# American Family Field <br> Facility Condition Assessment Peer Review 

January 17, 2023

## CAAICON

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## Executive Summary

## EXECUTIVE SUMMARY

CON Venue Group, LLC, d/b/a CAA ICON ("CAA ICON") was hired by the State of Wisconsin Division of Facilities Development (the "Client") to assess the validity of the suggested capital improvements and the cost associated with tem in that ce 2022 ("AFFFCA") regarding American Family Field ("AFF" or "Stadium") locoted in Milwaukee Wisconsin ( which was authored by Venue Solutions Group ("VSG").

It is CAA ICON's understanding that the intent of the AFFFCA was to inform the Milwaukee Brewers Baseball Club ("MBBC") as to the range of potential capital expenditures necessary to maintain AFF through 2040, while fulfilling its contractual obligations under the AFF's current lease. VSG determined that it would cost \$428,378,109 in capital expenditures to maintain the Stadium and the Stadium grounds from 2023 through 2040.

## Approach:

CAA ICON worked with VSG and MBBC to gain a more full understanding of the AFFFCA and what assumptions were factored into the AFFFCA findings to include scope, age of equipment, and frequency of replacement. We reviewed the AFFFCA, AFFFCA's matrix, and various resource documents including drawings, assets lists, and previous reports. A site visit of AFF was conducted by CAA ICON on January 5,2023 to visually assess the AFF condition and meet in person with representatives of MBBC and VSG

## Findings:

After reviewing the scope of work identified and listed in the AFFFCA matrix, our conclusion is that the Stadium could need approximately $\$ 540$ million to $\$ 604$ million to extend the useful life of the Stadium through 2040. This is a $26 \%$ to $41 \%$ increase from the AFFFCA findings. CAA ICON used historical data to establish a cost metric for each activity based on our understanding of what was included in each line item of the AFFFCA matrix to include quantity/square footage and scope. CAA ICON reviewed documentation provided by VSG for the Client associated with the roof; however, due to the technical nature of this roof scope, CAA ICON assumed VSG's findings under the AFFFCA. Scopes dentified as missing in the AFFFCA have been included under "Other Considerations" noted below.

The variance in values between the AFFFCA and CAA ICON's review is primarily due to the methodology undertaken by the two groups. CAA ICON's approach to forecasting such capital expenditures is to take actual square footage or asset quantities with current industry benchmark values to arrive at projected costs. After several discussions with MBBC and VSG, it is our understanding that the methodology employed by VSG was to apply allowances for definitive as to what is and is not included, or if the scope applies to a portion of the square footage/quantity or all of it. CAA ICON's opinion is that while the foregoing approach is not uncommon, it is particularly subjective in the area of Architectural and Interiors of AFF. As a result, CAA ICON is providing ranges of improvement costs below.
The high range of $\$ 604$ million assumed all associated scope activities applied across the entire square footage of the identified activity area, such as, without limitation, painting, flooring replacement, and fixture replacement. The low range of $\$ 540$ million utilizes VSG-specified square footage and cost metrics, with the assumption that likely not all the associated scope would be able to be applied uniformly to the established square footage of the identified activity area
CAA ICON felt that VSG's established escalation (Year 1-10\%, Year 2-10\%, Year 3-4\%, and Years 4 through 18 $3 \%$ each year) and $15 \%$ contingency was sufficient given the current state of the industry. As such, the foregoing was carried across CAA ICON's cost figures, as well. CAA ICON adopted the frequency of replacement recommendation provided by VSG. No additional replacement frequencies were included. CAA ICON recommends the frequency for replacement should be further studied in order to accurately plan for and allocate funding.

## Other Considerations:

During our review, CAA ICON identified a list of capital improvements under Other Considerations that were excluded from the AFFFCA, which are typically included as part of long-term capital planning for a Major League Baseball stadium. In our discussions with MBBC and VSG, we understood that some capital improvements were excluded with the assumption that the same would be funded through annual MBBC operating budgets or other sources, which million. confirmed. We estimate the cost of such identified capital improvements range from $\$ 35$ milion to $\$ 62$ million

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Baseline Capital Improvement Costs Comparison

## BASELINE CAPITAL IMPROVEMENT COSTS COMPARISON

|  |  | Venue Solutions Group |  | CAA ICON |  | Difference in Baseline Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Architecture \& Interiors |  | \$ | 74,531,471.25 | \$ | 115,879,110.20 | \$ | $(41,347,639)$ |
|  | Subtotal | \$ | 64,809,975.00 | \$ | 100,764,443.65 |  |  |
|  | Contingency 15\% | \$ | 9,721,496.25 | \$ | 15,114,666.55 |  |  |
| Mechanical, Electrical, Plumbing | \& Fire Protection | \$ | 35,730,500.00 | \$ | 80,431,726.80 | \$ | (44,701,227) |
|  | Subtotal | \$ | 31,070,000.00 | \$ | 69,940,632.00 |  |  |
|  | Contingency 15\% | \$ | 4,660,500.00 | \$ | 10,491,094.80 |  |  |
| Structure |  | \$ | 40,954,005.05 | \$ | 45,526,503.60 | \$ | $(4,572,499)$ |
|  | Subtotal | \$ | 35,612,178.30 | \$ | 39,588,264.00 |  |  |
|  | Contingency 15\% | \$ | 5,341,826.75 | \$ | 5,938,239.60 |  |  |
| Technology |  | \$ | 39,785,400.00 | \$ | 46,391,690.00 | \$ | (6,606,290) |
|  | Subtotal | \$ | 34,596,000.00 | \$ | 40,340,600.00 |  |  |
|  | Contingency 15\% | \$ | 5,189,400.00 | \$ | 6,051,090.00 |  |  |
| Vertical Transportation |  | \$ | 12,805,250.00 | \$ | 19,267,100.00 | \$ | (6,461,850) |
|  | Subtotal | \$ | 11,135,000.00 | \$ | 16,754,000.00 |  |  |
|  | Contingency 15\% | \$ | 1,670,250.00 | \$ | 2,513,100.00 |  |  |
| Roof |  | \$ | 20,647,675.00 | \$ | 20,647,675.00 |  |  |
|  | Subtotal | \$ | 17,954,500.00 | \$ | 17,954,500.00 |  |  |
|  | Contingency 15\% | \$ | 2,693,175.00 | \$ | 2,693,175.00 |  |  |
| Concessions Infrastructure |  | \$ | 7,188,533.85 | \$ | 7,473,132.60 | \$ | $(284,599)$ |
|  | Subtotal | \$ | 7,188,533.85 | \$ | 7,473,132.60 |  |  |
|  | Contingency 15\% | \$ | - | \$ | - |  |  |
| Miscellaneous |  | \$ | 34,500,000.00 | \$ | 34,500,000.00 |  |  |
|  | Subtotal | \$ | 30,000,000.00 | \$ | 30,000,000.00 |  |  |
|  | Contingency 15\% | \$ | 4,500,000.00 | \$ | 4,500,000.00 |  |  |
| Total |  | \$ | 266,142,835.15 | \$ | 370,116,938.20 | \$ | (103,974,103) |
|  | Subtotal | \$ | 232,366,187.15 | \$ | 322,815,572.25 |  |  |
|  | Total Contingency 15\% | \$ | 33,776,648.00 | \$ | 47,301,365.95 |  |  |
| Baseline Percent Difference |  |  |  |  |  |  | -39\% |

[^0]
## Total Capital Improvement Cost 2023-2040 Comparison

## TOTAL CAPITAL IMPROVEMENT COST 2023-2040 COMPARISON



[^1]After several discussions with MBBC and VSG, it is our understanding that the methodology employed by VSG was to apply allowances for approximately $\$ 253$ million of the total $\$ 428$ million budget. Allowances are characterized as scope that is not definitive as to what is and is not included, or if the scope applies to a portion of the square footage/quantity or all of it. Specifics as to what is included in each range can be found on the page: High Range / Low Range Variances.

