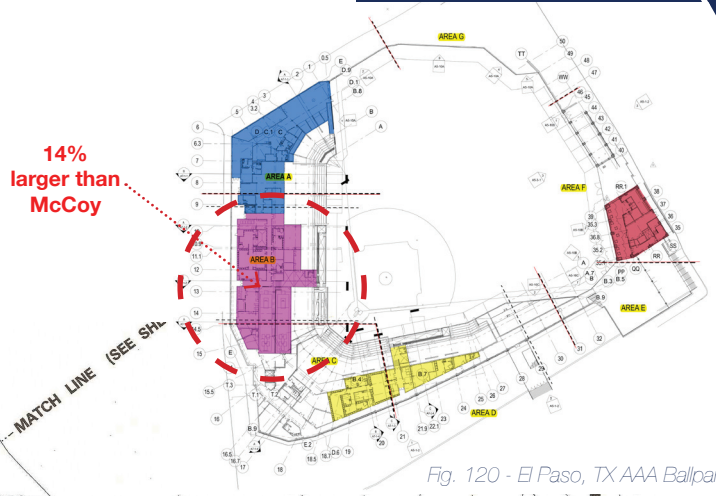


Fig. 120 - El Paso, TX AAA Ballpark Plan

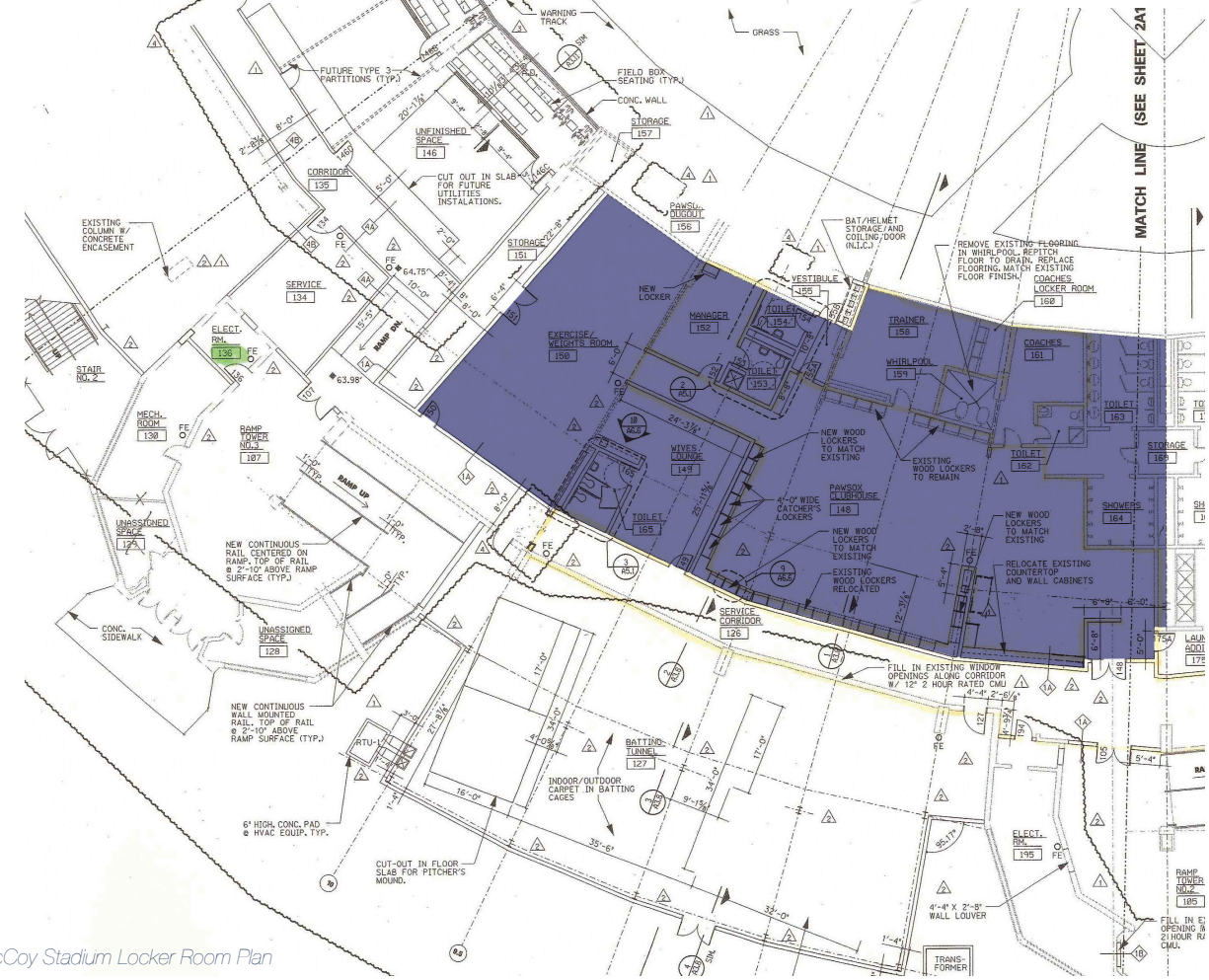


Fig.119. McCoy Stadium Locker Room Plan

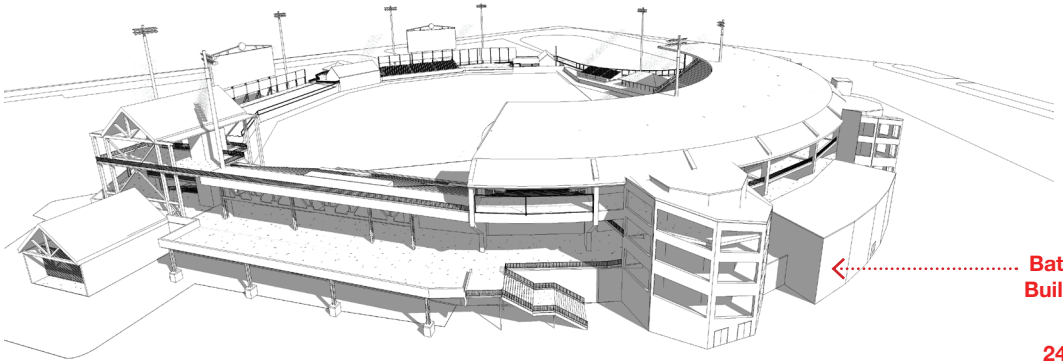


Fig. 121. McCoy Stadium 3D View

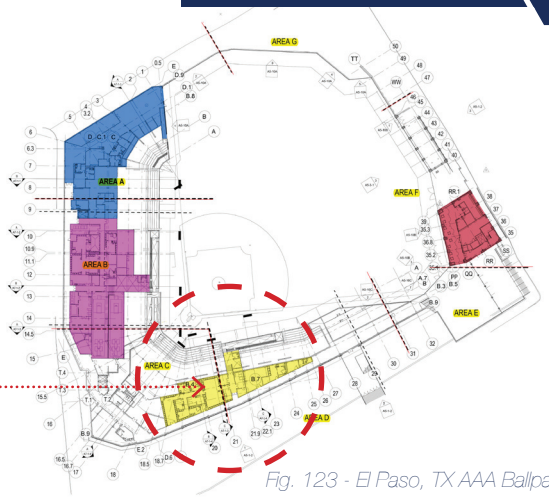


Fig. 123 - El Paso, TX AAA Ballpark Plan

- Repair broken plumbing piping exposed to freezing conditions last winter.

Our comments for the visiting team lockers mirror what was stated regarding the home team's lockers.

Fig. 119 - 123 illustrate the difference in square footage between McCoy Stadium and Class AAA Southwest University Ballpark located in El Paso, TX constructed in 2014. The comparative square footage areas are as follows:

Home Team Lockers:

McCoy Stadium	7,682 SF
El Paso	8,839 SF

El Paso is approximately 14% larger

Visiting Team Lockers:

McCoy Stadium	5,121 SF
El Paso	6,685 SF

El Paso is approximately 24% larger

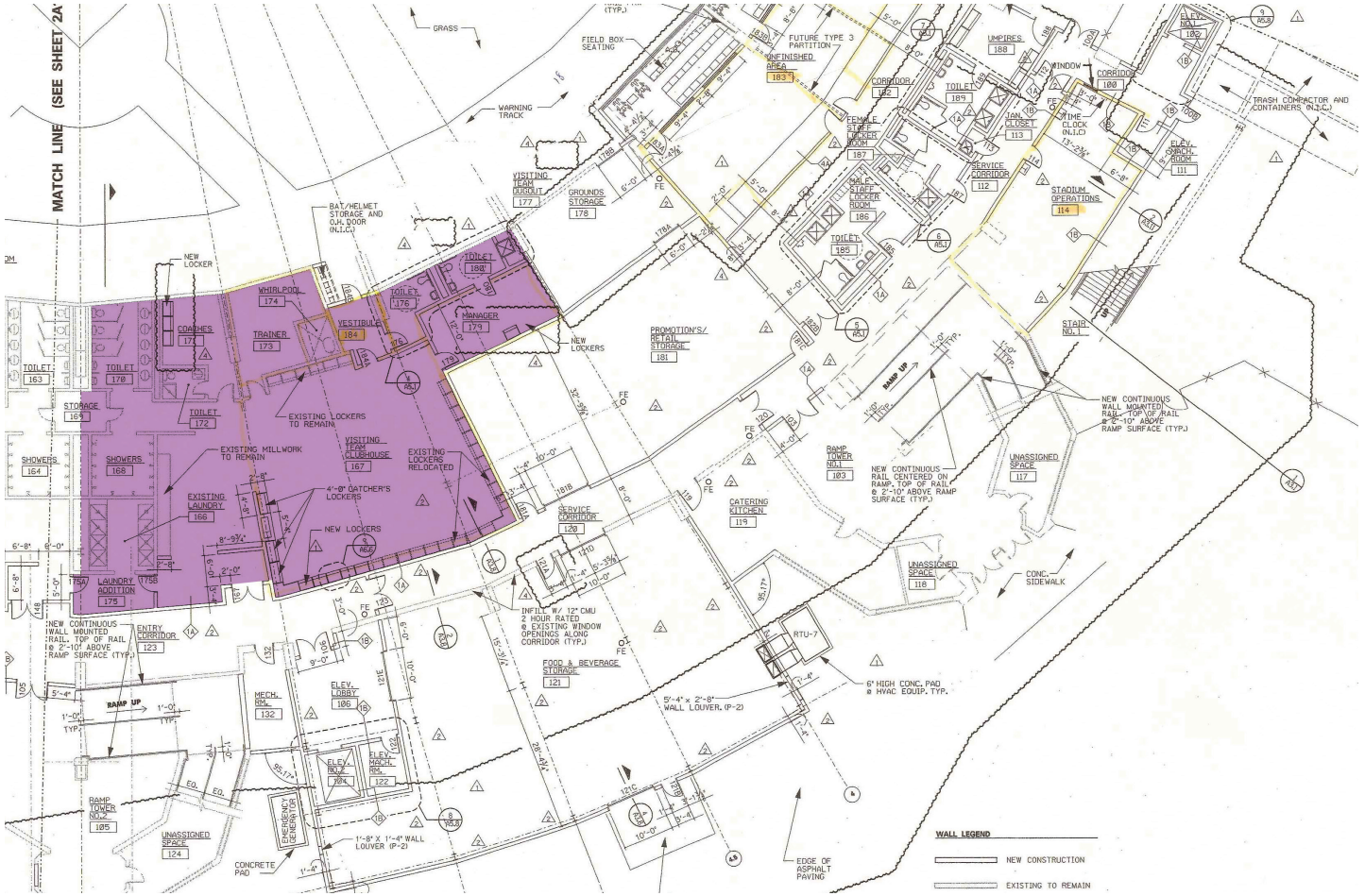


Fig. 122. McCoy Stadium Locker Room Plan

1.36 > Team Administration

Fig. 124. Administration Offices Exterior

The team administration space at McCoy Stadium was added primarily during the 1999 renovation and is represented in the floor plan on the right side of this page by the yellow colored area. You'll note that one of the field level suites has also been included in the administration designation due to the lack of enclosed office and conference room square footage.

The overall condition of the interior space is consistent with what we'd anticipate for a building constructed in 1999 however, issues with water infiltration have played a significant role in damage to ceiling finishes and floor covering which requires immediate resolution.

The 1999 renovation plans originally called for a two story addition which would have resulted in approximately 12,000 SF of enclosed administrative space. The design was only executed on the first level resulting in only 6,925 SF on enclosed space which includes the use of the field level suite as a meeting room.

The team store and ticketing areas, were both of added in the 1999 renovation, and are also suffering from issues associated with water infiltration. It should be noted that the original 1942 ticketing and team administrative areas were housed in the tower structures behind home plate. It is our assumption that in 1942 there was much less demand in the way of vehicular traffic and parking requirements, therefore the intended use of the circulation towers appropriately served their purpose as the primary point of entry.

As previously mentioned in this report, the 1999 renovation resulted in the abandonment of the circulation towers as a primary means of ingress and egress due to the steep slope exceeding current code regulations. The result was the development of the new ticketing and team store area that on a positive note is directly adjacent to the new pedestrian main entry tower down the third base line. The key disadvantage to the placement of these program spaces is the direct separation from the main administrative space.

The following items represent administrative, ticketing, and team store deficiencies that require attention in an effort to extend the useful of McCoy Stadium for the next twenty years:

- Recommend installation of more visible and sponsored team store signage.
- Faulty ticket window microphones and speakers.
- The addition of ticket stock storage is recommended.
- Resolution of a consistent plumbing oder perceived to be from overhead piping.

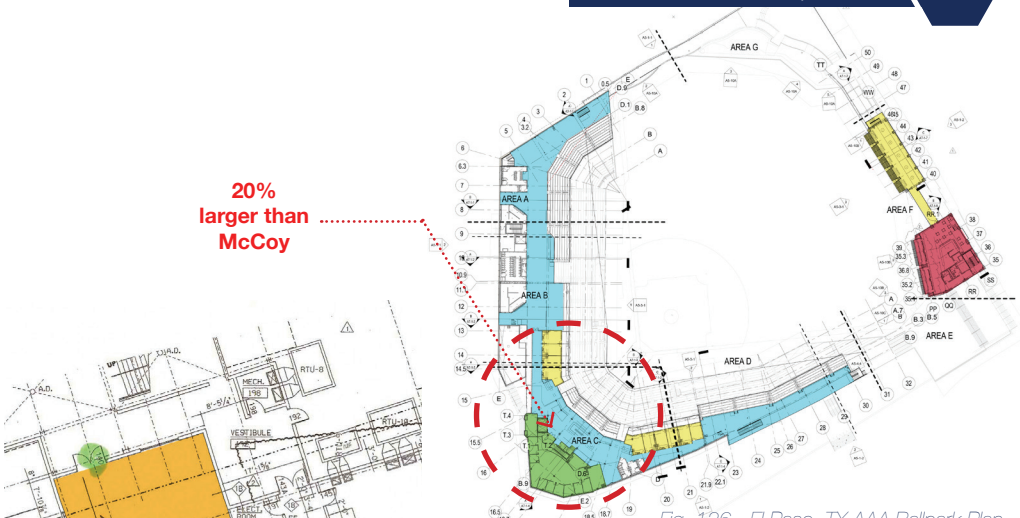


Fig. 126 - El Paso, TX AAA Ballpark Plan

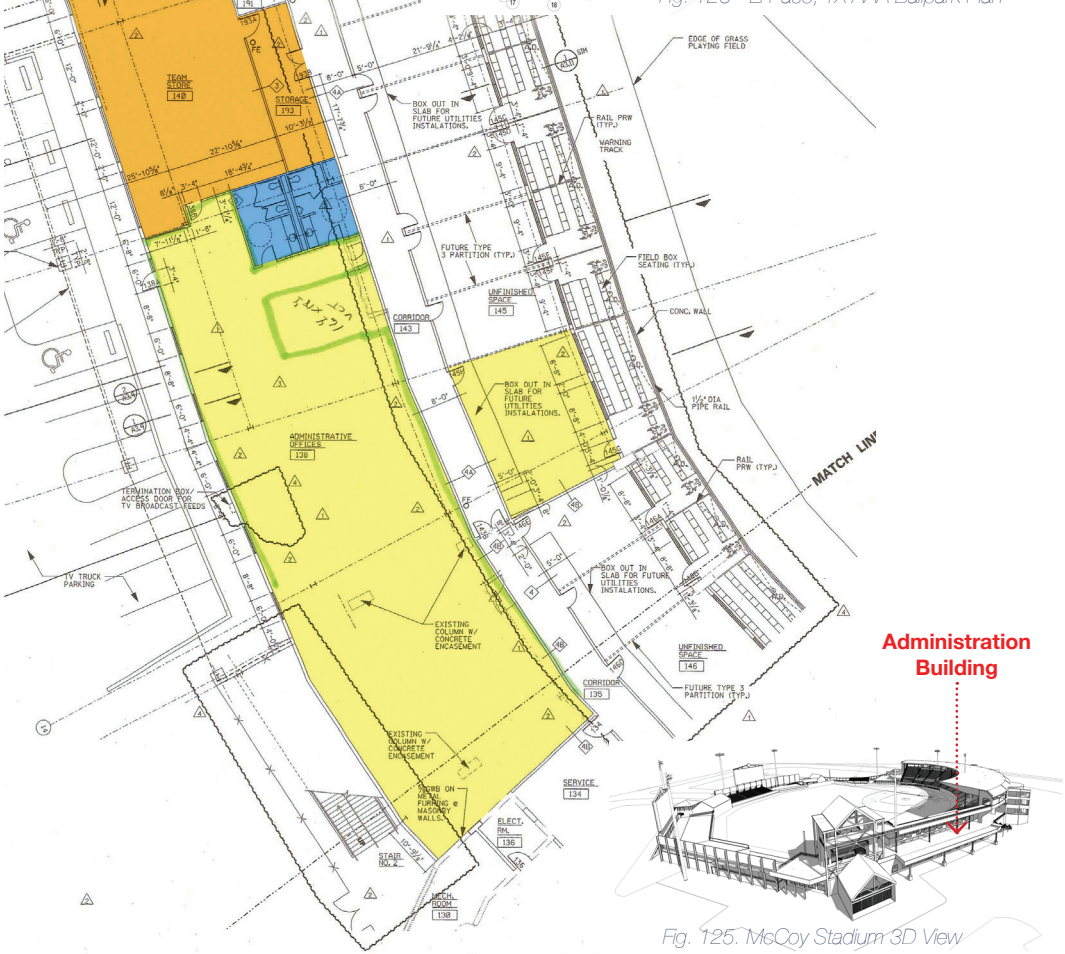


Fig. 125. McCoy Stadium 3D View

- Recommend expanded dedicated team store long-term storage (500 SF).
- Resolution of pest problems (mice/ rodents).
- The addition of a private restroom to accommodate ticket staff.
- Overall square footage needs to increase by a minimum of 1,200 SF.
- An increase in the number of enclosed offices (6) is recommended to reduce the number of shared employee spaces.
- Card key security technology is recommended for employee access.
- Reconfiguration of the administrative lobby is recommended to facilitate visitor access as well as the incorporation of more dynamic team branding.
- Based on the admin. head count we recommend an expansion of the admin. restrooms to comply with local code requirements.
- Reconfiguration of the lighting grid upon completion of the office reconfiguration to provide even distribution of workstation lighting in conjunction with the addition of new floor receptacles and task lighting.
- A complete overhaul of the wired network system is required to accommodate departmental use. This upgrade will also allow for restructuring of the phone system that is currently defunct.
- A complete overhaul of the wireless intra-net infrastructure is recommended to facilitate safe/secure transfer of data public and private.
- Increased power distribution for devices and axillary equipment is recommended.
- The addition of staff lounge/kitchen is common in current ballparks and recommended for the administrative wing of McCoy Stadium.
- The addition of a dedicated conference room to seat fourteen (14) and an additional "war room" to accommodate eight (8) is recommended.
- The addition of two small private phone rooms is recommended for use during private calls in the open office setting.
- The addition of a dedicated server/IT room as the central termination point of all network cabling runs is recommended.
- The addition of an enclosed lockable storage room for private/filed documents is recommended.

As an extension of the at-grade team administration areas, the press facilities that serve as the backbone for during game production. The following is a list of deficiencies that require attention in an effort to extend the useful life of McCoy Stadium for the next twenty years:

- Currently the press box includes only one (1) unisex restroom. In consideration of the growing participation of female press, we recommend the expansion to two (2) restrooms.
- Fig. 129 illustrates the obstructed view from the seated writing press area - press members cannot see home plate.
- Fig. 130 illustrates a non-compliant condition in the press production room. Cross bracing that stabilizes the press box creates a head-knock condition in the room, hence the foam wrapping.
- We recommend increasing the press box by approximately 25% to accommodate current technology needs associated with video production and scoreboard replay.

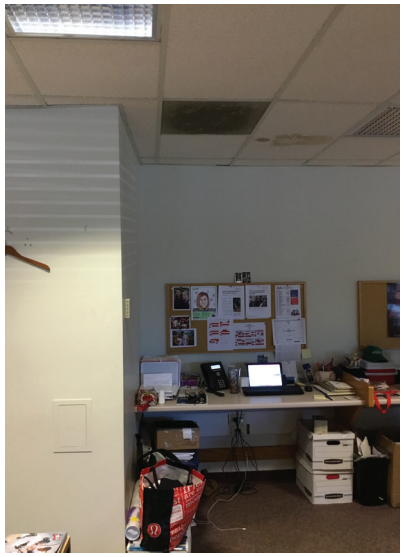


Fig. 128. Stained Ceiling Tile In Admin. Space

Fig. 130. Head-Knock Condition @ Press Box

Fig. 127. Water Infiltration = Damaged Carpet

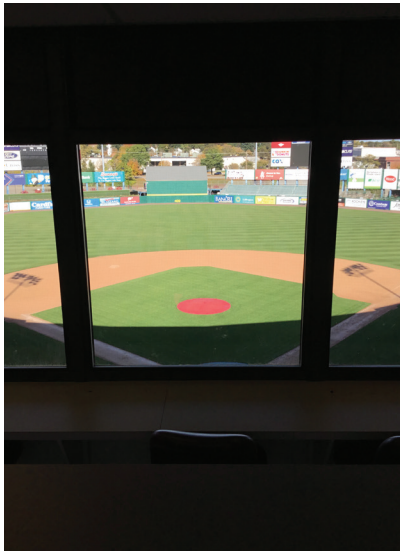


Fig. 129. Obstructed View Of Home Plate

1.37 > Food Service

Fig. 131. Suite Service Pantry

The food service operations at McCoy Stadium was significantly revamped during the 1999 renovation. One of the key improvements was the addition of a commissary storage area (central clearing house for dry goods, beer keg coolers, and frozen goods) just to the right of home plate along the outer edge of the building (approximately 3,350 SF). It is served in theory by a service elevator, however its use has been limited due to overheating and malfunction as described in Section 1.21 (MEP & Technology).

McCoy's commissary storage area is roughly 40% smaller than the average Class AAA ballpark as illustrated by the example of BB&T Ballpark located in Charlotte, NC (Fig. 132). While McCoy's commissary only serves as primary storage (and old mechanical equipment dated prior to 1990), most ballpark commissary storage spaces in similar markets and of similar scale built within the last ten (10) years include central cooking areas

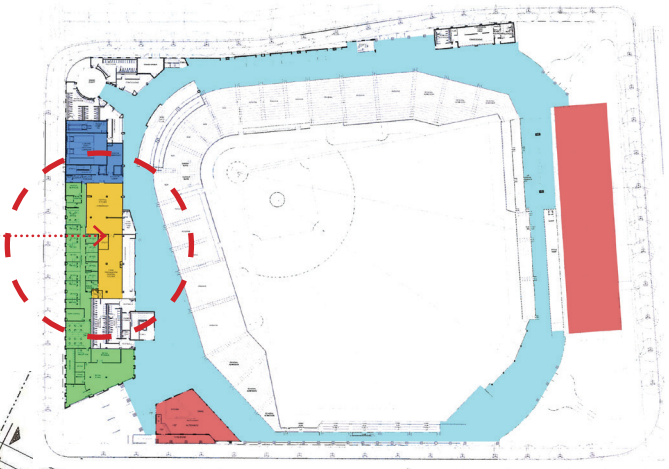


Fig. 132. Charlotte, NC AAA Ballpark Plan

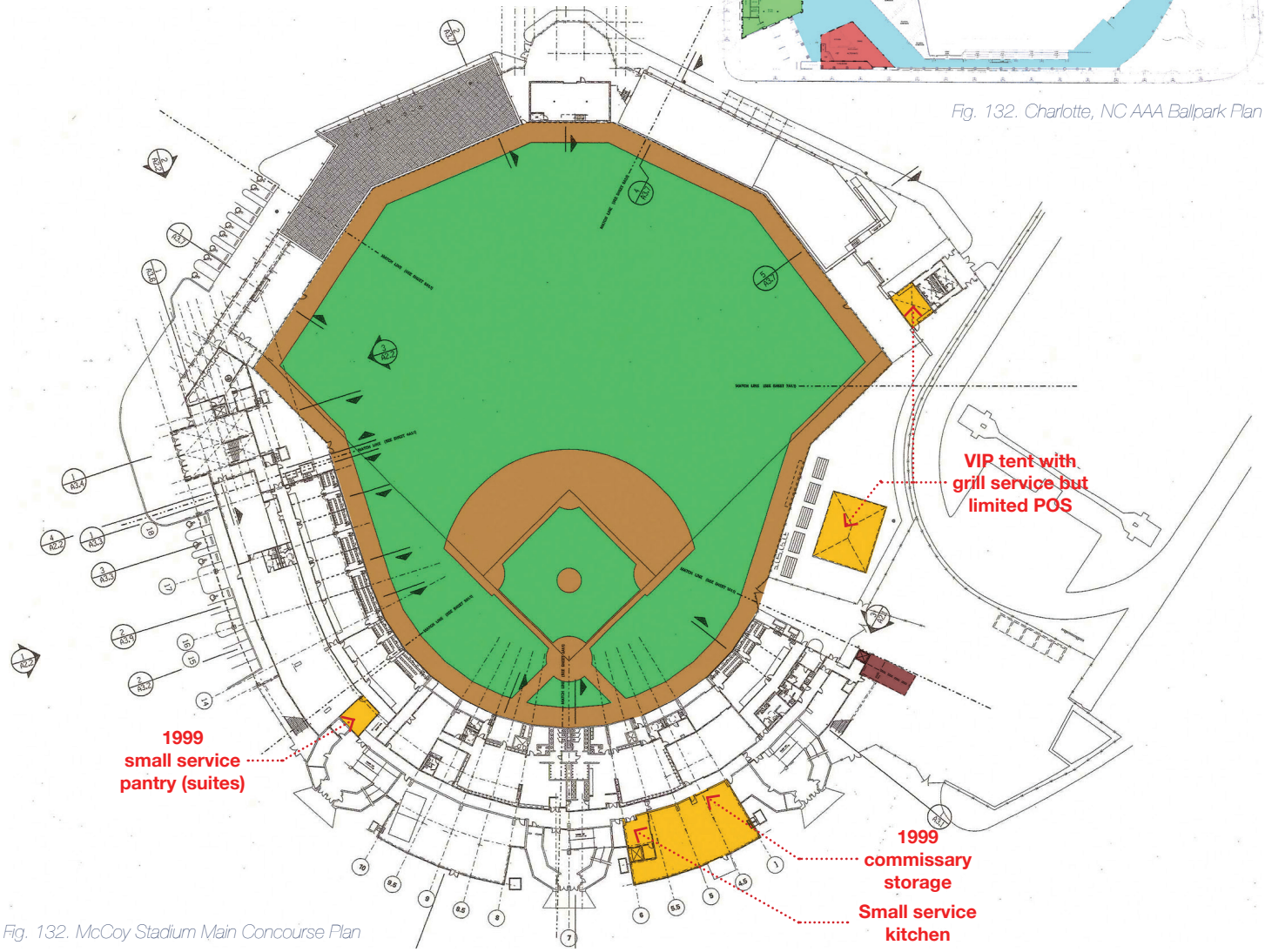


Fig. 132. McCoy Stadium Main Concourse Plan

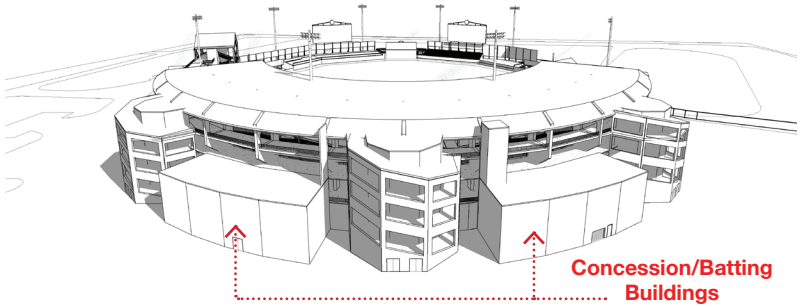


Fig. 133. McCoy Stadium 3D View

in lieu of localized cooking at each concession stand as is the case at McCoy. The absence of a central cooking kitchen/production line (hoods and Ansel systems) with focused primary production of high finish foods, particularly to serve premium serves as a severe disadvantage for McCoy Stadium and in essence eliminates the possibility to efficiently and professionally provide banqueting and catering services for 365 days a year operations which has served as a major source of increased revenues for many current ballparks.

The following items represent concession related deficiencies that require attention in an effort to extend the useful of McCoy Stadium for the next twenty years:

- Repair broken gas line hookup in the first base main concession stand.
- Repair broken boiler at third base concession area.
- Upgrade Point Of Sale (POS) system to increase efficiency of patron services and reduce line que
- Repair/replace multiple cracked pipes in three bay sinks (heath code).
- Repair/replace multiple cracked sink faucets.
- Resolve pest problems (mice/rodents) that result in potential health code issues.
- Repair/replace broken dish machine
- Addition of cold beverage station at third base line terrace is recommended.
- Revamp wired networking system in conjunction with recommended administrative upgrades.
- Expand/replace roofing over concourse terrace grilles (Fig. 135) is recommended. Typically the health department requires grilles to be covered to prevent insects and other flying objects to contaminate food.
- Application of sanitary traffic coating at concourse terrace grilles is recommended (Fig. 135). This is typically required by the health department at cooking areas.
- Addition of power is recommended to serve the outfield amenities. Currently both power and data is severely limited to these ares, and there is concern that lighting levels do not meet minimum requirements.
- Establishing a uniform and digital menu board system is highly recommended which will allow the ability to modify pricing structure and offerings digital and on an event-by-event basis.

During our visit to the ballpark on several occasions our representatives waited in rather long lines for food & beverage (this will be further addressed in Section 1.39 of this report), only to find that once we arrived at the front of the queue the stand was out of service items (hot dogs at one location, particular beer at another location). While understandable this was a very off-putting situation that can be easily addressed with a digital menu board system as recommended above.

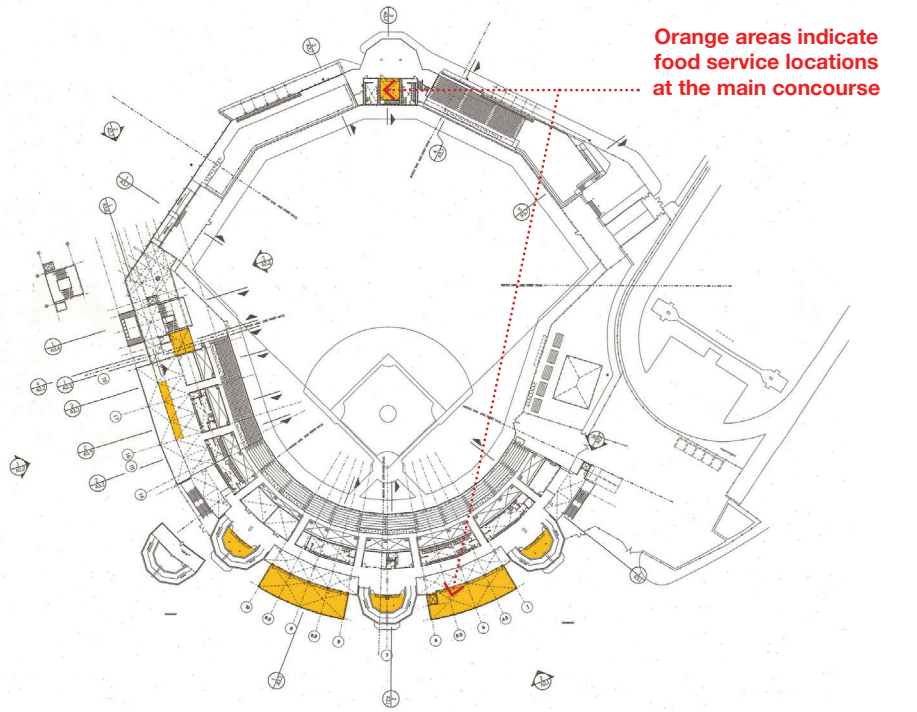


Fig. 135. Main Concourse Concession Plan

Fig. 134 Main Concourse Cooking Concession

Fig. 136. Concourse Terrace Grill - No Cover

1.38 >
Vertical Circulation - Elevators

Generally speaking, mechanical conveyance systems in the form of elevators have been described in Sections 1.21.& 1.22 (MEP & Technology). In summary, there does not seem to be appropriate ventilation in any of the elevator shafts which has been cited by our Mechanical Engineer as a potential code violation. It has been recommended that a small cooling system is installed in each of the shafts to resolve the issue however it is our opinion that the poor ventilation coupled with consistent issues associated with water infiltration will require the direct replacement of each elevator.

In an effort to extend the useful life of McCoy Stadium for the next twenty years, we recommend the following as it relates to elevators:

- Demolish all existing elevator cabs and rail systems.
- Analyze and retrofit each hoist way to resolve issues associated with water infiltration.
- Investigate all sump pits to ensure appropriate/required drainage and operation.
- Replace elevators E01 & E02 with freight elevators (3,500 lb. capacity) - with durable and protective finishes (i.e. rubberized floor covering, cab blanket hangers, impact resistant lighting).
- The minimum door size for elevator E01 & E02 shall be 4'-0" wide.
- Replace elevator E03 with a standard passenger elevator (2,500 lb. capacity). Premium finishes (e.g. stainless steel) shall be used for doors, frames, and interior panels.

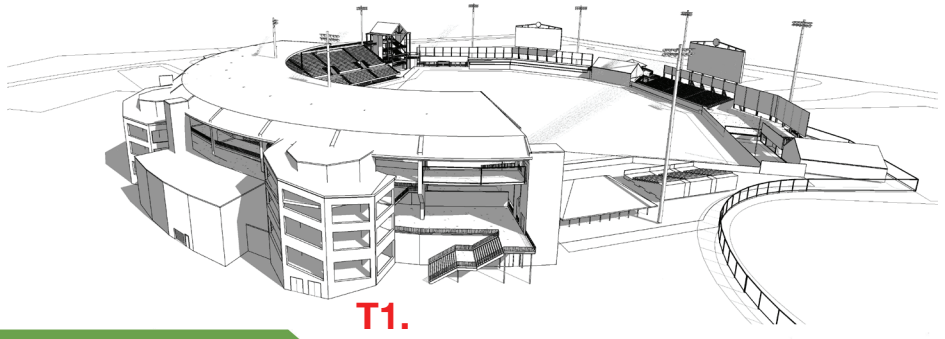


Fig. 138. McCoy Stadium 3D View

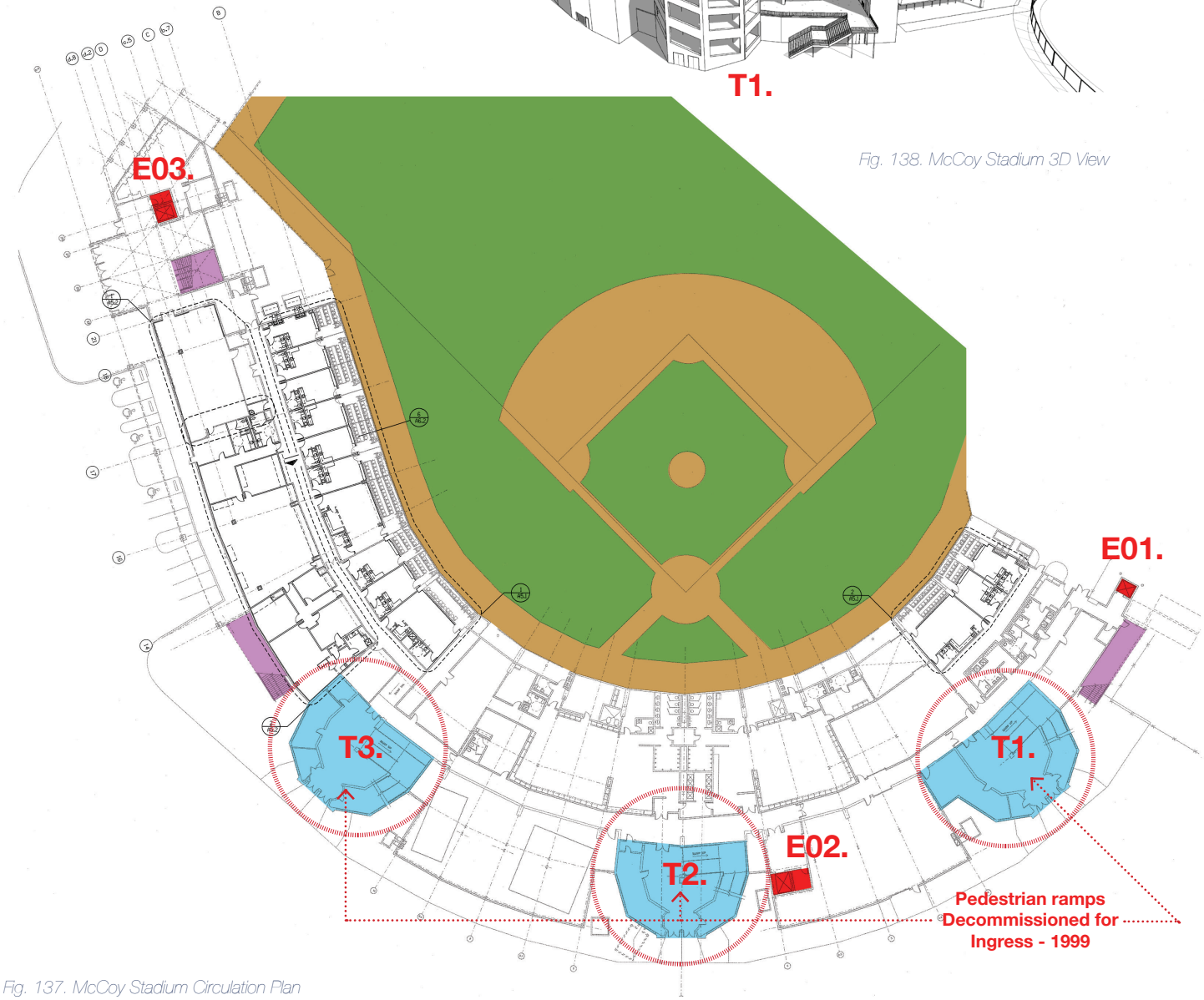


Fig. 137. McCoy Stadium Circulation Plan

1.39 >
Hospitality & Concourses

Fig. 139 - Typical Main Concourse Experience

Basic Features >>

The main concourse was added in the 1999 renovation of McCoy Stadium. Concession stands were added at the exterior perimeter (orange), vertical circulation was added to supplement the ingress/egress width that was removed at the ramp towers due to the code compliance issues mentioned in Section 1.38, and new public restrooms (men and women) were added inboard of the exterior perimeter to comply with current "potty parody" regulations.