## High Range / Low Range Variances

## HIGH RANGE / LOW RANGE VARIANCES

|  |  | nge Delta | High Range Assumptions |  | ange Delta | Low Range Assumption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Architecture \& Interiors | s | $(62,963,172)$ |  | s | $(19,731,826)$ |  |
| Allowances for Glass Replacement <br> Concourse Infrastructure | \$ | $(26,321,888)_{r}$ | Assumptions include glass replacement / however allowances are more in line with gasket and sealant replacement. | \$ | $(10,020,027)$ | Reduce scope to gasket and sealant replacement. |
| eld Level Concourse | \$ | $(6,483,543)$ | Discrepancies in SF that was factored into each line item. ( $93,800 \mathrm{sf} \mathrm{vs} 139,957 \mathrm{sf}$ ) | \$ | $(1,837,277)$ | Use VSG square footage assumptions ( assuming a portion of the space, not the entirety. |
|  | \$ | $(3,753,203)$ | Discrepancies in SF that was factored into each line item. ( $62,400 \mathrm{sf} \mathrm{vs} 91,790 \mathrm{ksf}$ ) | \$ | $(964,244)$ | Use VSG square footage assumptions ( assuming a portion of the space, not the entirety. |
| Club Level Concourse | \$ | $(13,430,936)$ | Discrepancies in SF that was factored into each line item. ( 62,100 sf vs 94,445 sf ) | \$ | $(3,238,037)$ | Use VSG square footage assumptions ( assuming a portion of the space, not the entirety. |
| Terrace Level Concourse | \$ | $(2,370,605)$ | Discrepancies in SF that was factored into each line item. ( 53,700 sf vs 72,322 sf) | \$ | $(603,474)$ | Use VSG square footage assumptions ( assuming a portion of the space, not the entirety. |
| Various Finish Upgrades | \$ | $(1,705,158)$ | Founders Suite and Retail Space Price Per SF were low. | \$ | $(1,282,427)$ | Use VSG allowances, likely no millwork or appliance replacement would be included. |
| Seat Replacement | \$ | $(1,786,339)$ | Quantities did not align between VSG and Drawings, however some seat may have been replaced but quantity was not clear. | \$ | $(1,786,339)$ | No Change |
| Miscellaneous (Small groupings under \$1M) | \$ | (7,111,500) |  |  |  |  |
| Mechanical, Electrical, Plumbing \& Fire Protection | S | (68,255,742) |  | s | (63,148,629) |  |
| Packaged Mechanical Equipment (AHU,CRU,ACU,EF,VAV) | \$ | $(17,428,678)$ | Assumption include full unit replacement / however allowances seem to be more in line with component replacement. | \$ | $(17,428,678)$ | NO Change |
|  | \$ | $(4,628,979)$ | Assumption includes replacement for (2) unit / however allowances appear to factor in only (1) unit. | \$ | $(4,628,979)$ | No Change |
| Emergency Generators/Panel Board Interior Lighting | \$ | $(15,925,581)$ | Assumptions include interior and exterior lighting upgrade to LED - with the exception of Sports Lights. | \$ | $(15,925,581)$ | No CHANGE |
| Renovate Restrooms | \$ | $(20,165,391)$ | Assumption include replacement of fixtures and finishes / however allowances are not enough to cover full fixture replacement/upgrade. | \$ | $(20,165,391)$ | NO CHANGE |
| Miscellaneous (Small groupings under \$1M) | \$ | $(10,107,113)$ |  | \$ | $(5,000,000)$ | Utilize established allowances, assume cost figures have included previous replacements. |
| Structure | S | $(20,331,797)$ |  | s | (5,448,525) |  |
| Parking Lots Resurfacing | \$ | $(7,709,413)$ | Original cost from vendor in 2019 was not provided. It is unclear if that value was escalated. CAA ICON used past price per sf costing for lot resurfacing . |  |  | Utilize VSG allowance. |
| Traffic Membrane | \$ | $(11,675,411)$ | Original cost figures from VSG report are unknown, pricing assumes a 2 step traffic coating that as a $20+$ year lifespan. | \$ | $(5,448,525)$ | Reduce pricing to 1 step traffic coating. |
| Miscellaneous (Small groupings under \$1M) | \$ | $(946,974)$ |  |  |  | Utilize VSG allowance. |
| Technology | S | (16,144,144) |  | s | (16,144,144) |  |
| Sound System | \$ | $(7,092,478)$ | Cost have been updated to align with WJHW Report Figures + Escalation to 2022 costing at $10 \%$ for 2021, and $10 \%$ for 2022. | \$ | (7,092,478) | NO Change |
| LED Graphic System Upgrade <br> Security (Video Camera + Access Control) Miscellaneous (Small groupings under \$1M) | \$ | $(700,000)$ | CAA ICON historical cost data shows this unit specifically has doubled in cost since 2019. | \$ | $(700,000)$ | No Change |
|  | \$ | $(1,600,000)$ | Assumption includes full replacement ( 300 cameras and 100 card readers) using existing infrastructure. | \$ | $(1,600,000)$ | No Change |
|  | \$ | $(6,751,666)$ |  | \$ | $(6,751,666)$ | No CHANGE |
|  | \$ |  |  |  |  |  |
| Vertical Transportation | S | $(8,098,364)$ |  | S | $(8,098,364)$ |  |
| Elevator/Escalator/Freights | S | $(8,098,364)$ | Assumptions include component replacement | S | $(8,098,364)$ | NO CHANGE |
| Concessions Infrastructure | S | (358,139) |  | S | - |  |
| Concession Flooring Replacement | S | $(358,139)$ | Discrepancies in SF that was factored into each line item. (6,905 sf vs $26,914 \mathrm{sf}$ ). |  |  | Use VSG square footage assumptions (assuming a portion of the space, not the entirety). |
| CAA ICON Summary Total $\$$ <br> VSG Report Total $\$$ <br> Percent Difference  |  | (176,151,357) |  | \$ | (112,571,488) |  |
|  |  | 428,378,109 |  | s | 428,378,109 |  |
|  |  | -41\% |  |  | -26\% |  |

This chart identifies variances in costing between VSG and CAA ICON. It identifies the assumptions CAA ICON made in scope, square footages, and quantities and potential discrepancies between the two reports. As noted previously CAA ICON confirmed in the VSG report approximately $\$ 253$ million of the total $\$ 428$ million budget (tere
were deemed allowances. Capital Improvement allowances and CAA ICON's assumptions for each a activity is further defined in the Matrix Comparison section.

## American Family Field

## Matrix Comparison

## MATRIX COMPARISON: BASELINE VALUES AND ASSUPMTIONS



## MATRIX COMPARISON: BASELINE VALUES AND ASSUPMTIONS

| \# | Grouping | ${ }^{\text {Subcategor } 1}$ | Subategor 2 | $\begin{gathered} \text { Frequency of } \\ \text { repairs \& } \\ \text { replacement in } \\ \text { years } \\ \hline \end{gathered}$ | Condition |  | Cost/unitof | ${ }_{\text {sf/Unit }}$ | Cost/Unit of Measure | Estimated Cost per occurrence <br> in FY 2022 Dollars | Estimated Cost per occurrenc in FY 2022 Dollars | Detta | caA ICoN Scope Assumptions | Assumed to be an Allowance (VSG Total) VSG Total) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Architectur \& Interior finishes |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Architectre \& Intefior | erior | ece Transucent Panes @ Outfield | 20 | Fair | 81,760 | ${ }^{65.00}$ | 70,653 | ${ }^{150.00}$ | 5,320,000.00 | 10,597,950.00 / | s (5,27, 950,00) | Structuraly no deficiencies noted. This ine inem is to represent transucent panel replacement in the futre as needed. Costing reeresents repalacement of entire wall sf. | * |
| 2 | Architecture \& Interior Finishes | erior | Replace Exising G Gass Entry Doors | ${ }^{20}$ | fair | 92 | 6,000.00 | ${ }^{2}$ | \$ 6,000.00 | $5 \quad 560,000.00$ | 560,000.00 s | s . | Structurally no deficiencies noted, this line items represents replacement of Exterior Entry Doors as needed. | * |
|  | Architecture \& Interior Finishes | Exereior | Replace Insulate Clazing as Needed (Seanats) | 20 | good | 22,00 | ${ }^{64}$ | 50,416 | \$ 220.00 | \$ 2,500,000.00 | 10,58,360.00 | $5 \quad(8,087,56000)$ | Structurally no deficiencies noted, Take off numbers provided by VSG would assume $50 \%$ insulated glazing sealants would be covered. Given cost to mobilize, CAA ICON number assumes complete replacement of all sealants and gaskets, not just 50\% | $\times$ |
|  | Architecture \& Interior Finishes | Exterior | Replace Entr//screening Canopies | 20 | Poor | 4,500 | 175.00 | 4,500 | \$ 175.00 | \$ 790,00.00 | 790,000.00 s | s | Structurally no deficiencies noted, budget to replace all canopies upon failure. VSG cost estimate figures used | $\times$ |
|  | Architecture \& Interior <br> Finishe | Exereior | Replace Curtain Wallat outrield | 15 | fair | 1400 | 66.00 | 19,000 | \$ 150.00 | \$ 730,00.00 | 2,850,000.00 | s (2,120,000.00) | Structurally no deficiencies noted. This line item represents glass/glazing replacement in the future as needed. Costing represents replacement of entire curtain wall square footage (SF | * |
|  | Architecture \& Interior Finishes | Exterior | Udodate Tilgatehus nifastructure | 20 | Fair | 6,000 | \$ 170.00 | 500 | 170.00 | \$ 1,020,00000 | 1,020,00.00 s | s | Upgrade includes; Paint, Lighting Upgrade to LED, Plumbing Fixture Replacement, Mechanical Equipment Replacement. Funding should be sufficient |  |
|  | Architecture \& interior | Serice evel | meade Seasonal Emplove Locker Room facilites | 15 | Fair | 8,400 | 125.00 | 8,400 | \$ 125.00 s | \$ 1,050,00.00 | 1,050,000.00 s | s | Upgrade, and Plumbing Fixture Replacement, RR tile replacement, Limited FFE (Bench Seating Replacement).RR tile replacement) | $\times$ |
|  | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Serice evel | Uggrade Unpirie Locker Room Space | 15 | Fair | 2,100 | 175.00 | 2,385 | \$ 25.5] | $5 \quad 370,000.00$ | 600,000.00 s | s [230,000.00) | Umpire Locker Room + Auxiliary Locker Room + Shower and Restrooms. Upgrade to include; New Paint, Carpet, RR Tile, Plumbing Fixtures, Locker Replacement, and Lighting Upgrade to LED | * |
|  | Architecture \& Interior Finishes | swice level | Group Space | 15 | New | 15,00 | ${ }^{357.50}$ | 15,00 | \$ 357.67 | \$ 5,364,975.00 | 5,364,975.00 s | s | This line items in undefined amenity space. Space costing assume the reconfiguration of (Undefined) existing space within the ball park. In CAA ICON's opinion, this would not require design fees, structural modifications, or MEP additions. | ${ }^{x}$ |
|  | Architecture \& Interior Finishes | Field level | Sensoor Room | 20 | New | 2,000 | 220.00 | 2,000 | \$ 220.00 | \$ 400,00.00 | 400.000 .00 s | s | Given the undefined scope -CAA ICON to use VSG assumption This line items in undefined amenity space. Space costing assume the reconfiguration of (Undefined) <br> existing space within the ball park. In CAA ICON's opinion, this would not require design fees, <br> modifications, or MEP additions. <br> Given the undefined scope -CAA ICON to use VSG assumption | ${ }^{x}$ |
|  | Architecture \& Interior Finishes | frield level | Replace Seats - Fixed | 20 | Good | 12,000 | 165.00 | 10,846 | 5,00 | 1,200,000.00 | 831,130.00 s | s (483,180.00) | Seat Replacement to include replacement of End/Center Standards, and replacement of hinged hardware. Seat tops/bottom and cupholder from existing seats to be reused. |  |
|  | $\begin{aligned} & \hline \text { Architecture \& Interior } \\ & \text { Finishes } \\ & \hline \end{aligned}$ | field evel | Replace Seats- -leachers | 25 | Good |  |  | 606 | \$ 165.00 | \$ 100,000.00 | s 100,00.00 s | s - | Scope incudes the repalcement of the entrie eench seating system. Funding should be esufficient. |  |
|  | Architecture \& Interior Finishes | Field tevel | Infastucture Replacementat E/W Comer conoun | 15 | Fair | 18,00 | \$ 152.00 | 000 | \$ 175.00 | \$ 2,750,00.00 | \$ 3,55,000.00 s | s (400,000.00) | Repacement includes new paint, repaceement of of environmental fraphics, and an allowance for fan | x |
|  | Architecture \& Interior Finishes | field evel | Infrastructure replacement on concourse behind home plate | 15 | Fair | 4,200 | 214.29 | 4,200 | 220.00 | \$ 900,00.00 | 924,000.00 | (24,000.00) | Replacement includes new paint, replacement of environmental graphics, and an allowance for a fan engagement amenity | ${ }^{*}$ |
|  | ```Architecture & Interior``` | fied tevel | General Concouse infastructur e Repacement | ${ }^{20}$ | good | 71,60 | 48.88 | 3,757 | \$ 67.00 | 3,50,000.00 | s 7,62,799.00 s | s $\quad(6,121,779.00]$ | Replacement includes new paint, replacement of environmental graphics. Concourse Concession Signage Included | x |
|  |  | Field devel | Field Level Upgrades (Funder Suites) | 12 | fair | 15,200 | \$ 225.00 | 15,200 | \$ 30000 | \$ 3,420,000.00 | \$ $4,560,00000$ s | s (1,44,000,00) |  | $\times$ |
|  | Architecture \& Interior <br> Finishes | field level | Retai Space Upgrades | 10 | 600 | 8,600 | ${ }^{135.00}$ | 8,600 | \$ 145.35 | \$ 1,250,00000 | s $\quad 1,250,00000$ s | s |  | x |
|  | $\begin{array}{\|l} \hline \text { Architecture \& Interior } \\ \text { Finishes } \\ \hline \end{array}$ | Loge evel | Renovate Press 8 ox | 15 | Fair | 6,900 | S 165.00 | 10,075 | \$ 10000 5 | $5 \quad 1.500,00000$ | s 1, 1,07,500.00 s | $492,500.00$ | Upgrade includes paint, ceiling tiles, carpet, and laminate counter top replacement. AV Control room, FFE not included. | * |
|  | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Loge evel | Repla | ${ }^{20}$ | sood | 12,000 | 55.00 | 16,988 | \$ 155.00 | \$ 1,860,00.00 | 2,63, 140.00 s | s (773,40000) |  |  |
|  | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Loge evel | General Concouse Infastructur Repacement | ${ }^{20}$ | good | 62,400 | 55.09 | 01,900 | \$ 67.00 | \$ 3,500,000.00 | \$ 6,199,930.00 s | s (2,699,930.00) |  | x |
|  |  | Cub | Cuub level Upgades (lounge, Suite, Leegnds Club) | 12 | Fair | 62,100 | ${ }^{185.19}$ | 94,45 | \$ 222.17 ( | \$ 11,500,000.00 | s 20,92,845,65 s | s (0,48,8,45, 65] | Upgrade includes same layout, new paint, carpet, tile, appliances, Millwork 20\% of suite, Suite Restroom new fixtures and finishes. FFE not included | * |
|  | ${ }_{\text {a }}^{\text {architecture } 8 \text { Intefior }}$ | cub evel | Conference Space U Ugarades | 15 | Poor | 7,785 | s 190.00 | 7.785 | \$ 190.00 S | \$ 1,750,000.00 | 1,479,150.00 s | s 270,850.00 | Uneme | $\times$ |
|  | Architecture \& Interior <br> Finishes | Terace evel | Replace Seats | 20 | Good | 11,900 | \$ 165.55 | 14,134 | \$ 155.00 s | \$ 1,970,00.00 | s $\quad 2,10,770.00$ s | s (220,770.00) | Funding should be sufficient |  |
|  | Architecture \& Interior <br> Finishes | Terace evel | Retail Space Upgrades | 10 | Good | 1.500 | \$ 135.00 | 1,500 | \$ 145500 | \$ 25,000.00 | 217,50.00 / | s (2,50.000) | Upgrade to include paint, flooring, environmental graphics, ceiling, and accent lighting. No FFE Included | * |
|  | Architecture \& Interior Finishes | evel | Inffastructur Replacementat $\mathcal{F}$ co | 15 | Fair | 17,300 | 20.00 | 17,300 | \$ 200.00 | 3,000,000.00 | 3,460,000.00 s | \$ (456,00000 | Replacement includes new paint, replacement of environmental graphics, and an allowance for a fan engagement amenity | ${ }^{*}$ |
|  | $\begin{aligned} & \hline \text { Architecture \& Interior } \\ & \text { Finishes } \\ & \hline \end{aligned}$ | Terace evel | General Concourse liffastructur e Repacement | 20 | Good | 36,000 | 67.00 | 55,022 | \$ 67.00 | \$ 2,400,000.00 | 3,686,474.00 s | (1,246,474,0) | Replacement includes new paint, replacement of environmental graphics. Concourse Concession Signage Included | x |
|  | Architecture \& Interior Finishes | Signage | Wayinding | 20 | fair | 1,200,000 | \$ 2.65 | 833,477 | \$ 2.65 5 | 3,180,000.00 | s 3,180,000.00 s | s | Replacement of Interior Wayfinding Signs <br> Funding should be sufficient | $\times$ |
| 28 | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \\ & \hline \end{aligned}$ | Sustanability | Reecring and Sotitig Facility | 20 | New | 7,100 | 370.00 |  | S 370.42 | 2,630,000.00 | s 2,63,000.00 s | s | Given the undefined scope -CAA ICoN to use VSG assumption | $\times$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## MATRIX COMPARISON: BASELINE VALUES AND ASSUPMTIONS