Although the efforts of the 1999 renovation were a quantum leap forward in comparison to what was originally provided in 1942, there are many untended consequences associated with the additions that require resolution in an effort to

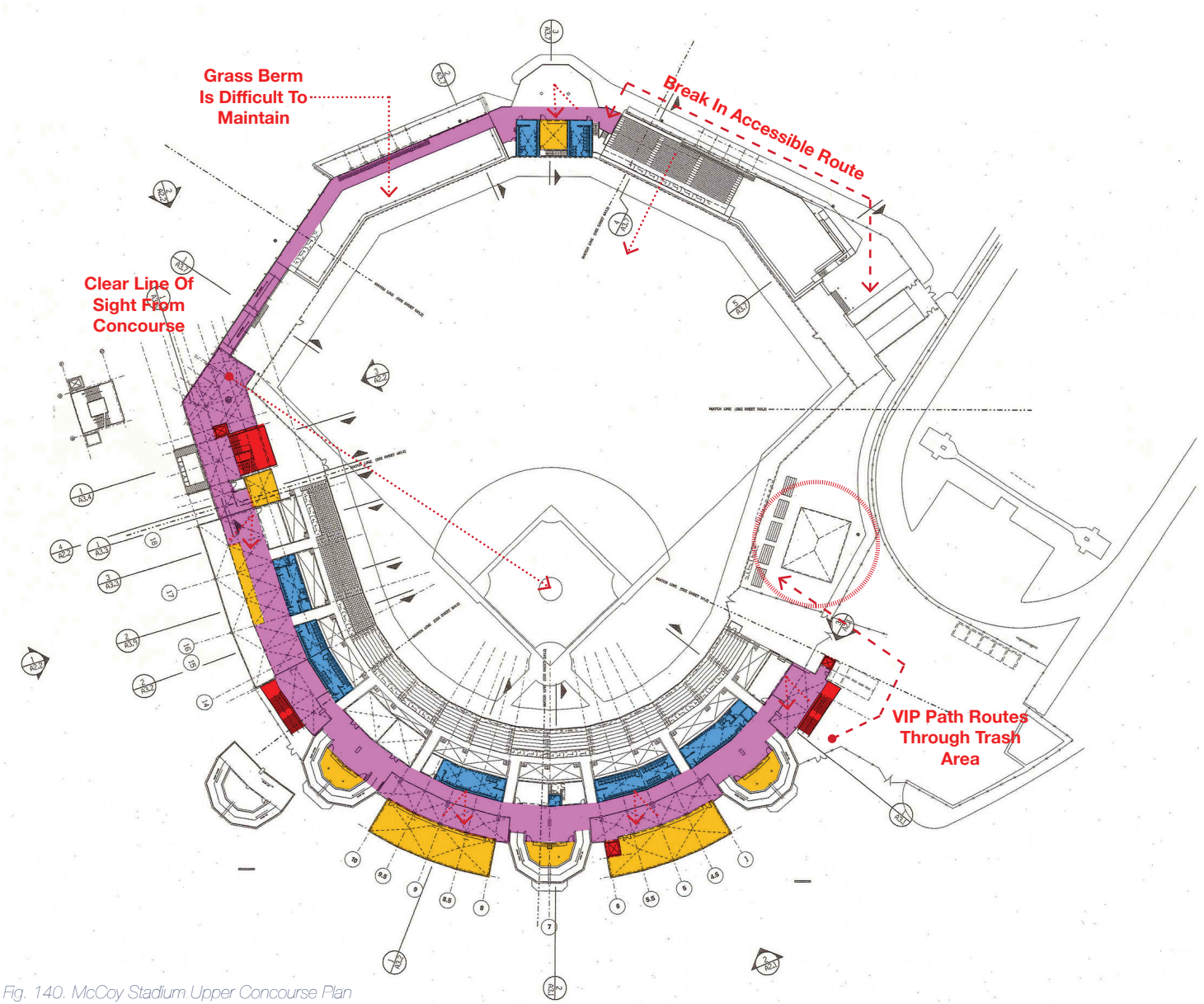


Fig. 140. McCoy Stadium Upper Concourse Plan

extend the useful life of the facility for the next twenty years. First and foremost the recurring issues associated with water infiltration must be remedied immediately. During our on-site observations we noticed numerous and consistent areas of ponding water on the 1999 added concourse where it seems that positive drainage is not being achieved. The only way to direct water to the appropriate drains which in most cases is only a few feet away, squeegees must be used to force the issue *(Fig. 142)*. The image associated with Fig 148 seems to indicated standing water at a high point on the concourse however the area adjacent to the overflow scupper appears to be a flat point because water is ponding directly in front of the opening rather than down the exterior downspout. There is only one area that we observed that an installation of equipment/beverage service is impeding the free flow of water *(Fig. 149)*.

Our recommendation for resolving these issues are as follows:

- Demolish existing elevated slab to the deck.
- Remove all corrosions associated with water infiltration at steel decks and structural members.
- Seal all structural steel members to prevent further deterioration.
- Reinstall decking with "sandwich slab" (structural slab with self healing waterproofing membrane layer) and topping slab with positive drainage, sloped to area drains.
- Flash all joints - specifically at the area identified (circled) in Fig. 141 at the upper portion of this page (as well as similar conditions).

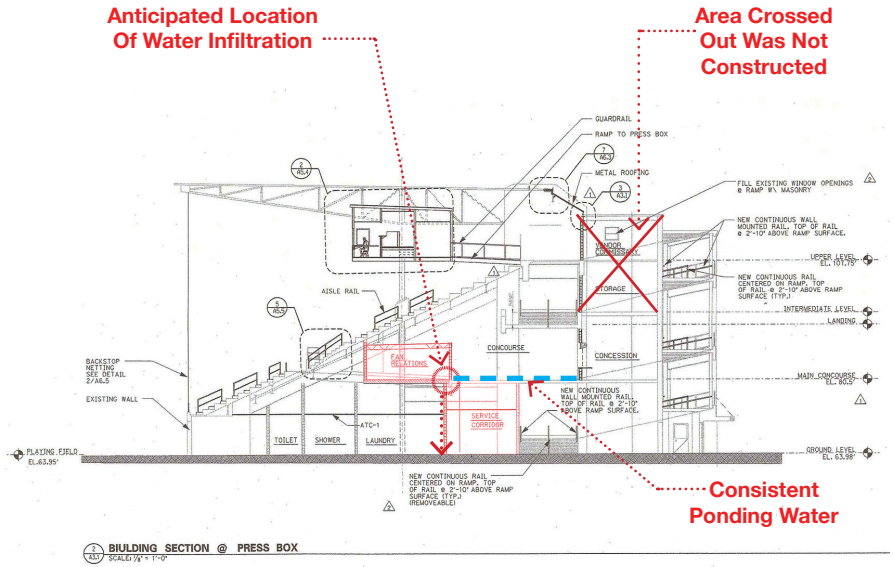


Fig. 141. McCoy Stadium Building Section

Fig. 142. Standing Water On Concourse

Fig 148. Standing Water @ Scupper

Fig. 149. Covered Area Drain

Hospitality & Sponsorship >>

In an effort to extend the useful life of McCoy Stadium for the next twenty years we recommend the following as it relates to Hospitality and Sponsorship:

- Replace deteriorated outfield signage with weather resistant materials - preferably a legitimate sigange system (aluminum frame w/dibond sign).
- Replace scoreboard with new technology and readily serviceable parts.
- Increase size of public restrooms at right field BBQ area to accommodate actual ticketed number of patrons.
- Install audible bird deterrent system five (5) individual units.
- Execute a complete signage, graphics, and way-finding package - including naming rights sponsor signs at major entries, team store, ticketing, and group areas.
- Execute a complete interior rehabilitation at the premium suites (interior finishes, furniture, appliances, displays, etc.).
- Rehabilitate public restrooms - seal open air areas, refresh paint.
- Add a kids play area in lieu of the hard to maintain grass seating berm in left field.
- Enclose main dumpster area to contain foul odors and general unsightliness down the right field line.
- Demolish the right field tent and create a permanent structure with utilities consistent with a true VIP area.
- Connect the right field outfield concourse with the accessible route allowing ADA patrons to circulate the concourse 360 degrees.
- Create outfield ticketing/bar area (left center) with views to the field and accommodations for patron entry from parking north of Division Street.

Fig. 160. Narrow Concourse - Long Lines

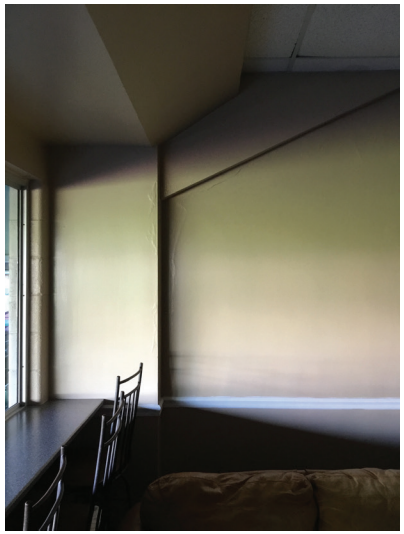


Fig. 171. Dated Premium Suite Interior

Fig. 173. Floors Subject to Water Infiltration

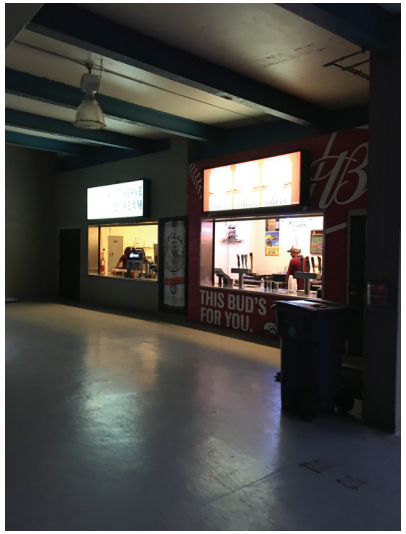


Fig. 150. Malfunctioning Concourse Lighting

Fig. 170. Deteriorated Sponsor Signage

Fig. 172. Enclosed Areas Not Weather Tight

1.40 > Architectural Summary

The anticipated costs outlined below align with the descriptions of existing conditions mentioned in Sections 1.32 - 1.39. This scope of work includes repair and/or replacement of existing conditions with in an effort to prolong the useful life of the facility by twenty years.

1.32 Playing Field Surface

No.	Item	Unit	Qty	Cost	Total Cost
1.32A	Playing Field Demolition	GSF	135,000	$1.50	$202,500.00
1.32B	Playing Field Sub Surface Reair	GSF	135,000	$3.50	$472,500.00
1.32C	Playing Field Sod	GSF	135,000	$4.50	$607,500.00
1.32D	Replace Field Wall	GSF	13,000	$8.00	$104,000.00
1.32E	Misc. Base Line Fencing	LF	300	$50.00	$15,000.00
1.32F	Field Wall Padding	SF	13,750	$15.00	$206,250.00
	Sub-Total				$1,607,750.00
	Contingency	15%			$241,162.50
	Total				**$1,848,912.50**

1.33 Seating Bowl

No.	Item	Unit	Qty	Cost	Total Cost
1.33A	Heavy Traffic Coating	GSF	40,876	$6.00	$245,256.00
1.33B	Seating Demo	EA	7,208	$1.50	$10,812.00
1.33C	Four Top Seating	EA	400	$550.00	$220,000.00
1.33D	Suite Re-seat	EA	280	$200.00	$56,000.00
1.33E	GA Re-seat	EA	4,361	$125.00	$545,125.00
1.33F	Box Re-seat	EA	2,167	$150.00	$325,050.00
1.33G	Drink Rail	LF	1,200	$125.00	$150,000.00
1.33H	Main Seating Bowl Roof	GSF	40,000	$5.00	$200,000.00
	Sub-Total				$1,752,243.00
	Contingency	15%			$262,836.45
	Total				**$2,015,079.45**

1.34 Grounds Storeage & Operations

No.	Item	Unit	Qty	Cost	Total Cost
1.34A	Trash Enclosure Building	GSF	4,000	$150.00	$600,000.00
	Sub-Total				$600,000.00
	Contingency	15%			$90,000.00
	Total				**$690,000.00**

1.35 Player Facilities

No.	Item	Unit	Qty	Cost	Total Cost
1.35A	Floor Covering Replaement (Damage Repair)	GSF	12,773	$6.50	$83,024.50
1.35B	Update Lockers	EA	95	$1,200.00	$114,000.00
1.35C	Replace Ceiling Finishes (Damage Repair)	GSF	12,773	$6.50	$83,024.50
1.35D	Paint Vertical Surfaces (Damage Repair)	GSF	12,773	$1.60	$20,436.80
1.35E	Media Display/Digital Directional Signage	EA	8	$650.00	$5,200.00
1.35F	Locker Hospitality Area	EA	4	$2,500.00	$10,000.00
1.35G	Locker Benching	EA	90	$75.00	$6,750.00
1.35H	Kitchen Surfaces (Damage Repair)	LF	15	$150.00	$2,250.00
1.35J	Shower/Restroom Surfaces (Damage Repair)	GSF	1,500	$5.50	$8,250.00
1.35K	Selective Demolition	GSF	12,773	$1.50	$19,159.50
	Sub-Total				$352,095.30
	Contingency	15%			$52,814.30
	Total				**$404,909.60**

1.36 Team Administration

No.	Item	Unit	Qty	Cost	Total Cost
1.36A	Add To Second Level (conf., office, etc.)	GSF	2,800	$175.00	$490,000.00
1.36B	Replace Existing Floor Finishes (Repair)	GSF	6,800	$6.50	$44,200.00
1.36C	Replace Ceiling Finishes (Damage Repair)	GSF	6,800	$6.50	$44,200.00
1.36D	Paint Vertical Surfaces (Damage Repair)	GSF	6,800	$2.50	$17,000.00
1.36E	Consruct New Offices (8 @ 150 sf)	GSF	1,200	$24.50	$29,400.00
1.36F	Office Workstation	EA	35	$2,500.00	$87,500.00
1.36G	Lobby Furnishings	LS	1	$15,000.00	$15,000.00
1.36H	Staff Lounge Reconfiguration	LF	15	$200.00	$3,000.00
1.36J	Press Box Expansion	GSF	800	$150.00	$120,000.00
1.36K	Install New Ticket Windows	EA	10	$3,000.00	$30,000.00
1.37L	Selective Demolition	GSF	6,800	$1.50	$10,200.00
	Sub-Total				$890,500.00
	Contingency	15%			$133,575.00
	Total				**$1,024,075.00**

1.37 Food Service

No.	Item	Unit	Qty	Cost	Total Cost
1.37A	Repalce Point of Sale System	LS	1	$250,000.00	$250,000.00
1.37B	3rd Base Line Terrace Cold Beverage Station	EA	1	$4,500.00	$4,500.00
1.37C	Replace Grill Stations Mobile Carts (Main Con)	EA	12	$9,500.00	$114,000.00
1.37D	Install Digital Menu Board System	EA	40	$1,200.00	$48,000.00
1.37E	Concession Equipment Replacement*	LS	1	$500,000.00	$500,000.00
1.37F	Food Service Admin Revamp	SF	1,000	$24.50	$24,500.00
1.37G	RF BBQ Revamp (per POS)	EA	4	$15,000.00	$60,000.00
	Sub-Total				$1,001,000.00
	Contingency	15%			$150,150.00
	Total				**$1,151,150.00**

1.38 Vertical Circulation - Elevators

No.	Item	Unit	Qty	Cost	Total Cost
1.39A	Elevator Demolition	EA	3	$15,000.00	$45,000.00
1.38A	Replace Elevators (2 Freight, 1 Passenger)	STP	9	$45,000.00	$405,000.00
1.38B	New Outfield Entry	LS	1	$50,000.00	$50,000.00
1.38C	ADA Stair Lift (Right Field)	EA	1	$20,000.00	$20,000.00
	Sub-Total				$520,000.00
	Contingency	15%			$78,000.00
	Total				**$598,000.00**

* Concession Equipment Replaement Includes the following:
Walk in Freezers
Walk In Coolers
Three Compartment Sinks

1.39 Hospitality & Concourses

No.	Item	Unit	Qty	Cost	Total Cost
1.39A	Exterior Concourse Traffic Coating	GSF	24,890	$6.00	$149,340.00
1.39B	Flashing/Caulking	GSF	72,719	$2.50	$181,797.50
1.39C	Replace Outfield Sponsor Signs 10x24 Panel	EA	20	$8,000.00	$160,000.00
1.39D	Replace Scoreboard #1 with 250' Ribbon	LF	250	$5,000.00	$1,250,000.00
1.39E	Replace Scoreboard #2 with 36'x80' Board	EA	1	$1,537,500.00	$1,537,500.00
1.39F	BBQ Restroom Epansion (8 Fixtures)	EA	8	$3,500.00	$28,000.00
1.39G	Signage, Graphics & Wayfinding Package	EA	10,031	$30.00	$300,930.00
1.39H	Install New Ornamental Fencing	LF	810	$750.00	$607,500.00
1.39J	Install New Ornamental Gates	EA	14	$2,500.00	$35,000.00
1.39K	Install Audible Bird Deterrant System	EA	5	$1,200.00	$6,000.00
1.39L	Replace Toilet Partitions	EA	72	$1,200.00	$86,400.00
1.39M	Restroom Interior Paint	GSF	5,760	$2.50	$14,400.00
1.39N	Replace Concession Stand Cielings	GSF	6,000	$6.50	$39,000.00
1.39O	VIP Enclousre	GSF	4,800	$125.00	$600,000.00
1.39P	Install Kids Fun Zone	LS	1	$65,000.00	$65,000.00
1.39Q	Electronic Media Displays	EA	20	$650.00	$13,000.00
	Sub-Total				$5,073,867.50
	Contingency	15%			$761,080.13
	Total				**$5,834,947.63**

1.30 Architectural Summary

No.	Item	Unit	Qty	Cost	Total Cost
1.32	Playing Field Surface				$1,848,912.50
1.33	Seating Bowl				$2,015,079.45
1.34	Grounds Storage & Operations				$690,000.00
1.35	Player Facilities				$404,909.60
1.36	Team Administration				$1,024,075.00
1.37	Food Service				$1,151,150.00
1.38	Vertical Circulation - Elevators				$598,000.00
1.39	Hospitality & Concourses				$5,834,947.63
	Total				**$13,567,074.17**

1.41 >
Preliminary Anticipated Budget Summary

The anticipated costs outlined below align with the descriptions of existing conditions mentioned in Sections 1.00 - 1.40. This scope of work includes repair and/or replacement of existing conditions with in an effort to prolong the useful life of the facility twenty years.

As illustrated by the Ashrae Life Span Chart in the Appendix, the majority of the equipment scheduled for replacement in Part 01 will be eligible for replacement and most likely will require replacement at the end of the twenty year cycle which will require additional financial commitment.

SUMMARY ALL SECTIONS - 2018 DOLLARS

No.	Item	Unit	Qty	Cost	Total Cost
1.01	Site Conditions				$7,469,200.00
1.12	Structural Systems				$2,927,529.13
1.22	MEP Systems				$4,836,900.00
1.30	Architectural Systems				$13,567,074.17
	Total Hard Costs				**$28,800,703.30**
1.41	**Probable Soft Costs**				
1.41A	Construction Manager	2%			$576,014.07
1.41B	**Contractctor O&P**	**5%**			**$1,440,035.17**
1.41C	General Conditions	4%			$1,152,028.13
1.41D	A/E Services	8%			$2,304,056.26
	Sub-Total				**$5,472,133.63**
	ESCALATION - 2018 DOLLARS	4%			$1,370,913.48
	Grand Total - All In				**$35,643,750.40**

* See Appendix A for list of common abbreviations

DISCLAIMER - All budget numbers included in this cost model are preliminary in nature. Additional testing, study, survey and documentation are required prior to establishing a final cost opinion. Pendulum and its counterparts shall be held harmless for ANY variations in cost included in this documents. A complete set of engineered documents must be completed accompanied by bidding documents by a licensed contractor.


20
RED SOX

1.42 >
Part 01 - Summary Analysis

In Part 01 of this report the Pendulum Team comprehensively analyzed the existing conditions of McCoy Stadium. This analysis included a complete assessment of structural, MEP, life safety, seating, vertical transportation systems, architectural systems, compliance with building/life safety codes, health and environmental requirements. In addition, traffic and parking, stadium operations, stadium amenities, hospitality were also assessed. Finally, a site evaluation including review and comment on the City of Pawtucket Master Plan and related zoning ordinances has been completed.

Our investigations and analyses revealed that McCoy Stadium is steadily deteriorating due to several key contributing factors:

1. Persistent water infiltration in major building systems (structural, MEP, architectural) is causing the stadium to age much faster that what is typically deemed acceptable.
2. The original building opened in 1942 and new portions of the renovated building opened in 1999 seem to be shifting/moving at different rates due to factors that may include but are not limited to poor soil conditions and deterioration of compaction below footings caused by the aforementioned water infiltration.
3. Presence of high humidity and moisture, lack of cohesive and modernized controls for major building systems, specifically related to MEP, security and technology, and overall age of equipment result in consistent and major malfunctions of basic requirements for efficient operations at the stadium.

It is clear from our observation of existing conditions that if the deficiencies outlined in our report are not addressed in the short-term, the overall sustainability of the stadium will be cut significantly short with the worst case scenario being an endangerment to patrons and/or operations staff.

The recommendations provided by the team contracted to assess the facility in Part 01 of this report reflect best efforts based on visible conditions. As previously stated, upon sub-surface investigation more severe conditions may be revealed. The evaluation team included a 15% contingency in our preliminary cost analysis for the purposes of accounting for probable unanticipated/unknown conditions as investigation progresses.

It should be noted that the analysis and recommendations completed in Part 01 of this report are limited to only attempting to cure/remedy current deficiencies and related code concerns and extend the useful life of the building twenty years. Although our recommendations may in fact serve the purpose of extending the useful life of the stadium as was outlined in the modern facility comparisons and our stadium amenities assessment, other than historical charm McCoy Stadium is performing well behind competitive[1] markets as it relates to the fan experience and revenue generation potential. These are key contributing factors to the long-term feasibility of retaining an affiliated brand such as the PawSox in the City of Pawtucket. In fact, it is our professional opinion that if the decision were made to limit work at McCoy Stadium to only the curing of building deficiencies, it would be very difficult to make a convincing argument that the venue will continue to be competitive with comparable venues.

(1) In this case, "competitive" is defined by stadium amenities that are consistent with modern stadia - see Part 02.

In addition to the assessment of existing conditions the Pendulum Team was tasked with evaluating the impact of McCoy Stadium on the surrounding community and the potential for acting as a catalyst for future development. It is clear from our review of the City of Pawtucket's Master Plan that the emphasis of future development (referred to as ground zero in our analysis) is the riverfront and downtown districts. Without a major investment in an east/west connector (Division Street Infrastructure Improvements) to these districts, the current and/or "repaired" conditions of McCoy Stadium as currently sited would probably not yield the desired attraction of redevelopment/new housing and mixed-use development. The current multi-family and single family (predominately rental property) building stock, as well as industrial land uses in the area, will likely not yield the desired investment required to create a viable "Stadium District".

In conclusion, based on the information we have been provided with to date it is our opinion that in a pros/cons analysis, the decision to only cure the current deficiencies of McCoy Stadium to extend its useful life for twenty years will yield the following:

Pro: Minimize required investment to approximately $35,643,760.40.

Con: The venue will likely not continue to be competitive with comparable venues.

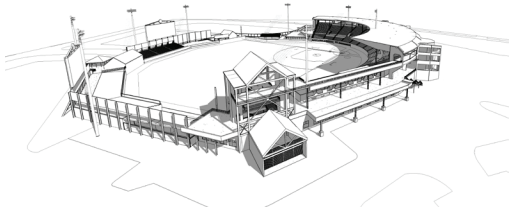


Fig. 177. McCoy Stadium 3D View 04

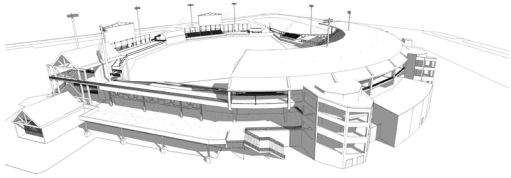


Fig. 176. McCoy Stadium 3D View 03

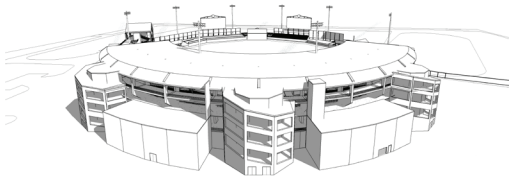


Fig. 175. McCoy Stadium 3D View 02

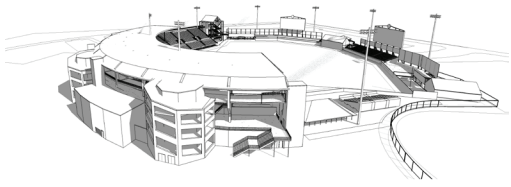


Fig. 174. McCoy Stadium 3D View 01

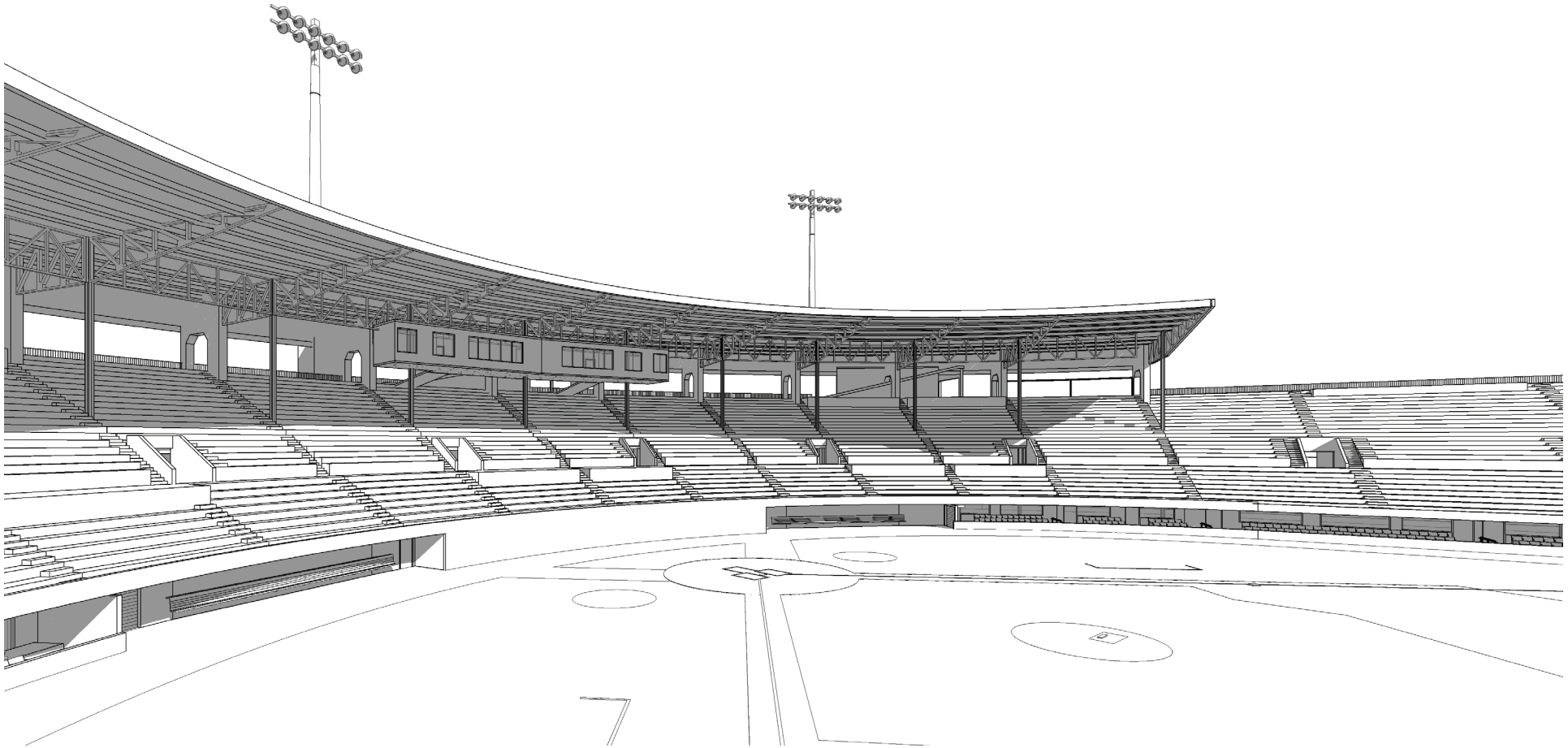
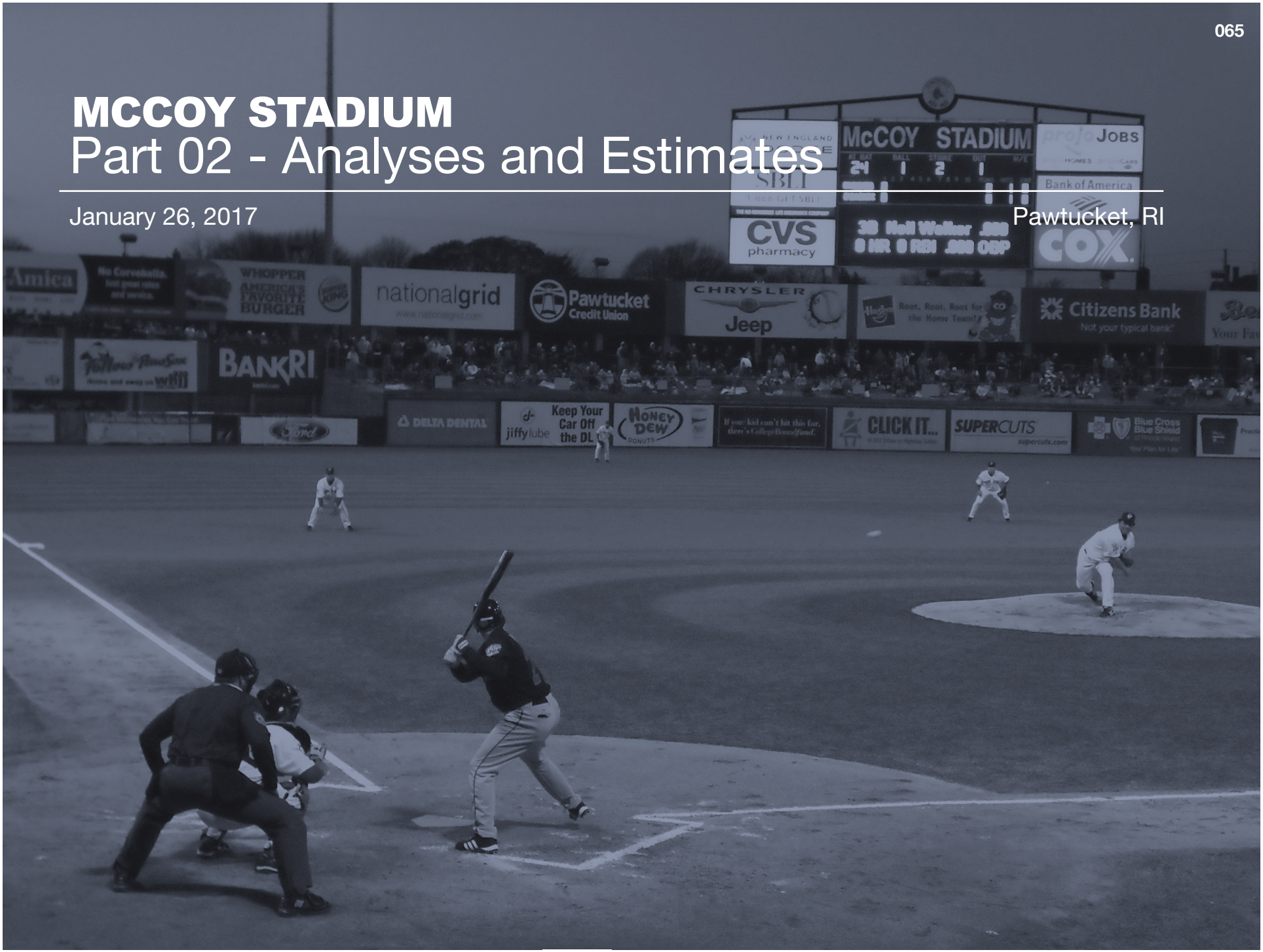


Fig. 178. McCoy Stadium 3D View 05

MCCOY STADIUM
Part 02 - Analyses and Estimates

January 26, 2017

Pawtucket, RI



ARORA · Barton Malow · B&D VENUES · BETA ENGINEERING SUCCESS TOGETHER · PENDULUM · SLAM

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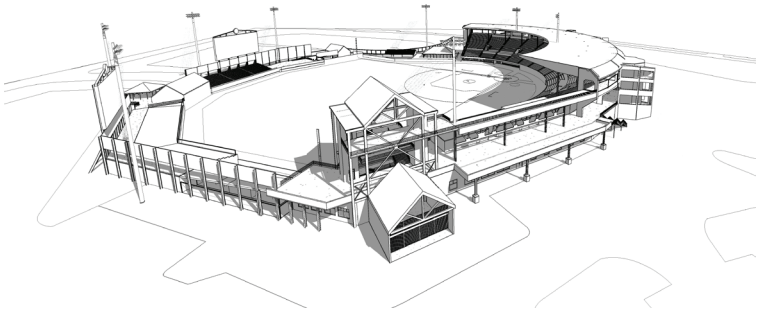


Fig. 000. Stadium McCoy 3D View

2.00 >
Competitive Class AAA Facility Analysis

The term "competitive" stadium is often difficult to define because depending on your vantage point there can be many different interpretations. "Competitive" from a municipal owner's standpoint may be simply a facility that is flexible and accommodates as many events as possible, serving as an attractive destination at the regional level.

"Competitive" from a tenant/operator standpoint certainly includes the items previously mentioned at the municipal level but would inevitably include a laundry list of additional items that have a more direct impact on the bottom line. For this reason, the thought of environmental and economic sustainability of ballparks/sports facilities has become an important topic. Lowering the environmental impact of buildings is about more than simply planting trees. Ballpark designs of the future will have to take into consideration the long term effects of early development decisions. Building orientation, mechanical, electrical and plumbing systems (MEP), waste removal, field water supply, storm drainage, and energy consumption are all realities of development that are typically approached by the franchise from a bottom dollar perspective.

The fact that quite a few lease agreements of the past have been set up to require the municipality to contribute, if not cover the entire expense of utility costs, as well as storm water and grounds maintenance has allowed contractors to influence and franchises to select the most inefficient building systems on the front end of development to lower ballpark hard construction costs. However, as we move into this new era of public/private finance or at least more significant contributions from the franchise for ballpark construction, the cost of building operations is going to be a significant issue; short term thinking is not going to cut it anymore.

The implementation of sustainable building design in building operations will have a major impact on economic sustainability and the long term success of the organization. In addition to the traditional corporate sales force being of utmost importance to ballclubs, we see facility operations and food service managers/executive chefs to be significant players in not only day to day decisions but also revenue futures. It therefore only makes sense that a "competitive" facility will be environmentally and economically sustainable.

In like manner one can also argue that Brand integration, social media, and use of technology defines the com,petitive nature of a modern ballpark. The ballpark building boon from 1991 to 2005 established a fairly level playing field as it relates to scoreboard and control room technology/infrastructure. However, what was once considered industry standard is now obsolete, unable to accommodate the demand for multi-use and enhanced in-game entertainment that has been previously identified in this paper as a necessity versus merely a perk.

Although LED ribbon board displays and HD broadcast are not new to the industry, and in fact have been in use in progressive markets (i.e. Fifth Third Field in Dayton, OH) since 2003, back then these types of design features were considered nice to have options, but now they are an absolute must have. A "competitive" ballpark will push the envelope on how this technology is incorporated into the "architecture" of the facility versus being viewed as an add-on feature. The days of the micro-sign in mid-sized to large market are numbered in MiLB franchises and already gone at the MLB level.

A "competitive facility" from a fan/patron perspective is really where we think the emphasis of this discussion should be as you review the case studies we have included in this report. You will find that across the board the common thread amongst all cited examples is diversity in offerings and amenities. You may recall from previous sections of this report it was stated that "baseball is a family affair", and we can't expect a family of five to sit in their ticketed seat the entire game and not move. In contrast to that notion, "competitive" facilities have created destinations and zones that encourage circulation from one end of the concourse to the opposite end throughout the game.

>> Louisville Slugger Field - Louisville, KY

Louisville Slugger Field, located at the downtown riverfront in Louisville, KY is an example of a facility that incorporated a 100 year old railroad roundhouse (The Brinly Hardy Building) with the footprint of a new Class AAA ballpark. The preserved historic building accommodates team administrative spaces as well as retail, restaurant, and a brewery.

The main concourse accommodates 360 degree circulation and offers a number of interesting categories of seating such as picnic areas, large corporate group areas, playgrounds (carousel), branded food service offerings, beer garden, etc. Similar to the features noted at Slugger Field, the selected case studies illustrated on the sheets that follow will provide additional examples that define a competitive facility.

Fig. 182. Slugger Field Historic Building View

Fig. 181. Slugger Field Bowl View

Fig. 180. Slugger Field Carousel View

Fig. 179. Slugger Field Aerial View

Louisville Slugger Field - Louisville, KY

Construction Cost: $55,600,000 (In 2017 Dollars)

Fig. 183. Slugger Field Aerial View

2.01 >
Victory Field - Indianapolis, IN

Construction Cost: $30,500,000 (In 2017 Dollars)

Basic Features >>

- Victory Field opened in 1996.
- 14,200 overall ballpark capacity (12,200 fixed seats).
- Located on the outer edge of downtown Indianapolis.
- Located near the local zoo, Museum Of Western Art, and Government Buildings.
- Seating bowl enjoys vistas to the downtown skyline.
- Two (2) pedestrian entries (centerfield and the west side of the ballpark).
- Number of public/group pavilions including:
    - The Corona Light Beach - open for pre-game and in-game picnics (accommodates 100 +)
    - Elements Financial Picnic Area (accommodates 50 - 100)
    - Coors Light Cove at the left field foul pole
- Features key premium features including:
    - The Championship Suite located behind home plate (includes indoor wet bar, buffet dinner (accommodates 20)
    - All-Star MVP & Victory Suites at 3rd base line (accommodates 20)
    - Home Plate Skybox (accommodates 20)
    - The Kyocera Party Deck at 3rd base line (accommodates 70 - 125)
    - 1st & 3rd base party terraces (accommodates 40 - 100 ea.)
- Ballpark offers full service in-house catering and audiovisual/multimedia options for corporate rentals.

Fig. 184. Victory Field Aerial View

Fig. 186. Open Concourse Encourages Pedestrian Activity

Fig. 185. Outfield Grass Berm View

Fig. 187. Left Field Bar Area With Views To Field

Summary >>

Although Victory Field is one of the older ballparks on the list, we included it because it is a good example of a facility with staying power. The stakeholders have done a very good job of building maintenance and management of a reasonable capital improvement budget.

The most recent renovation occurred approximately three years ago and included the outfield amenities like the Coors Light Cove shown in Fig. 187.

Fig. 188. Spacious Open Concourses

2.02 >
Coca Cola Park - Lehigh Valley, PA

Construction Cost: $55,900,000 (In 2017 Dollars)

Basic Features >>

- Coca Cola Park opened in 2008.
- 10,000 overall ballpark capacity (8,100 fixed seats).
- Located in suburban neighborhood.
- Features intimate seating with good transparency in to and out of the ballpark.
- 360 degree wrap around concourse
- Left field terraced seating.
- Three (3) pedestrian entries (right field, left field, home plate).
- Features the premium amenities, including:
    - 20 Premium Sky Boxes
    - 4 Dugout Suites
    - Club Area Behind Home Plate (weddings, corporate events, civic meetings, etc.)
    - Large "Oval Bar"
    - Branded Party Porches (The Bacon Strip, Oasis Islands, Pig Pen, etc.)
    - Corporate meeting/board rooms (rental opportunity)
- Features key branded/sponsored amenities including:
    - Supervised kids area (left center field)
    - Tiki Bar above left field bullpen
    - Grass berm
    - Terraced seating (right field)
    - "Trough Area" - themed local concession offerings.