|  |  |  | Subcategor 2 | $\begin{aligned} & \text { Frequency of } \\ & \text { repairs \& } \\ & \text { replacement in } \\ & \text { vears } \end{aligned}$ |  |  |  |  |  | vsc Calcon |  | Deta | CAA ICON Scope Assumptions |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | Grouping | Subategory 1 |  |  | Condition |  | Cost/Unit of Measure | sf/unit | Cost/Unit of Measure | Estimated Cost per occurrence in FY 2022 Dollars | Estimated Cost per occurrence in FY 2022 Dollars |  |  | Assumed to be an Allowance (VSG Total) |
| 25 | Ep.F | Pumbing | Waste \& vent Piping | 10.15 | Good |  |  |  | 175,000.00 | \$ 175,000.00 | 175,000.00 | s | Alluwane assumes nom miorre | * |
|  | Mep.F | Fire Protection | fie Pump | ${ }_{1520}^{1520}$ | $\xrightarrow{\text { Good }}$ |  |  |  | Sll | ${ }^{2020,000000}$ | s 200.00000 | s | unding shoud be sufficient, |  |
|  | Mep.r | Fire Protection |  | ${ }^{1520}$ | New |  |  |  |  | $\xrightarrow{2,20000000000}$ | ${ }_{2}^{2520,0000000}$ | ${ }_{5}$ | Fundin shoudde susflieent |  |
|  | Pr Q Fric Protection 5 |  |  |  |  |  |  |  |  | $31.000,00000$ |  | [83,870,63200 |  | 7,40779995 |
|  | Contigency |  |  |  |  |  |  |  |  | 4,660.50.00 S.5a | 10,91, 094. | (1,880,59.80)\| |  | 3772079995 |
|  |  |  |  |  |  |  |  |  |  | 5, 5 , 70.50 |  | (4,70, 2 26880) |  |  |
|  | Structure |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Structure | Based on Payne \& Dolan <br> report dated 8/28/19 | Parking Lots - Pavementresurfacing and repairs |  | Varies |  | 26.89 | 2,75,566 | \$ 4.00 | 9,262,178.30 | .038,264,00 | (1,776,085,0) | Scope include the reconstruction of 5 lots, patching of 7 lots and 11 lots with no repairs <br> Note: It is unclear if figures were escalated or if they are still at the 2019 values |  |
| 234 | $\frac{\text { structure }}{\text { Structure }}$ | ${ }_{\text {site }}$ Site |  | ${ }_{20}^{20}$ | $\underset{\substack{\text { fair } \\ \text { Poor }}}{\text { per }}$ | 38,000 10.500 | S <br> 5 |  |  | $\xrightarrow{4.59,000.00} 1$. |  | s |  |  |
|  |  |  | Repaice Peeastran Wakwas |  |  |  |  |  |  |  |  |  |  |  |
|  | Structure | $\begin{aligned} & \text { sealant replacement \& } \\ & \text { replacing sealant every } \\ & 10 \text { years } \end{aligned}$ | Joint sealant replacement | 10 | Varies | 17,500 | ${ }^{6.00}$ |  |  | s - | s - | s | vvs figues were used. | * |
| 5 | Structure | Based on cost for recent sealant replacement \& replacing sealant every 10 years | Expansion joint replcement | 15 | Fair | 1 | \$ 250,000.00 |  | 62,500.00 | \$ 25,000.00 | 250,000.00 | s . | Quantity not broken out by VSG. CAA ICON would assume replacement of 4 units based of baseline cost value. |  |
| 678 | Stacture |  | Traffic membrane recoat on Terrace Level | ${ }_{30}^{15}$ | $\substack{\text { fair } \\ \text { fair }}$ | 200,000 600000 |  | 200,000 60,000 |  |  |  | ${ }^{\text {s }}$ \$ (3,750,00000 |  | x |
|  | Structure |  | OHS Safety Act Compliance: Bolurd + Wedge Earier | 25 | ${ }^{\text {New }}$ | 500 | 10,000.00 | 500 | 6,500.00 | \$ 5,000,000.00 | 3,450,00.00 | 1,550,000.00 | Funding shoudd be sufficent, | $\times$ |
| 8 | Stuctur siviotal |  |  |  |  |  |  |  |  | ${ }^{35,612,78,30}$ |  | (1397609570 |  | 36,16,88173 |
|  | 13\% Contingency |  |  |  |  |  |  |  |  |  |  |  |  | ${ }_{36,116,8817.73}$ |
|  | Technology |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Tectnology | Audio | Bowl DPS System (excluding network equipment \& infrastructure) | 15 | fair |  |  | ,821 |  | 70,000.00 | 180,000.00 | (110,000 00) | Note: Costing pulled from WJHW Report August 30Rev 1 Draft did not align with baseline values CAA ICON adjusted baseline value from 2019 report and escalated ( $10 \%$ each year from 2 years) Recent benchmarking by CAA ICON has experienced the Technology cost center to have been th <br> most volatile in terms of both accurate cost projections and supply change impacts to projects. |  |
| 2 | Technology | Audio | Terace Level Speakers 8 Amps | 15 | fair |  |  | 125,206 |  | 470,000.00 | 1,320,000.00 | (850,000.00) | Note: Costing pulled from WJHW Report August 3 ORev 1 Draft did not align with baseline values CAA ICON adjusted baseline value from 2019 report and escalated ( $10 \%$ each year from 2 years) Recent benchmarking by CAA ICON has experienced the Technology cost center to have been the <br> most volatilie in terms of both accurate cost projections and suppily change impacts to projects. |  |
| 3 | Technology | Audio | Cub Level Speakers \& Amps | 15 | fair |  |  | 143,469 |  | 525,000.00 | s 950,400.00 | (425,400,00) | Note: Costing pulled from WנHW Report August 30Rev 1 Draft did not align with baseline values CAA ICON adjusted baseline value from 2019 report and escalated ( $10 \%$ each year from 2 years) Recent benchmarking by CAA ICON has experienced the Technology cost center to have been the most volatile in terms of both accurate cost projections and supply change impacts to projects. |  |
| 4 | Tectnology | Audio | ${ }^{\text {Loge e evel Speakers } 8 \text { A Ams }}$ | 15 | Fair |  |  | 199,65 |  | 550,000.00 | 1,082,400.00 | (532,400,00) | Note: Costing pulled from WHHW Report Ausust 30 Reve 1 Draft did not ligig with baseline values CAA CON adiusted basesline value foom 2019 reportand escalted (10\%, each year fom 2 Years) <br>  |  |
| 5 | Technology | Audio | Field level Speakers \& Amps | 15 | fair |  |  | 214,928 |  | 600,000.00 | s 1,108,800.00 | (50, 800,00) | Note: Costing pulled from WHHW Report August 3 ORev 1 Draft did not align with baseline values CAA ICON adiusted baseline value from 2019 report and deccalated ( $10 \%$ each year from 2 years) most volatile in terms of both accurate cost projections and supply change impacts to projects. |  |
| 6 | Technology | Audio | Conduit C Caling for Speaker System | 15 | Varies |  |  |  |  | 1,200,000.00 | \$ 1,800,000.00 | (500,00000) | Note: Costing pulled from WHHW Report August 3 ORevev D Dratid did not alig w with baseline values CAA CoN adiusted baseline value foom 2019 report and escalated (10\% each year from 2 years) most volatile in terms of both accurate cost projections and supplyy change impacts to porojects. |  |
| 7 | Tectnology | Audio | Mixing Console | ${ }^{12}$ | good |  |  |  |  | 60,000.00 | 48,000.00 | s 12,00000 | Note: Costing pulled from W.HW Report August 30 Reve 1 Draft did oto align with baseline values <br>  <br>  |  |

## MATRIX COMPARISON: BASELINE VALUES AND ASSUPMTIONS



## MATRIX COMPARISON: BASELINE VALUES AND ASSUPMTIONS



## MATRIX COMPARISON: YEAR 1-4 (2023-2026)

|  |  |  |  | $\mathrm{csal}_{\text {cpl }}$ |  | 10\% |  | 10\% |  | 4\% |  | 3\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | Grouping | Subategor 1 | Subategor 2 | Estimated Cost per occurrence in FY 2022 Dollars | Estimated Cost per occurrence in FY 2022 Dollars | vear 1 | can coonvear 1 | vear 2 | canconvear 2 | vear 3 | canconvear ${ }^{\text {a }}$ | vear 4 | canconvear 4 |
|  | ranhectur \& A netior |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | erior | Repace Transtuent Panes @ Outiedd | 5,320,000.00 | s 10,597,950,00 | s - |  | s |  | s - |  | s - |  |
|  | Arstiectur 1 Inteior | Exerer | Replace Exxsinges Gass Entry oors | 000.00 | s $\quad 560.000 .00$ | s - |  | 677,60.00 s | s 677,60.00 | s |  | s . |  |
|  | ${ }^{\text {architecture }}$ Interior | Exerior | Polace lnsulated Glazing ss Neededed Sealants) | 2,500,000.00 | s 10,587,36000 | s - |  | 5 - |  | s - |  | s - |  |
|  | Architecture \& Interior Finishes | erior | Repace Entr/Screening Canopies | 790,000.00 | s 790,00000 | ${ }^{5} \quad 869.000 .00$ S | \$ 869,000.00 | s . |  | s . |  | s . |  |
|  | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Exeteior | Replace e urrain Wala to Otfield | 730,000.00 | s $\quad 2.850,00000$ | s - |  | s . |  | 918,632.00 | 3,586,400.00 | s |  |
| 6 |  | Extefior | Uodate T algatenus niffastucture | 1,020,000.00 | s 1,020,00000 | s |  | 5 . |  | s . |  | 1,322,075.04 | \$ 1,322,075.04 |
|  |  | Senice evel | Uograd Seasonal Enploye locker Room Facilies | 1,050,000.00 | s 1,55,000.00 | s - |  | s |  | s . |  | 5 . |  |
| 8 |  | Senice level | Upgade Unpire locker foom Space | 37,000.00 | s $\quad$ 600,000.00 | s . |  | 5 . |  | s . |  | s |  |
|  | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Serice evel | ${ }^{\text {Group Space }}$ | 5,364,975.00 | s 5,364,75.00 | s - |  | 5 . |  |  |  | 5 . |  |
| 10 |  | Field le | Sensory foom | .000.00 | \$ 400,000.00 | 5 488,00.00 ${ }^{\text {s }}$ | \$ 488,00.00 | s |  | s . |  | s . |  |
|  |  | Fied devel | Replace Seats- Fixed | 1,200,000.00 | s 1,681,13000 | \$ ${ }^{1,320,000.00}$ S | \$ 1,889,243.00 | s |  | s . |  | 5 . |  |
|  |  | Fied devel | Replace Seats - -leachers | 100,000.00 | s 100,000.00 | s |  | 5 |  | s - |  | 129,615.20 | 129,615,20 |
|  | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | fied evel | Infrastructure Replacement at E/W corner concourses | 2,750,000.00 | s 3,150,00000 | s - |  | s |  | s - |  | 5 . |  |
| 14 | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | ${ }^{\text {Fiedd Level }}$ | Infrastructure replacement on concourse behind home plate | $900,000.00$ | s ${ }^{\text {924,000.00 }}$ | 5 990,000.00 5 | \$ 1,016,400.00 | 5 |  | s |  | s |  |
|  |  | ${ }^{\text {Fiedd Level }}$ | General Concourse Infastruture Repolacement | 3,500,000.00 | s $\quad$ 7,621,71900 | s |  | 5 |  | s . |  | $5 \quad$. |  |
| 16 |  | Fied devel | Fied level Ugrades found | 3,420,000.00 | s 4,560,00000 | s |  | s 4,138,200.00 5 | s 5,517,60000 | s |  | s |  |
| 17 | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | fried | Reail Space Upgrades | 1,250,000.00 | s 1,250,00000 | s |  | 5 |  | 5 |  | s |  |
| 18 | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | ${ }^{\text {Loge evel }}$ | Renovate Peess box | 1,500,000.00 | s 1,007,50000 | s |  | 5 |  | s |  | s |  |
| 19 |  | Loge evel | Replace Seats | 1,860,000.00 | s 2,633,10000 | s |  | s |  | s |  | ${ }^{2,410,84272}$ | 3,412,949.68 |
| 20 | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Log | General Concouse infasturutur Replace | 3,500,000.00 | 5 6,149,33000 | s |  | 5 |  | 5 |  | s |  |
|  | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Cub bevel | Cub evel Upgrades (lunge, sute, egeends Slub) | 11,500,000.00 | s $\quad$ 20,982,845,55 | s |  | s |  | s |  | $s$ |  |
| 22 | $\begin{aligned} & \hline \text { Architecture \& Interior } \\ & \text { Finishes } \\ & \hline \end{aligned}$ | Cub evel | Conierence Space Upgrades | 1,750,000.00 | s 1,479,50,00 | s |  | s |  | s |  | s |  |
| 23 | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Terace | Repacae Seats | 1,970,000.00 | s 2,10,77000 | s 1,08,500.00 | \$ 1,204,923,50 | s 1,191,80.00 ${ }^{\text {s }}$ | 1,325,415,55 | s |  | $s$ |  |
| 24 | Architecture \& Interior Finishes | Terace level | Reta | ${ }^{215,000.00}$ | s 217,50000 | s |  |  |  | s |  | $s$ |  |
| 25 | $\begin{array}{\|l} \hline \text { Architecture \& Interior } \\ \text { Finishes } \\ \hline \end{array}$ | Terace level | Infrastructure Replacement at E/W corner concourses | 3,000,000.00 | S 3,460,00000 | s |  | s |  | s |  | 1,94, 228,00 | 2,242,32.26 |
| 26 | $\begin{aligned} & \text { Architecture \& Interior } \\ & \text { Finishes } \end{aligned}$ | Terace evel | General Concourse liffastucture Reppaement | 2.440,000.00 | s 3,686,47400 | s |  | s |  | s |  | s - |  |
| 27 | Architecture \& Interior Finishes | Sibnge | Wayfining | 3,180,000.00 | s 3,180,00000 | \$ 3,498,000.00 ${ }^{\text {s }}$ | \$ $\quad$ 3,498,000.00 | s |  | s |  | 5 - |  |
| 28 | Architecture \& Interior Finishes | Sustainabily | Reevcling and Soring facily | 2,680,000.00 | s $\quad 2,63,000000$ | ${ }^{\text {s }} \quad 2.8893,0000005$ | \$ 2,883,000.00 |  |  |  |  | $s$ - |  |
|  | Archicectre E Inetio | Inises sutiotal |  | ${ }_{64} 6.8099975 .50$ | 100,764,43, 65 | s 11,137,50000 | ${ }^{11,81,4,56,50}$ | ${ }_{6007 / 85000}$ | 7,520,615,55 | ${ }_{913,63200}$ | 3,566,400.0 | ${ }_{5} 806076096$ | 7,106.982.88 |
|  | ${ }^{15 \%}$ contingency |  |  | s ${ }^{\text {s, }}$ | s $\quad 15$ | ${ }^{\text {s }}$ | ${ }^{1,772,184,98}$ | ${ }^{901,147.50}$ S | ${ }^{1,128,092,38}$ | 137,794.80 | 537,66.00 | 87,014,14 | 1,066,077.43 |
|  | Architectue E Inteior | S. T atal $15 \%$ |  | ¢ 74,53, 4,77125 | ¢ 115,87911020 | ¢ 12880,12500 | ¢ ${ }^{13,58675148}$ | ¢ 6908797950 | ¢ 8,64770823 | ¢ 1.0564268 so | \% 4,224,40600 | 7,7 |  |