Fig. 189. Coca Cola Park Aerial View

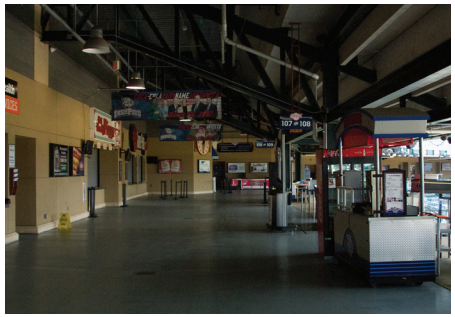


Fig. 192. Wide Concourse & Branded Concessions

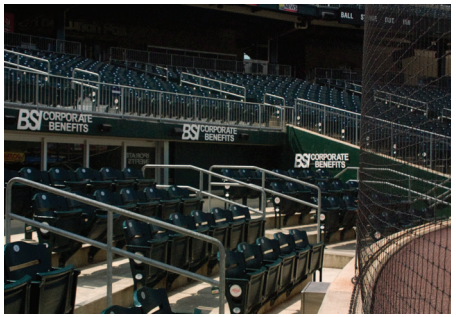


Fig. 194. Dugout Suites

Fig. 195. Unique Concourse Features

Fig. 191. Outfield Advertising

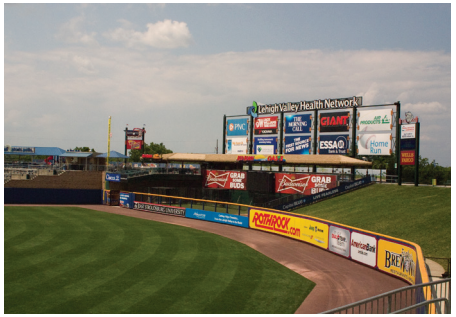


Fig. 193. Left Field Group Area

Fig. 190. Naming Rights Branded Entries

Summary >>

Coca Cola Park in arguably one of the most successful MiLB ballparks/venues in baseball history. The Iron Pig's unique brand and diverse seating inventory makes the ballpark a noteworthy case study. The group area (Fig. 193) located just above the stacked bullpens in left field offers a unique interactive game experience for patrons.

Lehigh Valley and Allentown, PA are also known nationally for the manufacturing of Martin & Co. Guitars. The team seized the opportunity to incorporate Martin & Co. branding in an inventive way on the concourse (Fig. 194) that warrants further thought and potential emulation.

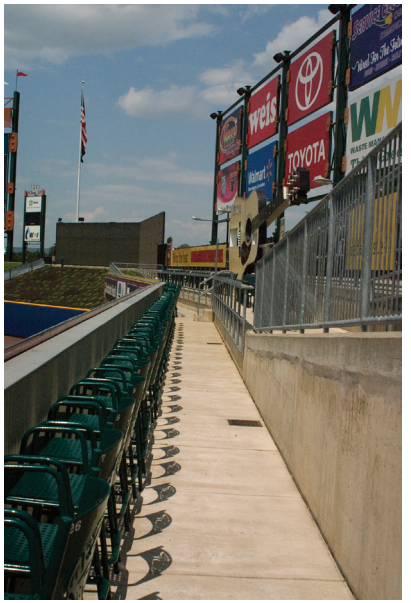


Fig. 196. Unique Outfield Wall Seating

2.03 > Huntington Park - Columbus, OH

Construction Cost: $78,100,000 (In 2017 Dollars)

Basic Features >>

- Huntington Park opened in April 2009.
- 10,100 overall ballpark capacity (8,800 fixed seats).
- Located in the heart of a planned entertainment district.
- Features intimate seating with dynamic views of the surrounding development.
- Main entry plaza is located at center field.
- Does not have a true 360 degree concourse.
- Offers a number of interesting semi-premium offerings including:
    - 42 open air loge boxes.
    - 360 degree concessions (open views to the playing field.
    - Open air "catwalk balconies" down the right field line.
- Features unique premium amenities, including:
    - 32 premium suites.
    - Tansky Bullpen Suite at 3rd baseline (group suite holds 36 - 96)
    - Grandstand bar seating.
    - Hall of Fame Bar.
    - AEP Power pavilion (separate 3 story building in right field - accommodates 250) - development pad site.
    - Right field party deck (accommodates 100 - 900).

Fig. 197. Huntington Park Aerial View

Floor Plates >>

- The overall floor plates for Huntington Park are well organized with very efficient stacked masses.
- The red colored area in Fig. 200 represents a three (3) story building that can be rented on game-days but more importantly presents an opportunity for future occupancy of a lease tenant with views into the ballpark.
- The main concourse is at street grade and is very spacious (Fig.201).
- The minimalist approach of the premium concourse level (Fig. 200) allows ample room for circulation while minimizing the building footprint.

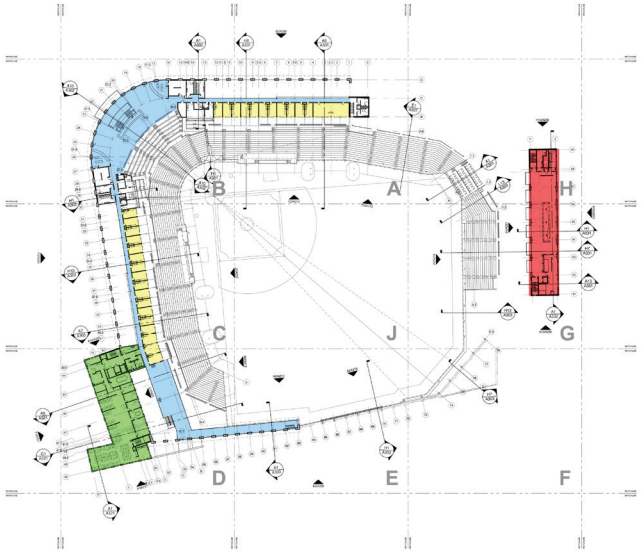


Fig 200. Suite Level Plan

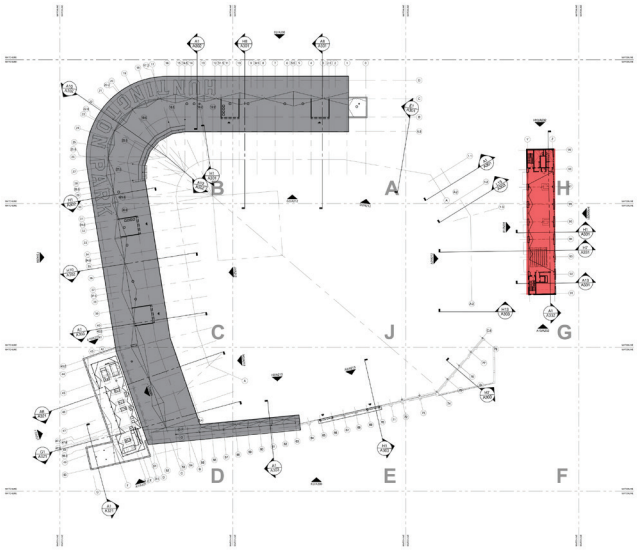


Fig. 202. Roof Level Plan

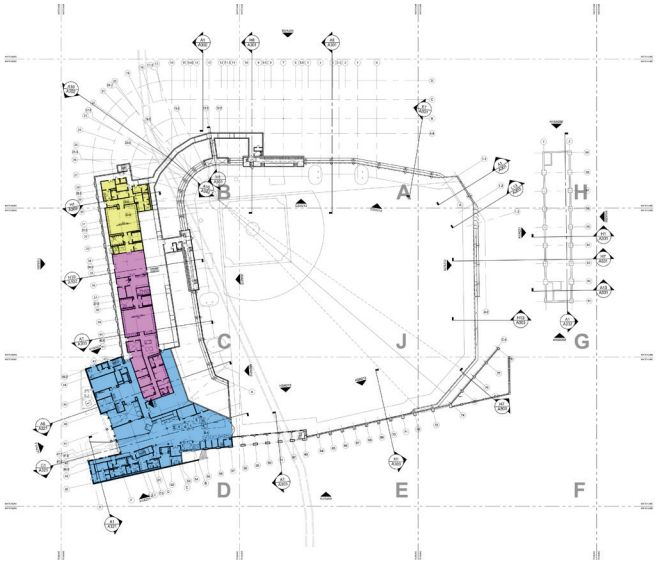


Fig. 199. Field Level Plan

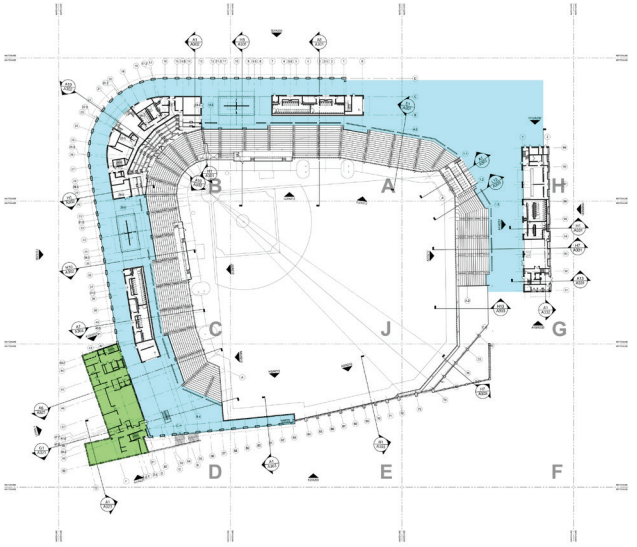


Fig. 201. Main Concourse Level Plan

Building Sections >>

One of the unique features of Huntington Park is the overall scale of the building. The ballpark is very low to the ground with a very simple but powerful superstructure.

The departure from the traditional seating bowl behind home plate with the development of open air loge boxes offers a semi-premium amenity in an area that is perceived to have the best seats in the house. The result is a very unique energy behind home plate that we can't say we've experienced at any other ballpark.

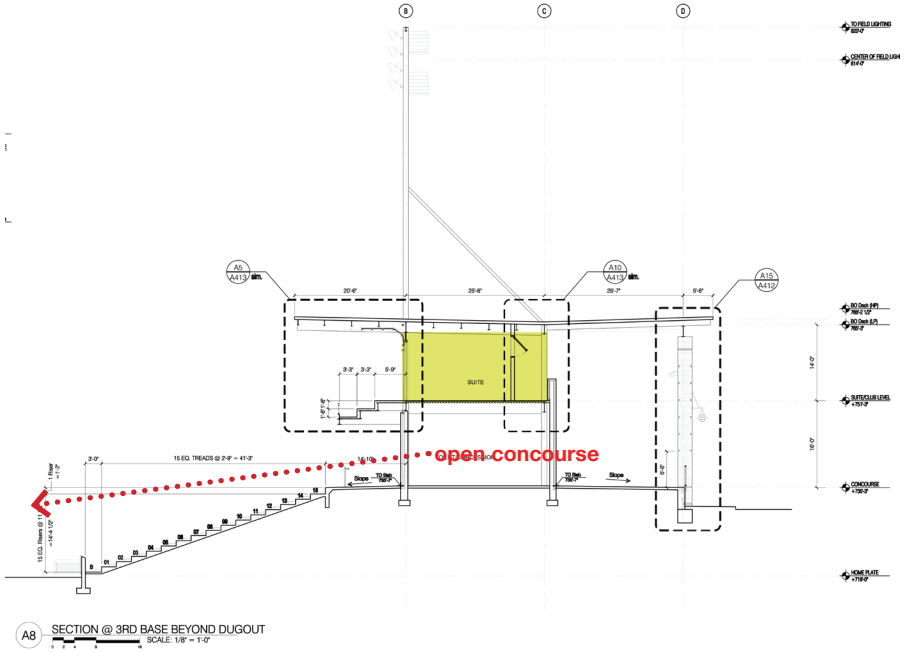


Fig. 204. Huntington Park Building Section

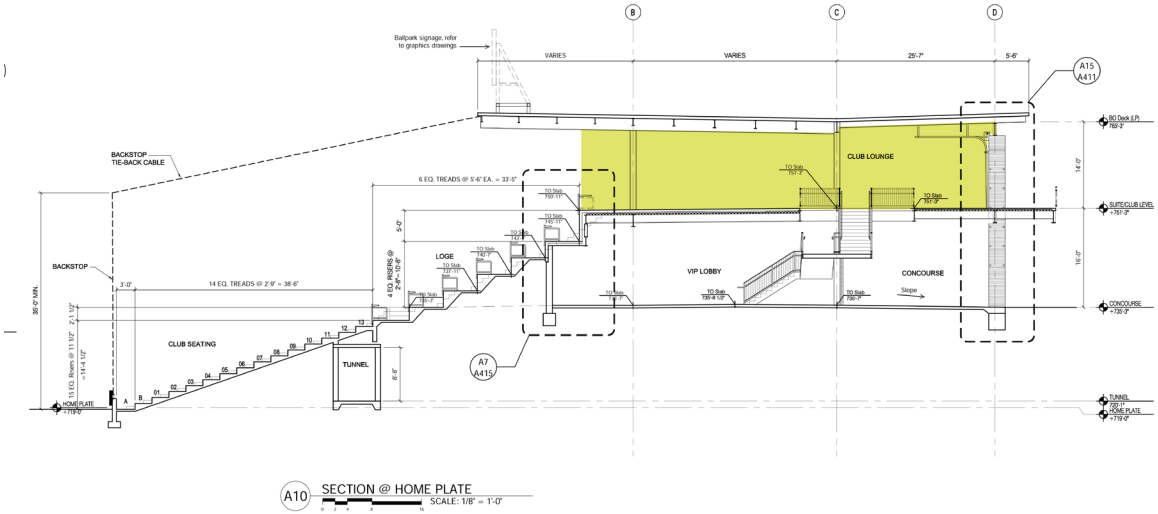


Fig. 203. Huntington Park Building Section

Fig 207. Spacious Concourse & Unique Concessions

Fig. 209. Ample Amounts Of Drinkrail On Concourse

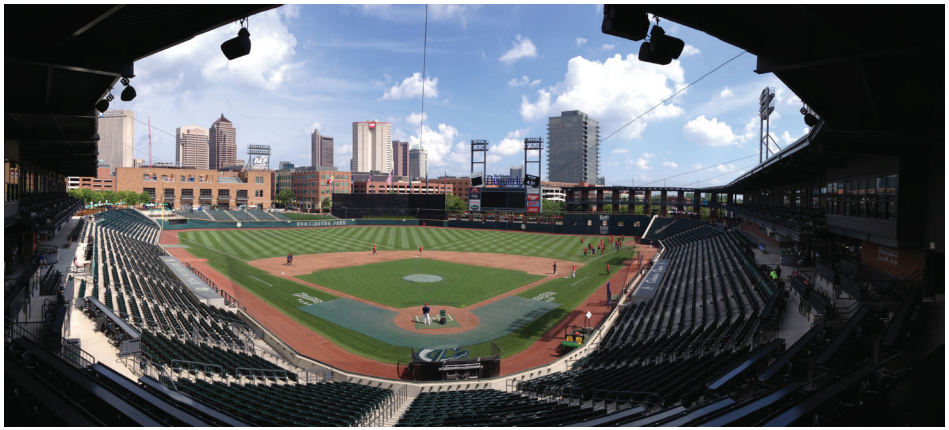


Fig. 210. Seating Bowl With Views To Skyline

Fig. 206. Home Plate Entry

Fig. 208. Home Plate Bar/Club

Summary >>

Huntington Park offers a timeless architectural style that is reminiscent of classic ballparks while still pushing the envelope on what many would describe as "modern". There is a very deliberate uniform branding style that unifies the ballpark from all angles (Fig. 211).

The very industrial feel and articulation of steel in form and color as well as the very raw materials used even in high finish areas provides an interesting departure from what many would consider "standard fare" in a ballpark (Fig 207).

Fig. 205. Outfield Concourse - Urban Edge

Fig. 211. Outfield Rental Building

2.04 >
Southwest University Park - El Paso, TX

Construction Cost: $75,000,000 (In 2017 Dollars)

Basic Features >>

- Southwest University Park opened in April 2014.
- 9,500 overall ballpark capacity (7,200 fixed seats).
- Located in a new development zone of downtown El Paso.
- Features $700,000 in public art in perimeter plazas.
- 360 degree wrap around concourse.
- Superior brand integration throughout the ballpark.
- Features a number of unique amenities for patrons including:
    - Kid's fun zone in center field
    - knot hole "peek through slots" in the batter's eye.
    - Fiesta Patio (group area accommodates 75)
    - Budweiser Bullpen Patio (Accommodates 90 - 120)
    - Pepsi Party Deck (accommodates 80 - 110)
    - Santa Fe Pavilion (right center - accommodates 60 - 120)
- Features key premium amenities including:
    - 20 premium suites
    - "Big Dog House" located in right field (free standing four story building)
    - Sun Kings Saloon.
    - Diamonds Direct Luxury Club Woof Top Bar Deck
    - Premium Club behind home plate (accommodates 250 with fully catered meals)

Fig. 212. Southwest University Park Aerial View

Floor Plates >>

- The floor plates for Southwest University Park are well organized but in some cases overly complex. There are a number of nooks and crannies throughout the ballpark that make it somewhat difficult to navigate if unfamiliar with the ballpark or visiting for the first time.
- The red colored area in Fig. 213 represents a three (3) story building that can be rented on game-days
- The main concourse is at street grade and is very spacious and incorporates public space and public art at its perimeters which is very engaging for the adjacent communities.
- The ballpark has two (2) levels of suites which adds to it's overall massive scale.

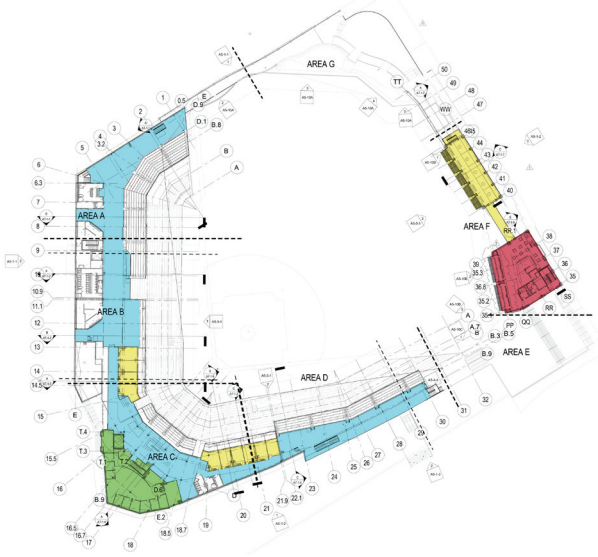


Fig. 214. Suite Level One Plan

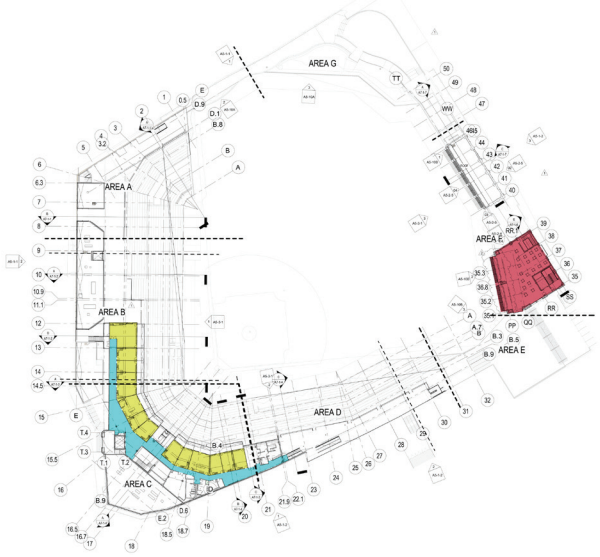


Fig. 216. Suite Level Two Plan

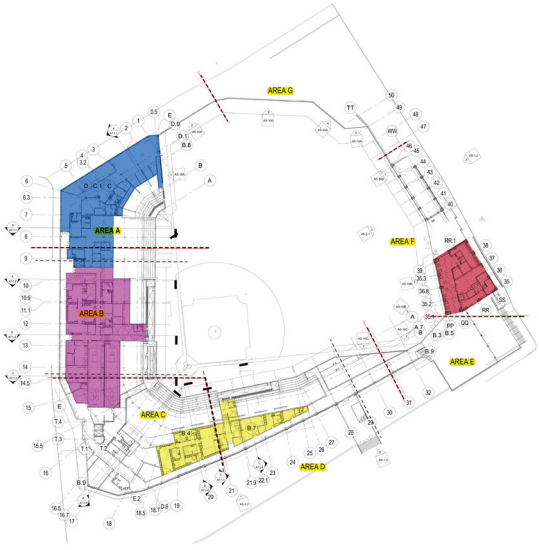


Fig 213. Field Level Plan

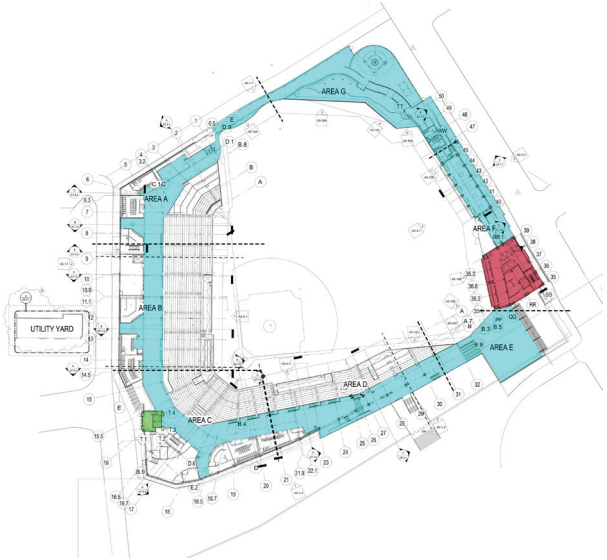


Fig. 215. Main Concourse Level Plan

Building Sections >>

The overall scale of Southwest University Park is massive. The sections on the right side of the page illustrate the concept of the open concourse as well as a very gradual seating bowl that fosters a very intimate feel to the seating bowl. The diversity of seating inventory in "neighborhoods" provides excitement and a sense of civic engagement when attending games.

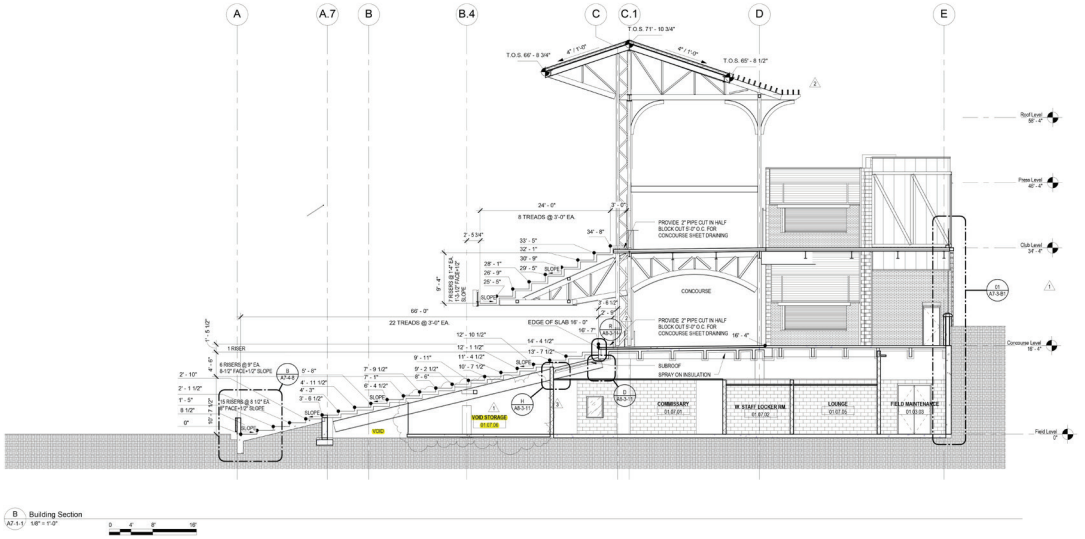


Fig. 218. Southwest University Park Building Section

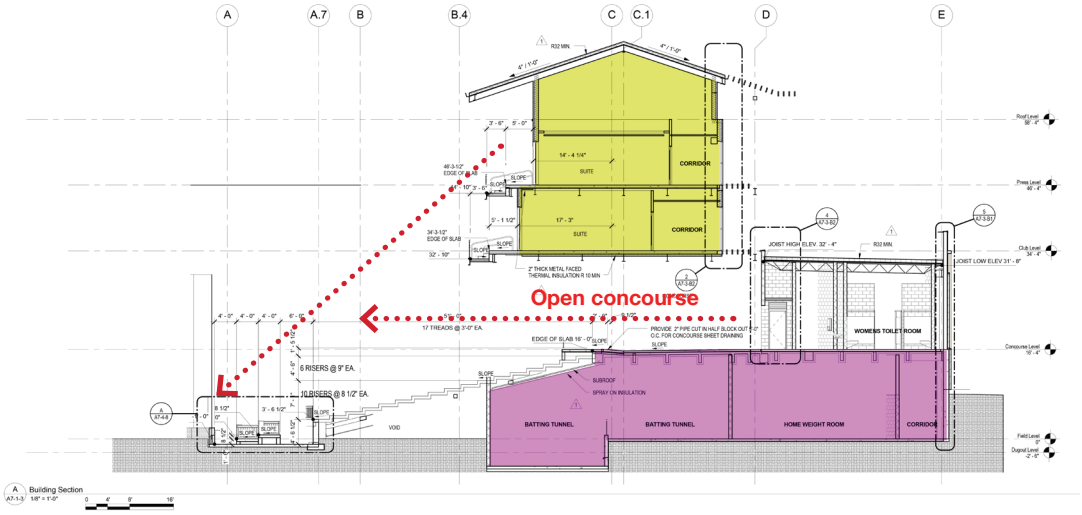


Fig. 217. Southwest University Park Building Section

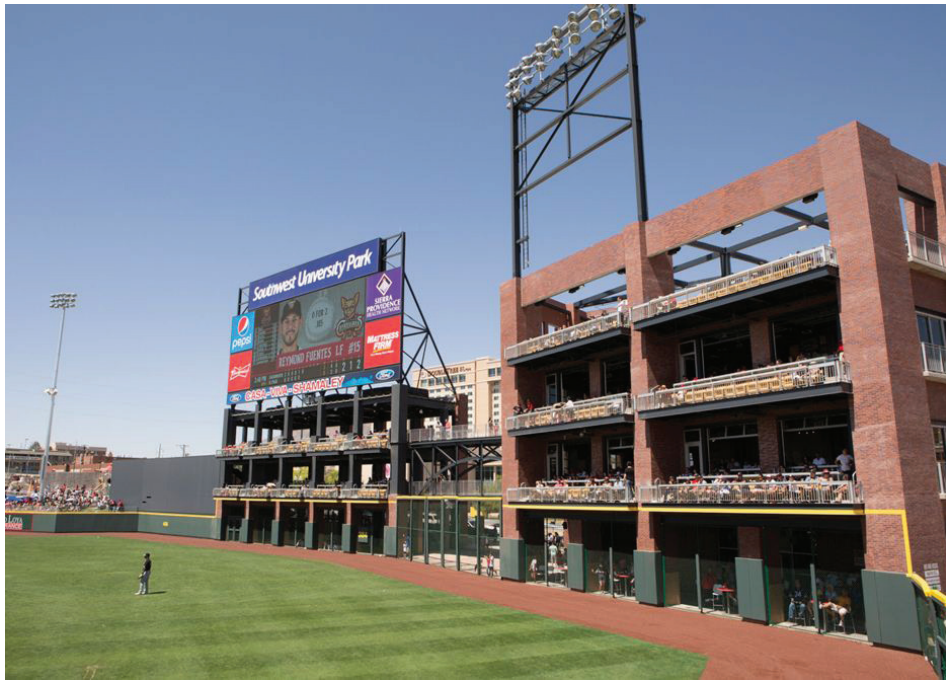


Fig. 220. Right Field Porch & Rental Spaces

Fig. 219. Outfeild Aerial View - New Urban Sunset

Fig. 223. Right Field Bar/Rental Space

Fig. 222. Team Store Interior Space

Fig. 221. Home Plate VIP & Administration Entry

Summary >>

Southwest University Park is massive in scale and amenities. Its "double-sided" perimeter in right field with the four story building that also provides a measure of transparency at the street level is nothing less than cool (Fig. 220).

The ballpark's local feel at the VIP entry (Fig. 221), which is only a block or so away from neighborhood bars and cantinas (well within walking distance), encourages pre and post-game support of local business and entertainment.

On-street parking is not as readily available as other "urban" ballparks, however structured parking is conveniently located well within quarter mile of the ballpark in and around the developing downtown district.

Since the development of the ballpark there are more entertainment venues scheduled to come on line in the near future. The most recent proposed addition to the new downtown entertainment district is a mid-sized arena.

2.05 >
BB&T Ballpark - Charlotte, NC

Construction Cost: $54,000,000 (In 2017 Dollars)

Basic Features >>

- BB&T Ballpark opened in March 2014.
- 10,329 overall ballpark capacity (7,788 fixed seats).
- Located in the heart of downtown Charlotte.
- Features intimate seating with good transparency in and out of the ballpark.
- 360 degree wrap around concourse.
- Three (3) pedestrian entries (right field, left field, home plate).
- A social hub for downtown Charlotte with attractive amenities that serve a diverse group of individuals including:
  - Business/corporate community
  - Millennials
  - Small groups
  - Large groups
  - Weddings
  - Families
- Features key branded/sponsored amenities including:
  - Budweiser Home Run Porch
  - Concourse level enclosed club space
  - 22 enclosed premium suites including 2 party rental double suites.
  - Diamonds Direct Luxury Club Lounge with full service bar overlooking the field (accommodates 240)
  - Miller Lite Rooftop Party Zone (accommodates 300)

Fig. 224. BB&T Ballpark Aerial View

Fig. 225. Skyline View At The Bullpen

Floor Plates >>

One of the key advantages of BB&T Ballpark in addition to being located in a redeveloping downtown area is the very strategic planning of pad sites with views into the ballpark for future development. The areas in red on Fig. 226 illustrate retail pad sites that compliment the very urban feel of the ballpark.

Fig. 227. Field Level Plan

Fig. 228. Suite Level Plan

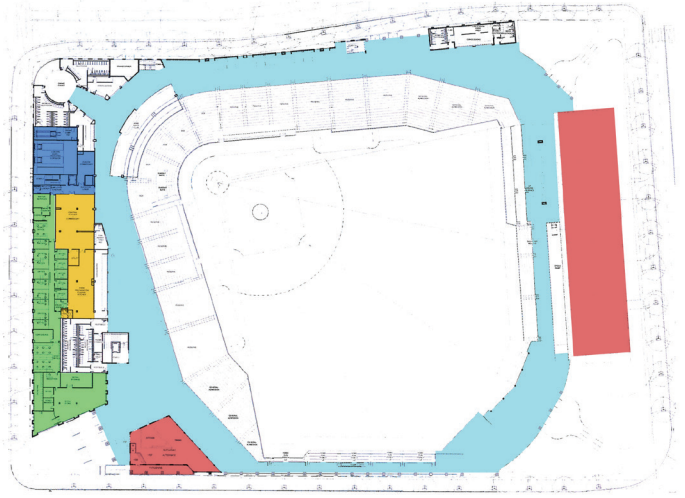


Fig. 226. Main Concourse Level Plan

Ballpark Vision >>

The images on the right illustrate the original vision for the ballpark as conceptualized on the computer. It is clear that many of the features that were discussed and modeled held true through the construction process which is an important factor when undertaking a project of this scale.

The important elements to note about BB&T Ballpark related to this report is the fairly compact footprint and site orientation in relationship to adjacent buildings.

Fig. 230. BB&T Ballpark Entry Plaza Rendering

Fig. 228.BB&T Ballpark Aerial Rendering

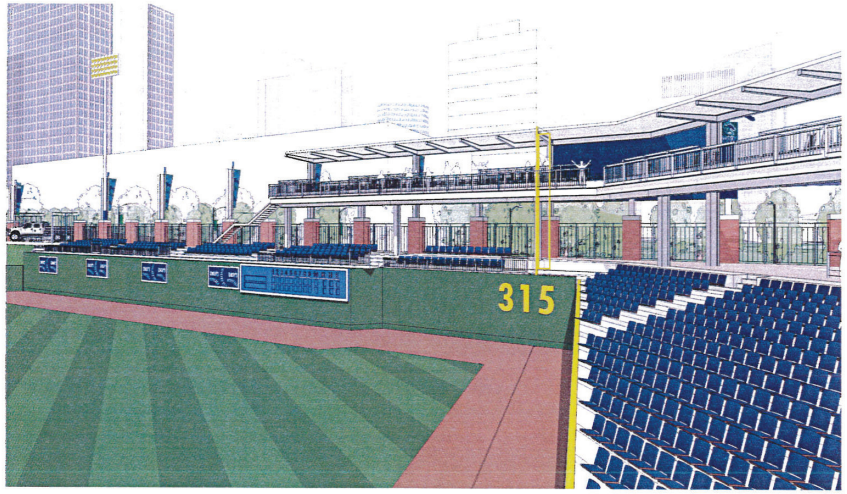


Fig. 229. BB&T Ballpark Right Field Corner Rendering

Fig. 233. Main Entry Grand Stair - Urban Edge

Fig. 235. Open Main Concourse

Fig. 236. Center Field Downtown Skyline

Fig. 232. Left Field Party Deck

Fig. 234. Right Field Retail Entry

Fig. 231. Right Field Premium Club

Summary >>

BB&T Ballpark is considered one of the true gems of MiLB. Its intelligent siting with opportunities for current and future retail/hospitality development has set a precedent for where ballclubs and municipalities should be headed when contemplating a new or substantially renovated ballpark.

This ballpark has proven that it's no longer necessary to shield the public from what is going on within the secure line. Instead we encourage transparency, drive demand, and make people want to be in the place to be on game night.

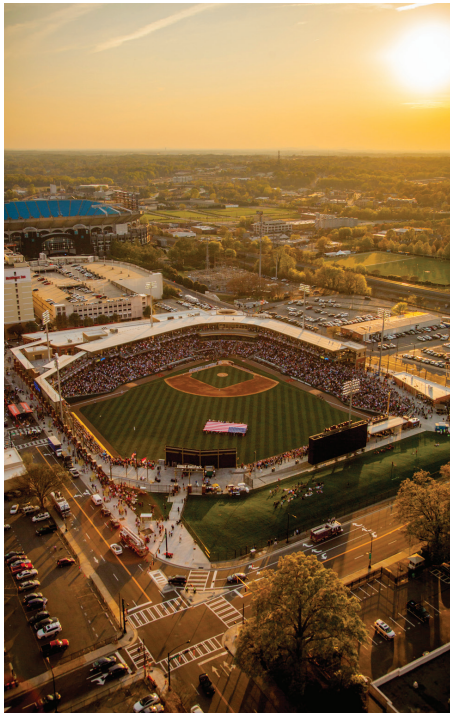


Fig. 237. Center Field Aerial

2.06 > Economic Analyses - Executive Summary

> Preface

During the last 20 years, new Minor League Baseball ("MiLB") ballparks have been catalysts for and/or significant contributing factors to economic development across the country. The most important criteria for such projects is the strategic selection of ballpark sites.

The location of these ballpark sites are most often in depressed urban cores or suburban areas with ample acreage for development beyond that needed for the facility itself. The new ballparks spurred economic growth and ancillary private sector development often in concert with other development initiatives. Three examples are Autozone Park in Memphis, TN; Fifth Third Field in Dayton, OH; and Dr. Pepper Ballpark in Frisco, TX. New restaurants, hotels, retail, multi-family/high density residential units, commercial office space, and other sports and entertainment facilities have all been part of the revitalization around new ballparks. In some cases, surrounding buildings were rehabbed and/or actually incorporated into the ballpark.

New jobs and earnings, new and incremental sales tax, increased property values and property tax revenue, increased hotel occupancy, and consumer spending are all potential benefits realized in the form of direct and indirect returns on public sector investment in these projects. The current McCoy Stadium site has several limiting factors. It is surrounded entirely by residential neighborhoods with few existing commercial buildings in the area that could be re-purposed. There is no direct access or visibility from Interstate 95. In addition, the ballpark's footprint on the site does not provide acreage for new ancillary development.

> Market Analysis

The market analysis measures the comparative strength of the Pawtucket market and serves as the basis for identifying patterns of market change, developing attendance projections, evaluating premium seating viability, and estimating event demand. It also serves as the framework for developing fiscal and economic benefits projections to the City of Pawtucket and the State of Rhode Island.

Utilizing primary and secondary sources, B&D completed numerous analyses to gain an understanding of the demographic and economic profile of Pawtucket's market. For the purposes of these exercises, B&D utilized a thirty-minute drive time analysis to measure and evaluate the regional and local market with a focus on demographic and economic conditions. The thirty-minute drive time area typically represents the primary attendance catchment area for MiLB and serves as the basis for making comparative evaluations against other MiLB markets. It is not, however, the definition of the market limits, as the Pawtucket Red Sox draw fans from beyond the 30-minute drive time area.

B&D compared the Pawtucket Market (30-minute drive time area from McCoy Stadium) to the top 30 Major League Baseball (MLB)-affiliated MiLB AAA markets by population, retail expenditures, and unadjusted household income. Population is an appropriate indicator of market size, retail expenditures measure economic activity in a market, while household income measures market wealth. Using these indicators, Charlotte, NC; Sacramento, CA; Gwinnett, GA; Indianapolis, IN; Columbus, OH; Tacoma, WA; Norfolk, VA; Salt Lake City, UT; Round Rock, TX; Memphis, TN; and Nashville, TN were identified as comparable markets. Populations range from 1,130,000 to 1,820,000; retail expenditures range from $16,900 to $19,900; and unadjusted household incomes range from $67,946 to $87,587 among the set. The Pawtucket Market ranks near the middle in each of these categories within the set.

Population is a key factor in determining general attendance trends in a market. With a 2016 population of 1,150,000, the Pawtucket Market ranks sixth comparatively. However, the Market's growth rate at 1.9% is considerably lower than the average of 6.8%, and also has a comparably smaller household size. In addition, the target market (age 20-44) for MiLB ticket sales within the Pawtucket Market is below average, ranking tenth in this set. Comparably slower growth in total and target market populations suggests a limited impact on future attendance levels at Pawtucket Red Sox games.

Market wealth is the main indicator of economic health in a market and is comprised of average household income, normalized household income, average household retail and entertainment expenditures, and the corporate base. Households in the Pawtucket Market are the fourth wealthiest in average income, but only tenth when adjusted for cost of living. Nonetheless, households in the market still spend about $37,000 on retail and entertainment equating to fifth in the set. Even with the high cost of living in the Pawtucket Market, discretionary spending is relatively unaffected. The corporate base in Providence-Warwick Metropolitan Statistical Area ("MSA") is less robust than the set with only 5,700 organizations with a minimum of 20 employees as compared to an adjusted average of 6,711.

The MSA data was used to inform a premium seating share analysis by creating a ratio of businesses or households to suites or club seats in the selected markets given that businesses and high-income households are primary consumers of these products. The analysis is useful in identifying the parameters for a premium seating program in a new or renovated ballpark. The markets in the set average 2.04 businesses per suite and 13.18 households per club seat while the Providence-Warwick MSA is currently at 1.82 and 13.87 respectively. The analysis suggests that the current market has the capacity for additional premium seating options.