## MATRIX COMPARISON: YEAR 1-4 (2023-2026)



## MATRIX COMPARISON: YEAR 1-4 (2023-2026)



## MATRIX COMPARISON: YEAR 1-4 (2023-2026)



## MATRIX COMPARISON: YEAR 1-4 (2023-2026)



MATRIX COMPARISON: YEAR 1-4 (2023-2026)


## MATRIX COMPARISON: YEAR 5-9 (2027-2031)



## MATRIX COMPARISON: YEAR 5-9 (2027-2031)



## MATRIX COMPARISON: YEAR 5-9 (2027-2031)




## MATRIX COMPARISON: YEAR 5-9 (2027-2031)



## MATRIX COMPARISON: YEAR 10-14 (2032-2036)



## MATRIX COMPARISON: YEAR 10-14 (2032-2036)



## MATRIX COMPARISON: YEAR 10-14 (2032-2036)



## MATRIX COMPARISON: YEAR 10-14 (2032-2036)



## MATRIX COMPARISON: YEAR 10-14 (2032-2036)



MATRIX COMPARISON: YEAR 10-14 (2032-2036)


## MATRIX COMPARISON: YEAR 15-18 (2037-2040)



## MATRIX COMPARISON: YEAR 15-18 (2037-2040)

|  |  |  |  | ${ }_{\text {Us6 }}$ | cancon |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Groung | Subategov 1 | Subsategor 2 |  |  |  | veris | canconver 15 | Vear 16 | canconverat 16 | Vear 17 | canconverrip | vear 18 | canconver 18 | Totat cost | Totat cost | Data |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Me.f | Meetanaical | Hotweeresoles | 80,00000 ${ }^{\text {a }}$ | s 800,0000 |  | - |  | s . |  | s |  | s - |  | 2,17205900 | 1.171, 5 S500 |  |
|  | Me.f | Neesanieal | Basder Tones | 50,0000 | S ${ }^{300000000}$ |  | ${ }_{17,94178}$ s |  | ${ }_{18,8003}$ S | s 110.88017 | s |  | s |  | ${ }_{\text {S3, } 21000}$ | 333,9600 | (250205091 |
|  | Me.f | Meenamial | Centrifesi weerchiles | 750,0000 | 1.50000000 |  |  |  | $5 \quad$. |  | s |  | s |  | ${ }_{73,953.366}$ | 1,487,186, | (73, $5_{93} 36$ |
|  | Me.f | Meemancal | Coning 7 owes 8 Conotesese Pums | 70,00000 | s 700,0000 |  | . |  | 1293,601989 | S 1223,60198 | s |  | s |  | 1,293,60198 | ${ }^{123,3,501988}$ |  |
|  | me.f | Meemanieal |  | 110,00000 | s 20.000000 |  |  |  | ${ }_{1429392}$ | S ${ }^{177,80023}$ | s |  | s . |  | s $38,10,45$ S | ${ }^{355,50077}$ |  |
|  | MEPF | Hvac Cuiment |  | 295,50000 | s ${ }^{14,98,1,381800}$ |  |  |  | s |  |  |  | s |  | s $\quad 1246923,38$ S | ${ }^{18,575.50154}$ | ${ }^{47,2,8,877,55}$ |
|  |  |  |  | ${ }^{80} 800000$ | S ${ }^{81} 10000000$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | ${ }^{80} 00000$ | S 6883705000 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Afus $8.4 .0009 .4 .000 \mathrm{~cm} / \mathrm{s}$ |  | 3322000000 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Afu Ooer 2 2000 com S |  | 2.581 .88000 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Afto over 5 Soond |  | 45550000 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Atus Sover 1.000 cm / |  | ${ }_{323,50000}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Aftuores sooc cru |  | ${ }_{2} 25.595000$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Afusacmis |  | ${ }^{37,40000}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Exhastsans | ${ }^{40,00000}$ | S 355 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Pasageata Conis | 8 80,0000 | S ${ }^{930000000}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | fencoiv nits | s 40,0000 ${ }^{\text {a }}$ | S 27.50800 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 5 25,50000 | S ${ }^{1449000000}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | S 100,0000 | s 1000000 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Pum | 48000000 | ${ }^{20258000}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Mep.f |  |  | 3,000.00000 | S ${ }^{2505000000}$ |  |  |  |  |  | s |  | s |  | 3,532716,00 | 2973,6666 | ${ }^{55900938}$ |
|  | 8 Mep.f | Elential |  | $5 \quad 3.300000000$ | S 3,000,00000 |  |  |  |  |  | s |  | s |  | s 4,925,7932 | 4,925,7992 |  |
|  | M Me.f | Eleatral | Enegencer Generatos | s 1200.00000 | s 3,30000000 | s |  |  | s |  | s |  | s - |  | s $1.921,681803$ | ${ }_{4}^{4.854,0550}$ | [29912,470909] |
|  | 10 Mep.f | teatial | Low Volige oistratuion Trantomes | ${ }^{1.0000000000}$ | S $\quad 1.000000000$ | s |  |  | s - |  | s |  | $5 \quad$. |  | 1,7,6,52.19 | 1,77.552214 |  |
|  | 12.10 | Eeerical |  | ${ }_{1}^{12000000000}$ | s $\quad 200000000$ | s |  |  |  |  | s |  | s |  | 1,7,6,5219 |  |  |
|  | 12 mefer | Eleatral |  | 4 400000000 | S $\quad 11.582,684000$ |  | ${ }^{238683143030} 5$ | 5 $6.825,87495$ |  | + ${ }^{3,579793561}$ | s |  | s |  | 8464,303535 | $5 \quad 24,38688658$ | (5932,59124] |
|  | Mef. |  | Exeforos Ste eleming |  | ${ }^{355,00000}$ |  |  |  |  |  |  |  |  |  | $s$. | ${ }^{375,37500}$ | ${ }^{\text {(13, } 3,35000}$ |
|  | 13 Mef.f | Eeatrial | Untinis Conros | 800,000 ${ }^{\text {a }}$ | S ${ }^{\text {sonomoso }}$ | s |  |  |  |  | $s$ |  | s |  | s 972,90000 | ${ }^{922,9090000}$ |  |
|  | 14 mef. | Etertral | Le Sopors Lituring | 2.000 .00000 | S $\quad 2000000000$ | s |  |  |  |  | s - |  | 3,921,02393 |  | S 3 3,210,0239 |  |  |
|  | 15 Mep.f | Eeatral |  | s 125,0000 5 | s 125,0000 | s |  |  |  |  | s |  | s - |  | s 13750000 |  |  |
|  | 15 Miper | Pumbing | Renovate estrons: Severe eleel |  | 2.19300000 | s |  |  |  |  | s |  | s |  | $5 \quad$ - | 2 282, 61.13 |  |
|  | 16 mep.f | Pumbing |  | S 2,10000000 | s $\quad$ 6,90971000 | s | - |  | s - |  | 5 - |  | s - |  | S 2,72,99920 | 8,24,401.14 |  |
|  | $7{ }^{18}$ Me.f | Peumbing | Renowetesestooms Loge eleed | s 277000000 | s ${ }^{6231138000}$ | s |  |  | s |  | s |  | s |  | s 3,617,949898 | ${ }_{8,31878863}$ | 4.700883735 |
|  | 18 Mep.f | Pumbing |  | ${ }^{5} \quad 90000000$ | S $\quad 2,156,730000$ | s |  |  | s |  | s |  | ${ }^{1,990909074}$ | $4{ }_{4}^{42,44771}$ |  | ${ }_{6} 693595939$ | ${ }^{\text {(37729203230 }}$ |
|  | 19.0 me.f. | Pumbing | Renovate estroms Tererace leex | $5 \quad$ 3,50500000 | S 5 551,08000 | s | - |  | s - |  | s |  | s - |  |  | ${ }_{7}^{7,809545094}$ | (3,590,7017] |
|  | 20 Me.F. | Peumbing | Sump emms | S 10000000 | S ${ }^{120,000000}$ |  | 17,94178 ${ }^{\text {s }}$ | $5 \quad 21,50.13{ }^{\text {s }}$ | 5 |  | s |  | S - |  |  | ${ }^{90886625}$ |  |
|  | ${ }_{21}$ Mepr | Pumber | Oomesiticuser teetes | s 60,0000 | S 80,0000 |  | 10,75607 ${ }^{\text {s }}$ | 5 14,35322 5 |  |  | s |  | s - |  | s ${ }^{36,378.13}$ S | 48,50417 | (12,265094) |