B&D compiled reported attendance data from MiLB to inform macro-level trends in Class AAA baseball and determined that the International and Pacific Coast Leagues trended slightly downwards from 2006 to 2016, at 6% and 11% respectively. Over that period, the Pawtucket Red Sox's attendance declined over 35%. Additionally, B&D compiled reported attendance data for existing teams that renovated or built new ballparks at similar sites to identify any changes in attendance trends. The seven selected AAA franchises (Columbus, Durham, New Orleans, Omaha, Scranton, and Tacoma) averaged 7% gains. In B&D's opinion, coupling these trends with the Pawtucket Market demographical data, any increases to attendance at the current site would likely be modest.

> Events Analysis

Non-MiLB events are an incremental source of revenue for franchises that pursue them as part of their business plan and are comprised of ticketed and non-ticketed events. B&D compiled the event schedules from the past year at contemporary facilities located in similar climate types to the Pawtucket market to identify trends in the industry. Tacoma, Allentown, Columbus, Scranton, Indianapolis, and Omaha hosted between two and twelve ticketed events per year including beer/wine festivals, concerts, fun runs, celebrity softball games, and college/high school athletics. The types of events as well as the range do not vary greatly. In B&D's opinion, a renovated McCoy Stadium could host about six non-MiLB ticketed events per year.

Assuming the intent to host non-ticketed events is part of the business plan, the quantity a franchise is able to host is entirely dependent on having quality space at the stadium, a robust corporate base, higher-income household population, and the amount of competitive meeting space in the market. Dedicated club lounges, hospitality areas, and meeting rooms provide opportunities for AAA teams to host year-round special events. Typical events include neighborhood meetings, banquets, charity events, community events, business outings, weddings, galas, birthday parties, networking events, and job fairs, among others and can be held when the team is on the road or during pregame. Adding a club level lounge/restaurant, a dedicated meeting room, and enhancing party suites will increase the already competitive number of non-ticketed events hosted at McCoy Stadium.

While MiLB attendance is analyzed on a drive-time basis, MSA data is more instructive when analyzing potential non-ticketed event demand. With over 5,700 establishments that employ at least 20 people and 124,220 higher-income households ($100,000+), the Pawtucket market most closely compares to Omaha, Indianapolis and Columbus. B&D compiled the number of meeting spaces available in each market. Pawtucket falls between Allentown and Scranton with a mere 145 available spaces. An adjusted average has 525 offerings. These findings were instructive in developing a share ratio in a similar exercise to the premium seating analysis. An average share ratio 10.80 businesses per meeting space and 253.51 compares to the Pawtucket market at 39.41 and 856.76 respectively. This suggests a capacity in the market, thus, a renovated McCoy Stadium could include dedicated meeting space. It's important to note this broad analysis is intended to identify local meeting space needs and does not consider demand for regional or national events such as conferences and conventions.

MiLB ballparks located in similar climates with event space capabilities average 80 or more events per year inclusive of outdoor, special events, and pregame meetings. Based on B&D's experience and primary research, the top five to ten MiLB teams that are most successful at booking non-baseball/special events generate net revenues – at the high end – of approximately $400,000 annually from ticket sales, space rentals, catering and sponsorships; the vast majority of teams typically generate approximately $100,000.

> Benefits Analysis of McCoy Stadium

B&D completed an analysis designed to estimate the current economic and fiscal benefits generated by the operation of the Pawtucket Red Sox franchise and McCoy Stadium. Benefits are measured in terms of economic activity, wages, and jobs. The analysis is conducted on the basis of operating expenditures and cost components generated within the ballpark. Direct impact in this analysis includes team and ballpark expenditures, cost of concessions and merchandise, and off-site team and visitor spending at hotels, retail stores, restaurants, and on transportation.

Ticket sales and in-stadium spending are not considered direct economic impacts for in-market visitors; in B&D's experience, much of this spending is displacement or "substitution" spending and would take place without the presence of the ballpark. While this approach often yields somewhat conservative projections, it is more reliable in terms of estimating net new spending within a defined market. The direct impacts provide the basis for calculating indirect benefits through the application of market-specific RIMS-II multipliers. Indirect impacts represent the value of additional economic demands that the team and ballpark places on supplying industries within the market economy for goods and services. B&D estimated the annual benefits to both the State of Rhode Island and the City of Pawtucket.

B&D's analysis relies on data points provided by the team and a series of informed assumptions, including an annual paid attendance level of 385,000 over 70 games. Of these attendees, B&D estimates that approximately 50% originate from outside of the state, 45% come from within the market, and 5% require hotel night stays. In total, B&D estimates approximately $20,000,000 in gross spending from annual operations – team operations, ballpark operations, visitor spending, and visiting team spending. After factoring in leakage, direct economic benefits to the State of Rhode Island total an estimated $8,800,000 in economic activity, $4,200,000 in wages, and 115 jobs. Indirect benefits total $7,300,000 in economic activity, $9,100,000 in wages, and 205 jobs. The total benefits are estimated at $16,100,000 in economic activity, $13,300,000 in wages, and 320 jobs.

Similarly, the operation of McCoy Stadium has a benefit to the City of Pawtucket. As the City represents only a portion of the regional and state economies, the benefit to the City is smaller than it is to the State. Direct economic benefits to the City of Pawtucket total an estimated $5,600,000 in economic activity, $1,300,000 in wages, and 45 jobs. Indirect benefits total $1,100,000 in economic activity, $770,000 in wages, and 19 jobs. The total benefits are estimated at $6,700,000 in economic activity, support $2,070,000 in wages, and 64 jobs. The State benefits described above include the City benefits.

In addition, the team and ballpark generate tax revenues to the State and City. Applicable taxes include sales tax, personal income tax, transient occupancy tax, and tangible property tax. Sales tax is generated from in-ballpark purchases on food and beverage items and merchandise/novelties. Visitor and visiting team spending outside the ballpark is also subject to sales tax. In addition, the direct and indirect jobs supported by the operations of the team and ballpark generate income tax. The total fiscal benefits are estimated at $1,300,000 to the State and $29,000 to the City.

> Benefits Analysis of McCoy Stadium Renovation

The renovation of McCoy Stadium will provide new patron amenities including luxury suites, a club lounge, party decks, a meeting room, and VIP areas and is intended to improve existing conditions, enhance the spectator experience, and prolong the useful life of the facility. The preliminary budget is $68,000,000 in 2018 dollars, inclusive of hard and soft costs. For the purpose of this analysis, costs were escalated to 2018 dollars, or the potential start of construction.

During the construction period, the renovation of McCoy Stadium will have an immediate, one-time impact on the State of Rhode Island and the City of Pawtucket economies. Impacts stem from the procurement of labor, purchase of materials, and contracting of soft costs inside the City and State to implement the project. The State is estimated to retain 40% of wages, 20% of materials, and 15% of soft costs after leakage. However, wage retainage can be impacted by many factors including procurement/workforce requirements and project labor agreements.

Based on these assumptions, direct wages paid to workers within the State supports 147 jobs at an average wage of over $53,000. When multipliers are applied to wage and spending assumptions, the construction period generates $16,200,000 in economic activity, $20,500,000 in wages, and 396 jobs. In addition, the project will generate over $1,200,000 in sales tax and personal income tax revenue.

The potential benefits of the project to Rhode Island outweigh the potential impact to Pawtucket, as there is a limited availability of ballpark construction materials and labor force in the City. The City is estimated to retain 10% of wages, 5% of materials, and 2% of soft costs. In total, the renovation of McCoy Stadium is estimated to generate $2,260,000 in economic activity, $2,520,000 in wages, and 47 jobs during the construction period.

As previously noted, the renovation will provide new patron amenities at McCoy Stadium. While these amenities are revenue-generating, the existing field-level party suites will be reconfigured likely resulting in a shift of some revenue to new premium areas of the ballpark. Additionally, ballpark operating costs are unlikely to increase significantly, and as a result, B&D believes net new demands on the local and state economies will be limited beyond current levels.

Utilizing a paid attendance average of 406,000, B&D modeled the future recurring benefits of ballpark and team operations. After factoring in leakage, the total direct and indirect benefits are estimated at $19,200,000 in economic activity, $15,800,000 in wages, and 371 jobs within Rhode Island. Benefits to Pawtucket include $8,140,000 in economic activity, $2,520,000 in wages, and 73 jobs. Tax revenues are projected to increase by $306,000 over existing operations to $1,635,000. When the fiscal benefits are measured over a 20-year net present value basis, the renovation option generates $22,600,000 in direct and indirect benefits across all tax categories.

> Benefits Analysis of New Stadium and Ancillary Development on McCoy Site

The new construction option consists of an entirely new ballpark located on the current McCoy Stadium site. The current siting of McCoy Stadium presents limitations for adjacent development and, as such, minimal opportunity for economic activity. The demolition of the stadium and the construction of a new ballpark in a slightly different location/orientation on the same site will create additional space for ancillary development.

Based on a review of ancillary development projects adjacent to other MiLB ballparks and site constraints, a hypothetical program was developed to include 36 apartment units, 16,000 square feet of ground level retail, and 200 structured parking spaces. The retail space is assumed to include a mix of food and beverage, convenience, and dry goods retailers. It is important to note, however, B&D has made no assumptions as to the market-responsiveness of the program. This analysis is based upon hypothetical assumptions. It is highly speculative that any private developer would consider such a project.

The preliminary budget for the project is approximately $93,400,000 in 2018 dollars. Utilizing consistent methodology and leakage assumptions described in the renovation option, B&D quantified the one-time economic and fiscal benefits generated by the development of a new stadium and adjacent ancillary development. The total direct and indirect economic benefits to Rhode Island total $22,500,000 in economic activity, $28,500,000 in wages, and 552 jobs. The project will also generate approximately $1,686,000 in sales tax and personal income tax revenue to the State. City benefits total $3,136,000 in economic activity, $3,489,000 in wages, and 65 jobs.

B&D assumed that a new ballpark on the McCoy Stadium site will attract more paid attendees than a renovated ballpark, or 441,000 per year.

B&D also assumed similar operating costs in the new ballpark as in the renovation model. Unlike the renovation option, however, it is possible that operating efficiencies could be realized in a fully-modernized new ballpark resulting in reduced costs. After factoring in leakage, the total direct and indirect benefits of a new ballpark are estimated at $19,900,000 in economic activity, $16,200,000 in wages, and 385 jobs within Rhode Island. Benefits to the City of Pawtucket include $8,600,000 in economic activity, $2,560,000 in wages, and 76 jobs. Tax revenues are projected at $1,750,000 per year, or an increase of approximately $115,000 over the renovation option.

Utilizing industry standards and applying regional rental and vacancy rate assumptions, B&D modeled the ancillary development project's operations for the purposes of quantifying its benefit to the State and City. In this case, economic and fiscal benefits are generated through net new consumer spending, retailer cost-of-goods, and building management costs. After factoring in leakage and discounting for substitution spending, annual benefits are estimated at $5,300,000 in economic activity, $1,900,000 in wages, and 43 jobs. B&D estimates the City's benefit at $538,000 in economic activity, $207,000 in wages, 5 jobs, and $95,000 in fiscal benefits (including property taxes). Collectively, the total net new tax revenues resulting from the project are $435,000 annually.

In total, the entire new construction project is estimated to generate $25,200,000 in economic activity, $18,100,000 in wages, and 428 jobs to Rhode Island, inclusive of $9,138,000

in activity, $2,767,000 in wages, and 81 jobs to Pawtucket. When measured over a 20-year net present value basis, the new ballpark generates $24,500,000 in direct and indirect benefits across all tax categories. The ancillary development project generates $5,900,000 in net new fiscal benefits over the same period.

> Summary

Given the existing orientation of McCoy Stadium, there are no opportunities for ancillary economic development activity on the current site. Renovating McCoy Stadium at an estimated cost of $68,000,000 will likely generate minimal return on the public investment in the project other than the jobs and taxes generated by the construction and a modest level of increased recurring benefits generated by enhanced team operations.

If the current stadium is demolished and built new at a cost of $78,000,000 in a slightly different orientation on the existing site, some additional space for development will be created. However, that would require the construction of at least one parking structure. Retail, commercial space, and/or residential units could be built above such a parking structure. Even with these changes and improvements, the existing McCoy Stadium site's limitations will remain unchanged and in all likelihood not provide an opportunity to attract private investment and development.

In B&D's independent and professional opinion, it is highly unlikely that a typical goal of a public investment of this nature – to generate a significant return on that investment driven by ancillary development around a new stadium – will ever be realized at this site.

Fig. 237a. McCoy Stadium Bird's Eye View

2.07 >
Market Analysis

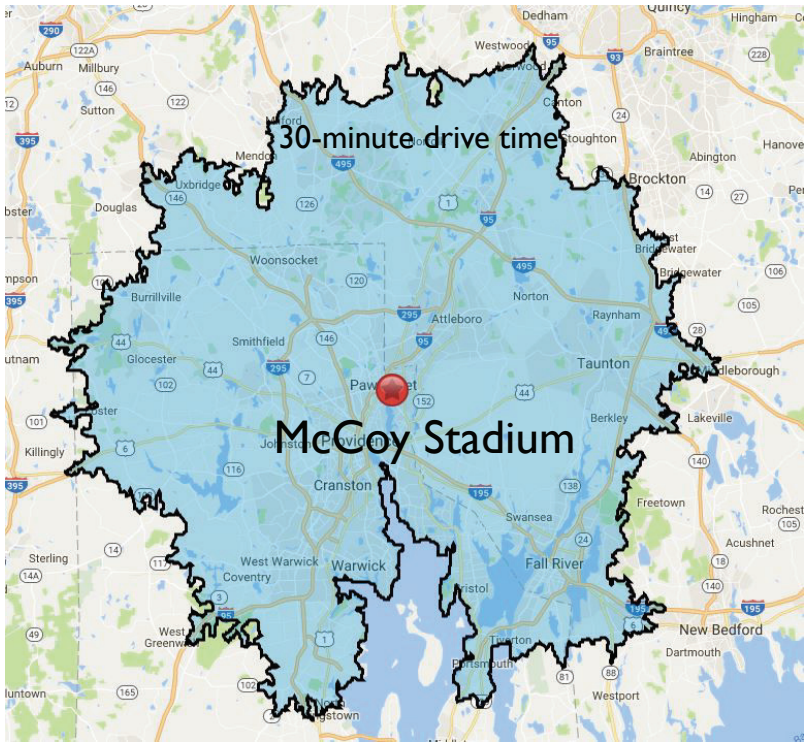
Market Analysis

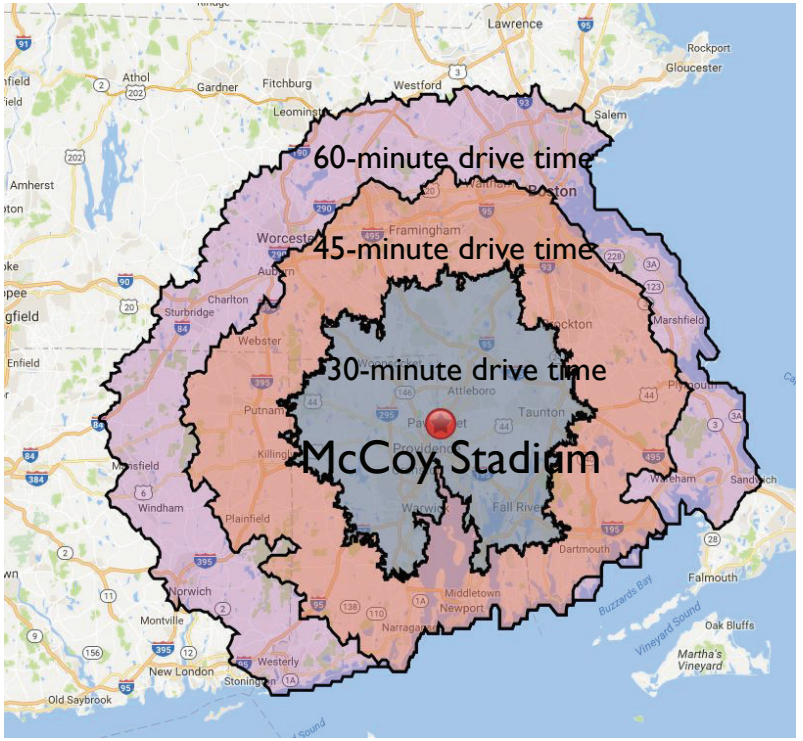
Market Definition

- The market analysis measures the comparative strength of the Pawtucket Market.
- A 30-minute drive time area typically represents the primary attendance catchment area for Minor League Baseball (MiLB).
  - For the purposes of this analysis the Pawtucket market is defined as the 30-minute drive time market from McCoy Stadium (Pawtucket Market).
  - In B&D's experience, attendance is primarily driven by travel distances and not City, State, or Metropolitan Statistical Area (MSA) boundaries.
  - It is NOT the definition of the Pawtucket Market limits, as the Pawtucket Red Sox draw beyond the 30-minute drive time area.
- The map on the following page illustrates the 30-minute drive time market surrounding McCoy Stadium.
  - An additional map showing the 30-, 45-, and 60-minute drive time area is also shown for reference.

Market Analysis

Market Definition





Market Analysis

AAA Markets

- B&D ranked all 30 Class AAA MiLB markets by 30-minute drive time populations, retail expenditures, and unadjusted household incomes.
  - Population is an appropriate indicator of market size, retail expenditures measure economic activity in a market, while household income measures market wealth.
- The Pawtucket Market ranks in the top 7 out of 30 Class AAA MiLB markets across these measurements; the top 15 are shown below.

Rank	Market	30-Minute Population	Market	30-Minute Retail Expenditures	Market	30-Minute Average Household Income
1	Las Vegas, Nevada	2,026,546	Charlotte, North Carolina	$19,900	Durham, North Carolina	$90,212
2	Charlotte, North Carolina	1,824,282	Las Vegas, Nevada	$19,600	Gwinnett, Georgia	$87,587
3	Sacramento, California	1,766,629	Sacramento, California	$17,300	Salt Lake City, Utah	$85,296
4	Gwinnett, Georgia	1,648,378	Columbus, Ohio	$17,200	Round Rock, Texas	$84,917
5	Indianapolis, Indiana	1,629,214	Indianapolis, Indiana	$17,000	**Pawtucket, Rhode Island**	**$84,280**
6	Columbus, Ohio	1,583,188	**Pawtucket, Rhode Island**	**$16,900**	Des Moines, Iowa	$83,652
7	**Pawtucket, Rhode Island**	**1,516,608**	Gwinnett, Georgia	$16,700	Charlotte, North Carolina	$82,568
8	Tacoma, Washington	1,458,306	Durham, North Carolina	$15,400	Nashville, Tennessee	$81,984
9	Norfolk, Virginia	1,377,004	Tacoma, Washington	$14,600	Colorado Springs, Colorado	$80,282
10	Salt Lake City, Utah	1,352,677	Norfolk, Virginia	$14,200	Columbus, Ohio	$78,992
11	Durham, North Carolina	1,290,407	Round Rock, Texas	$13,700	Allentown, Pennsylvania	$78,409
12	Round Rock, Texas	1,246,339	Salt Lake City, Utah	$12,800	Omaha, Nebraska	$78,046
13	Oklahoma City, Oklahoma	1,197,610	Nashville, Tennessee	$12,600	Sacramento, California	$77,823
14	Memphis, Tennessee	1,129,043	Oklahoma City, Oklahoma	$12,200	Norfolk, Virginia	$76,967
15	Nashville, Tennessee	1,129,022	Louisville, Kentucky	$11,700	Tacoma, Washington	$76,315

NOTES:

All data is within 30-minute drive time of AAA Ballpark.

Las Vegas, Nevada data is taken from 11011 West Charleston Boulevard, Las Vegas, Nevada 89135.

Source: www.sitesusa.com

Market Analysis

Comparable Markets

- Utilizing the economic indicator data, B&D selected 11 out of the 30 Class AAA MiLB markets that are most comparable to the Pawtucket Market.
- With over 1.5 million people, $16,900 in annual retail sales per household, and an average household income of over $84,000, the Pawtucket Market exceeds the comparable average across all three categories.

Market	Total Popluation	Retail Expenditures (Annual)	Average Household Income
Charlotte, North Carolina	1,824,282	$19,900	$82,568
Sacramento, California	1,766,629	$17,300	$77,823
Gwinnett, Georgia	1,648,378	$16,700	$87,587
Indianapolis, Indiana	1,629,214	$17,000	$75,902
Columbus, Ohio	1,583,188	$17,200	$78,992
Tacoma, Washington	1,458,306	$14,600	$76,315
Norfolk, Virginia	1,377,004	$14,200	$76,967
Salt Lake City, Utah	1,352,677	$12,800	$85,296
Round Rock, Texas	1,246,339	$13,700	$84,917
Memphis, Tennessee	1,129,043	$10,600	$67,946
Nashville, Tennessee	1,129,022	$12,600	$81,984
Average	***1,467,644***	***$15,145***	***$79,663***
Pawtucket, Rhode Island	***1,516,608***	***$16,900***	***$84,280***
Rank	**6th / 12**	**5th / 12**	**4th / 12**

All data is within 30-minute drive time of AAA Ballpark.

Source: www.sitesusa.com

Market Analysis

Market Characteristics

- Over the next five years, the Pawtucket Market's population is expected to grow at a slower rate (1.9%) than the market set (6.8%).
- The Pawtucket Market has a slightly smaller household size than its peers despite having a larger number of households.
- This data indicates smaller incremental growth for the Pawtucket Market through 2021.

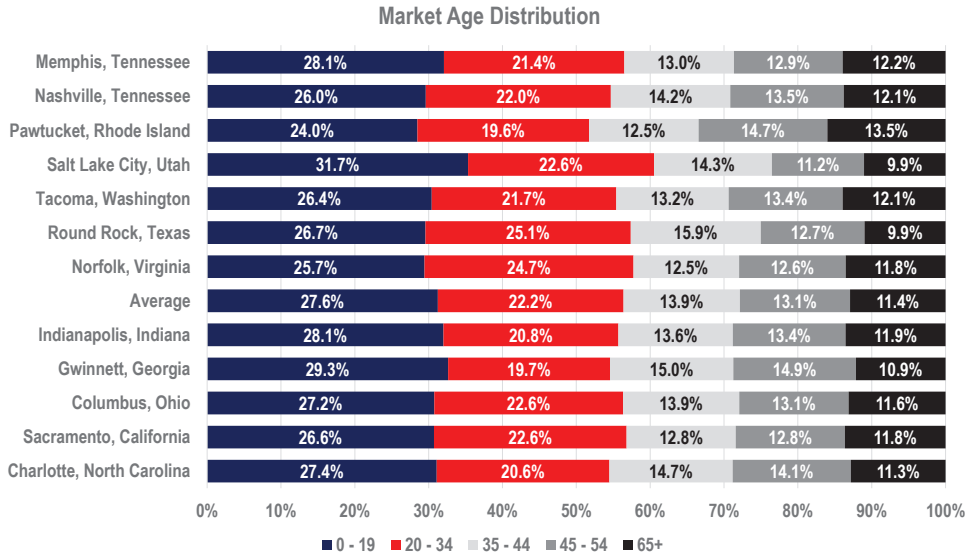
Market	Total Population	Population Growth	Total Households	Household Size
Charlotte, North Carolina	1,824,282	8.0%	715,724	2.55
Sacramento, California	1,766,629	6.5%	647,916	2.73
Gwinnett, Georgia	1,648,378	8.6%	578,992	2.85
Indianapolis, Indiana	1,629,214	4.0%	648,114	2.51
Columbus, Ohio	1,583,188	7.3%	641,689	2.47
Tacoma, Washington	1,458,306	6.6%	549,507	2.65
Norfolk, Virginia	1,377,004	3.5%	533,612	2.58
Salt Lake City, Utah	1,352,677	6.8%	449,664	3.01
Round Rock, Texas	1,246,339	14.4%	484,721	2.57
Memphis, Tennessee	1,129,043	2.3%	437,043	2.58
Nashville, Tennessee	1,129,022	6.8%	454,587	2.48
Average	*1,467,644*	*6.8%*	*558,324*	*2.63*
Pawtucket, Rhode Island	*1,516,608*	*1.9%*	*597,230*	*2.54*
Comparable Rank	6th / 12	12th / 12	5th / 12	9th / 12

NOTES:
All data is within 30-minute drive time of AAA Ballpark.
Source: www.sitesusa.com; C2ER

Market Analysis

Target Market

- The target market age group for MiLB ticket sales typically falls between the ages of 20 and 44.
- Over 32% of the Pawtucket Market population falls within this range.
- The Pawtucket Market ranks last in terms of target markets despite being the 6th largest market, signaling a somewhat aging population.



Market	Age Group 20 - 44	Target Market Population
Charlotte, North Carolina	35.3%	643,972
Sacramento, California	35.4%	625,387
Columbus, Ohio	36.5%	577,864
Gwinnett, Georgia	34.7%	571,987
Indianapolis, Indiana	34.4%	560,450
Norfolk, Virginia	37.2%	512,245
Round Rock, Texas	41.0%	510,999
Tacoma, Washington	34.9%	508,949
Salt Lake City, Utah	36.9%	499,138
Nashville, Tennessee	36.2%	408,706
Memphis, Tennessee	34.4%	388,391
Average	***36.1%***	***528,008***
Pawtucket, Rhode Island	***32.1%***	***486,831***
Comparable Rank	**12th / 12**	**10th / 12**

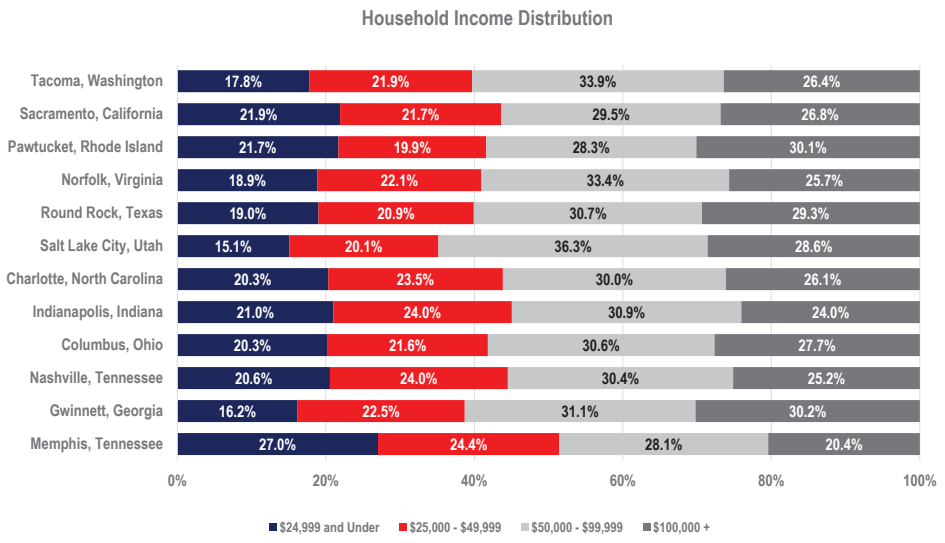
All data is within 30-minute drive time of AAA Ballpark.

Source: www.sitesusa.com

Market Analysis

Market Wealth

- Average household income is indicative of market wealth and spending available for family entertainment.
- When compared to peer markets, the Pawtucket Market ranks 4th out of 12 in terms of unadjusted household income.
- However, the area has a comparably high cost of living and when income is adjusted for this factor, the Pawtucket Market ranks 10th out of 12.



Market	Average Household Income	Normalized Household Income
Memphis, Tennessee	$67,946	$91,631
Gwinnett, Georgia	$87,587	$91,090
Nashville, Tennessee	$81,984	$86,808
Columbus, Ohio	$78,992	$86,384
Indianapolis, Indiana	$75,902	$85,010
Charlotte, North Carolina	$82,568	$83,394
Salt Lake City, Utah	$85,296	$80,671
Round Rock, Texas	$84,917	$80,046
Norfolk, Virginia	$76,967	$74,789
Sacramento, California	$77,823	$71,649
Tacoma, Washington	$76,315	$61,151
Average	*$79,663*	*$81,148*
Pawtucket, Rhode Island	*$84,280*	*$72,146*
Comparable Rank	*4th / 12*	*10th / 12*

NOTES:
All data is within 30-minute drive time of AAA Ballpark.
Source: www.sitesusa.com; C2ER

Market Analysis

Expenditures

- Consumer retail and entertainment sales are a broad yet instructive measure of economic activity in a market.
- The Pawtucket Market ranks above average in annual retail sales and spends more on entertainment than all but four of the peer markets.
- Even with the high cost of living in the Pawtucket Market, discretionary spending is relatively unaffected.

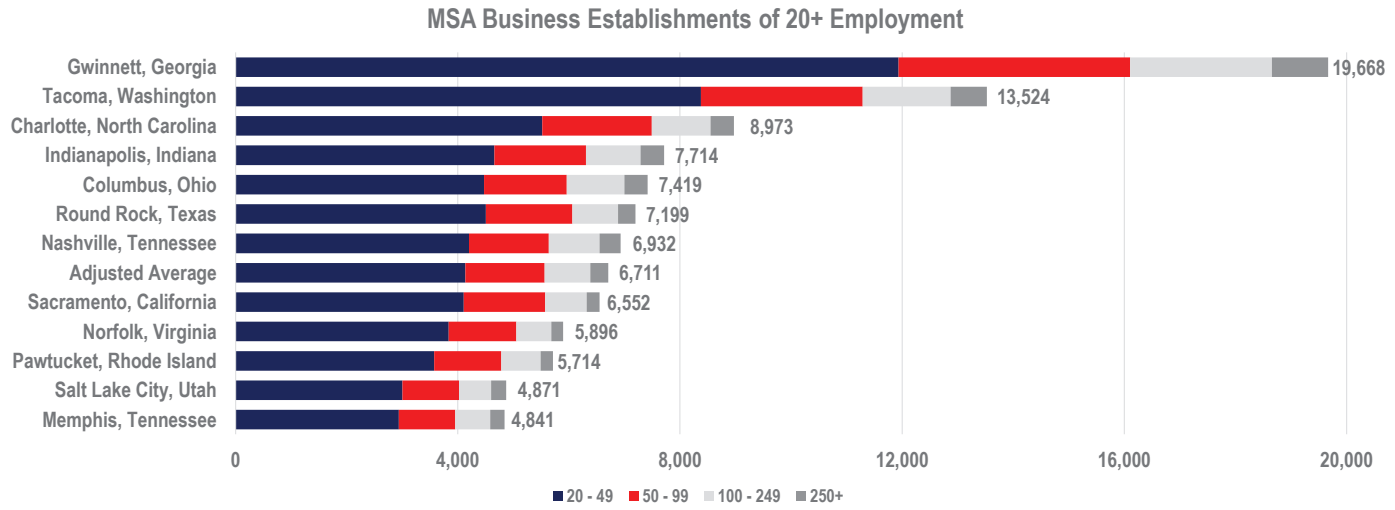
Market	Expenditures		
	Total	Retail	Entertainment
Charlotte, North Carolina	$43,600	$19,900	$2,450
Sacramento, California	$38,000	$17,300	$2,130
Columbus, Ohio	$37,800	$17,200	$2,120
Indianapolis, Indiana	$37,200	$17,000	$2,090
Gwinnett, Georgia	$36,900	$16,700	$2,080
Tacoma, Washington	$31,900	$14,600	$1,790
Norfolk, Virginia	$31,100	$14,200	$1,750
Round Rock, Texas	$30,200	$13,700	$1,700
Salt Lake City, Utah	$28,200	$12,800	$1,590
Nashville, Tennessee	$27,500	$12,600	$1,550
Memphis, Tennessee	$23,200	$10,600	$1,300
Average	***$33,236***	***$15,145***	***$1,868***
Pawtucket, Rhode Island	***$37,000***	***$16,900***	***$2,080***
Comparable Rank	***5th / 12***	***5th / 12***	***5th / 12***

NOTES:
All data is within 30-minute drive time of AAA Ballpark.
Source: www.sitesusa.com

Market Analysis

Corporate Base

- B&D collected business data for each MSA to understand aggregate corporate market strength and to inform a premium seating share analysis.
  - The City of Pawtucket is located within the Providence-Warwick, RI-MA MSA.
  - While drive time influences an individual's propensity to attend MiLB games, it has little influence on a business's decision to pursue sponsorship or premium seating leases.
- With over 5,700 business establishments that employ 20 or more people, the Providence-Warwick MSA ranks 10th out of 12 in the set; Gwinnett and Tacoma are considered outliers as they are part of much larger MSAs.



Market Analysis

Premium Seating Share Analysis

- B&D conducted an analysis to measure capacity for additional premium seating options in the Providence-Warwick MSA.
- On average, the peer AAA MiLB markets have 1.82 large businesses per suite and 13.18 wealthy households per club seat.
- This analysis suggests that a renovated McCoy Stadium could include an increase in premium seating options.

Market	Luxury Suites			Club/Loge Seats		
	Quantity [1]	Businesses with 250+ Employees	Share Ratio	Quantity [2]	Households w/ $150k+ Income	Share Ratio
Charlotte, North Carolina	244	423	1.73	14,844	109,131	7.35
Columbus, Ohio	242	418	1.73	9,981	98,233	9.84
Gwinnett, Georgia	457	1,012	2.21	17,124	287,496	16.79
Indianapolis, Indiana	242	423	1.75	17,548	81,042	4.62
Memphis, Tennessee	89	256	2.88	3,200	47,756	14.92
Nashville, Tennessee	286	380	1.33	14,522	77,495	8.12
Round Rock, Texas	195	314	1.61	3,495	117,931	33.74
Sacramento, California	70	232	3.31	2,650	124,903	47.13
Salt Lake City, Utah	178	271	1.52	3,772	46,883	12.43
Tacoma, Washington	245	650	2.65	13,441	274,095	20.39
Adjusted Average	***215***	***392***	***1.82***	***10,047***	***132,378***	***13.18***
Pawtucket, Rhode Island	***109***	***222***	***2.04***	***6,000***	***83,220***	***13.87***
Market Capacity	**122**		**1.82**	**6,316**		**13.18**
Surplus / (Shortage)	**(13)**			**(316)**		

[1] Adjusted average does not include Gwinnett or Sacramento

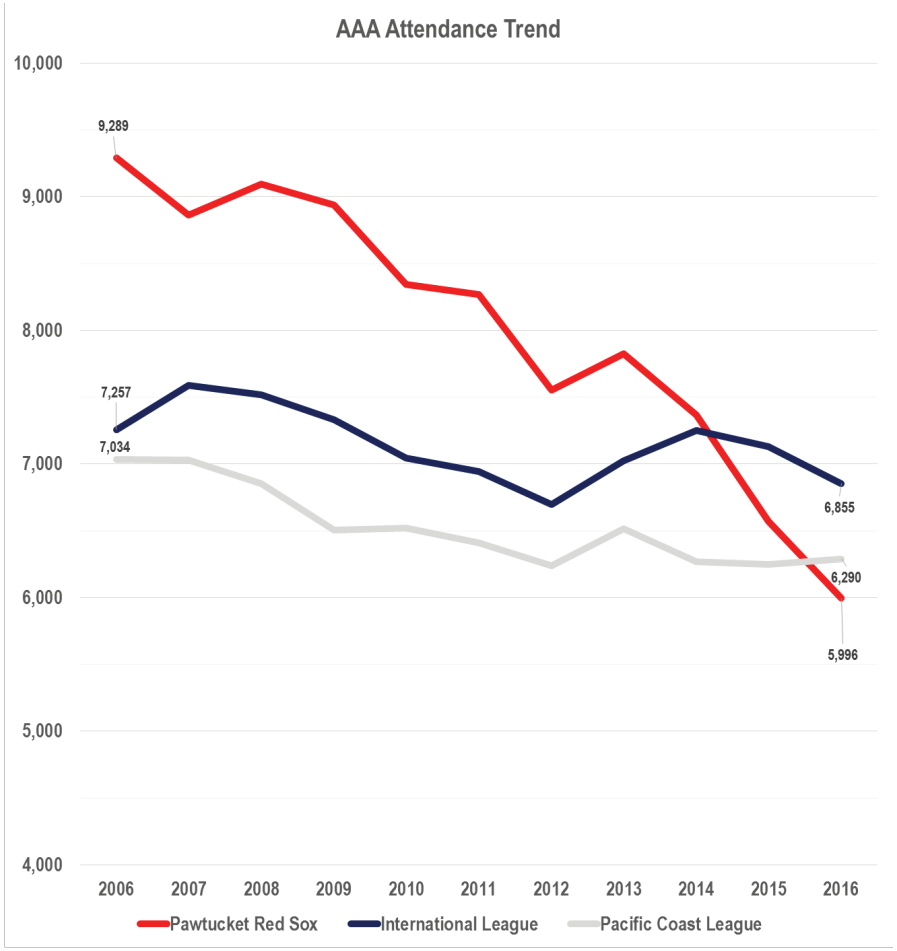
[2] Adjusted average does not include Indianapolis or Sacramento

Source: 2016 MSA Business Patterns (NAICS) by Metropolitan Statistical Areas, Internet research, venue websites.

Market Analysis

Attendance Trends

- B&D compiled reported attendance data from MiLB to inform macro-level trends in Class AAA.
  - Reported attendance is provided by each team to the MiLB offices.
- From 2006 to 2016, International League attendance has declined 6% and Pacific Coast League attendance decreased 11%.
- In contrast, Pawtucket Red Sox attendance declined 35% over the same period, a much steeper drop.



Market Analysis

Attendance Trends

- B&D selected 7 Class AAA ballparks that completed a renovation project or built a new facility for an existing franchise.
- Attendance prior to and after the construction was compared to identify any changes in attendance levels; on average, attendance increased by 7%.
  - The renovated ballparks averaged approximately 4%.

Team	Ballpark	Ballpark Opening	Level	Net Increase/ Decrease	Variance
Columbus Clippers	Huntington Park	2009	AAA	1,480	20%
Durham Bulls	Athletic Park	2014 R	AAA	820	12%
Iowa Cubs	Des Moines	2006 R	AAA	514	7%
New Orleans Baby Cakes	Shrine on Airline	2006 R	AAA	19	0%
Omaha Storm Chasers	Werner Park	2011	AAA	451	9%
SWB RailRiders	PNC Field	2013 R	AAA	258	5%
Tacoma Rainiers	Cheney Stadium	2011 R	AAA	-90	-2%
Average				*493*	*7%*

Source: MiLB reported attendance data

- In B&D's opinion, coupling attendance trends with the Pawtucket Market demographical data, any increases to attendance at the current site would likely be modest.

2.08 >
Events Analysis

Events Analysis

Outdoor Events

- B&D collected non-MiLB event schedules for 6 AAA ballparks to gain an understanding of activity levels and facility utilization.
  - The selected venues are located in climates similar to Pawtucket.
- Ticketed events (other than MiLB games) range from 2 to 12 and include a mix of concerts, beer/wine festivals, and fun runs, among others.
  - McCoy Stadium currently hosts 3 non-MiLB ticketed events annually.
- Hosting ticketed events is largely dependent on climate and the team's willingness to take on the risks associated with hosting/promoting events.

	Cheney Stadium (Tacoma)	Coca-Cola Park (Lehigh Valley)	Huntington Park (Columbus)	McCoy Stadium (Pawtucket - Current)	PNC Field (Scranton/Wilkes-Barre)	Victory Field (Indianapolis)	Werner Park (Omaha)
Opening	2011 R	2008	2009	**1999 R**	2013 R	2017 (R planned)	2011
Max Capacity	6,500	10,178	10,100	**10,000**	10,000	14,230	9,023
Events Held	Concerts	Cider and Wine Festival	Wine & Canvas Night	**Wrestling Event**	Breakfast with Sanata	HS Football	Baseballoween
	R House Productions	Craft Beer Fest	COSI After Dark	**Celebrity Softball**	Winter Wonderfest	College Baseball	Big & Rich
		Bacon 5K Challenge	Walk Now for Austism Speaks	**Nation Run 5K**	HS Football	Celebrity Softball	Breakfast with Sanata
		Food Truck Festival	Dinner on the Diamond		Fall Festival		Beerfest
		Concerts	Ballpark Boom				
In-house		5	5	**2**	3		3
Promoter Sports				**1**	1	12	
Concerts	2	2					1
Total	***2***	***7***	***5***	***3***	***4***	***12***	***4***

Source: Venue websites, internet research, and primary interviews

Events Analysis

Outdoor Events

- Rhode Island's weather and the Pawtucket Red Sox schedule limit McCoy Stadium's ability to host outdoor events that utilize the seating bowl and field.
- With a dedicated Event Manager, B&D believes McCoy Stadium could host 6 in-house promoted outdoor events per year consistent with levels seen in recently renovated MiLB AAA ballparks.
- Events could include a concert, a beer/wine festival, and a fun run in addition to McCoy Stadium's current event schedule.

Ballpark	Number of Outdoor Events
Cheney Stadium	2
Coca-Cola Park	7
Huntington Park	5
PNC Field	4
Victory Field	12
Werner Park	4
Average	***6***
McCoy Stadium (Projected)	***6***

Source: Venue websites, internet research, and primary interviews

Events Analysis

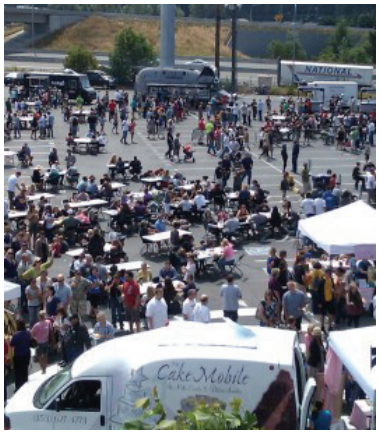
- Dedicated club lounges, hospitality areas, and meeting rooms provide opportunities for AAA teams to host year-round meetings, banquets, and other special events.
  - Typical events include neighborhood meetings, charity events, community events, business outings, weddings, galas, birthday parties, networking events, and job fairs, among others.
- While MiLB attendance is analyzed on a drive-time basis, Metropolitan Statistical Area (MSA) data is more instructive when analyzing potential non-ticketed event demand.
  - The City of Pawtucket is located within the Providence-Warwick, RI-MA MSA.
- Demand indicators include a market's corporate base, household wealth, and meeting space offerings.
  - This broad analysis is intended to identify local meeting space needs and does not consider demand for regional or national events such as conferences and conventions.
- B&D compiled the following case studies to highlight the spaces and amenities offered at contemporary Class AAA facilities that host non-MiLB events.

Events Analysis

Cheney Stadium - Tacoma, WA	
Main Tenant:	Tacoma Rainiers
Opened / Renovated:	2011 R
Capacity (Expanded):	6,500

Facility Specifications	Quantity / Capacity
Summit Club	4000 sq ft
Suites	16
Bullpen Lounge (outdoor/covered)	50 people
Terrace (outdoor)	200 people
Party Decks (outdoor)	5

Source: Venue websites, internet research



- Cheney Stadium's 4,000 square foot indoor club space allows the team to host large banquets, weddings, and meetings.

Events Analysis

Coca-Cola Park - Allentown, PA	
Main Tenant:	Lehigh Valley IronPigs
Opened / Renovated:	2008
Capacity (Expanded):	10,178

Facility Specifications	Quantity / Capacity
Club Level	2300 sq ft
Meeting Room	1054 sq ft
Board Room	546 sq ft
Suites	20
Party Suites	2
Picnic Patio (outdoor/covered)	500 people
Bullpen Deck (outdoor)	75 people
Party Decks (outdoor)	2

Source: Venue websites, internet research

- A meeting room, board room, and club level allow the IronPigs flexibility to host groups of various sizes.

Events Analysis

Huntington Park - Columbus, OH	
Main Tenant:	Columbus Clippers
Opened / Renovated:	2009
Capacity (Expanded):	10,100

Facility Specifications	Quantity / Capacity
Club Bar	500 people
Left Field Lounge (temp controlled)	250 people
Bullpen Suite	50 people
Suites	32
Party Deck (outdoor/covered)	900 people
Party Decks (outdoor)	3

Source: Venue websites, internet research

- The Columbus Clippers utilize Huntington Park's party suite for meetings and receptions in various seating configurations.

Events Analysis

PNC Field - Moosic, PA	
Main Tenant:	Scranton / Wilkes-Barre RailRiders
Opened / Renovated:	2013 R
Capacity (Expanded):	10,000

Facility Specifications	Quantity / Capacity
Legends Restaurant	
Club Level Lounge	
Suites	14
Party Suites	70 people
Party Pavilion (outdoor/covered)	50 people
Party Decks (outdoor/covered)	2

Source: Venue websites, internet research

- PNC Field offers a restaurant area, a club level lounge, and various covered spaces to host events of all different types.

Events Analysis

Victory Field - Indianapolis, IN	
Main Tenant:	Indianapolis Indians
Opened / Renovated:	2017 R (planned)
Capacity (Expanded):	14,230

Facility Specifications	Quantity / Capacity
Home Plate Club	Planned in renovation
Suite Lounge	1600 sq ft
Pregame Meeting Room	425 sq ft
Suites	6
Plaza (outdoor)	
Picnic Area and Bar (oudoor)	
Party Decks (outdoor)	3

Source: Venue websites, internet research

- The planned renovation of Victory Field includes a new Home Plate Club which will diversify its event space offerings which already include a suite lounge and a meeting room.

Events Analysis

Werner Park - Papillion, NE	
Main Tenant:	Omaha Storm Chasers
Opened / Renovated:	2011
Capacity (Expanded):	9,023

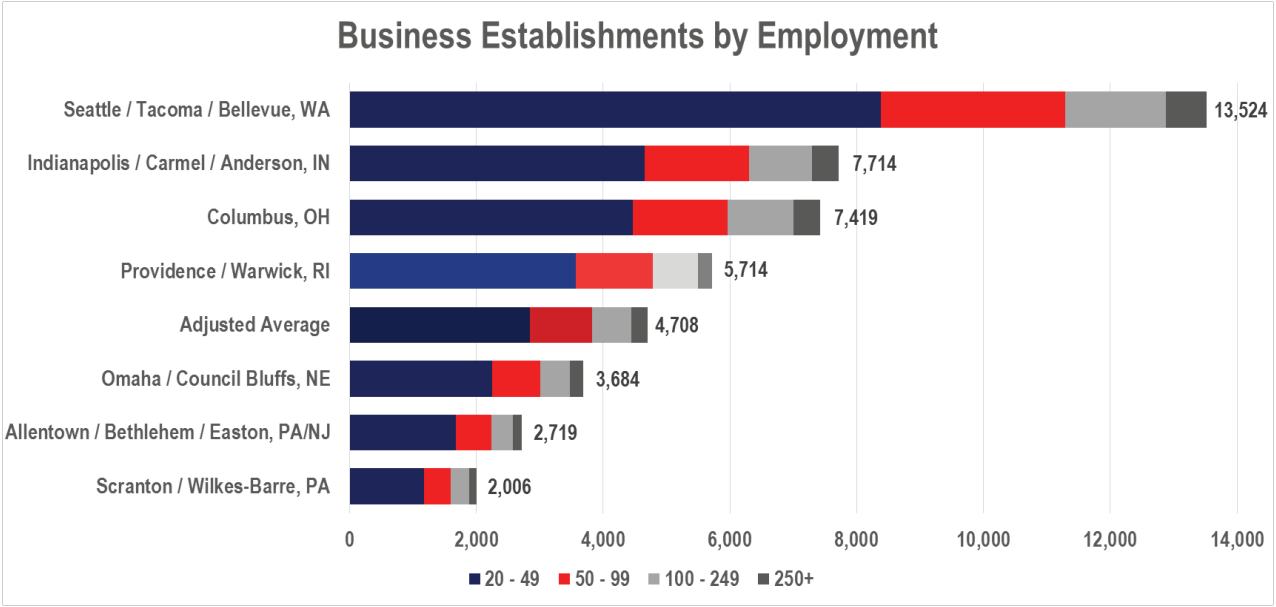
Facility Specifications	Quantity / Capacity
VIP Club	
Party Suites	2
Suites	15
Boardroom	20 people
Pavilions (outdoor / covered)	2 at 2,000 people
Party Patio (outdoor)	150 people
Picnic Area (outdoor)	

Source: Venue websites, internet research

- Werner Park advertises 60 non-baseball events per year including ticketed and non-ticketed events.

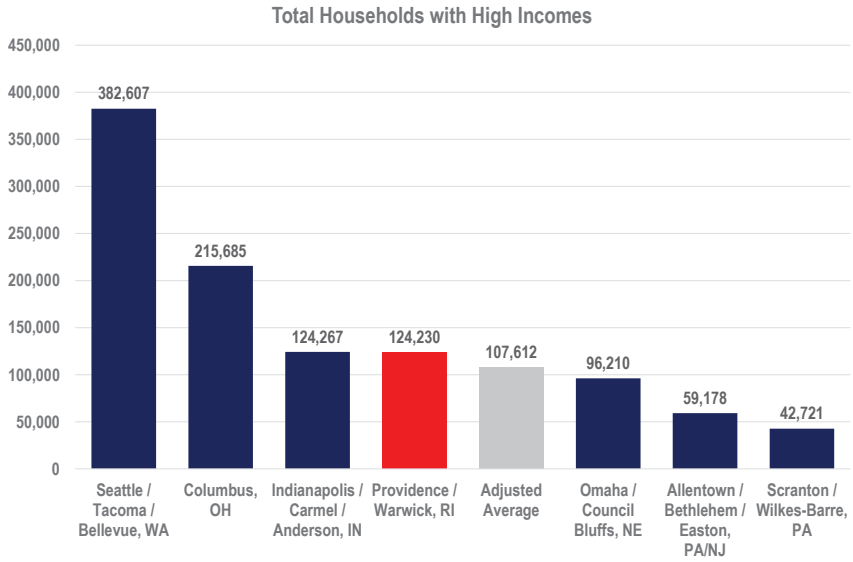
Events Analysis

- B&D analyzed business data for each of the case study markets.
- Local businesses with at least 20 employees will likely be the primary users of meeting space in a renovated McCoy Stadium.
- The Providence-Warwick MSA, which contains over 5,700 organizations, most closely compares with the Omaha, Columbus, and Indianapolis markets.



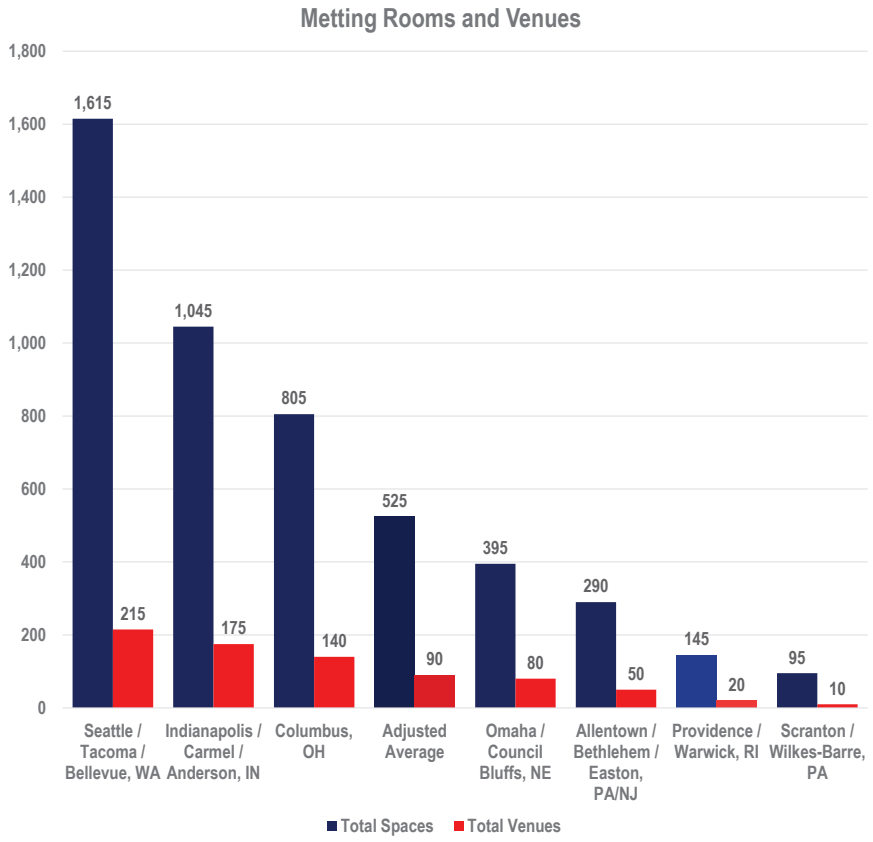
Events Analysis

- Higher income households, defined as $100,000+ per household, are likely event space users for banquets, weddings, and other special events.
- In comparison to the six selected AAA markets, the Providence-Warwick MSA contains the 4th largest number of higher-income households.



Events Analysis

- Utilizing secondary sources, B&D estimated the total meeting rooms and venues within each peer market.
- Excluding the Seattle-Tacoma MSA, the markets average 525 rooms across 90 venues.
  - This MSA is considered an outlier as it is part of a much larger MSA.
- Only the Scranton MSA has fewer offerings than the Providence-Warwick MSA.



Events Analysis

- B&D conducted an analysis to measure capacity for additional meeting rooms in the Providence-Warwick MSA based on local needs.
- On average, the peer markets have 10.80 large businesses and 253.51 wealthy households per meeting room.
- The application of these ratios to the Providence-Warwick MSA indicates a shortage of meeting spaces.

MSA	Meeting Rooms per 20+ Establisment			Meeting Rooms per $100,000+ Income HH		
	Quantity	Total 20+ Establishments	Share Ratio	Quantity	$100,000+ Income Households	Share Ratio
Seattle / Tacoma / Bellevue, WA	1,615	13,524	8.37	1,615	382,607	236.91
Indianapolis / Carmel / Anderson, IN	1,045	7,714	7.38	1,045	124,267	118.92
Columbus, OH	805	7,419	9.22	805	215,685	267.93
Omaha / Council Bluffs, NE	395	3,684	9.33	395	96,210	243.57
Allentown / Bethlehem / Easton, PA/NJ	290	2,719	9.38	290	59,178	204.06
Scranton / Wilkes-Barre, PA	95	2,006	21.12	95	42,721	449.70
Average	*708*	*6,178*	*10.80*	*708*	*153,445*	*253.51*
Providence / Warwick, RI	*145*	*5,714*	*39.41*	*145*	*124,230*	*856.76*
Market Capacity	*529*		*10.80*	*490*		*253.51*
Surplus / (Shortage)	*(384)*			*(345)*		

Source: www.cvent.com; 2016 MSA Business Patterns (NAICS) by Metropolitan Statstical Area, Internet Research, venue websites

Events Analysis

Total Event Activity & Revenue Generation

- In total, MiLB ballparks located in similar climates with event space capabilities average 80 or more outdoor events, special events, and pre-game meetings per year.

- Based on B&D's experience and primary research, the top 5 to 10 MiLB teams that are most successful at booking non-baseball/special events generate net revenues – at the high end – of approximately $400,000 annually from ticket sales, space rentals, catering and sponsorships; the vast majority of teams typically generate approximately $100,000.

2.09 >
Benefits Analysis - McCoy Stadium (Current)

McCoy Stadium Benefits

Current Benefits

- B&D completed an analysis designed to estimate the current economic and fiscal benefits generated by the operation of the Pawtucket Red Sox and McCoy Stadium.

- Benefits are measured in terms of economic activity, wages, jobs, and taxes.
  - Taxes include sales tax, personal income tax, transient occupancy tax, and tangible property tax.
  - Sales tax is generated from in-ballpark purchases on food and beverage items and merchandise/ novelties and visitor and visiting team spending outside the ballpark.
  - Direct and indirect jobs supported by operations generate income tax.

- Direct impacts include team and ballpark expenditures, cost of concessions and merchandise, and off-site team and visitor spending at hotels, retail stores, restaurants, and on transportation.

- Ticket sales and in-stadium spending are not considered direct economic impacts for in-market visitors
  - In B&D's experience, much of this spending is displacement or "substitution" spending and would take place without the presence of the ballpark.

McCoy Stadium Benefits

Current Benefits

- The direct impacts provide the basis for calculating indirect benefits through the application of market-specific RIMS-II multipliers.
  - The analysis relies on input-output multipliers that are developed based on information published by the United States Bureau of Economic Analysis.
- Indirect impacts represent the value of additional economic demands that the team and ballpark places on supplying industries within the market economy for goods and services.
- B&D estimated the annual benefits to both the State of Rhode Island and the City of Pawtucket.
  - State benefits are inclusive of City benefits.

McCoy Stadium Benefits

Current Benefits

- B&D's analysis relies on data points provided by the team and a series of informed assumptions, including an annual paid attendance level of 385,000.
  - B&D estimates that approximately 50% originate from outside of the state, 45% come from within the market, and 5% require hotel night stays.
  - In total, B&D estimates approximately $20,000,000 in gross spending from annual operations – team operations, ballpark operations, visitor spending, and visiting team spending.
- The chart below summarizes the on-going economic and fiscal benefits to the State and City.

McCoy Stadium Current Operations

State of Rhode Island		City of Pawtucket	
Estimated Economic Activity	$16,100,000	Estimated Economic Activity	$6,700,000
Estimated Wages	$13,300,000	Estimated Wages	$2,070,000
Estimated Jobs	320	Estimated Jobs	64
Fiscal Benefits	$1,300,000	Fiscal Benefits	$29,000

2.10 >
Benefits Analysis - McCoy Stadium Renovation

Renovation Option Benefits

One-Time Benefits

- The renovation of McCoy Stadium will provide new patron amenities and is intended to improve existing conditions, enhance the spectator experience, and prolong the useful life of the facility.

- The anticipated renovation budget is $68 million (2018 dollars), inclusive of the hard and soft costs of construction.
  - Soft costs are estimated at 30% of the hard construction costs.
  - For the purposes of this analysis, the projected start of construction is 2018.

- During the construction period, the project will have an immediate, one-time impact on the State of Rhode Island and City of Pawtucket economies.
  - Impacts stem from the procurement of labor, purchase of materials, and contracting of soft cost services inside the City and State.
  - Fiscal benefits include income tax and sales tax revenue generated by new wages and materials purchased within the State, respectively.

Renovation Option Benefits

One-Time Benefits

- The State is estimated to retain 40% of wages, 20% of materials purchases, and 15% of soft costs.
- The potential economic benefit of the project to Rhode Island outweighs the potential impact to Pawtucket.
  - There is a limited availability of ballpark construction materials and labor force in the City.
  - The City is estimated to retain 10% of wages, 5% of materials, and 2% of soft costs.
- The chart below summarizes the one-time benefits of the renovation.

Renovation Option - One-Time Benefits			
State of Rhode Island		**City of Pawtucket**	
Estimated Economic Activity	$16,200,000	Estimated Economic Activity	$2,260,000
Estimated Wages	$20,500,000	Estimated Wages	$2,520,000
Estimated Jobs	396	Estimated Jobs	47
Fiscal Benefits	$1,207,000		

Renovation Option Benefits

Recurring Benefits

- B&D modeled the future recurring benefits of team and ballpark operations in a renovated McCoy Stadium.
  - While new revenue generating opportunities will be provided, the project will also likely result in a shift of some revenues around the ballpark.
  - Ballpark operating costs are unlikely to increase significantly, and as a result, B&D believes net new demands on the local and state economies will be limited beyond current levels.
  - A paid attendance average of 406,000 was utilized.
- The chart below summarizes the annual benefits of the renovation option.

Renovation Option - Recurring Benefits

State of Rhode Island		City of Pawtucket	
Estimated Economic Activity	$19,200,000	Estimated Economic Activity	$8,140,000
Estimated Wages	$15,800,000	Estimated Wages	$2,520,000
Estimated Jobs	371	Estimated Jobs	73
Fiscal Benefits	$1,600,000	Fiscal Benefits	$35,000

2.11 >
Benefits Analysis - New Ballpark at the McCoy Site

New Construction Option Benefits

One-Time Benefits

- The new construction option consists of an entirely new $78 million (2018 dollars) ballpark located on the current McCoy Stadium site.
- The demolition of the stadium and the construction of a new ballpark in a slightly different configuration will create space for ancillary development.
- Based on a review of ancillary development projects adjacent to other MiLB ballparks and in consideration of zoning and site constraints, the following preliminary program was identified for the project:
  - 36 apartment units
  - 16,000 square feet of ground level retail space to include a mix of food and beverage, convenience, and dry goods retailers.
  - 200 structured parking spaces
- This analysis is based upon hypothetical assumptions. It is highly speculative that any private developer would consider such a project.

New Construction Option Benefits

One-Time Benefits

- The preliminary budget for the ancillary development project is estimated at $15.4 million; the entire budget is $93.4 million (2018 dollars).
- The chart below summarizes the one-time benefits generated by the construction of the new ballpark and ancillary development.

New Ballpark & Ancillary Development Option - One-Time Benefits

State of Rhode Island		City of Pawtucket	
Estimated Economic Activity	$22,500,000	Estimated Economic Activity	$3,136,000
Estimated Wages	$28,500,000	Estimated Wages	$3,489,000
Estimated Jobs	552	Estimated Jobs	65
Fiscal Benefits	$1,686,000		

New Construction Option Benefits

Recurring Benefits

- B&D assumed that a new ballpark on the McCoy Stadium site will attract more paid attendees than a renovated ballpark, or 441,000 per year.
- B&D also assumed similar operating costs in the new ballpark as in the renovation model.
  - Unlike the renovation option, however, it is possible that operating efficiencies could be realized in a fully-modernized new ballpark resulting in reduced costs.
- Utilizing industry standard metrics and applying regional rental and vacancy rate assumptions, B&D modeled the project's operations for the purposes of quantifying its benefits to the State and City.
- Economic and fiscal benefits are generated through net new consumer spending, retailer operations, building management, and property taxes.

New Construction Option Benefits

Recurring Benefits

- The chart below summarizes the recurring benefits generated by the operations of the Pawtucket Red Sox in a new ballpark on the McCoy Stadium site.

New Ballpark - Recurring Benefits			
State of Rhode Island		**City of Pawtucket**	
Estimated Economic Activity	$19,900,000	Estimated Economic Activity	$8,600,000
Estimated Wages	$16,200,000	Estimated Wages	$2,560,000
Estimated Jobs	385	Estimated Jobs	76
Fiscal Benefits	$1,750,000	Fiscal Benefits	$45,000

New Construction Option Benefits

Recurring Benefits

- The chart below summarizes the recurring benefits generated by the operations of the ancillary development project on the McCoy Stadium site.

Ancillary Development - Recurring Benefits [1]			
State of Rhode Island		**City of Pawtucket**	
Estimated Economic Activity	$5,300,000	Estimated Economic Activity	$538,000
Estimated Wages	$1,900,000	Estimated Wages	$207,000
Estimated Jobs	43	Estimated Jobs	5
Fiscal Benefits	$340,000	Fiscal Benefits	$95,000

[1] This analysis is based upon hypothetical assumptions. It is highly speculative that any private developer would consider such a project.

2.12 > Recurring Benefits

Recurring Benefits Summary

Recurring Benefits

- The chart below summarizes the recurring benefits of McCoy Stadium's current operation, the renovation option, and the new construction option (ballpark only) to the State of Rhode Island.

State of Rhode Island			
	Existing Operations	**Renovation**	**New Construction**
Estimated Economic Activity	$16,100,000	$19,200,000	$19,900,000
Estimated Wages	$13,300,000	$15,800,000	$16,200,000
Estimated Jobs	320	371	385
Fiscal Benefits	$1,300,000	$1,600,000	$1,700,000

- When measured over a 20-year net present value basis:
  - The renovation option generates an estimated $22.6 million in direct/indirect fiscal benefits.
  - The new constriction option generates an estimated $24.5 million in fiscal benefits.
  - The ancillary development project generates an estimated $5.9 million in fiscal benefits.

2.13 > Summary

Summary

- Renovating McCoy Stadium at an estimated cost of $68 million will likely generate minimal return on the public investment in the project other than the jobs and taxes generated by the construction and a modest level of increased recurring benefits generated by enhanced team operations.

- Even with the construction of a new ballpark at an estimated cost of $78 million, the existing McCoy Stadium site's limitations will remain unchanged and in all likelihood not provide an opportunity to attract private investment and development.

- In B&D's independent and professional opinion, it is highly unlikely that a typical goal of a public investment of this nature – to generate a significant return on that investment driven by ancillary development around a new stadium – will ever be realized.

MCCOY STADIUM
Part 03 - Conceptual Design Options & Analyses

January 26, 2017

Pawtucket, RI

ARORA · Barton Malow · B&D VENUES · BETA ENGINEERING SUCCESS TOGETHER · PENDULUM · SLAM

TABLE OF CONTENTS >>>

Fig. 000. McCoy Stadium 3D View

3.01 >
McCoy Stadium Renovation Concept

Summary >>

The Pendulum team has analyzed the site existing site conditions at McCoy Stadium and have identified two scenarios that enhance amenities and offerings available at McCoy with the goal of encouraging activity, energy, and the interest of citizens of Pawtucket, RI and the surrounding region.

The renovation concept consists of a renovation of the existing structure as outlined in Part 01 of this report. In addition, we propose rearranging building program to address pedestrian flow while dedicating appropriate spaces to service, hospitality, and storage as follows:

- Player Clubhouses and batting tunnels are relocated.
- Premium club lounge with bar and food service are placed behind home plate at the field level.
- Extend the first base line and third base line seating bowl down to the field to reduce foul territory.
- Tower 1, 2, and 3 are reclaimed as symbolic major entries.
- Left field suites transformed into rental/party suites.
- Left field corner mechanical pads are transformed into picnic deck.
- Team administration, ticketing, and team store are relocated to outfield/right field main entry to address major pedestrian traffic from north of Division Street.
- Outfield group areas added at field level.
- Enclosed hospitality area added in lieu of right field tent.
- Public park added down the right field line.
- Beer gardens added at concourse level (outfield right/left).
- 12 skyboxes added adjacent to press area.
- Press box expanded.
- Grandstand relocated/replaced - left field.
- The existing football field and track shall be demolished and expanded for use as 300 additional on-site parking spaces.
- Approximately 25 parking spaces for dedicated team administration use have been located adjacent to the new team store/administration/ticketing building in right field.

>> Grade Level Concept Description

As illustrated in the Ground Level Plan Fig. 239 we have proposed a complete reorganization/expansion of enclosed operations program space. This reorganization includes expansion of commissary storage and kitchens, relocation of the home and visiting team clubhouses, and the addition of an enclosed premium club (22.) behind home plate that will accommodate VIP dining during games and large group meetings, weddings, etc. in non-game day conditions. The existing circular ramps will be screened at grade level to conceal mechanical equipment. The towers will also be enclosed at the above grade levels continuing their tradition as historic memorabilia display cases, only in a much more elegant way. The problematic trash enclosure (12.) shall be relocated to the far left and combined with an expanded field maintenance and building operations workshop.

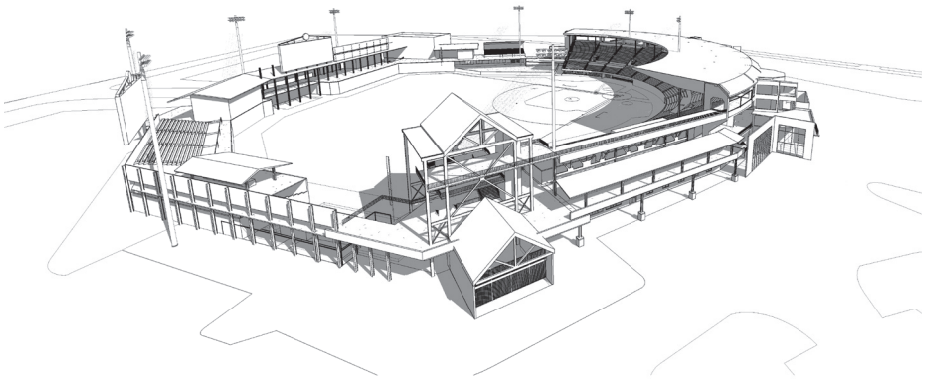
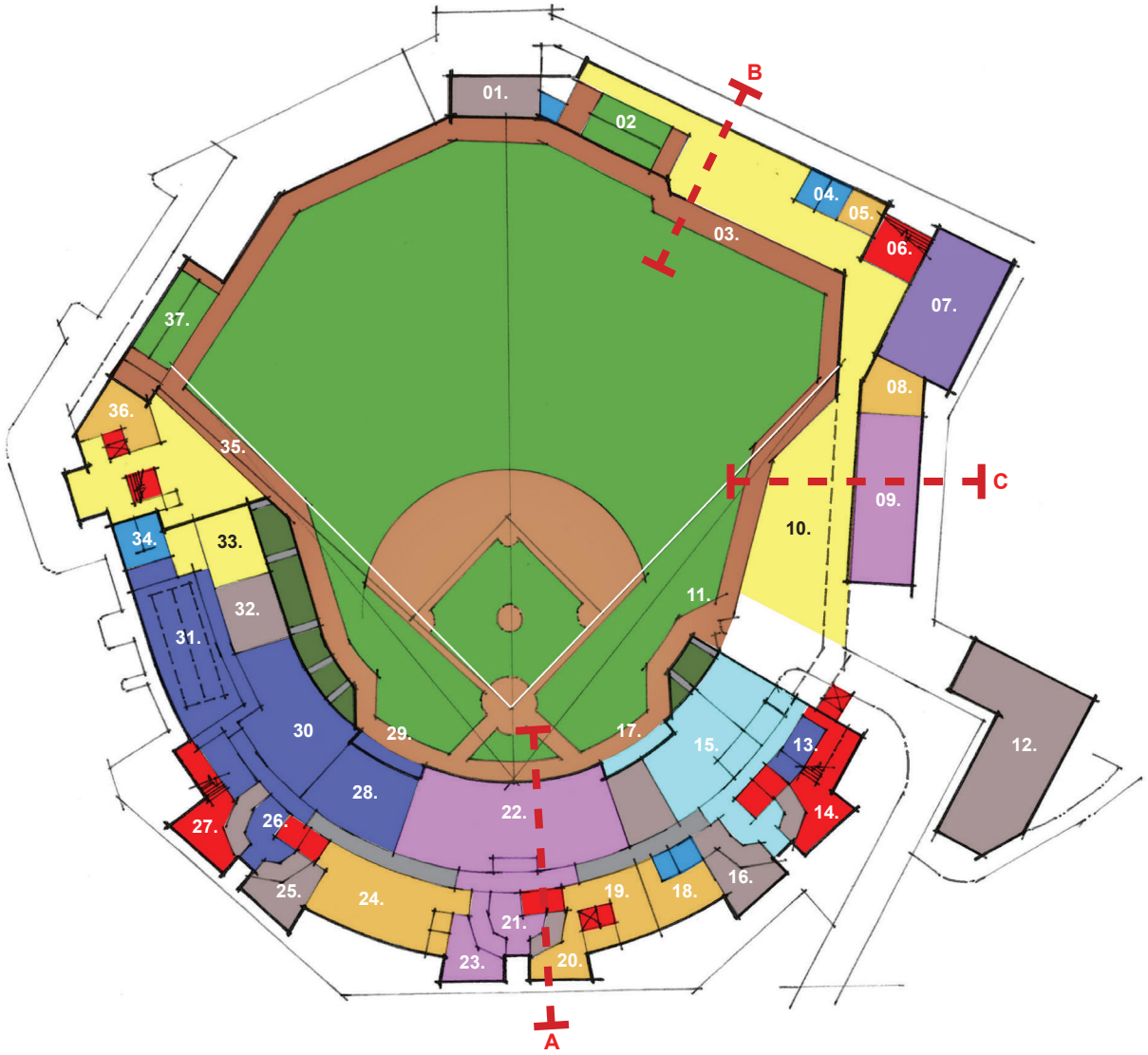


Fig.238. McCoy Stadium Renovation Concept Aerial

Ticketing, the main merchandise store, and team administration (0.7) shall be relocated to right field, much closer to the main pedestrian flow from adjacent on-site parking lots and remote parking north of Division Street. The "VIP Tent" shall be converted to an indoor/outdoor premium hospitality area (09., 10.) still down the right field line and shall be accommodated by new restroom and concession/food service facilities. We have modified the overall geometry of right field, intentionally making it more asymmetrical and allowing room for an at-grade picnic pavilion with direct views to the field. The entire playing field surface shall be rebuilt including the sub-grade drainage system. All parking shall receive upgraded storm systems to prevent flooding, and shall be resurfaced and striped. The existing football/track field down the right field line shall be demolished and re-purposed for use as additional parking (300 new spaces).



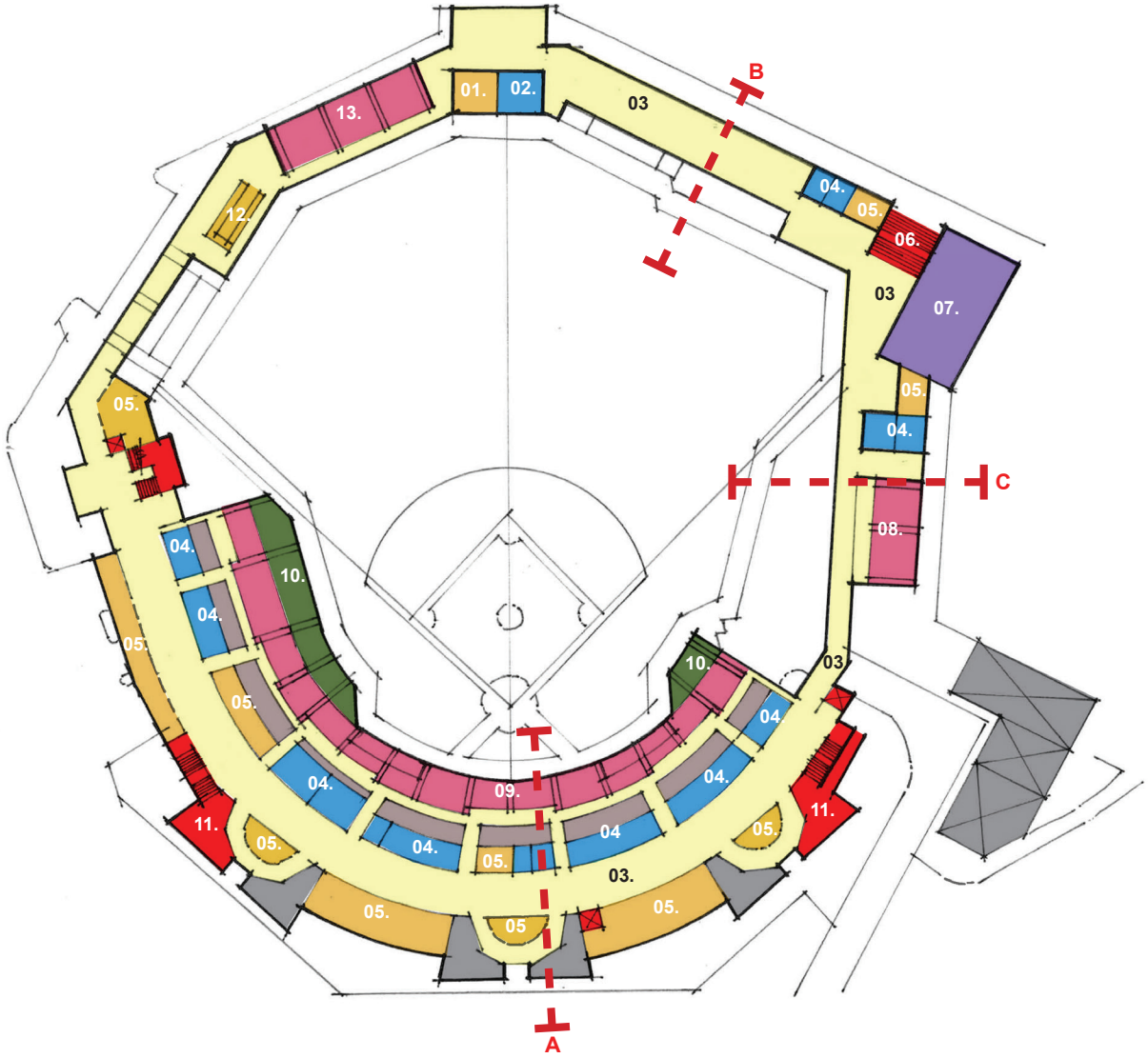
Legend

01. Un-excavated area
02. Visitor bullpen
03. Grade level party area (250)
04. Restrooms
05. Group warming pantry
06. Grand entry stair
07. Team administration/ticketing/team store
08. Concession/restroom
09. Group enclosed area (200)
10. Group exterior area (400)
11. Field access
12. Field maintenance/grounds keeping
13. Umpire room
14. Pedestrian exit
15. Visiting team lockers
16. MEP
17. Visitor dugout
18. Concession office
19. Cooking kitchen
20. Concession conference room
21. Visitor entry
22. VIP club
23. Meeting room
24. Commissary storage
25. MEP
26. Home team entry
27. Pedestrian exit
28. Training
29. Home dugout
30. Home team lockers
31. Batting tunnels (2)
32. Storage
33. Party suite
34. VIP restroom
35. Outdoor VIP picnic area
36. VIP picnic bar
37. Home team bullpen

McCoy Stadium - Pawtucket, RI : Renovation Concept - Grade Level Plan

PENDULUM

Fig.239. Concept Plan



>> Main Concourse Level Concept Description

The main concourse level, Fig. 240 will be reconstructed to remove the threat of water infiltration to the occupied areas below. Portions of the seating bowl behind home plate - specifically the first and third base lines (10.); shall be extended down to the playing field surface to increase intimacy and reduce foul territory. The main concourse shall be bridged/extended to the outfield so that there is truly a 360 degree wrap around concourse (03.). Patrons will now be able to circulate the entire stadium without walking down the stairs to the grade level. New grandstands (08., 13.) will be placed at strategic locations in the outfield for general admission (GA) and overflow seating. New outfield features at the team administration suite (07.) include a grand stair that shall act as the new sponsored main entry. New bar areas (05., 12) will create themed destinations for patrons to enjoy different vantage points while in the stadium.