MATRIX COMPARISON: YEAR 15-18 (2037-2040)


MATRIX COMPARISON: YEAR 15-18 (2037-2040)


MATRIX COMPARISON: YEAR 15-18 (2037-2040)


MATRIX COMPARISON: YEAR 15-18 (2037-2040)


## SUMMARY BY SYSTEM



Projected Capital Cost Through Lease Reneval \$ 261,515,355 61\%
Projected Capital Cost After Lease Renewal \$ $166,862,754$


## Other Considerations

## OTHER CONSIDERATIONS



## OTHER CONSIDERATIONS

|  | SF/Quantity | Cost Range: Baseline Values Per Occurrence |  |  |  | Notes | Potential Funding Source |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Base Value (Low) |  | Base Value (High) |  |  | Operational | $\begin{gathered} \text { Vendor/ } \\ \text { MLB } \end{gathered}$ | Unknown |
| Technology |  | \$ | 4,483,000 | S | 8,960,000 |  |  |  |  |
| Wi-Fi ReplacementUpgrade |  | \$ | 1,000,000 | \$ | 3,000,000 | Note: Currently funded and maintained by MLB, however contract terms over 18 years may change | x | x |  |
| TV Additions: Concession Digital Signage | 100 | s | 250,000 | \$ | 320,000 | Scope to Include: Addition of 4 TVs per stand with Digital Signage Capabilities/ IPTV <br> Note: Current trends are to replace static concession signage with Digital Signage/IPTV and Menu Boards. | X | X |  |
| TV Additions: Public Concourses and Clubs | 200 | s | 500,000 | s | 640,000 | Scope to Include: Addition of 200 TV to the public concourses/clubs. <br> Note: Current trends are to increase TVs on public concourse and incorporate Digital Signage/IPTV that allow fans to watch the game while not in their seat and incorporate advertising and branding opportunities |  |  | X |
| Additional IDF's + Additional Cable Tray | \$ 3 | \$ | 800,000 | \$ | 2,000,000 | Scope To Include: Temperature controlled enclosures with new cable tray and wire pulled to location. Assume 3 locations. <br> Note: This scope of work was called out in the AFFCA report, but was not included in the pricing matrix. | X |  |  |
| Upgrade Fiber Backbone |  | \$ | 313,000 | \$ | 1,000,000 | Note: Fiber Backbone Replaced in 2019, however venue has continued to install additional each year . | X |  |  |
| LAN Core and LAN Access Switches |  | \$ | 1,620,000 | \$ | 2,000,000 | Note: Switches are replaced on average every 5-7 years. Some of system has been funded through operational budgets | X |  |  |
| Roof |  | \$ | 3,601,725 | \$ | 7,402,900 |  |  |  |  |
| Roof Maintenance Recommended by Hardesty \& Hanover |  | \$ | 2,704,000 | \$ | 3,812,000 | Note: Costing reported in Hardesty \& Hanover report entitled Miller Park Engineering Support Services Long Term Maintenance Plan dated Revised February 2019 (however report notes updates from November 2019). It is unclear if these figures we included in the AFFCA Matrix. |  |  | X |
| Cylindrical Bearing Assemblies + Rehab | 8 out of 10 | \$ | 672,000 | \$ | 1,104,000 |  |  |  |  |
| Expansion Bearing Assembly | 10 out of 10 |  |  |  |  |  |  |  |  |
| Wheel Assembly | 40 out of 40 | \$ | 560,000 | \$ | 746,000 |  |  |  |  |
| Rail Support System Inspection | 1 time | \$ | 39,000 | \$ | 52,000 |  |  |  |  |
| Rail Support System Repairs | 22,000 | S | 433,000 | \$ | 577,000 |  |  |  |  |
| Buffers | 10 | \$ | 110,000 | \$ | 147,000 |  |  |  |  |
| Roof Controls System PLC System | \$ 1 | \$ | 350,000 | \$ | 466,000 | Note: This work may have occurred in $2021-08$ (R1) for \$1.2M |  |  |  |
| Bogie Motor Drives |  | \$ | 300,000 | \$ | 400,000 |  |  |  |  |
| Paint of all Major Retractable Roof Mechanical Components | \$ 1 | \$ | 240,000 | \$ | 320,000 |  |  |  |  |
| Roof Membrane, Seals, Gutters |  | s | 897,725 | \$ | 3,590,900 | Note: This scope of work was called out in the AFFCA report, but was not included in the pricing matrix. Range assumes $5 \%-20 \%$ of AFFCA roof costs. |  |  | X |
| Concessions Infrastructure |  | s | 2,969,918 | S | 6,174,895 |  |  |  |  |
| Suite Food Service \& Appliance Equipment Replacement | 58,969 | \$ | 1,297,318 | \$ | 3,243,295 | Scope To Include: Serving Equipment, future upgrades to induction warming equipment |  | X | X |
| Concession Front of House Equipment Replacement | \$ 2,636 | \$ | 922,600 | \$ | 1,581,600 | Scope To Include: Soda Machines, Beer Taps, Fridges, Warmers, Ice Bins Note: Replaced in 2019. |  | X | X |
| Concession Point of Sale Replacement |  | \$ | 400,000 | \$ | 600,000 |  |  | X | X |
| Concession Portables |  | \$ | 350,000 | \$ | 750,000 |  |  | X | X |
| Total Cost |  | \$ | 35,555,688 | \$ | 62,445,345 |  |  |  |  |


| Total Combined Cost | Low Range |  | High Range |
| :--- | ---: | ---: | ---: |
| CAA ICON Capital Improvements Plan Projected Cost | $\$$ | $540,949,597$ | $\$$ |
| Other Consideration Projected Cost | $\$$ | $35,555,688$ | $\$$ |
| Total Projected Costs | $\$$ | $\mathbf{5 7 6 , 5 0 5 , 2 8 5}$ | $\$$ |
| Delta/Difference from VSG Total | $\$$ | $(148,127,176)$ | $\$$ |