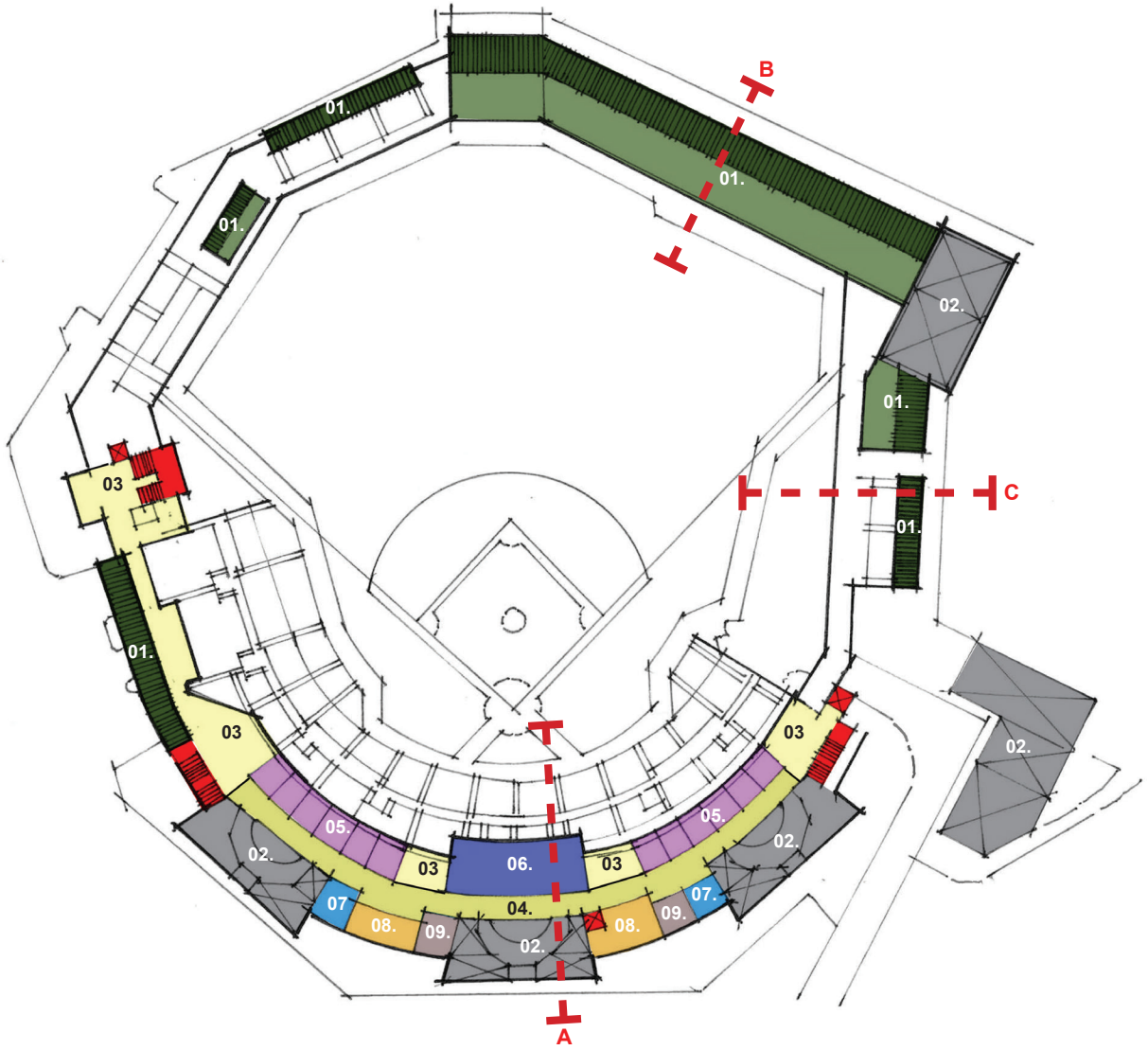
Legend

01. Existing concession
02. Existing restrooms
03. Elevated party deck (200)
04. Restrooms (M/W)
05. Concession
06. Grand entry stair
07. Team administration
08. Grandstand 01
09. Existing seats (re-seat)
10. New seating (decrease foul territory)
11. Pedestrian exit
12. Beer garden/bar
13. Grandstand 02

McCoy Stadium - Pawtucket, RI : Renovation Concept - Main Concourse Plan

PENDULUM

Fig. 240. Concept Plan



McCoy Stadium - Pawtucket, RI : Renovation Concept - Upper Concourse Level

>> Upper Concourse Level Concept Description

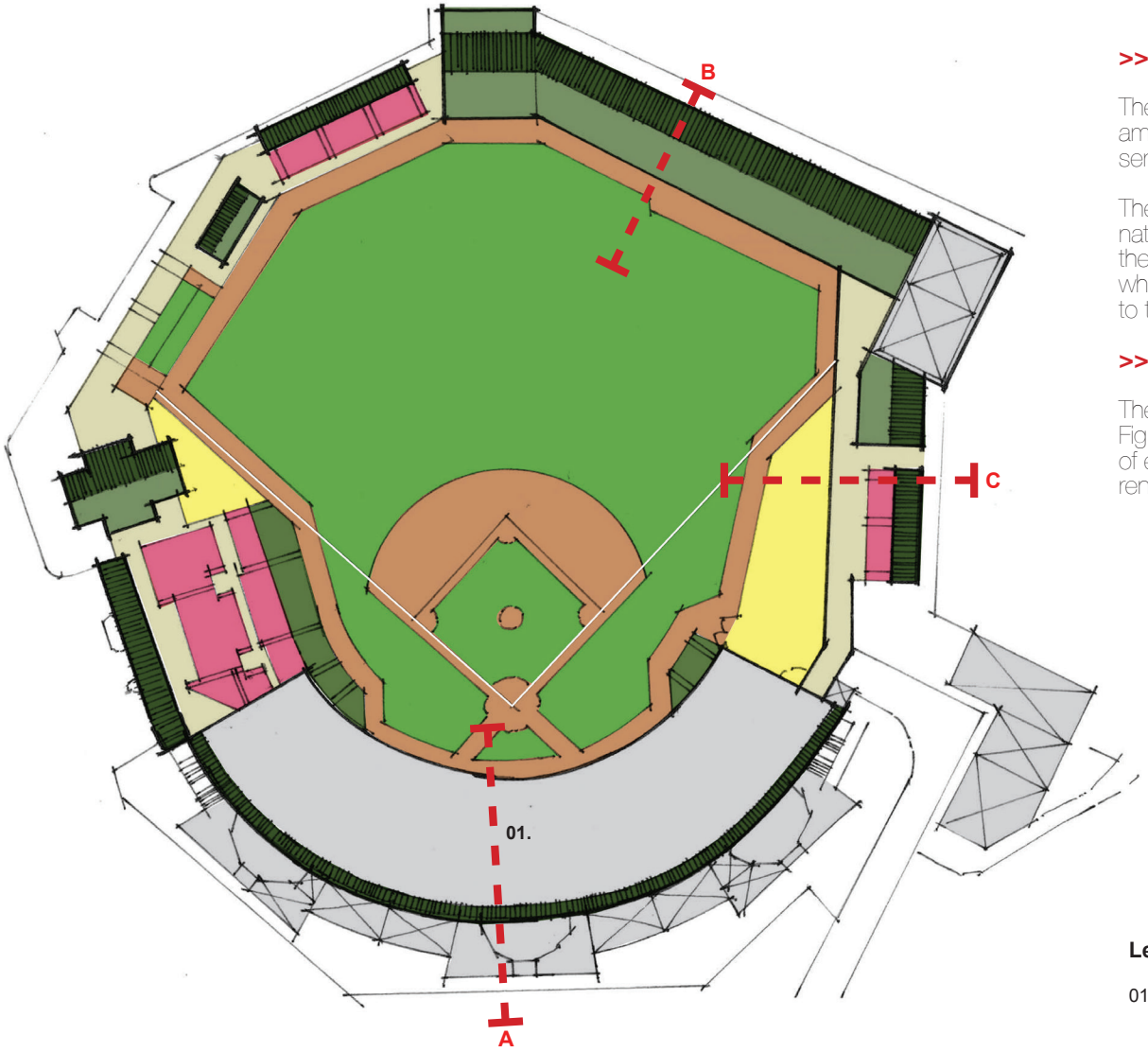
The upper concourse level, Fig. 241 shall serve as a new premium concourse with enclosed premium suites (05.) and an expanded press box (06.). Open air party decks (03.) shall also serve as interesting in-between spaces for premium patrons at this level. Food service (08.) and restroom facilities (07.) shall be incorporated on this level served by a new enclosed premium corridor (04.) which will protect premium patrons and the press from inclement weather. The entire outfield party area (01.) shall be covered and will serve as the foundation for signature double-sided advertising/sponsor panels visible from the exterior, identifying McCoy Stadium as the place to be in the City of Pawtucket.

Legend

01. Metal standing seam roof
02. TPO roof
03. Open air party deck
04. Enclosed corridor
05. Premium suites
06. Press box
07. VIP restroom (M/W)
08. Concession/pantry
09. MEP/storage

PENDULUM

Fig. 241. Concept Plan



>>Roof Level Concept Description

The roof plan, Fig. 242 illustrates the amount of new covered area that shall serve the patrons of McCoy Stadium.

The balance of the roofed areas designated by the green shaded areas illustrate the abundance of areas in the outfield where roof cover is proposed in addition to the main roof behind home plate.

>> Building Sections

The building sections on the next page, Fig. 243 illustrate the vertical organization of existing and new spaces within the renovated stadium concept.

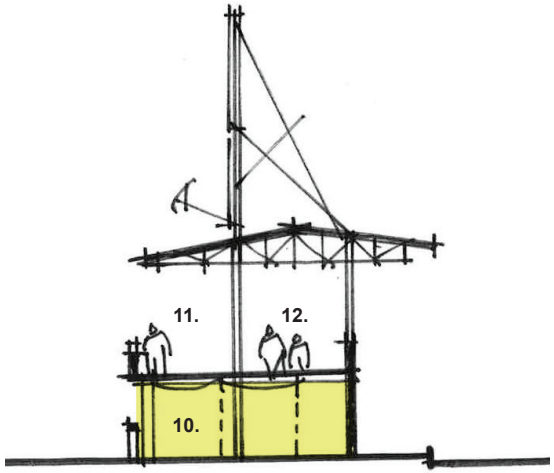
Legend

01. Membrane main roof

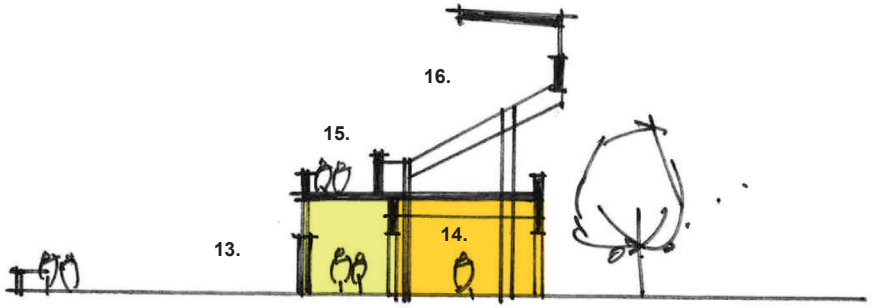
McCoy Stadium - Pawtucket, RI : Renovation Concept - Roof Plan

PENDULUM

Fig. 242. Concept Plan



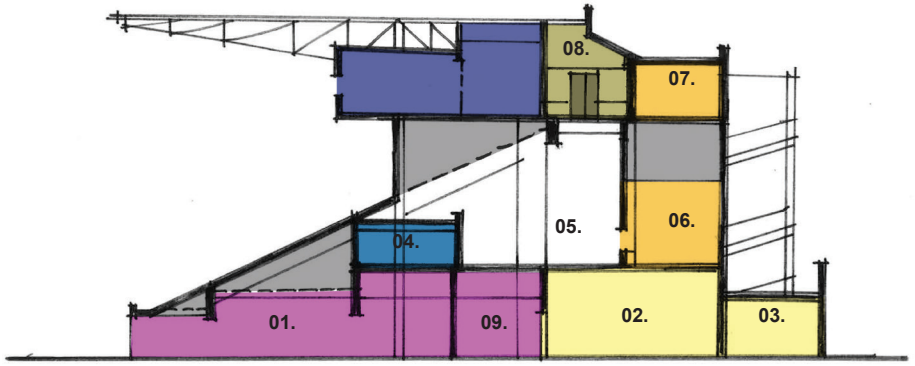
Section B - Outfield Party Deck



Section C - Right Field Pavilion

Legend

01. Home plate club
02. VIP circulation
03. Meeting room
04. Existing restroom
05. Concourse
06. Concession
07. Concession/storage
08. Enclosed corridor
09. Press box
10. Grade level picnic/party area
11. Elevated concourse party zone
12. Bar
13. Right field picnic area
14. Enclosed pavilion
15. Elevated concourse/drink rail view area
16. Grandstand



Section A - Home Plate Club

PENDULUM

Fig. 243. Concept Sections

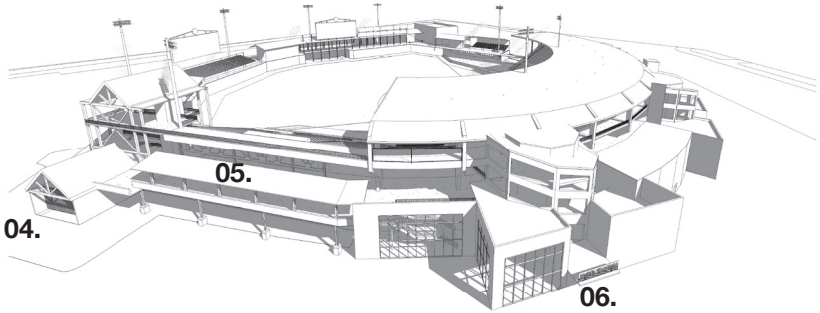


Fig. 245. McCoy Stadium Renovation Concept 3D View

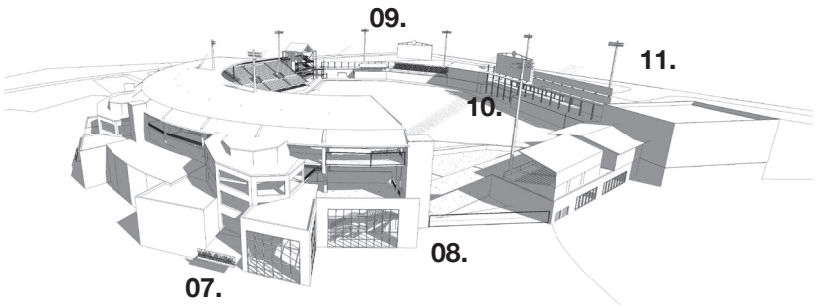


Fig. 246. McCoy Stadium Renovation Concept 3D View

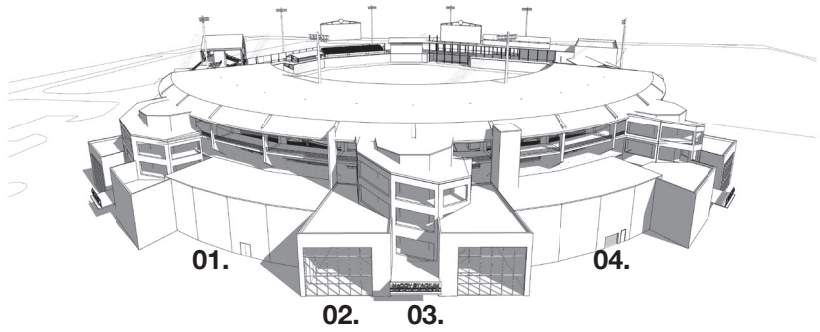


Fig. 244. McCoy Stadium Renovation Concept 3D View

Legend

01. New commissary storage
02. New mechanical screen wall
03. VIP club entry
04. New cooking kitchen and food service administration
05. VIP group area entry
06. New cooking cart roof covering
07. Home team entry
08. Grade level tent area access
09. Grandstand and group area
10. New outfield entry

3.02 > McCoy Stadium Renovation - Cost Model

McCoy Stadium Renovation Cost Model - 2018 Dollars
Pawtucket, RI

Barton Malow

DESCRIPTION		UNIT		QTY	COST/SF	TOTAL	% OF TOTAL
Division 01	General Requirements	SF		85,340	$6.00	$512,040.00	1.64%
Division 02	Site Construction	SF		85,340	$28.95	$2,470,593.00	7.92%
Division 03	Concrete	SF		85,340	$24.70	$2,107,898.00	6.76%
Division 04	Masonry	SF		85,340	$28.00	$2,389,520.00	7.66%
Division 05	Metals	SF		85,340	$36.50	$3,114,910.00	9.99%
Division 06	Woods and Plastics	SF		85,340	$2.50	$213,350.00	0.68%
Division 07	Thermal and Moisture Protection	SF		85,340	$19.35	$1,651,329.00	5.30%
Division 08	Doors and Windows	SF		85,340	$7.15	$610,181.00	1.96%
Division 09	Finishes	SF		85,340	$23.65	$2,018,291.00	6.47%
Division 10	Specialties	SF		85,340	$3.10	$264,554.00	0.85%
Division 11	Equipment	SF		85,340	$8.25	$704,055.00	2.26%
Division 12	Furnishings	SF		85,340	$19.50	$1,664,130.00	5.34%
Division 13	Special Construction	SF		85,340	$0.00	$0.00	0.00%
Division 14	Conveying Systems	SF		85,340	$2.15	$183,481.00	0.59%
Division 15	Mechanical	SF		85,340	$28.00	$2,389,520.00	7.66%
Division 16	Electrical	SF		85,340	$30.85	$2,632,739.00	8.44%
TOTAL SUBCONTRACT DIRECT COSTS				85,340	$268.65	$22,926,591.00	73.53%
INDIRECT COSTS							
Design Contingency		15%	OF	$22,926,591.00		$3,438,988.65	11.03%
CM Costs (OH&P, Labor, Insurances, Etc.		12%	OF	$22,926,591.00		$2,751,190.92	8.82%
A/E Services		9%	OF	$22,926,591.00		$2,063,393.19	6.62%
						$8,253,572.76	26.47%
SUB-TOTAL NEW CONSTRUCTION						$31,180,163.76	
COSTS CARRIED FORWARD FROM PART 01						$34,272,836.93	
ESCALATION - 2018 DOLLARS		4%				$2,618,120.03	
GRAND TOTAL						**$68,071,120.72**	

* See Appendix A for list of common abbreviations

DISCLAIMER - All budget numbers included in this cost model are preliminary in nature. Additional testing, study, survey and documentation are required prior to establishing a final cost opinion. Pendulum and its counterparts shall be held harmless for ANY variations in cost included in this documents. A complete set of engineered documents must be completed accompanied by bidding documents by a licensed contractor.

3.03 >
McCoy Stadium Renovation - Pros/Cons

In conclusion, the "Renovation Concept" establishes a number of interesting features that significantly improve the operator's ability to function efficiently in McCoy Stadium similar to what would be anticipated in a more modern ballpark. The following is a list of pros and cons associated with this option:

>> Pros:

- The historic characteristics of McCoy Stadium and its legacy shall be preserved.
- McCoy Stadium will be in a position to accommodate year-round events in several new enclosed program areas, i.e. the new home plate premium club, the right field enclosed VIP pavilion, and the upper concourse premium suites.
- Anticipate increased revenue potential for the tenant.
- Anticipate increase staff/job potential for the tenant.
- The playing field surface and adjacent parking and storm water systems shall be replaced.
- We anticipate fewer rain delays due to improved drainage capacity.
- We anticipate fewer game cancellations.
- We anticipate the potential for increased field usage including non baseball events (i.e. football, soccer, lacrosse, etc.).
- Expanded parking.
- The redevelopment of the football/ track facility will accommodate approximately 300 additional on-site parking spaces.
- Increased potential for naming rights sponsorship. The new structures in the outfield (elevated picnic decks, team administration, etc.) will provide enhanced curb appeal for the stadium, specifically parallel to Division Street.
- Increased intimacy in the seating bowl.
- By extending the first and third baseline seating down to the field we kill two birds with one stone. We are able to reduce foul territory and enhance the patron experience by placing them closer to the action. This is more consistent with patrons expectations at modern ballparks.
- Increased activation zones.
- Existing McCoy Stadium in the outfield is very dark and sparse with amenities.
- The renovated configuration activates previously dead space and creates activated destinations for all age groups.
- Increased perceived energy or spark at the stadium.

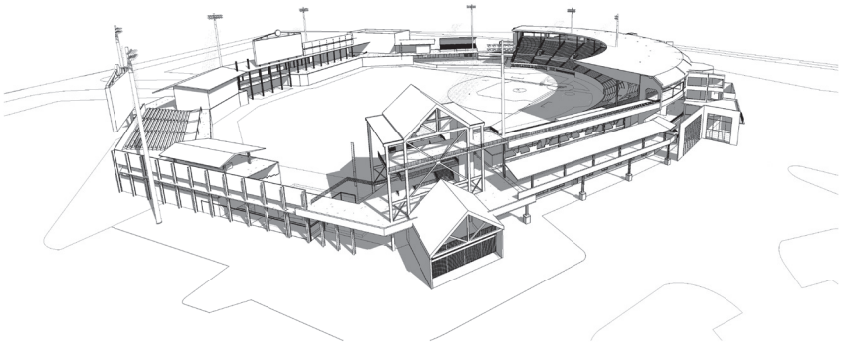


Fig. 247. McCoy Stadium Renovation Concept 3D View

- We anticipate the new group areas and patron amenities will increase annual attendance.
- Completion of construction is achievable within one or two off seasons subject to weather conditions.
- This is advantageous because it prevents the tenant from having to arrange for playing the season on the road or making arrangements at a temporary or alternate facility.

>> Cons

- Although the intent of this option is to resolve all deficiencies, extend the useful life of the stadium at least twenty years, enhance operations efficiencies, and increase the patron experience, there is a possibility that upon further investigation the current damage is much more extensive than anticipated.
- There is a bit of concern from the evaluation team that if some or all of the key issues are not able to be resolved permanently, this option will be a continuation of the issues and conditions present after the 1999 renovation.
- In an effort to ensure the aforementioned concern does not become a reality, this option must take a very invasive approach to existing conditions.
- According to the City of Pawtucket's Master Plan the real emphasis of future development is the riverfront and downtown. The lack of inclusion in the big picture creates concern that McCoy Stadium will continue to be it's own "island" that lacks the infrastructure and support to be transformed into an "oasis".
- Lack of visibility from Interstate 95 and distance from the new commuter rail station will require additional public transportation planning and visual links to McCoy Stadium.
- Although we have indirectly discussed the concept of a "Stadium District", it was not formally mentioned in the Master Plan. Additional infrastructure will be required to make this concept successful.
- As mentioned in Part 01, the current field orientation of McCoy Stadium is not ideal. The renovation option is limited in its ability to address/alter this orientation because it is tied to the existing geometry of the seating bowl. The only way this would be possible is to demolish the structure in its entirety.
- As was mentioned in our Part 01 Site Evaluation, the multi-family and single family housing that surrounds the southern and western edges of McCoy stadium present significant challenges for redevelopment. As mentioned in the Master Plan, zoning ordinances have been put in place to protect established neighborhoods and prevent redevelopment into commercial properties.
- The existing siting of the stadium allows for limited if any out-parcel development due to spatial and vehicular access constraints.
- At the end of the day the cost associated with repairing/preserving McCoy Stadium and enhancing the fan experience in a manner that is comparable to the acknowledged standard of Class AAA baseball in the International League is very close to the cost typically associated with the construction of a new ballpark.
- Although we believe the renovation option is well founded, if we honestly assess more than just where baseball/entertainment is today, and look toward where it is headed with integration of new technology and new trends in patron offerings, we have to question if this option is the only option, or if there are other opportunities that increase the potential to capitalize on opportunities for enhanced economic development.

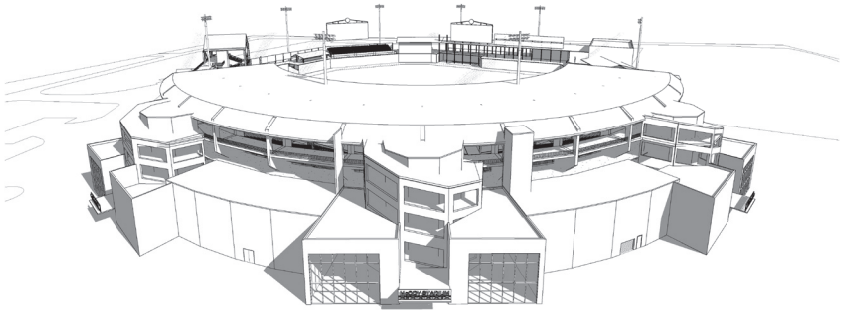


Fig. 248. McCoy Stadium Renovation Concept 3D View

3.04 >
New Stadium Concept on the McCoy Site

Summary >>

This option consists of demolishing McCoy Stadium in its entirety. We propose reorienting the field geometry so that the third baseline of the building is parallel to Division Street. We believe this creates opportunities to strengthen a new Division Street corridor which we believe is essential for creating a connection or link to the redevelopment focal point downtown. The ballpark has been equipped with common amenities found in state-of-the-art stadiums as follows:

- Player Clubhouses and batting tunnels.
- Open 360 degree concourse
- Entire main concourse is ADA accessible.
- Abundance of bars and sponsored destination areas.
- "Green Monster" scoreboard sky walk (drink rail, group seating, etc.).
- Views/vistas into the ballpark from the outfield - set up for development of condos, office, retail, parking decks, etc.
- Primary facade facing Division Street - encourage development north of Division with incredible curb appeal.
- Banquet/Club space overlooking the field (behind home plate).
- Field level premium areas.
- Premium level party decks.
- Readily accessible field drive and storage.
- Kids Fun Zone behind the "batter's eye".
- Grass berm seating.

>> Site Plan Concept Description

As illustrated in the overall site plan Fig. 251, the new construction option proposes all of the amenities and offerings found in a modern ballpark. The geometry of the seating bowl (09.) is very intimate and connects the elevated main concourse to the grade/field level. Surface parking (12.) still runs parallel to Division Street; however, structure parking and development pad site (15.) has been proposed in left field with direct views into the ballpark. While this option still accommodates the existing multi-family and single family housing that surrounds the southern and western perimeter of the site, the new alignment with Division Street provides a "front door" that has the potential to foster energy or a "spark" at the McCoy Stadium site.

The building sections on page149 Fig. 252, correspond to the lettered notation on the site plan (Fig. 251.).

Legend

01. Press box
02. Right field "Green Monster"
03. Development pad site
04. VIP entry
05. Left field entry
06. Scoreboard

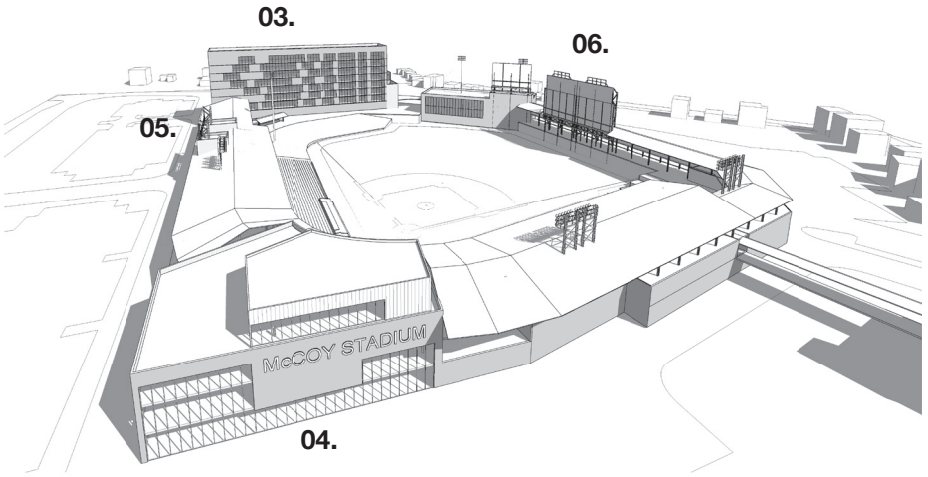


Fig. 250. Concept 3D View

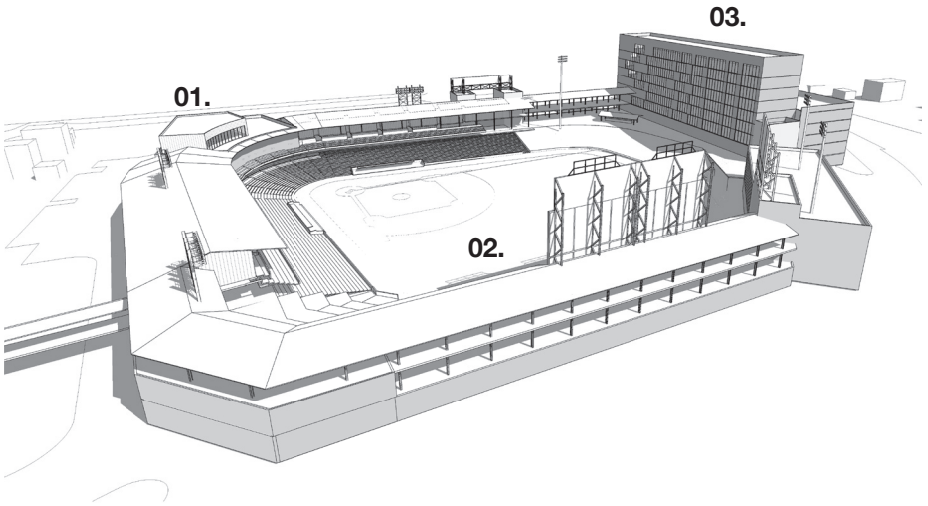
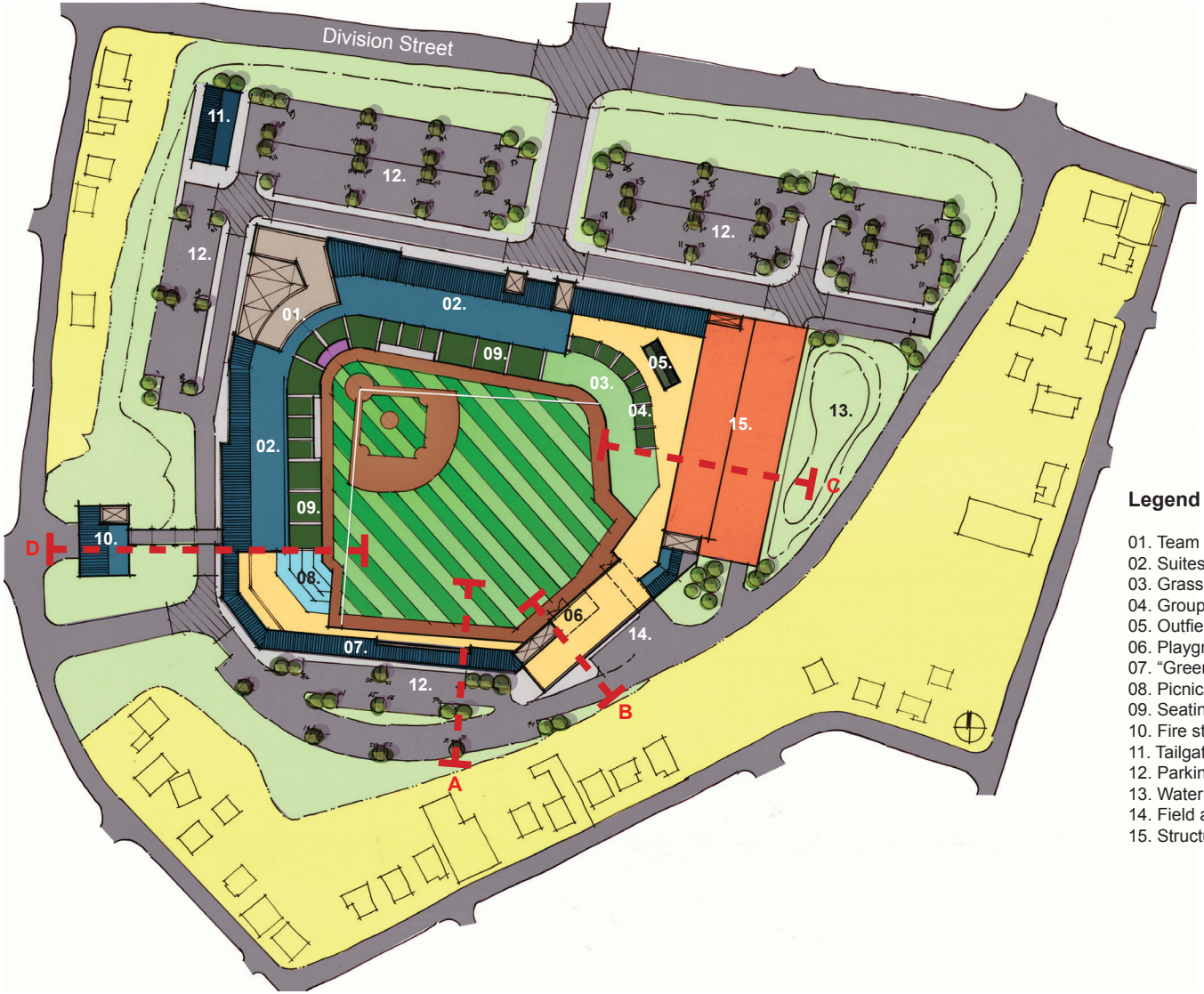


Fig. 249. Concept 3D View



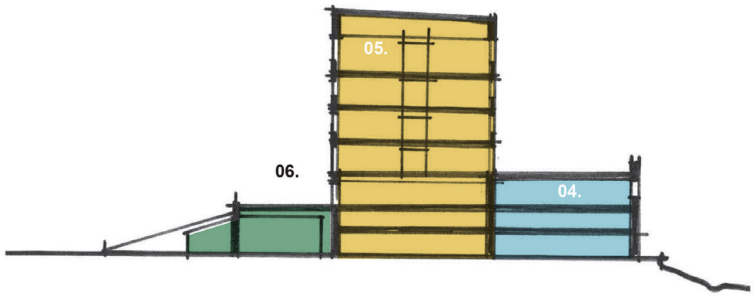
Legend

01. Team administration/VIP club
02. Suites/party deck
03. Grass berm seating
04. Group seating
05. Outfield bar
06. Playground/stadium operations
07. “Green Monster”/scoreboard seating
08. Picnic/group area
09. Seating bowl
10. Fire station
11. Tailgate plaza
12. Parking
13. Water retention pond
14. Field access/service drive
15. Structured parking/development pad site

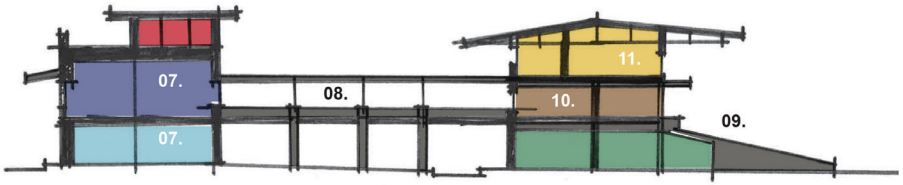
McCoy Stadium - Pawtucket, RI : New Stadium on the McCoy Site Concept

PENDULUM

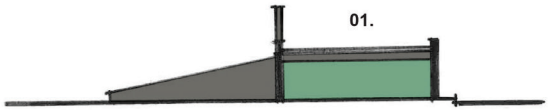
Fig. 251. Concept Floor Plan



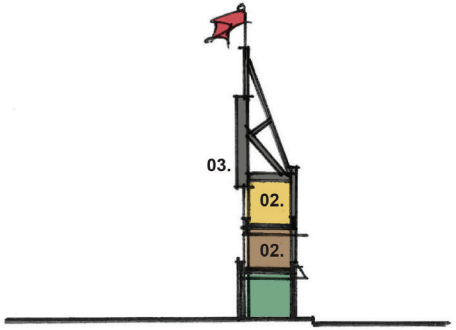
Section C - Left field development pad building section



Section D - Right field building section



Section B - Right field “batter’s eye” section



Section A - Right field “Green Monster” section

Legend

01. Elevated playground
02. “Green Monster” seating
03. Sponsor signage
04. Structured parking
05. Development pad site (retail, housing, etc.)
06. Open concourse
07. Fire station
08. Future pedestrian bridge
09. Seating bowl
10. Concourse
11. Skybox and party decks

Fig. 252. Concept Building Sections

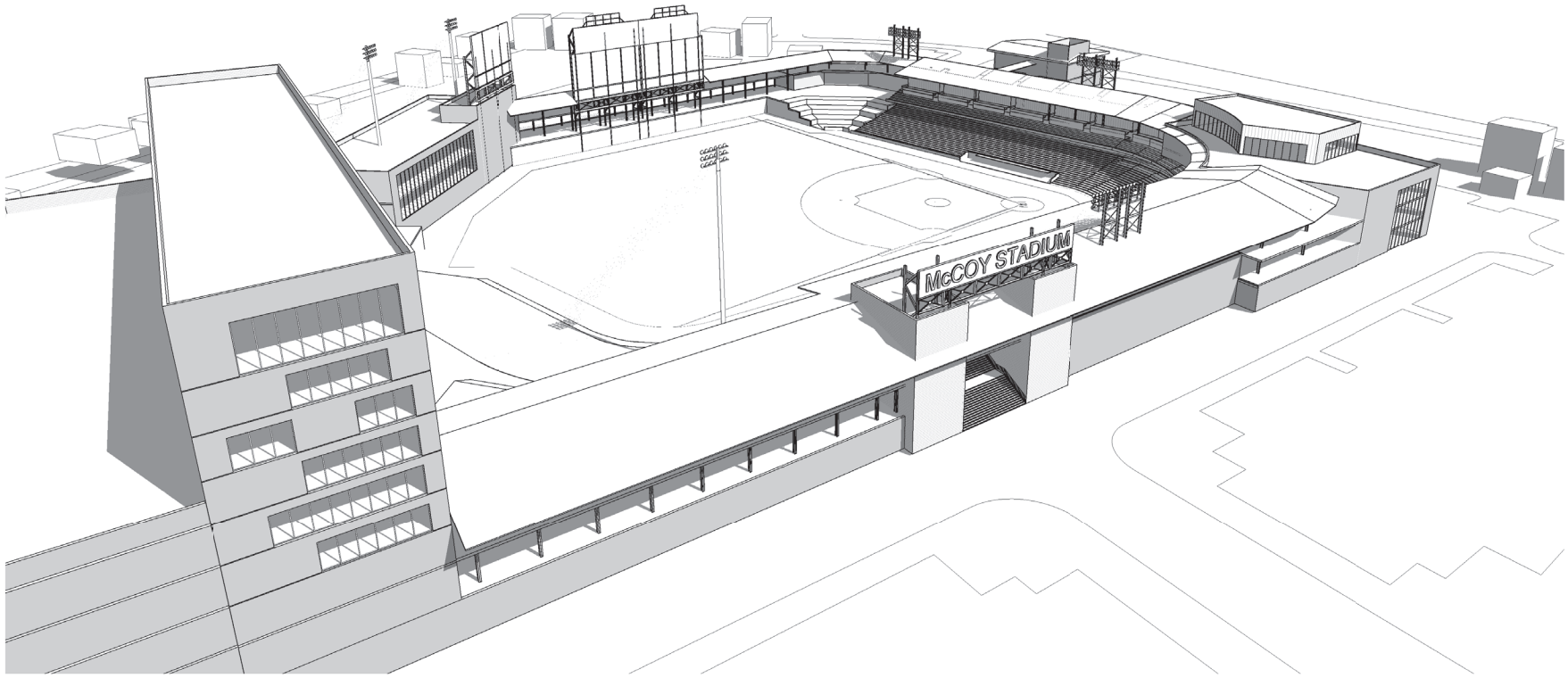


Fig. 253. Concept 3D View

3.05 >
New Stadium on the McCoy Site - Cost Model

New Stadium at the McCoy Site - 2018 Dollars
Pawtucket, RI

DESCRIPTION		UNIT	QTY	COST/SF	TOTAL	% OF TOTAL
Division 01	General Requirements	SF	294,184	$1.50	$441,276.00	0.75%
Division 02	Site Construction	SF	294,184	$30.00	$8,825,520.00	14.94%
Division 03	Concrete	SF	294,184	$32.00	$9,413,888.00	15.94%
Division 04	Masonry	SF	294,184	$8.00	$2,353,472.00	3.99%
Division 05	Metals	SF	294,184	$24.00	$7,060,416.00	11.96%
Division 06	Woods and Plastics	SF	294,184	$3.00	$882,552.00	1.49%
Division 07	Thermal and Moisture Protection	SF	294,184	$8.00	$2,353,472.00	3.99%
Division 08	Doors and Windows	SF	294,184	$7.25	$2,132,834.00	3.61%
Division 09	Finishes	SF	294,184	$10.50	$3,088,932.00	5.23%
Division 10	Specialties	SF	294,184	$2.50	$735,460.00	1.25%
Division 11	Equipment	SF	294,184	$1.00	$294,184.00	0.50%
Division 12	Furnishings	SF	294,184	$0.10	$29,418.40	0.05%
Division 13	Special Construction	SF	294,184	$0.00	$0.00	0.00%
Division 14	Conveying Systems	SF	294,184	$1.00	$294,184.00	0.50%
Division 15	Mechanical	SF	294,184	$22.50	$6,619,140.00	11.21%
Division 16	Electrical	SF	294,184	$18.65	$5,486,531.60	9.29%
TOTAL SUBCONTRACT DIRECT COSTS			294,184	$170.00	$50,011,280.00	84.68%
INDIRECT COSTS						
Construction Contingency		SF	294,184	$9.25	$2,721,202.00	4.61%
CM Costs (OH&P, Labor, Insurances, Etc.		SF	294,184	$5.00	$1,470,920.00	2.49%
CM General Conditions & Reimbursable		SF	294,184	$9.75	$2,868,294.00	4.86%
CM Fee		SF	294,184	$6.75	$1,985,742.00	3.36%
TOTAL INDIRECT COSTS					$9,046,158.00	15.32%
TOTAL HARD CONSTRUCTION COSTS					$59,057,438.00	

DESCRIPTION	UNIT	QTY	COST/SF	TOTAL	% OF TOTAL
OWNER COSTS					
Consultants and Materials Testing	SF	294,184	$1.00	$294,184.00	0.38%
A/E fees	SF	294,184	$17.75	$5,221,766.00	6.66%
FF&E - Playing Field	SF	294,184	$2.05	$603,077.20	0.77%
FF&E - Seating	SF	294,184	$3.75	$1,103,190.00	1.41%
FF&E - Field Lighting	SF	294,184	$2.65	$779,587.60	0.99%
FF&E - Sponsor Signage	SF	294,184	$1.25	$367,730.00	0.47%
FF&E - Master	SF	294,184	$13.00	$3,824,392.00	4.88%
FF&E - Food Service Equipment	SF	294,184	$6.15	$1,809,231.60	2.31%
FF&E - Scoreboard/Ribbon Boards	SF	294,184	$7.75	$2,279,926.00	2.91%
				$16,283,084.40	20.78%
ESCALATION - 2018 DOLLARS				$3,013,620.90	4.00%
GRAND TOTAL				**$78,354,143.30**	

* Benchmarked against 6 similar stadiums

* See Appendix A for list of common abbreviations

DISCLAIMER - All budget numbers included in this cost model are preliminary in nature. Additional testing, study, survey and documentation are required prior to establishing a final cost opinion. Pendulum and its counterparts shall be held harmless for ANY variations in cost included in this documents. A complete set of engineered documents must be completed accompanied by bidding documents by a licensed contractor.