## American Family Field

## Supplement

## PROJECTED CAPITAL IMPROVEMENT COST BY YEAR

CAA ICON Projected Capital Improvement Cost Based on VSG Established Frequency


## PROJECTED CAPITAL IMPROVEMENT COST BREAKDOWN (YEAR 1-8)

|  | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Field Level Seat Replacement $(\$ 1.3 \mathrm{M}-\mathrm{S} 1.8 \mathrm{M})$ <br> (\$1.3M-\$1.8M) | Field Level Suite Upgrade <br> (\$4.1-\$5.5M) | Replace Curtain Wall at Outfield (\$1.5M -\$3.5M) | TailgateHaus Infrastructure (\$1.3M) | Terrace Level Concourse Refresh (Portion) (\$2M-\$2.3M) | Employee Locker Room (\$1.4M) | Field Level Concourse Replacement (Portion) (\$7M-\$13M) | Replace Outfield Translucent Panels ( $\$ 10 \mathrm{M}-\$ 15 \mathrm{M})$ |  |
|  | Field Level Concourse Refresh <br> (Portion) <br> ( $\$ 1 \mathrm{M})$ | Terrace Level Seat Replacement (Portion) (\$1.\$1M-\$1.3M) | MEP Equipment Replacement $(\$ 3.7 \mathrm{M})$ | Loge Level Seat Replacement <br> (\$2.4M-\$3.4M) | $\underset{(\$ 4 \mathrm{M})}{\text { MEP Equipment Replacement }}$ | Field Level Retail Upgrade (\$1.7M) | $\begin{aligned} & \text { Press Box Renovation } \\ & \$ 1.5 \mathrm{M}-\$ 2.1 \mathrm{M}) \end{aligned}$ | Replace Insulated Glazing $(\$ 8 \mathrm{M}-\$ 15 \mathrm{M})$ |  |
|  | $\begin{aligned} & \text { Terrace Level Seat } \\ & \text { Replacement (Portion) } \end{aligned}$ (1M-\$1.2M) | MEP Equipment Replacement (\$3.6M) | Interior Lighting Replacement <br> (Portion) <br> $(\$ 2.4 \mathrm{M})$ | Terrace Level Concourse Refresh (Portion) (\$1.9M-\$2.2M) | Interior Lighting Replacement <br> (Portion) <br> (\$2.5M) | Pedestrian Plaza Concrete <br> Replacement (\$2M) | Loge Level Concourse Upgrade $(\$ 5 \mathrm{M}-8.7 \mathrm{M})$ | Field Level : Concourse Refresh (Portion) (\$2M-\$2.2M) |  |
|  | Recycling and Sorting $(\$ 2.89 \mathrm{M})$ <br> (\$2.89M) | $\|$Interior Lighting Replacement <br> (Portion) <br> $(\$ 2.3 \mathrm{M})$ | BAS Replacement (Portion) (\$1M) | MEP Equipment Replacement $(\$ 3.8 \mathrm{M})$ | Retractable Roof Left Field Fixed Panel (\$2.1M) | Concession Equipment (\$1M) | Club Level Upgrade (\$16M-\$29.7M) | Structural Steel Recoating (\$5.4M) |  |
|  | Wayfinding <br> (\$3.4 M) | BAS Replacement (Portion) (\$1M) | Escalator Modernization (\$5.8M) | Interior Lighting Replacement <br> (Portion) <br> (\$2.4M) | Concession Equipment (\$1M) | Retractable Roof Mechanized <br> System <br> (\$1.2M) | Terrace Level Concourse Refresh (Portion) ( $\$ 3.4 \mathrm{M}-\$ 5.2 \mathrm{M}$ ) | Pedestrian Plaza Concrete <br> Replacement <br> (\$2.2M) |  |
|  | MEP Equipment Replacement $(\$ 3.2 \mathrm{M})$ | Terrace Level Traffic Membrane Recoat (\$2.8M-\$4.8M) | Broadcast Compound Expansion (5\$M) | Service Level Restroom Renovation (\$2.8M) | Loge Level Restroom Renovation (\$8M) | Governmental and MLB Allowance (\$1.6 M) | $\begin{aligned} & \text { Boilers \& Chillers } \\ & \quad(\$ 1 \mathrm{M}) \end{aligned}$ | Video Surveillance Camera Replacement (\$4.3M) |  |
|  | Interior Lighting Replacement <br> (Portion) <br> (\$4M) | Video Display + Video Production (\$14M) | Scoreboard Control Room Infrastructure (\$1.1M) | Field Level Restroom <br> Renovation <br> (\$8M) | Governmental and MLB Allowance (\$1.6 M) |  | Terrace Level Restroom Renovation (\$7.8M) | Replace Fiberglass Roof Panels at Roof Line (\$8.9M) |  |
|  | BAS Replacement (Portion) (\$1M) | Elevator Modernization (\$4.4M) | Retractable Roof Left Field (\$1.3M) | Concession Refrigeration <br> Replacement (Partial) <br> (\$1.4M) |  |  | Pedestrian Plaza Concrete <br> Replacement <br> (\$2.1M) | Retractable Roof Mechanized System $(\$ 1.2 \mathrm{M})$ |  |
|  | DHS Safety Act- Bollards and Wedge Barrier (\$3.7 M) | Centerfield Right Retractable Roof $(\$ 1.3 \mathrm{M})$ | Club Level Restrooms Renovation ( $\$ 2 \mathrm{M})$ <br> (\$2M) | Retractable Roof Right Field (\$1.3M) |  |  | LED Graphic System Upgrade $(\$ 1.9 \mathrm{M})$ | Governmental and MLB Allowance ( $\$ 1.6 \mathrm{M}$ ) |  |
|  | Update Broadcast Infrastructure (\$2.9 M) | Concession Refrigeration Replacement (Partial) (\$1.4M) | Concession Refrigeration Replacement (Partial) (\$1.4M) | Retractable Roof Mechanized System $(\$ 1.6 \mathrm{M})$ |  |  | Outfield Snow Roof $(\$ 1.6 \mathrm{M})$ |  |  |
|  | Centerfield Left Retractable Roof ( $\$ 1.2 \mathrm{M}$ ) | Governmental and MLB Allowance ( $\$ 1.6 \mathrm{M}$ ) | Governmental and MLB Allowance (\$1.6 M) | Governmental and MLB Allowance ( $\$ 1.6 \mathrm{M}$ ) |  |  | Retractable Roof Mechanized <br> System <br> (\$1M) |  |  |
|  | Fire Protection Replacement $(\$ 2.4 \mathrm{M})$ |  |  |  |  |  | Governmental and MLB Allowance (\$1.6 M) |  |  |
|  | Governmental and MLB Allowance ( $\$ 1.6 \mathrm{M})$ |  |  |  |  |  | AV System (Portion) (\$1M) |  |  |
| Summary of List Projects | \$ 30,000,000 | \$ 40,800,000 | 38,800,000 | 29,800,000 | 21,500,000 | 8,900,000 | 76,000,000 | 54,600,000 | Total Projected Spend 2023-2030 |
| CAA ICON Report Total (High Range) | \$ 42,896,005 | \$ 54,499,657 | 49,326,160 | \$ 37,532,262 | \$ | 12,630,72 | \$ 91,701,883 | \$ 69,115,396 | \$ 386,843,173 |

[^2]Appendices

Appendix A

## A. REFERENCE DOCUMENTS LIST

## Click Here for Reference Documentation Link

| Topic | File Name | Title | Date |
| :---: | :---: | :---: | :---: |
| VSG Report | MKEBrewers 1 | Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040 + Attachment A | August 2022 |
| VSG Report | MKEBrewers 2 | Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040 Attachment B, C |  |
| VSG Report | MKEBrewers 3 | Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040 Attachment D,E,F,G |  |
| VSG Matrix | AFF 18 Year Capital Plan 11-29-22 DRAFT |  | 11/29/2022 |
| Architectural Drawings PDF A0-01-A10-25 |  | Architectural Drawings A0-01-A10-25 (quantity 427) | 2/3/1997 |
| Irwin Seat Replacement Proposal | 8-25-2021 Chair Update Options Proposal - Copy | 8-25-2021 Chair Update Options Proposal - Copy | 8/22/2021 |
|  | Copy of 07-29-19 50712SO202202 Proposal Letter (002) | Miller Park - Club and Suite Seating Milwaukee, WI | 7/29/2019 |
|  | 2022-2012 SRF projects |  |  |
| SRF Budget | 2022-2012 SRF projects | 2022-2012 SRF projects | 10/19/2022 |
| Johnson Controls: Security Camera Replacement | ISPM Package Scope and Price 07272018 <br> FINAL AC | INTEGRATED SYSTEMS PROGRAM MANAGER For Miller Park Video Management System Upgrade PHASE II ROM Budget - Iteration \#2 | 7/27/2018 |
| Lerch Bates: Elevator/Escalator Deficiency List | Lerch Bates_Kone Audit Followup_02 062018 | Miller Park Maintenance Audit Report LB Project No. 0100011131-01 | 2/6/2018 |
| Building Asset list | Assets by Building |  |  |
| Lerch Bates: Elevator/Escalator Maintenance List | Miller Maintenance Audit Report_Final_Lerch Bates 2016 | MAINTENANCE AUDIT SURVEY REPOR | 12/19/2016 |
| Sealants / Expansion Joints | Caulk joints.XLS | Caulk joints 2008,2011,2017-2022 |  |
| Sealants | RFP_Sealant Joint Repairs_2019 | RFP: SEATING BOWL SEALANT REPAIRS | 8/2/2019 |
| Firestone Roof Warranty | roof warranties | Firestone Warranty Contract Summary | 4/1/2019 |
| Lease | MBBC Second Amended and Restated Miller Park Lease Agreement with SWPBPD Executed | Second Amended and Restated Miller Park Lease Agreement | 11/11/2014 |
| Mechanical Schedules | M0.1-M0.10 | Mechanical Schedules (Quantity 11) | 12/15/1997 |
| HKS | HKS Stadium and Ballpark Projects | HKS Stadium and Ballpark Projects |  |
| Mortenson | Mortenson - Review of Segregated Reserve Fund Master Plan to SEWPBPD 030119 | Review of Segregated Reserve Fund Master Plan | 3/1/2019 |
| WJHW - AV Assessment | WJHW Report August 30_rev 1 draft |  | 8/30/2019 |
| Architectural Plans | AFF reference plans |  | 5/1/1997 |
| Fire Alarm System | DIS-122259342 Approval letter | Fire Alarm Upgrade/Replacement Conditional Approval | 2/18/2022 |
| Fire Alarm System | DIS-122259342 Approved plans.pdf | Guetzke \& Associates Fire Alarm Upgrade Drawings | 12/8/2021 |
| VSG | AFF capex takeoffs 12-20-22 |  | 12/20/2022 |
| VSG | AFF mech breakouts |  | 12/20/2022 |