3.06 >
New Stadium on the McCoy Site - Pros/Cons

In conclusion, the "New Stadium on the McCoy Site Concept" offers a unique set of opportunities for the site. The pros and cons associated with this option are as follows:

>> Pros:

- The overall anticipated cost of this option is not much higher than the renovation option in comparison.
- The undesirable field orientation of existing McCoy Stadium is resolved in this option.
- The ballpark in its entirety shall be modernized extending the useful life of this site well beyond twenty years.
- The revised site plan provides enhanced opportunities to attract non-baseball tenants by allowing room for structured parking and a development pad site.
- The revised site plan maintains familiar pedestrian points of entry/interest (redeveloped fire station, tailgating area, etc.).
- The open concourse configuration right-sizes the seating bowl and adds intimacy for the patron game-day experience.
- The spatial efficiency of this building plan/configuration is much more advantageous from a operations standpoint.
- Enhanced technology integration allowed by a ground-up build establishes the ballpark as a hub for technology versus being behind the curve.
- The opportunity to completely reconfigure the seating bowl and diversify seating inventory substantially increases opportunities for generating new revenue.
- This ballpark configuration accommodates year-round events and in fact provides opportunities to attract new partnerships such as regional tournaments, and non-baseball events.
- Securing a major naming rights sponsor is much more probable.
- The opportunity to integrate modern energy efficient systems with the goal of environmental sustainability is a reality in this configuration.
- Environmental sustainability will reduce annual operations expenditures.

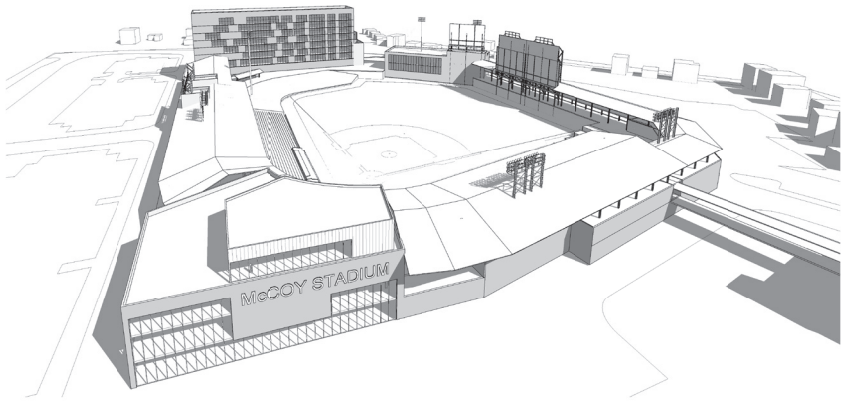


Fig. 255. Concept 3D View

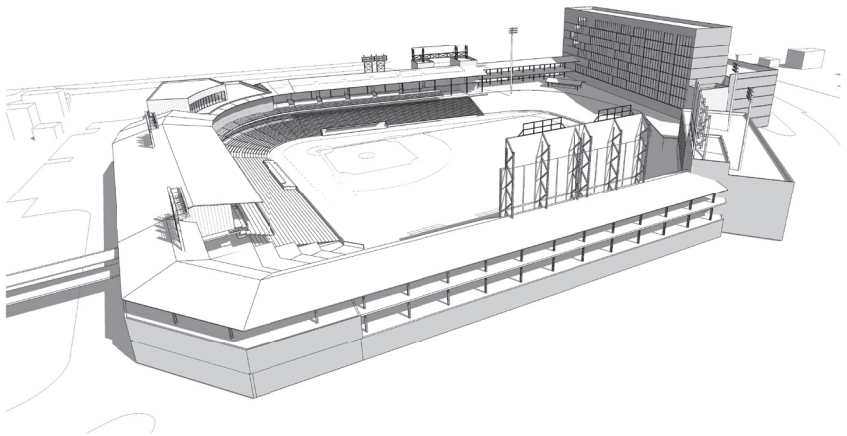


Fig. 254. Concept 3D View

>> Cons

- Although McCoy Stadium is not currently included in a "historic district" (as illustrated by the City of Pawtucket Master Plan), there is the potential to upset pubic perception by demolishing the existing structure.
- According to the City of Pawtucket's Master Plan, the real emphasis of future development is the riverfront and downtown. The lack of inclusion of the current neighborhood in the big picture creates concern that McCoy Stadium will continue to be its own "island" that lacks the infrastructure and support to be transformed into an "oasis".
- Lack of visibility from Interstate 95 and distance from the new commuter rail station will require additional public transportation planning and visual links to McCoy Stadium.
- Although we've indirectly discussed the concept of a "Stadium District", it was not formally mentioned in the Master Plan.
- This option certainly warrants additional consideration and at least a mention in an updated Master Plan by the City of Pawtucket.
- The "big picture" as it relates to the institutional (school) and a transportation/industrial uses on adjacent parcels north of Division warrants additional consideration. If in fact there were old mill buildings directly north of Division ready for redevelopment we'd feel a lot more confident about the validity of the McCoy Stadium site. We did not see a great deal of information in the Master Plan regarding the future of schools in the region and/or any plans for expansion. This leads us to believe that the parcels north of Division will likely remain as is.
- In order for this option to truly be successful from an economic redevelopment standpoint the housing stock will need to be redeveloped and increase in density. Approximately 56% of the housing in District 6 (McCoy Stadium) is comprised of rental property. We believe this number needs to be reduced in favor of mixed-use and resident owned units.
- The time it will take to demolish McCoy Stadium and construct the new stadium concept on the McCoy site will require the PawSox to either play on the road an entire season or seek accommodations at a temporary facility. This may result in significant costs that need to be accounted for.

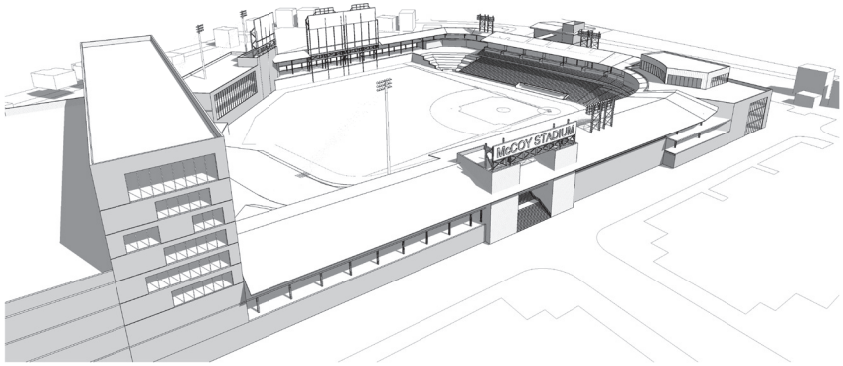
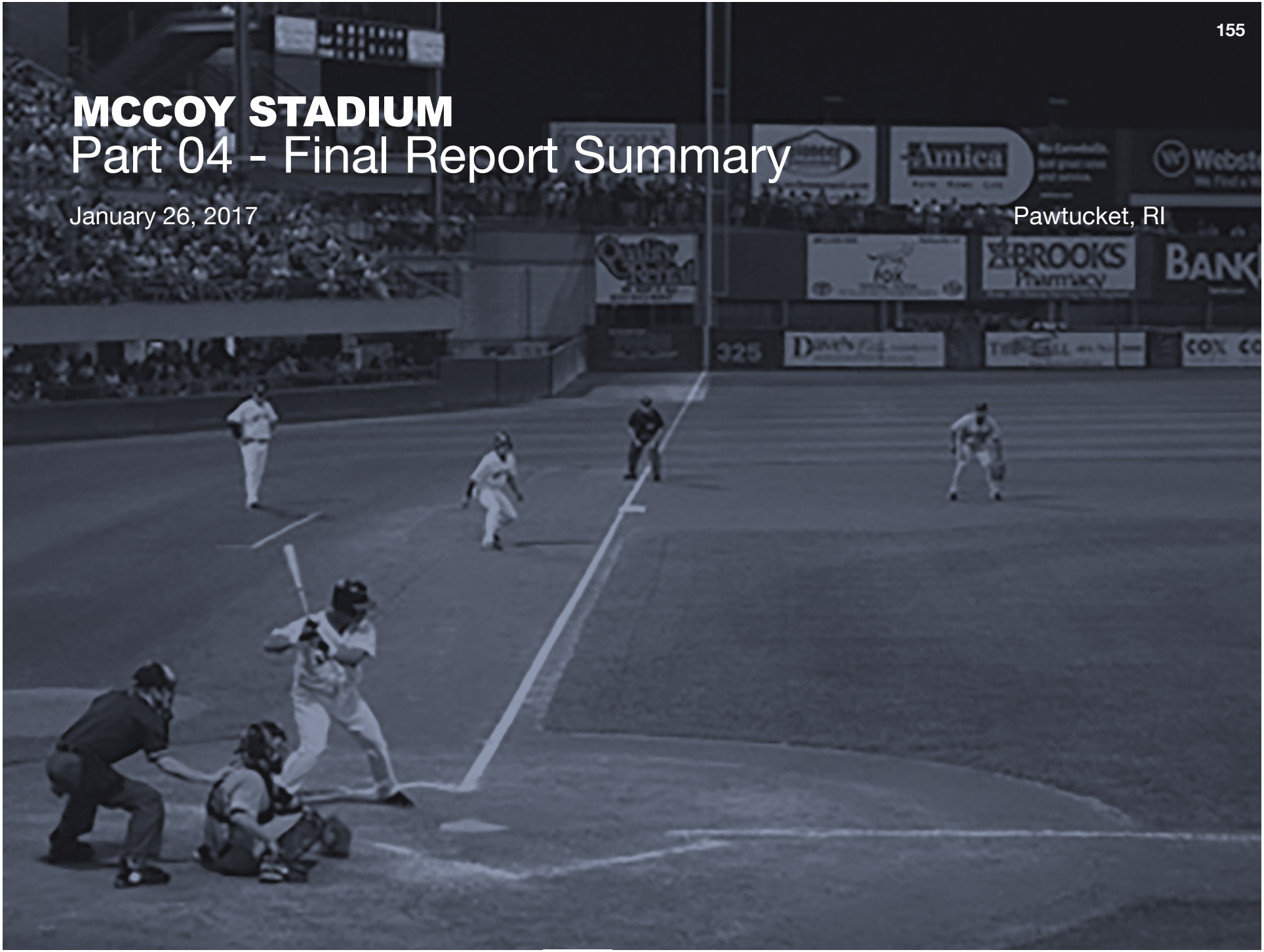


Fig. 256. Concept 3D View

MCCOY STADIUM
Part 04 - Final Report Summary

January 26, 2017

Pawtucket, RI



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4.01 > McCoy Stadium

There is a strong historic and emotional tie to McCoy Stadium that is elegantly cataloged on the walls of ramp towers and in the corridors of premium suites. The history, the people, and the evolution of the stadium over the last 75 years makes the path forward something that should not be taken lightly.

McCoy was originally built during an era of baseball centered around the game being played on the field. During this era the concept of entertainment was simple…it was baseball and that was it.

We now face the reality that times have drastically changed and the concept of "neighborhood" is quite a bit different from what we all were used to in the early 1990's. The "shift" in the baseball business model with a primary focus on entertainment and much less on the field of play has developed because of the advancement of technology and the diversification of entertainment offerings. This leads us to question if another major investment in McCoy Stadium to cure current deficiencies is warranted.

According to the City Master Plan, the city's current economic development efforts are focused in the downtown, arts, and the riverfront. The current economic climate is making it challenging for the appropriate investment to revitalize. The city is taking this opportunity to plan for the future by identifying access and parking improvements to the downtown and preparing a marketing strategy which promote the City's resources.

Based on our observations gleaned from the overall Comprehensive Plan it is our perception that the commuter rail station is also a key part of this. It is unclear how McCoy Stadium fits in to the "big picture" being so far removed from the riverfront which as indicated on previous pages seems to be ground zero for the redevelopment efforts. This leads us to believe that if redevelopment were to be seriously considered on the McCoy Stadium site, efforts would need to be aggressively focused toward strengthening the link to downtown. Major infrastructure improvements on Division Street seems to be the most sensible play.

In Part 01 the Pendulum Team comprehensively analyzed the existing conditions of McCoy Stadium. This analysis included a complete assessment of structural, MEP, life safety, seating, vertical transportation systems, architectural systems, building/life safety codes, health and environmental requirements. In addition, traffic and parking, stadium operations, stadium amenities, hospitality were also assessed. Finally, a site evaluation including review and comment on the City of Pawtucket Master Plan and related zoning ordinances was completed.

It is clear from our observations of existing conditions that if the deficiencies outlined in our report are not addressed, conditions will get worse. Although curing the deficiencies may extend the useful life of the stadium, McCoy Stadium is currently performing behind similar markets specifically as it relates to the fan experience It is our professional opinion that if the decision were made to limit work at McCoy Stadium to only curing building deficiencies, it would be very difficult to make a convincing argument that the venue will continue to be competitive with comparable venues.

A "competitive facility" from a fan/patron perspective is really where we think the emphasis of this discussion should be as you review the case studies we have included in this report.

You will find that across the board the common thread amongst all cited examples is diversity in offerings and amenities. You may recall from previous sections of this report it was stated that "baseball is a family affair", which means that we can't expect a family of five to sit in their ticketed seats the entire game and not move. In contrast to that notion "competitive" facilities have created destinations and zones that encourage circulation from one end of the concourse to the opposite end throughout the game.

In response to the aforementioned circumstances, the Pendulum Team has developed two concepts that address the McCoy Stadium site with contrasting design approaches:

- The "Renovation Concept" consists of a major renovation of the existing structure as outlined in Part 01 of this report. In addition, Pendulum proposes rearranging building program to address pedestrian flow while dedicating appropriate spaces to service, hospitality, and storage

- The "New Stadium on the McCoy Site Concept" consists of demolishing McCoy Stadium in it's entirety. Pendulum proposes reorienting the field geometry so that the third baseline of the building is parallel to Division Street. We believe this creates opportunities to strengthen a new Division Street corridor which we believe is essential for creating a connection or link to the redevelopment focal point downtown. The ballpark shall be equipped with all of the amenities of a modern ballpark.

Each of the options present a number of pros and cons that need to be carefully considered prior to making a final determination on a path moving forward.

The economic impact analysis conducted by Brailsford & Dunlavey suggests that given the existing orientation of McCoy Stadium, there are no opportunities for ancillary economic development activity on the current site. Renovating McCoy Stadium at an estimated cost of $68,000,000 will likely generate minimal return on the public investment in the project other than the jobs and taxes generated by the construction and a modest level of increased recurring benefits generated by enhanced team operations.

If the current stadium is demolished and built new at a cost of $78,000,000 in a slightly different orientation on the existing site, some additional space for development will be created. However, that would require the construction of at least one parking structure. Retail, commercial space, and/or residential units could be built above such a parking structure. Even with these changes and improvements, the McCoy Stadium site limitations will remain unchanged and in all likelihood not provide an opportunity to attract private investment and development.

In B&D's independent and professional opinion, it is highly unlikely that a typical goal of a public investment of this nature – to generate a significant return on that investment driven by ancillary development around a new stadium – will ever be realized at this site.

APPENDICES

APPENDIX A - ASHRAE LIFE SPAN CHART AND COMMON ABBREVIATIONS

ASHRAE Equipment Life Expectancy chart

ASHRAE is the industry organization that sets the standards and guidelines for most all HVAC-R equipment. For additional info about ASHRAE the website is www.ashrae.org .

Equipment Item	Median Years
Air conditioners	
Window unit	10
Residential single or Split Package	15
Commercial through-the wall	15
Water-cooled package	15
Heat Pumps	
Residential air-to-air	15
Commercial air-to-air	15
Commercial water-to-air	19
Roof-top air conditioners	
Single-zone	15
Multi-zone	15
Boilers, hot water (steam)	
Steel water-tube	24 (30)
Steel fire-tube	25 (25)
Cast iron	35 (30)
Electric	15
Burners	21
Furnaces	
Gas- or oil-fired	18
Unit heaters	
Gas or electric	13
Hot water or steam	20
Radiant Heaters	
Electric	10
Hot water or steam	25

Equipment Item	Median Years
Air terminals	
Diffusers, grilles, and registers	27
Induction and fan coil units	20
VAV and double-duct boxes	20
Air washers	17
Ductwork	30
Dampers	20
Fans	
Centrifugal	25
Axial	20
Propeller	15
Ventilating roof-mounted	20
Coils	
DX, water, or steam	20
Electric	15
Heat Exchangers	
Shell-and-tube	24
Reciprocating compressors	20
Packaged chillers	
Reciprocating	20
Centrifugal	23
Absorption	23
Cooling towers	
Galvanized metal	20
Wood	20
Ceramic	34

Equipment Item	Median Years
Air-cooled condensers	20
Evaporative condensers	20
Insulation	
Molded	20
Blanket	24
Pumps	
Base-mounted	20
Pipe-mounted	10
Sump and well	10
Condensate 15	
Reciprocating engines	20
Steam turbines	30
Electric motors	18
Motor starters	17
Electric transformers	30
Controls	
Pneumatic	20
Electric	16
Electronic	15
Valve actuators	
Hydraulic	15
Pneumatic	20
Self-contained	10

Common Abbreviations

ITEM	ABBREVIATION
CY	Cubic Yard
LF	Liner Foot
EA	Each
LS	Lump Sum
SY	Square Yard
SF	Square Foot
GSF	Gross Square Foot
TON	Steel Tonnage
STP	Stop - Commonly used to designate a floor (or stop) on an elevator
FDC	Fire Department Connection
FACP	Fire Alarm Control Panel
EOM	Estimated Order of Magnitude
HVAC	Heating, Ventilation, and Air Conditioning
AHU	Air Handling Unit
TYP	Typical
FF&E	Furniture, Fixtures and Equipment
A/E	Architecture and Engineering
MSA	Metropolitan Statistical Area

APPENDIX B - MILB FACILITY STANDARDS

MINOR LEAGUE BASEBALL™

MINOR LEAGUE FACILITY STANDARDS & COMPLIANCE INSPECTION PROCEDURES

Voted upon: December, 1990

Went into effect: 1991

Revised: January 2005

Rule 58

STANDARDS FOR MINOR LEAGUE PLAYING FACILITIES

(a) STANDARDS. Each Minor League Club must maintain a playing facility that complies with agreed standards. These standards are set forth in Attachment 58. Any variance or waiver may be granted only by both the President of the Minor League Association and the Commissioner or the Commissioner's designee and shall remain in effect only for the time remaining in the current PDC, unless both the President of the Minor League Association and the Commissioner or the Commissioner's designee agree that the variance or waiver involves a structural issue (a category that includes, but is not limited to, the construction of walls and other permanent features of a facility) for which a variance or waiver of longer duration is appropriate. Any variance or waiver granted under this Rule 58(a) may be renewed beyond its expiration for the term of a successor PDC.

(b) MONITORING OF COMPLIANCE. The Commissioner's Office shall employ or otherwise contract for inspectors who will monitor Minor League Clubs' compliance with the agreed playing facility standards, and who will determine the frequency and timing of their inspections.

(c) FAILURE TO MEET BALLPARK STANDARDS. The inspectors shall cite any failures to comply with the agreed standards and shall notify the President of the Minor League Association and the Commissioner or the Commissioner's designee of such noncompliance. The President of the Minor League Association shall consult with the Major League Club that has a PDC with the non-complying Minor League Club, with the Commissioner or the Commissioner's designee and with the Minor League Club itself. The President of the Minor League Association shall determine, in consultation with the Commissioner or the Commissioner's designee, the specific measures the Minor League Club must take to achieve compliance and a timetable for achieving such compliance. The President of the Minor League Association shall then promptly notify such Minor League Club of such measures and timetable. Before the expiration of the required compliance timetable, the Minor League Club may request an extension of the timetable or a variance from the required compliance measures (see Rule 58(a) (Standards) upon a showing to the President of the Minor League Association of good cause.

If the Minor League Club fails to achieve such compliance with respect to playing field and other team facilities within the time specified and has not received a variance from such compliance, the President of the Minor League Association shall consult with the Commissioner or the Commissioner's designee about appropriate punitive or remedial action against the Club, its owner(s) and/or its League. Such punitive or remedial action may include, without limitation, fines not exceeding $250,000 and suspensions of Minor League Club owners and/or personnel. After consultation with the Commissioner or the Commissioner's designee, the President of the Minor League Association shall then impose such punitive and/or remedial action against the Club, its owner, and/or its League as the President of the Minor League Association shall determine is appropriate under the circumstances. In addition to other punitive or remedial action that the President of the Minor League Association may impose, if, after investigation and consultation with the Commissioner or the Commissioner's designee, the President of the Minor League Association determines that the Minor League Club has no good cause for its failure, the President of the Minor League Association shall order the PDC voidable at the option of the Major League Club that is party to the PDC, and shall order the ownership of the Minor League Club to divest its interest in the franchise. In the event that there is a finding of good cause, the President of the Minor League Association, after consultation with the Commissioner or the Commissioner's designee, shall issue a timetable for compliance within the shortest possible period.

If either the Major League Club that has a PDC with a Minor League Club that has been cited for noncompliance or the Commissioner's designee believes that the failure by the President of the Minor League Association to impose a penalty constitutes an abuse of discretion, or that a timetable or extension for compliance or a variance given by the President of the Minor League Association constitutes an abuse of discretion, the Major League Club or the Commissioner's designee may certify the dispute for appeal to the Commissioner under Article II of the Professional Baseball Agreement.

ATTACHMENT 58

MINOR LEAGUE FACILITY STANDARDS
AND COMPLIANCE INSPECTION PROCEDURES

Standards

Unless expressed as recommendations, these facility standards are minimum requirements for all new Minor League facilities. The standards outlined in Sections 11, 12 and 13 are applicable to both new and existing facilities.

New Facilities

Any facility that is scheduled for a construction starting date of January 1, 1991 or later shall be considered a "new facility." All plans for new facilities, including construction time schedules, must be submitted to field inspection personnel designated by the Commissioner's Office and the President of the Minor League Association, for review and approval by the field inspection personnel prior to the start of construction. Such review must be completed within 30 days after submission or the plans shall be deemed approved. If such plans meet the standards they shall be approved. Notwithstanding its facility's designation as a "new facility," a Minor League Club that can demonstrate that its new facility construction planning and approval process was at such a stage as of November 17, 1990 that requiring compliance with a minimum new facilities standard (other than those outlined in Sections 11, 12 and 13) will cause it to suffer a material hardship, may apply to the President of the Minor League Association and to the Commissioner or the Commissioner's designee for a variance from such standard.

Existing Facilities

Any facility other than a "new facility" as defined above shall be considered an "existing facility." All existing facilities must meet the standards outlined in Sections 11, 12 and 13 (playing field and other team facilities) by no later than April 1, 1995. All plans for additions, alterations or renovations of such facilities, including new turf installations, must be submitted to field inspection personnel designated by the Commissioner's Office and to the President of the Minor League Association, for review and approval by the field inspection personnel (including construction time schedules) prior to the start of construction. Such review must be completed within 30 days after submission or the plans shall be deemed approved. If such plans meet the standards they shall be approved.

TABLE OF CONTENTS

1.0 SEATING

This section establishes standards for the number, type and arrangement of seating in all facilities.

1.1 SEATING CAPACITY

Seating capacities shall be established to be appropriate for the size of the Minor League Club's market. Recommended minimum capacities are as listed below. All facilities shall conform with the seating grade, seating distribution and spacing requirements described in sections 1.2, 1.3 and 1.4.

1.1.1	Class AAA Capacity	10,000 seats
1.1.2	Class AA Capacity	6,000 seats
1.1.3	Class A Capacity	4,000 seats
1.1.4	Short-Season Class A/Rookie	2,500 seats

1.2 GRADES OF SEATING

In order to enhance the professional atmosphere of the facility, each facility shall provide a minimum of two separate and distinct grades of seating (three separate and distinct grades are recommended). This provision is intended to designate and define general types of seating and not to define pricing or ticketing structures.

1.2.1 TYPES OF SEATING

Seating types shall be defined as in sections 1.2.2, 1.2.3, and 1.2.4.

1.2.2 BOX SEATING

Defined as Arm Chair Seats with Backs. Additional seat width and leg room is recommended, with an additional three inches of tread width to be provided as compared to the tread width in the other seating areas. Following the traditional definition of box seating, it is recommended that additional access to smaller groupings of box seats be provided.

1.2.3 RESERVED SEATING

Defined as a bench with back as a minimum requirement.

1.2.4 GENERAL ADMISSION SEATING

Defined as a bench as a minimum requirement.

1.3 SEATING DISTRIBUTION

In no event shall more than 90% of the total seating capacity be General Admission seating. Recommended seating distributions are as follows.

For two grades of seating:
- Box or Reserved: 25% of total capacity
- General Admission: 75% of total capacity

For three grades of seating:
- Box: 25% of total capacity
- Reserved: 25% of total capacity
- General Admission: 50% of total capacity

1.4 SEAT SPACING

The spacing and layout of all seating, aisles, vomitories, cross-aisles and concourses comprising the established exiting system shall conform to all applicable local, state and federal codes and regulations. (NFPA 101 for Assembly Occupancies shall be considered the minimum requirement if the facility does not fall under jurisdiction of other regulations.)

1.5 HANDICAPPED ACCESSIBILITY

All facilities shall comply with all applicable local, state and federal codes and regulations regarding access of Handicapped patrons and employees. (ANSI.A117-1 shall be considered the minimum requirements.)

2.0 PUBLIC COMFORT STATIONS

This section determines and defines the number of plumbing fixtures and their arrangement at the facilities.

2.1 COMFORT STATION DISTRIBUTION

The distribution of the fixtures should be in accordance with the distribution of the seating locations and exiting system to allow minimal walking distances from all parts of the facility to public toilet facilities.

2.2 PLUMBING FIXTURES

The minimum plumbing fixture ratios shall be as follows:

Water closets	1:125 Women 1:450 Men
Lavatories (sinks)	1:150 Women 1:150 Men
Urinals	1:125 men

2.2.1 COMFORT STATION ACCESSORIES

All public restroom facilities shall provide mirrors, purse shelves (in women's), hand drying facilities and trash cans. It is recommended that a table/platform for diaper changing be located in each restroom.

2.3 HANDICAPPED ACCESSIBILITIES

All facilities shall comply with all applicable local, state and federal codes and regulations (ANSI. A117-1). It is recommended that all facilities provide a minimum of one, unisex h.c. toilet facility per level. This facility shall be similar to a residential bathroom, and allow a h.c. patron to use the facility with the assistance of his/her companion of the opposite sex.

2.4 DRINKING FOUNTAINS

All facilities shall provide drinking fountains per local, state and federal codes and regulations.

2.5 PUBLIC TELEPHONES

All facilities shall provide telephones per local, state and federal codes and regulations.

3.0 CONCESSION AND VENDING

The following standards for Concessions and Vending are recommended for all facilities. Many of the conditions may be affected by an existing operational agreement between the facility and concessionaire. It is recommended that these standards be incorporated into any new operational agreement negotiated after the effective date of this PBA.

3.1 CONCESSION AREAS

It is recommended all facilities provide 5 lineal feet of counter space (with corresponding support space) per 350 seats in the total facility capacity. The distribution of the concession areas shall be commensurate with the distribution of the patrons to minimize walking distances. [Example: 12,000 seats/350 = 34.28 X 5' = 171 lineal feet of counter. Each stand averages 25' per stand. Therefore, a minimum of 7 stands, distributed throughout the facility are recommended.]

3.2 CONCESSION VENDORS

If concession vendors are provided at the facility, the following ratios are recommended: one vendor per 350 seats, with 15 sq. ft. of vending commissary space for each vendor separate from the concession areas.

3.3 CONCESSION COMPLIANCE/CODES AND REGULATIONS

Concessionaires are responsible for compliance with all local, state and federal regulations in regard to Health Standards, Fire Department regulations, power, exhaust and ventilation requirements. The agreement between the facility and concessionaire shall define which party is responsible for required modifications.

3.4 CONCESSION STORAGE AND NOVELTY STANDS

The following standards shall be minimum requirements.

3.4.1 CONCESSION STORAGE

All facilities shall provide adequate storage for concession inventory. It is recommended that the storage area be of such size to store the inventory necessary to stage the number of games in an average home stand. In the Agreement between the facility and the concessionaire, the concessionaire shall provide empirical data to determine the required amount of storage space.

3.4.2 NOVELTY STANDS

Any provided novelty stand(s) acting as a sales point for retail sales shall present products in a professional manner commensurate with a standard retail sales areas.

4.0 MISCELLANEOUS PUBLIC AREAS

4.1 STADIUM CLUB/RESTAURANT/BANQUET FACILITY

This type of facility shall be optional.

4.2 PICNIC/BEER GARDEN FACILITY

This type of facility shall be optional.

4.3 FAMILY RECREATION AREA

This type of facility shall be optional.

5.0 TICKET WINDOWS AND ENTRY TURNSTILES

The following Sections 5.1, 5.2, and 5.3 shall be minimum requirements.

5.1 TICKET WINDOWS

All facilities shall provide one ticket window for each 1500 seats of total capacity.

5.2 TURNSTILES/ENTRY POSITIONS

All facilities shall provide one turnstile or equivalent entry position (minimum of 30" wide) for each 1500 seats of total capacity.

5.3 HANDICAPPED ACCESSIBILITY

All facilities shall provide access per all applicable local, state and federal codes and regulations to all public and private areas of the facility.

6.0 SECURITY AND FIRST AID

6.1 SECURITY COMMAND POST

All facilities shall provide a "command post" for event security forces, centrally located with provisions for removing unruly patrons from the facility.

6.2 FIRST AID STATION

All facilities shall provide a first aid station during all events. It is recommended that certified medical personnel staff the station at all events.

7.0 PARKING AND FACILITY ACCESS

The following Sections 7.1, 7.2 and 7.3 shall be applicable to all facilities.

7.1 PARKING SPACES

It is recommended all facilities shall provide public parking spaces at a ratio of 1 space per 3 seats of total capacity. Such parking spaces shall be on-site or within a 10 minute (? mile) walking distance of the stadium.

7.2 ACCESS AND CONTROL

All facilities shall coordinate with local law enforcement officials to provide controlled on-site traffic access, so as to promote a safe and trouble-free access environment.

7.3 HANDICAPPED PARKING

All facilities shall conform with all applicable local, state and federal regulations.

8.0 SOUND SYSTEM AND SCOREBOARD

8.1 SOUND SYSTEM

All facilities shall provide an acoustically balanced sound system integrated with the capacity to deliver clear audio messages to the press box, concourses and all public areas within the facility.

8.2 SCOREBOARD

All facilities shall provide a scoreboard that provides the following as minimum requirements. All scoreboard characters are to be large enough to be seen throughout the facility.

Line Score
Ball-Strike-Out
Player at Bat

8.3 SCOREBOARD LOCATION

No part of any scoreboard and/or associated lighted advertising panels may be located within 50' of the center line of the playing field.

8.4 CLOCK

All facilities shall provide a time-of-day clock that is in full view of all field personnel from the beginning of batting practice through the close of each game.

9.0 MEDIA FACILITIES

9.1 PRESS PARKING AND ACCESS

It is recommended that all facilities provide a parking area for all members of the media with direct access to the facility. It is also recommended that parking be provided for television vans and broadcast trucks.

9.2 PUBLIC ADDRESS/SCOREBOARD PERSONNEL

All facilities shall provide space in the press box for the public address announcer and scoreboard operator(s). It is recommended that the PA/scoreboard area have a minimum of 50 sq. ft. of floor space in addition to the floor space required for the scoreboard equipment.

9.3 RADIO BROADCAST BOOTHS

It is recommended that all facilities provide two radio broadcast booths (home and visitor) that provide a direct view of the entire field and facilitate the broadcast of the game. Each shall provide counters, chairs, power, lighting and telephone jack.

9.4 TELEVISION BROADCAST AND CAMERA BOOTH

It is recommended that all facilities provide a spare broadcast/camera booth available for local television broadcasts and local television media. The booth should have a direct view of the entire field with operable windows or closures.

9.5 PRINT MEDIA AREA

It is recommended that all facilities provide a separate area for 6 to 10 members of the print media with a direct view of the entire field. Counter, chairs, power, lighting and telephone jack shall be provided.

9.6 MEDIA TOILET FACILITIES

It is recommended that all facilities provide media restroom facilities separate from public restrooms, located with direct access to the press box.

9.7 MEDIA WORKROOM/LOUNGE

This type of facility shall be optional.

9.8 HANDICAPPED ACCESSIBILITY TO PRESS BOX

Facilities shall conform to all applicable local, state and federal codes and regulations for accessibility to the press box. (ANSI-A117.1)

10.0 ADMINISTRATION AREA

10.1 FACILITY ADMINISTRATION AREA

It is recommended that all facilities provide administrative space of 250-300 sq. ft. per person for facility and maintenance operations with separate toilet facilities directly adjacent.

10.2 STADIUM PERSONNEL DRESSING/LOCKER FACILITIES

It is recommended that all facilities provide separate dressing/locker facilities (separate for each sex) for all maintenance and event employees (including concession personnel) separate from the public.

10.2.1 STADIUM PERSONNEL TOILET FACILITIES

It is recommended that all facilities provide toilet facilities for stadium personnel separate from the public. Direct access to personnel locker rooms is desirable.

10.3 TEAM ADMINISTRATION AREA

If the tenant team has a permanent administration area away from the facility, an on-site game day team administration area must be provided. If the team's permanent administration area is at the facility, it is recommended that the area provide 250-300 sq. ft. per person for team operations with adjacent toilet facilities.

11.0 TEAM FACILITIES

The following shall be minimum requirements.

11.1 HOME CLUBHOUSE/DRESSING AREA

The number of lockers provided shall be at least five more than the Club's active player limit for its classification of play. The minimum size of each locker shall be 24" w x 72" h (36" w x 72" h is recommended). A lockable storage compartment is recommended for each locker.

Minimum floor space requirements for the team dressing area shall be as follows:

New facility: 1,000 sq. ft.

Existing facility: 800 sq. ft. (1,000 sq. ft. is recommended)

11.2 SHOWER AND TOILET FACILITIES

All facilities shall provide separate shower, drying and toilet areas with the following minimum fixture counts:

New facility:	shower heads:	8 (10 recommended)
	water closets:	2
	urinals:	2
	lavatories:	4 (8 recommended)
Existing facilities:	shower heads:	6 (10 recommended)
	water closets:	2
	urinals:	2
	lavatories:	2 (8 recommended)

11.3 TRAINING ROOM

All new facilities shall provide a separate training room of not less than 300 sq. ft. divided into three areas: treatment, whirlpool and rehabilitation. The training room shall have space for 1 or 2 treatment tables, a minimum of 2 whirlpools, hydroculator, scale, stationary bicycle, ice

machine and an area for 2 or 3 pieces of rehabilitation/weight equipment. The training room shall contain a lockable storage area for training supplies. It is recommended that additional space be provided for a separate office/dressing area for the trainer and team physician. It is also recommended that a valuable storage box be installed in the training room.

All existing facilities shall comply with the above paragraph, with the exception that the minimum square footage requirement shall be 175 sq. ft. (300 sq. ft. is recommended).

11.4 TEAM LAUNDRY FACILITY

All facilities shall provide commercial quality laundry facilities (washer and dryer) for the home team to provide daily washing capability. This room may be combined with the Team Equipment Room.

11.5 TEAM EQUIPMENT ROOM

All facilities shall provide adequate lockable equipment storage space (minimum of 300 sq. ft. in a new facility) contiguous with the clubhouse.

11.6 COACHES LOCKERS

All new facilities shall provide a minimum of 4 coaches lockers (6 are recommended) in addition to the players lockers. It is recommended these lockers shall be in a separate area from the players lockers. Locker size and floor space requirements (per capita) shall be the same as in the players dressing area.

Existing facilities shall comply with the above paragraph, with the exception that a minimum of 3 coaches lockers are to be provided.

11.7 FIELD MANAGER'S OFFICE

All facilities shall provide a field manager's office with direct access to the home clubhouse. It shall include a separate toilet, shower and dressing area, along with a desk and adequate meeting space for 6-8 persons. At existing facilities the separate toilet, shower and dressing area is recommended and not required.

11.8 VISITORS CLUBHOUSE/DRESSING AREA

The number of lockers provided shall be at least three more than the Club's active player limit for its classification of play. Minimum floor space requirements shall be as follows:

New facility: 750 sq. ft.
Existing facility: 500 sq. ft (750 sq. ft. is recommended)

11.9 VISITORS SHOWER AND TOILET FACILITIES

All facilities shall provide separate shower, drying and toilet facilities with minimum fixture counts as follows:

New facility:	showers heads:	6 (8 recommended)
	water closets:	2

	urinals:	2
	lavatories:	4
Existing facilities:	shower heads:	4 (8 recommended)
	water closets:	2
	urinals:	2
	lavatories:	2 (4 recommended)

11.10 VISITORS TRAINING ROOM

All new facilities shall provide a separate training room (minimum of 150 sq. ft.) with space for one training table and one whirlpool, and a hydroculator (4-pack minimum). In existing facilities, this area may be integrated into the players' dressing area, provided that the dressing area is at least 650 sq. ft.

11.11 VISITING FIELD MANAGER'S OFFICE

All facilities shall provide a separate office for the visiting field manager. It shall include a separate toilet, shower and dressing area, along with a desk and adequate meeting space for 2-4 people. At existing facilities, the separate toilet, shower and dressing area is recommended and not required.

11.12 TEAM STORAGE (MAJOR LEAGUE PARENT TEAM)

It is recommended that all facilities provide a minimum of 300 sq. ft. of lockable team storage, separate from other team storage, with year round access only to the major league team.

11.13 UMPIRE FACILITIES

All facilities shall provide a private dressing, shower, and toilet facility for umpires. This area shall provide enough lockers (each a minimum of 36" w x 72" h) to accommodate the number of umpires typically assigned to work in the applicable classification of play. In new facilities, this area shall be a minimum of 200 sq. ft.

11.14 FIELD/DUGOUT ACCESS

It is required that all new facilities and recommended that all existing facilities provide a direct access route to the dugout/playing field. Similar access is to be provided for the umpires.

11.15 PLAYER PARKING

It is recommended that all facilities designate a parking area with clubhouse access for players and other uniformed team personnel.

11.16 HITTING/PITCHING TUNNELS

It is recommended that each facility provide two covered tunnels for players to practice hitting and pitching in an enclosed environment. If provided, these tunnels should be reasonably close to the home clubhouse with minimal public access.

11.17 PRE- AND POST-GAME WAITING AREA

It is recommended that all facilities provide a pre-game and post-game waiting area for families of players and other uniformed personnel.

12.0 PLAYING FIELD

12.1 FIELD DIMENSIONS

Layouts of all new fields (and modifications to existing fields) shall be submitted for approval by the parent Major League Club and the Minor League Club. All field dimensions shall comply with the minimum dimensions specified in Section 1.04 of the Official Baseball Rules.

12.2 PLAYING SURFACE

All facilities shall provide a field surface (natural or synthetic) without defects and/or "trip-hazards" that could affect the normal play of the game or jeopardize player safety. Warning track material shall identify all zones within 15' of all walls and fences. This warning track must be of a material to provide visual and tactile notice of a significant change in surface type.

12.3 FIELD GRADE

The maximum allowable grade from the base of the pitcher's mound to the warning track in foul territory shall be 6". The maximum allowable grade from second base to the outfield warning track shall be 20".

12.4 FIELD WALL

The permanent outfield wall or fence in all new facilities shall be a minimum of 8' high.

12.5 BULLPENS

All facilities must provide a bullpen area for each team. These areas may be located in foul territory down the baselines or just immediately outside the field wall. Each must be visible to both dugouts and to the press box. Each shall have two regulation pitching mounds and home plates, adequate distance and clearance for each pitcher and catcher, and a bench for 10 players. If the bullpens are in foul ball areas, care shall be taken to integrate the slope of the pitcher's mound into the field so as not to create a trip hazard for fielders as they approach the bullpen. It is recommended that all facilities have phones connecting the bullpens to the dugouts.

12.6 DUGOUTS

All facilities must provide two enclosed dugouts (home and visitor). Each dugout in a new facility must accommodate 25-30 uniformed personnel on a bench with seatback. Each dugout in an existing facility shall accommodate 20-25 uniformed personnel. Each dugout must have a helmet rack for a minimum of 15 helmets and a bat rack for a minimum of 30 bats. It is recommended that a bat swing/storage area be directly accessible to each dugout. It is recommended that each dugout include a refrigerated water cooler (drinking fountain) and provide direct access to a restroom. It is recommended that all facilities have telephones connecting the dugouts to the bullpens and to the press box. All dugouts shall provide as feasible an anti-skid surface as possible on steps and walkways.

12.7 FIELD EQUIPMENT

All facilities shall provide the following field equipment. Examples given shall serve as guidelines for equipment quality, and the equipment provided shall meet or exceed the examples specified.

12.7.1 BATTING CAGE

All facilities shall provide a full cover batting cage. New batting cages shall have minimum dimensions of 18' wide, 14' deep and 9' high. It is recommended that the cage be portable and made of an aluminum frame to provide maximum maintainability. Existing batting cages not meeting the above standards may be approved by the parent Major League Club.

12.7.2 FIELD SCREENS

All facilities shall provide a pitching screen, first base screen, 2nd base/double play screen, and a shag protector screen. New screens shall have the following minimum dimensions:

Pitching screen: - 7' h x 8' w with 4' x 4' notch in upper corner.

Double play screen: 7' h x 14' w with hinged wings.

First base and shag protector screens: - 7' h x 8' w.

All existing screens not meeting the above standards may be approved by the parent Major League Club.

Periodic checks of the batting cage and all screens shall be performed to verify frame and net integrity.

12.7.3 BATTER'S EYE

All facilities shall provide a solid monochromatic batter's eye painted in a flat, dark color with minimum dimensions of 16' high and 40' wide centered in the outfield. If a centerfield camera is integrated into the batter's eye, the camera must be the same color as the batter's eye. It is recommended that all new facilities provide a batter's eye with minimum dimensions of 40' high and 80' wide. Any advertising sign abutting the batter's eye shall not include white lettering, a white background, any neon or other lighting or motion effects.

12.7.4 FOUL POLES

All facilities shall provide two foul poles of a bright color that are a minimum of 30' high (45' is recommended) with a screen to the fair side of the pole. No white signs shall be allowed on or immediately adjacent to each side of the foul pole.

12.7.5 FLAG POLE

All facilities shall provide a flag pole for the United States Flag or Canadian Flag, as applicable, in clear view of the entire seating bowl.

12.7.6 SCOREBOARDS, VIDEO MONITORS AND MOTION SIGNS

In addition to other provisions of these Minor League Facility Standards (including, but not limited to, Section 8.3 (Scoreboard Location)), the President of the Minor League Association, in consultation with the Commissioner or the Commissioner's designee, shall develop and distribute guidelines regarding the use and location of scoreboards, video monitors, LED boards and LED/matrix boards so as not to interfere with play.

12.8 FIELD LIGHTING

All new lighting systems shall maintain the following minimum brightness requirements after 100 hours of burning:

Class AAA and Class AA: 100 fc average in infield/70 fc average in outfield.

Class A and Rookie: 70 fc average in infield/50 fc average in outfield.

The height and location of poles in all new lighting systems shall follow IES standards.

All existing lighting systems shall maintain the following minimum brightness requirements:

Class AAA and Class AA: 70 fc average in infield/50 fc average in outfield.

Class A and Rookie: 60 fc average in infield/40 fc average in outfield.

All lighting systems shall operate with a maximum variance ratio of 1.2/1 in the infield and 2/1 in the outfield. The variance ratios shall be computed by comparing the highest and lowest footcandle readings in the infield and the outfield.

12.9 BATTING CAGE GATE

All new facilities shall provide a gate large enough to allow the batting cage to be freely taken to and from the playing field.

12.10 BACKSTOP

All facilities shall provide a backstop behind home plate. The configuration and dimensions shall vary due to sight-lines for the press box and insurance requirements for the facility. Periodic inspections shall be performed to insure the integrity of the backstop.

12.11 PLAYING FIELD TARPS

All Class AAA, Class AA and full season Class A facilities shall provide a full infield tarp and pitcher's mound, home plate, base pit, and bullpen tarps, except that this requirement may be waived by the President of the Minor League Association in the event that the facility is located in an area that does not experience sufficient rainfall to justify the expense of tarps. The tarps shall be oversized to prevent water from running under the edge to a dirt area. The tarps shall be stored in an easily accessible location but in a way not to create a safety hazard on the playing field. Each facility is required to provide adequate manpower to operate the placement and/or removal of the tarps.

13.0 MAINTENANCE

This section outlines requirements and recommendations for overall maintenance of the facility and playing field in a professional manner.

13.1 FACILITY MAINTENANCE AND CLEANLINESS

Each facility shall develop a maintenance program (both short-term and long-term) for use by its maintenance personnel. All public areas shall be completely free of trash and rubbish at the opening of each event, and stadium personnel shall be responsible for cleanliness during the event.

Each facility shall follow its maintenance program for interior repairs and touch-ups to maintain the professional atmosphere of the facility. Long-term maintenance shall be ongoing in order to deter major facility problems and to minimize potential disruptions to the public.

13.2 FIELD MAINTENANCE

The playing field shall be maintained at the highest possible professional level. Every reasonable effort shall be made to insure the safety of the players and the smooth play of the game. The facility shall follow professional grounds- keeping practices and shall utilize proper maintenance equipment. Nail-drags, screens, tampers and rakes are recommended to maintain all dirt areas. Proper turf care equipment (mowers, tractors, etc.) shall be used, and an appropriate maintenance plan shall be developed and followed to care for the playing field.

13.2.1 PLAYING FIELD RECONDITIONING

The pitcher's mound and base pit areas shall be reconditioned prior to each game through the use of clay materials and tampers.

13.2.2 FIELD MAINTENANCE MATERIALS

All facilities are required to have a sufficient amount of drying material on hand at all times for reconditioning the infield. A chemical drying agent and/or calsonite clay may be used in combination with sand to stabilize areas affected by excessive moisture. Sand may not be the sole drying agent.

13.2.3 LAYOUT OF PLAYING FIELD

The entire playing field shall be laid out to coincide with the provisions of Sections 1.04 through 1.08 of the Official Baseball Rules.

13.2.4 IRRIGATION SYSTEM

All new facilities shall provide a full field irrigation system as well as water lines 1 1/2" or larger behind both home plate and second base for watering the infield grass and base pit areas. It is recommended that a series of water outlets 1" or larger be distributed around the playing field in order to water the field if the irrigation system should become inoperable. It is recommended that a full-field irrigation system be provided at all existing facilities.

13.2.5 FIELD DRAINAGE SYSTEM

All new facilities shall provide an underfield drainage system integrated into the sub-base of the turf (natural or synthetic) surface. This system shall be a system of a drain tile fields in a porous collection bed (or similar system) below the turf base.

It is recommended an optimal slope of .5% be maintained from the base of the pitcher's mound to the baselines and from second base to the outfield warning track.

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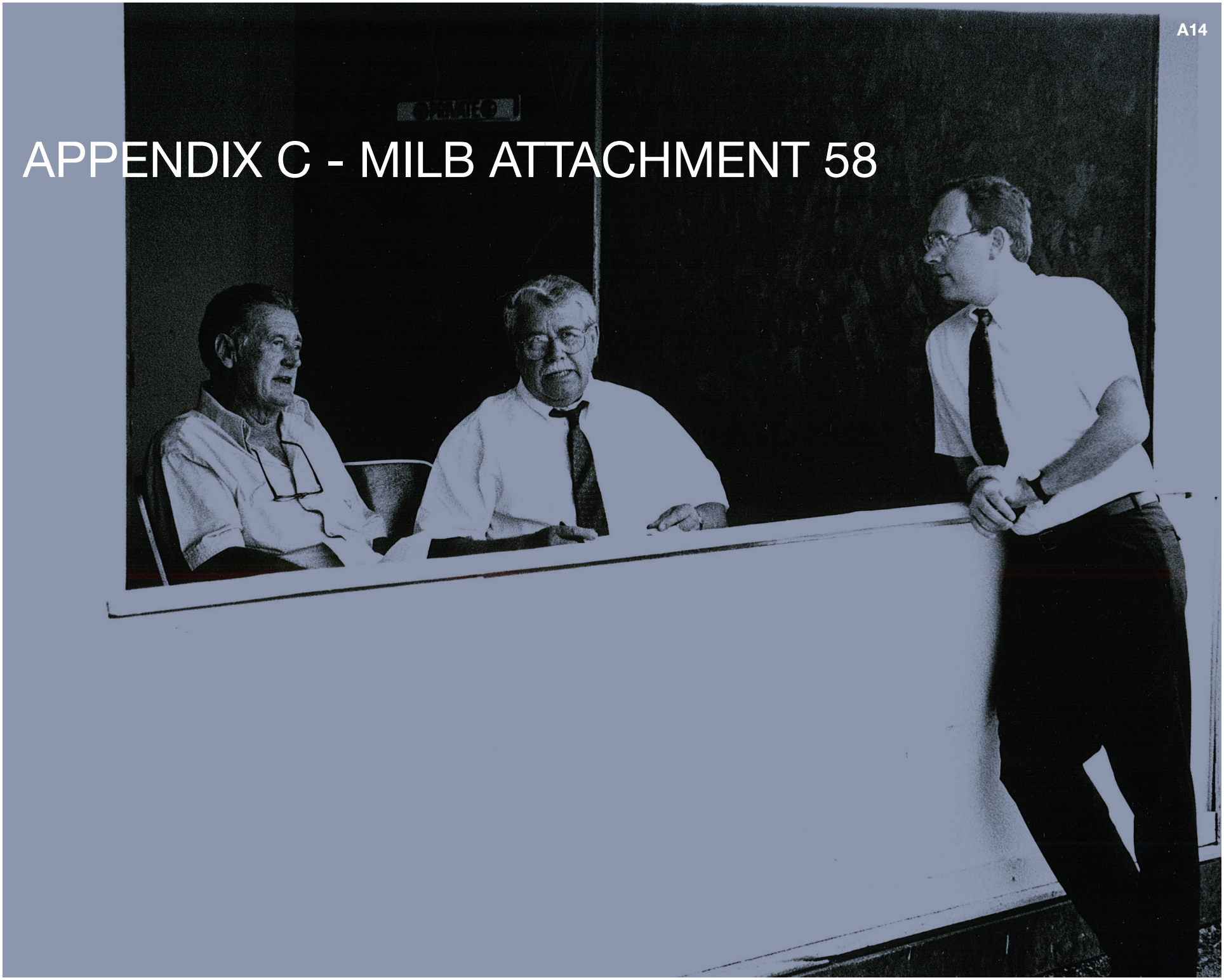

ATTACHMENT 58

MINOR LEAGUE FACILITY STANDARDS AND COMPLIANCE INSPECTION PROCEDURES

Standards

Unless expressed as recommendations, these facility standards are minimum requirements for all new Minor League facilities. The standards outlined in Sections 11, 12 and 13 are applicable to both new and existing facilities.

New Facilities

Any facility that is scheduled for a construction starting date of January 1, 1991 or later shall be considered a "new facility." All plans for new facilities, including construction time schedules, must be submitted to field inspection personnel designated by the Commissioner's Office and the President of the Minor League Association, for review and approval by the field inspection personnel prior to the start of construction. Such review must be completed within 30 days after submission or the plans shall be deemed approved. If such plans meet the standards they shall be approved. Notwithstanding its facility's designation as a "new facility," a Minor League Club that can demonstrate that its new facility construction planning and approval process was at such a stage as of November 17, 1990 that requiring compliance with a minimum new facilities standard (other than those outlined in Sections 11, 12 and 13) will cause it to suffer a material hardship, may apply to the President of the Minor League Association and to the Commissioner or the Commissioner's designee for a variance from such standard.

Existing Facilities

Any facility other than a "new facility" as defined above shall be considered an "existing facility." All existing facilities must meet the standards outlined in Sections 11, 12 and 13 (playing field and other team facilities) by no later than April 1, 1995. All plans for additions, alterations or renovations of such facilities, including new turf installations, must be submitted to field inspection personnel designated by the Commissioner's office and to the President of the Minor League Association, for review and approval by the field inspection personnel (including construction time schedules) prior to the start of construction. Such review must be completed within 30 days after submission or the plans shall be deemed approved. If such plans meet the standards they shall be approved.

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SECTION 1.0 SEATING

This section establishes standards for the number, type and arrangement of seating in all facilities.

1.1 SEATING CAPACITY

Seating capacities shall be established to be appropriate for the size of the Minor League Club's market. Recommended minimum capacities are as listed below. All facilities shall conform with the seating grade, seating distribution and spacing requirements described in sections 1.2, 1.3 and 1.4.

1.1.1	Class AAA Capacity	10,000 seats
1.1.2	Class AA Capacity	6,000 seats
1.1.3	Class A Capacity	4,000 seats
1.1.4	Short-Season Class A/Rookie	2,500 seats

1.2 GRADES OF SEATING

In order to enhance the professional atmosphere of the facility, each facility shall provide a minimum of two separate and distinct grades of seating (three separate and distinct grades are recommended). This provision is intended to designate and define general types of seating and not to define pricing or ticketing structures.

1.2.1 TYPES OF SEATING

Seating types shall be defined as in sections 1.2.2, 1.2.3, and 1.2.4.

1.2.2 BOX SEATING

Defined as Arm Chair Seats with Backs. Additional seat width and leg room is recommended, with an additional three inches of tread width to be provided as compared to the tread width in the other seating areas. Following the traditional definition of box seating, it is recommended that additional access to smaller groupings of box seats be provided.

1.2.3 RESERVED SEATING

Defined as a bench with back as a minimum requirement.

1.2.4 GENERAL ADMISSION SEATING

Defined as a bench as a minimum requirement.

1.3 SEATING DISTRIBUTION

In no event shall more than 90% of the total seating capacity be General Admission seating. Recommended seating distributions are as follows.

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For two grades of seating:

Box or Reserved:	25% of total capacity
General Admission:	75% of total capacity

For three grades of seating:

Box:	25% of total capacity
Reserved:	25% of total capacity
General Admission:	50% of total capacity

1.4 SEAT SPACING

The spacing and layout of all seating, aisles, vomitories, cross-aisles and concourses comprising the established exiting system shall conform to all applicable local, state and federal codes and regulations. (NFPA 101 for Assembly Occupancies shall be considered the minimum requirement if the facility does not fall under jurisdiction of other regulations.)

1.5 HANDICAPPED ACCESSIBILITY

All facilities shall comply with all applicable local, state and federal codes and regulations regarding access of Handicapped patrons and employees. (ANSI.A117-1 shall be considered the minimum requirements.)

SECTION 2.0. PUBLIC COMFORT STATIONS

This section determines and defines the number of plumbing fixtures and their arrangement at the facilities.

2.1 COMFORT STATION DISTRIBUTION

The distribution of the fixtures should be in accordance with the distribution of the seating locations and exiting system to allow minimal walking distances from all parts of the facility to public toilet facilities.

2.2 PLUMBING FIXTURES

The minimum plumbing fixture ratios shall be as follows:

Water closets	1:125 Women 1:450 Men
Lavatories (sinks)	1:150 Women 1:150 Men
Urinals	1:125 men

2.2.1 COMFORT STATION ACCESSORIES

All public restroom facilities shall provide mirrors, purse shelves (in women's), hand drying facilities and trash cans. It is recommended that a table/platform for diaper changing be located in each restroom.

2.3 HANDICAPPED ACCESSIBILITIES

All facilities shall comply with all applicable local, state and federal codes and regulations (ANSI. A117-1). It is recommended that all facilities provide a minimum of one, unisex h.c. toilet facility per level. This facility shall be similar to a residential bathroom, and allow a h.c. patron to use the facility with the assistance of his/her companion of the opposite sex.

2.4 DRINKING FOUNTAINS

All facilities shall provide drinking fountains per local, state and federal codes and regulations.

2.5 PUBLIC TELEPHONES

All facilities shall provide telephones per local, state and federal codes and regulations.

SECTION 3.0 CONCESSION AND VENDING

The following standards for Concessions and Vending are recommended for all facilities. Many of the conditions may be affected by an existing operational agreement between the facility and concessionaire. It is recommended that these standards be incorporated into any new operational agreement negotiated after the effective date of this PBA.

3.1 CONCESSION AREAS

It is recommended all facilities provide 5 lineal feet of counter space (with corresponding support space) per 350 seats in the total facility capacity. The distribution of the concession areas shall be commensurate with the distribution of the patrons to minimize walking distances. [Example: 12,000 seats/350 = 34.28 X 5' = 171 lineal feet of counter. Each stand averages 25' per stand. Therefore, a minimum of 7 stands, distributed throughout the facility are recommended.]

3.2 CONCESSION VENDORS

If concession vendors are provided at the facility, the following ratios are recommended: one vendor per 350 seats, with 15 sq. ft. of vending commissary space for each vendor separate from the concession areas.

3.3 CONCESSION COMPLIANCE/CODES AND REGULATIONS

Concessionaires are responsible for compliance with all local, state and federal regulations in regard to Health Standards, Fire Department regulations, power, exhaust and ventilation requirements. The agreement between the facility and concessionaire shall define which party is responsible for required modifications.

3.4 CONCESSION STORAGE AND NOVELTY STANDS

The following standards shall be minimum requirements.

3.4.1 CONCESSION STORAGE

All facilities shall provide adequate storage for concession inventory. It is recommended that the storage area be of such size to store the inventory necessary to stage the number of games in an average home stand. In the Agreement between the facility and the concessionaire, the concessionaire shall provide empirical data to determine the required amount of storage space.

3.4.2 NOVELTY STANDS

Any provided novelty stand(s) acting as a sales point for retail sales shall present products in a professional manner commensurate with a standard retail sales areas.

SECTION 4.0 MISCELLANEOUS PUBLIC AREAS

4.1 STADIUM CLUB/RESTAURANT/BANQUET FACILITY

This type of facility shall be optional.

4.2 PICNIC/BEER GARDEN FACILITY

This type of facility shall be optional.

4.3 FAMILY RECREATION AREA

This type of facility shall be optional.

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SECTION 5.0 TICKET WINDOWS AND ENTRY TURNSTILES

The following Sections 5.1, 5.2, and 5.3 shall be minimum requirements.

5.1 TICKET WINDOWS

All facilities shall provide one ticket window for each 1500 seats of total capacity.

5.2 TURNSTILES/ENTRY POSITIONS

All facilities shall provide one turnstile or equivalent entry position (minimum of 30" wide) for each 1500 seats of total capacity.

5.3 HANDICAPPED ACCESSIBILITY

All facilities shall provide access per all applicable local, state and federal codes and regulations to all public and private areas of the facility. (ANSI A117.1)

SECTION 6.0 SECURITY AND FIRST AID

6.1 SECURITY COMMAND POST

All facilities shall provide a "command post" for event security forces, centrally located with provisions for removing unruly patrons from the facility.

6.2 FIRST AID STATION

All facilities shall provide a first aid station during all events. It is recommended that certified medical personnel staff the station at all events.

SECTION 7.0 PARKING AND FACILITY ACCESS

The following Sections 7.1, 7.2 and 7.3 shall be applicable to all facilities.

7.1 PARKING SPACES

It is recommended all facilities shall provide public parking spaces at a ratio of 1 space per 3 seats of total capacity. Such parking spaces shall be on-site or within a 10 minute (1/2 mile) walking distance of the stadium.

7.2 ACCESS AND CONTROL

All facilities shall coordinate with local law enforcement officials to provide controlled on-site traffic access, so as to promote a safe and trouble-free access environment.

7.3 HANDICAPPED PARKING

All facilities shall conform with all applicable local, state and federal regulations.

SECTION 8.0 SOUND SYSTEM AND SCOREBOARD

8.1 SOUND SYSTEM

All facilities shall provide an acoustically balanced sound system integrated with the capacity to deliver clear audio messages to the press box, concourses and all public areas within the facility.

8.2 SCOREBOARD

All facilities shall provide a scoreboard that provides the following as minimum requirements. All scoreboard characters are to be large enough to be seen throughout the facility.

Line Score
Ball-Strike-Out
Player at Bat

8.3 SCOREBOARD LOCATION

No part of any scoreboard and/or associated lighted advertising panels may be located within 50' of the center line of the playing field.

8.4 CLOCK

All facilities shall provide a time-of-day clock that will be in full view of all field personnel from the beginning of batting practice through the close of each game.

SECTION 9.0 MEDIA FACILITIES

9.1 PRESS PARKING AND ACCESS

It is recommended that all facilities provide a parking area for all members of the media with direct access to the facility. It is also recommended that parking be provided for television vans and broadcast trucks.

9.2 PUBLIC ADDRESS/SCOREBOARD PERSONNEL

All facilities shall provide space in the press box for the public address announcer and scoreboard operator(s). It is recommended that the PA/scoreboard area have a minimum of 50 sq. ft. of floor space in addition to the floor space required for the scoreboard equipment.

9.3 RADIO BROADCAST BOOTHS

It is recommended that all facilities provide two radio broadcast booths (home and visitor) that provide a direct view of the entire field and facilitate the broadcast of the game. Each shall provide counters, chairs, power, lighting and telephone jack.

9.4 TELEVISION BROADCAST AND CAMERA BOOTH

It is recommended that all facilities provide a spare broadcast/camera booth available for local television broadcasts and local television media. The booth should have a direct view of the entire field with operable windows or closures.

9.5 PRINT MEDIA AREA

It is recommended that all facilities provide a separate area for 6 to 10 members of the print media with a direct view of the entire field. Counter, chairs, power, lighting and telephone jack shall be provided.

9.6 MEDIA TOILET FACILITIES

It is recommended that all facilities provide media restroom facilities separate from public restrooms, located with direct access to the press box.

9.7 MEDIA WORKROOM/LOUNGE

This type of facility shall be optional.

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9.8 HANDICAPPED ACCESSIBILITY TO PRESS BOX

Facilities shall conform to all applicable local, state and federal codes and regulations for accessibility to the press box. (ANSI-A117.1)

SECTION 10.0 ADMINISTRATION AREA

10.1 FACILITY ADMINISTRATION AREA

It is recommended that all facilities provide administrative space of 250-300 sq. ft. per person for facility and maintenance operations with separate toilet facilities directly adjacent.

10.2 STADIUM PERSONNEL DRESSING/LOCKER FACILITIES

It is recommended that all facilities provide separate dressing/locker facilities (separate for each sex) for all maintenance and event employees (including concession personnel) separate from the public.

10.2.1 STADIUM PERSONNEL TOILET FACILITIES

It is recommended that all facilities provide toilet facilities for stadium personnel separate from the public. Direct access to personnel locker rooms is desirable.

10.3 TEAM ADMINISTRATION AREA

If the tenant team has a permanent administration area away from the facility, an on-site game day team administration area must be provided. If the team's permanent administration area is at the facility, it is recommended that the area provide 250-300 sq. ft. per person for team operations with adjacent toilet facilities.

SECTION 11.0 TEAM FACILITIES

The following shall be minimum requirements.

11.1 HOME CLUBHOUSE/DRESSING AREA

The number of lockers provided shall be at least five more than the Club's active player limit for its classification of play. The minimum size of each locker shall be 24" w x 72" h (36" w x 72" h is recommended). A lockable storage compartment is recommended for each locker.

Minimum floorspace requirements for the team dressing area shall be as follows:

New facility: 1,000 sq. ft.
Existing facility: 800 sq. ft. (1,000 sq. ft. is recommended)

11.2 SHOWER AND TOILET FACILITIES

All facilities shall provide separate shower, drying and toilet areas with the following minimum fixture counts:

New facility:	shower heads:	8 (10 recommended)
	water closets:	2
	urinals:	2
	lavatories:	4 (8 recommended)
Existing facilities:	shower heads:	6 (10 recommended)
	water closets:	2
	urinals:	2
	lavatories:	2 (8 recommended)

11.3 TRAINING ROOM

All new facilities shall provide a separate training room of not less than 300 sq. ft. divided into three areas: treatment, whirlpool and rehabilitation. The training room shall have space for 1 or 2 treatment tables, a minimum of 2 whirlpools, hydroculator (4-pack minimum), scale, stationary bicycle, ice machine and an area for 2 or 3 pieces of rehabilitation/weight equipment. The training room shall contain a lockable storage area for training supplies. It is recommended that additional space be provided for a separate office/dressing area for the trainer and team physician. It is also recommended that a valuable storage box be installed in the training room.

All existing facilities shall comply with the above paragraph, with the exception that the minimum square footage requirement shall be 175 sq. ft. (300 sq. ft. is recommended).

11.4 TEAM LAUNDRY FACILITY

All facilities shall provide commercial quality laundry facilities (washer and dryer) for the home team to provide daily washing capability. This room may be combined with the Team Equipment Room.

11.5 TEAM EQUIPMENT ROOM

All facilities shall provide adequate lockable equipment storage space (minimum of 300 sq. ft. in a new facility) contiguous with the clubhouse.

11.6 COACHES' LOCKERS

All new facilities shall provide a minimum of 4 coaches lockers (6 are recommended) in addition to the players lockers. It is recommended these lockers shall be in a separate area from the players lockers. Locker size and floor space requirements (per capita) shall be the same as in the players dressing area.

Existing facilities shall comply with the above paragraph, with the exception that a minimum of 3 coaches lockers are to be provided.

11.7 FIELD MANAGER'S OFFICE

All facilities shall provide a field manager's office with direct access to the home clubhouse. It shall include a separate toilet, shower and dressing area, along with a desk and adequate meeting space for 6-8 persons. At existing facilities the separate toilet, shower and dressing area is recommended and not required.

11.8 VISITORS CLUBHOUSE/DRESSING AREA

The number of lockers provided shall be at least three more than the Club's active player limit for its classification of play. Minimum floor space requirements shall be as follows:

New facility: 750 sq. ft.
Existing facility: 500 sq. ft (750 sq. ft. is recommended)

11.9 VISITORS SHOWER AND TOILET FACILITIES

All facilities shall provide separate shower, drying and toilet facilities with minimum fixture counts as follows:

New facility:	showers heads:	6 (8 recommended)
	water closets:	2
	urinals:	2
	lavatories:	4

Existing facility:	shower heads:	4 (8 recommended)
	water closets:	2
	urinals:	2
	lavatories:	2 (4 recommended)

11.10 VISITORS TRAINING ROOM

All new facilities shall provide a separate training room (minimum of 150 sq. ft.), with space for one training table, one whirlpool, and a hydroculator (4-pack minimum). In existing facilities, this area may be integrated into the players' dressing area, provided that the dressing area is at least 650 sq. ft.

11.11 VISITING FIELD MANAGER'S OFFICE

All facilities shall provide a separate office for the visiting field manager. It shall include a separate toilet, shower and dressing area, along with a desk and adequate meeting space for 2-4 people. At existing facilities, the separate toilet, shower and dressing area is recommended and not required.

11.12 TEAM STORAGE (MAJOR LEAGUE PARENT TEAM)

It is recommended that all facilities provide a minimum of 300 sq. ft. of lockable team storage, separate from other team storage, with year round access only to the major league team.

11.13 UMPIRE FACILITIES

All facilities shall provide a private dressing, shower, and toilet facility for umpires. This area shall provide enough lockers (each a minimum of 36" w x 72" h) to accommodate the number of umpires typically assigned to work in the applicable classification of play. In new facilities, this area shall be a minimum of 200 sq. ft.

11.14 FIELD/DUGOUT ACCESS

It is required that all new facilities and recommended that all existing facilities provide a direct access route to the dugout/playing field. Similar access is to be provided for the umpires.

11.15 PLAYER PARKING

It is recommended that all facilities designate a parking area with clubhouse access for players and other uniformed team personnel.

11.16 HITTING/PITCHING TUNNELS

It is recommended that each facility provide two covered tunnels for players to practice hitting and pitching in an enclosed environment. If provided, these tunnels should be reasonably close to the home clubhouse with minimal public access.

11.17 PRE- AND POST-GAME WAITING AREA

It is recommended that all facilities provide a pre-game and post-game waiting area for families of players and other uniformed personnel.

SECTION 12.0 PLAYING FIELD

12.1 FIELD DIMENSIONS

Layouts of all new fields (and modifications to existing fields) shall be submitted for approval by the parent Major League Club and the Minor League Club. All field dimensions shall comply with the minimum dimensions specified in Section 1.04 of the Official Baseball Rules.

12.2 PLAYING SURFACE

All facilities shall provide a field surface (natural or synthetic) without defects and/or "trip-hazards" that could affect the normal play of the game or jeopardize player safety. Warning track material shall identify all zones within 15' of all walls and fences. This warning track must be of a material to provide visual and tactile notice of a significant change in surface type.

12.3 FIELD GRADE

The maximum allowable grade from the base of the pitcher's mound to the warning track in foul territory shall be 6". The maximum allowable grade from second base to the outfield warning track shall be 20".

12.4 FIELD WALL

The permanent outfield wall or fence in all new facilities shall be a minimum of 8' high.

12.5 BULLPENS

All facilities must provide a bullpen area for each team. These areas may be located in foul territory down the baselines or just immediately outside the field wall. Each must be visible to both dugouts and to the press box. Each shall have two regulation pitching mounds and home plates, adequate distance and clearance for each pitcher and catcher, and a bench for 10 players. If the bullpens are in foul ball areas, care shall be taken to integrate the slope of the pitcher's mound into the field so as not to create a trip hazard for fielders as they approach the bullpen. It is recommended that all facilities have phones connecting the bullpens to the dugouts.

12.6 DUGOUTS

All facilities must provide two enclosed dugouts (home and visitor). Each dugout in a new facility must accommodate 25-30 uniformed personnel on a bench with seatback. Each dugout in an existing facility shall accommodate 20-25 uniformed personnel. Each dugout must have a helmet rack for a minimum of 15 helmets and a bat rack for a minimum of 30 bats. It is recommended that a bat swing/storage area be directly accessible to each dugout. It is recommended that each dugout include a refrigerated water cooler (drinking fountain) and provide direct access to a restroom. It is recommended that all facilities have telephones connecting the dugouts to the bullpens and to the press box. All dugouts shall provide as feasible an anti-skid surface as possible on steps and walkways.

12.7 FIELD EQUIPMENT

All facilities shall provide the following field equipment. Examples given shall serve as guidelines for equipment quality, and the equipment provided shall meet or exceed the examples specified.

12.7.1 BATTING CAGE

All facilities shall provide a full cover batting cage. New batting cages shall have minimum dimensions of 18' wide, 14' deep and 9' high. It is recommended that the cage be portable and made of an aluminum frame to provide maximum maintainability. Existing batting cages not meeting the above standards may be approved by the parent Major League Club.

12.7.2 FIELD SCREENS

All facilities shall provide a pitching screen, first base screen, 2nd base/double play screen, and a shag protector screen. New screens shall have the following minimum dimensions:

Pitching screen: 7' h x 8' w with 4' x 4' notch in upper corner.

Double play screen: 7' h x 14' w with hinged wings.

First base and
shag protector screens: 7' h x 8' w.

All existing screens not meeting the above standards may be approved by the parent Major League Club.

Periodic checks of the batting cage and all screens shall be performed to verify frame and net integrity.

12.7.3 BATTER'S EYE

All facilities shall provide a solid monochromatic batter's eye painted in a flat, dark color with minimum dimensions of 16' high and 40' wide centered in the outfield. If a centerfield camera is integrated into the batter's eye, the camera must be the same color as the batter's eye. It is recommended that all new facilities provide a batter's eye with minimum dimensions of 40' high and 80' wide. Any advertising sign abutting the batter's eye shall not include white lettering, a white background, any neon or other lighting or motion effects

12.7.4 FOUL POLES

All facilities shall provide two foul poles of a bright color that are a minimum of 30' high (45' is recommended) with a screen to the fair side of the pole. No white signs shall be allowed on or immediately adjacent to each side of the foul pole.

12.7.5 FLAG POLE

All facilities shall provide a flag pole for the United States Flag or Canadian Flag, as applicable, in clear view of the entire seating bowl.

12.7.6 SCOREBOARDS, VIDEO MONITORS AND MOTION SIGNS

In addition to other provisions of these Minor League Facility Standards (including, but not limited to, Section 8.3 (Scoreboard Location)), the President of the Minor League Association, in consultation with the Commissioner or the Commissioner's designee, shall develop and distribute guidelines regarding the use and location of scoreboards, video monitors, LED boards and LED/matrix boards so as not to interfere with play

12.8 FIELD LIGHTING

All new lighting systems shall maintain the following minimum brightness requirements after 100 hours of burning:

Class AAA and Class AA: 100 fc average in infield/
70 fc average in outfield.

Class A and Rookie: 70 fc average in infield/
50 fc average in outfield.

The height and location of poles in all new lighting systems shall follow IES standards.

All existing lighting systems shall maintain the following minimum brightness requirements:

Class AAA and Class AA: 70 fc average in infield/
50 fc average in outfield.

Class A and Rookie: 60 fc average in infield/
40 fc average in outfield.

All lighting systems shall operate with a maximum variance ratio of 1.2/1 in the infield and 2/1 in the outfield. The variance ratios shall be computed by comparing the highest and lowest footcandle readings in the infield and the outfield.

12.9 BATTING CAGE GATE

All new facilities shall provide a gate large enough to allow the batting cage to be freely taken to and from the playing field.

12.10 BACKSTOP

All facilities shall provide a backstop behind home plate. The configuration and dimensions shall vary due to sight-lines for the press box and insurance requirements for the facility. Periodic inspections shall be performed to insure the integrity of the backstop.

12.11 PLAYING FIELD TARPS

All Class AAA, Class AA and full season Class A facilities shall provide a full infield tarp and pitcher's mound, home plate, base pit, and bullpen tarps, except that this requirement may be waived by the President of the Minor League Association in the event that the facility is located in an area that does not experience sufficient rainfall to justify the expense of tarps. The tarps shall be oversized to prevent water from running under the edge to a dirt area. The tarps shall be stored in an easily accessible location but in a way not to create a safety hazard on the playing field. Each facility is required to provide adequate manpower to operate the placement and/or removal of the tarps.

SECTION 13.0 MAINTENANCE

This section outlines requirements and recommendations for overall maintenance of the facility and playing field in a professional manner.

13.1 FACILITY MAINTENANCE AND CLEANLINESS

Each facility shall develop a maintenance program (both short-term and long-term) for use by its maintenance personnel. All public areas shall be completely free of trash and rubbish at the opening of each event, and stadium personnel shall be responsible for cleanliness during the event.

Each facility shall follow its maintenance program for interior repairs and touch-ups to maintain the professional atmosphere of the facility. Long-term maintenance shall be ongoing in order to deter major facility problems and to minimize potential disruptions to the public.

13.2 FIELD MAINTENANCE

The playing field shall be maintained at the highest possible professional level. Every reasonable effort shall be made to insure the safety of the players and the smooth play of the game. The facility shall follow professional grounds- keeping practices and shall utilize proper maintenance equipment. Nail-drags, screens, tampers and rakes are recommended to maintain all dirt areas. Proper turf care equipment (mowers, tractors, etc.) shall be used, and an appropriate maintenance plan shall be developed and followed to care for the playing field.

13.2.1 PLAYING FIELD RECONDITIONING

The pitcher's mound and base pit areas shall be reconditioned prior to each game through the use of clay materials and tampers.

13.2.2 FIELD MAINTENANCE MATERIALS

All facilities are required to have a sufficient amount of drying material on hand at all times for reconditioning the infield. A chemical drying agent and/or calsonite clay may be used in combination with sand to stabilize areas affected by excessive moisture. Sand may not be the sole drying agent.

13.2.3 LAYOUT OF PLAYING FIELD

The entire playing field shall be laid out to coincide with the provisions of Sections 1.04 through 1.08 of the Official Baseball Rules.

13.2.4 IRRIGATION SYSTEM

All new facilities shall provide a full field irrigation system as well as water lines 1 1/2" or larger behind both home plate and second base for watering the infield grass and base pit areas. It is recommended that a series of

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water outlets 1" or larger be distributed around the playing field in order to water the field if the irrigation system should become inoperable. It is recommended that a full-field irrigation system be provided at all existing facilities.

13.2.5 FIELD DRAINAGE SYSTEM

All new facilities shall provide an underfield drainage system integrated into the subbase of the turf (natural or synthetic) surface. This system shall be a system of a drain tile fields in a porous collection bed (or similar system) below the turf base.

It is recommended an optimal slope of .5% be maintained from the base of the pitcher's mound to the baselines and from second base to the outfield warning track.

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