## Appendix B

## B. VENUE SOLUTIONS GROUP/CAA ICON QUESTIONS/RESPONSE MATRIX

Questions in review of Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040


## B. VENUE SOLUTIONS GROUP/CAA ICON QUESTIONS/RESPONSE MATRIX

Questions in review of Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040

| \# Document | Line/Page |  | Question | Topic | Responder |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{13} \text { Capital Plan }$ |  |  | Group Space -What is this? <br> -Why is happening in year $13 / 14$ ? -Why is it split between 2 years? | Architectural | vs6 |
| Capital Plan | 9 | R | An amenity to attract group business, which is an integral part of the business model in our market, as well as keeping the ballpark fresh and relevant in future years. (75\%) |  |  |
| ${ }_{14}$ Capital Plan | 10 | a | Sensory Room <br> - Is this a MLB Requirement? | Architectural | vs6 |
| Capital Plan | 10 | R | No, but its now a standard design feature to address the needs of the fan base |  |  |
| ${ }_{15} \text { Capital Plan }$ | 12 | Q | Parking Lots <br> -Is Parking Lot Light Relamping to LED included in your costing? If so, what line item? Interior LED lighting upgrades budget could be used -What is the quantity assumed? TBD <br> -Was there feedback from the venue as to if the light levels are adequate around the site? Are there any dark areas? It could be improved | Site / Electrical | vs6 |
| Capital Plan | 12 | R | See above |  |  |
| ${ }_{16}^{\text {Capital Plan }}$ |  | Q | Field Level Seats <br> -Are they original? <br> - How did you come up with the determination that they are "Good"? <br> -If Good, why are you showing replacement Year 1? <br> -Why are the Field Level Bleachers done in 2026? Why not do them at same time as Field seat replacement? | Seating | vs6 |
| Capital Plan | 17 | R | The hardware and standards are being replaced for all field level seats currently. The plastic seat backs and bottoms will be reused as they are still in good condition as well as the few sections of bleachers on Field Level |  |  |
| Capital Plan <br> 17 |  | a | Seat Replacement <br> - Why did you approach the seat replacement spacing it out by level during different years? <br> - In your Seat Replacement number are you doing anything to the concrete or sealants in the bowl? <br> -If yes, what is that and where is that cost captured? | Seating | vsG |
| Capital Plan | 17 | R | The seat replacement plan was predetermined in the District's master plan. The vendor, Irwin, has struggled to complete one level (approximately 12,000 seats) in one off season. It would be too much of an undertaking for Irwin to accomplish more than one level of seat replacements in an off season. The club level seat replacement ( 3300 seats) extended beyond what would have been Opening Day in 2020. |  |  |
| 18 Capital Plan |  | a | Infrastructure Replacement at E/W corner concourses + Home Plate <br> -What is included in this scope? Refresh of space with branding, lighting, finishes <br> -Have these been recently been refreshed (new paint, flooring)? <br> -Why have Field Level Concourses been separated as such? Corners are a unique area due to their volume and create opportunity for improved fan experience | Architectural | vs6 |
| Capital Plan | 19-21 | R | See above |  |  |
| ${ }_{19}$ Capital Plan | 22 | a | Field Level <br> - Is pricing for the Hydro Therapy Room and Weight Room Equipment Accounted for? If so what line item? | MEP//FFE | vs6 |
| Capital Plan | 22 | R | Clubhouses assessed but have not been included in cap ex |  |  |
| ${ }_{20}{ }^{\text {Capital Plan }}$ |  | a | Field Level Upgrades <br> -What spaces are included in the scope? Suites <br> -Was a general SF multiplier applied or was it separated by space type? General multiplier <br> -If different multiplier please provide breakout? <br> -Frequency is noted as 12 Years but this is only occurring once in the Capital Plan, was that intentional and why? Collective decision to have one replacement | Architectural | vs6 |
| Capital Plan | 22 | R | See above |  |  |

## B. VENUE SOLUTIONS GROUP/CAA ICON QUESTIONS/RESPONSE MATRIX

Questions in review of Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040

| \# Document | Line/Page |  | Question | Topic | Responder |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $21 .{ }^{\text {Capital Plan }}$ | 23 | Q | Retail Space Upgrade <br> -Where is this on Field Level ? <br> -Frequency is noted as 10 Years but this is only occurring once in the Capital Plan, was that intentional and why? | Architectural | VSG |
| Capital Plan | 23 |  | There are two primary Team Store locations on Field Level in addition to two "pop un" locations. The upgrade could take the form of an additional store or expansion of an |  |  |
| $22^{\text {Capital Plan }}$ | 24 | $a$ | Renovate Press Box <br> -What is included in the scope? Any Millwork? Modest refresh of space, including millwork -Does current space allocation meet MLB Requirements? Yes <br> -If no, does the costing include what is needed to meet requirements? | Architectural | vsG |
| Capital Plan | 24 | $R$ | See above |  |  |
| 23 Capital Plan | 26 | 0 | General Concourse Infrastructure Replacement <br> -What is included in this scope of work? Could include concession graphics, restroom finishes, concourse branding, more power outlets, etc. <br> -Are Concession Finishes included in this scope of work? TBD <br> -If yes, does that include Front of House and Back of House FOH | Architectural | VSG |
| Capital Plan | 26 | R | See above |  |  |
| 24 Exhibit B | 4 | 0 | Comment \#24 - Concourse <br> -"Barley code compliant" what is that in reference to height clearance? | Architectural | vs6 |
|  | 4 | R | Yes, head height clearance |  |  |
| ${ }_{25}{ }^{\text {Exhibit B }}$ | 26 | 0 | Mechanical Duct? <br> -The report mentions the low hanging duct work, is there a recommendation or price to relocate? | Architectural | VSG |
|  | 26 | R | No recommendation, just an observation |  |  |
| ${ }_{26}{ }^{\text {Capital Plan }}$ | 27 | 0 | Club Level Upgrades - What is included in this scope (Suites and concourse?) | Architectural | vsG |
| Capital Plan | 27 | R | Suites, concourses and clubs |  |  |
| 27 Capital Plan | 28 | a | Conference Space Upgrades <br> -Is Millwork Included? TBD <br> -Is FFE Included? TBD <br> - How is the Technology in this Space Captured? Overall technology budget | Architectural/AV | vsG |
| Capital Plan | 28 | R | Overall refresh of space that would include new furnishes |  |  |
| 28 Capital Plan |  | a | offices <br> -Are There Offices at the Venue Yes <br> -How are they being accounted for? MBBC projects | Architectural | SG |
| Capital Plan | 28 | R | See above |  |  |
| $29^{\text {Capital Plan }}$ |  | $a$ | -What is included? Concessions? Could include concession graphics, restroom finishes, concourse branding, more power outlets, etc. -Why stagger over 3 years? | Architectural | VG6 |
| Capital Plan | 32 | R | See above |  |  |
| ${ }_{30}{ }^{\text {Capital Plan }}$ | 33 |  | Wayfinding - internal building signage and wayfinding included -Does this just include static directional on the concourse? primarily -Does this include any exterior site signage? No -Does the venue have any environmental graphics? Are they included? Yes and Yes -Are the Ad panels included in this price? TBD <br> -The report recommends upgrading to digital signage is this captured in the report? TBD -If yes, where and what are the quantities? TBD | Architectural | vs6 |

## B. VENUE SOLUTIONS GROUP/CAA ICON QUESTIONS/RESPONSE MATRIX

Questions in review of Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040

| Document | Line/Page |  | Question | Topic | Responder |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Capital Plan | 33 | R | See above |  |  |
| $31{ }^{\text {Capital Plan / Report }}$ | 34/pg16 | a | Zero Waste <br> - In the report on Page 16, you talk about Zero Waste was there any FFE cost included in you assessment to support this effort? <br> - Is this Client Request or MLB Mandate? | Architectural | vs6 |
| Capital Plan / Report | 34/pg16 | R | No, focus is a sorting space in dock, client request but could become a mandate |  |  |
| 32 Capital Plan | 34 | a | Zero Waste <br> -What is assumed in the cost associated with the Recycling and Sorting Facility ? -What is the reasoning for this to occur in Year 1 / 2023 | Architectural | vS6 |
| Capital Plan | 34 | R | Not completely defined but dedicated space will be needed for sorting |  |  |
| ${ }_{33}{ }^{\text {Capital Plan }}$ | 36 | Q | Boilers <br> $\bullet$ Given the concern around Boiler 4 noted in the report, why is replacement at year 5 and not sooner. | MEP | vSG |
| Capital Plan | 36 | R | There are currently no operational issues with the boiler |  |  |
| SRF Report | 10 | a | Boiler <br> - Which Boiler was Replaced in 2018 |  | v5G |
| 34 SRF Report | 10 | R | All four boilers are original to the construction of the Ballpar, , burners have been replaced |  |  |
| $35^{\text {Report }}$ | 18 | a | Boilers <br> - Has the venue had a formal analysis done on the Boiler System? | MEP/Boiler | vSG |
| Report |  | R | What type of analysis? |  |  |
| $3{ }^{\text {Report/ Exhibit B }}$ | 18/15 | a | Boiler 4 <br> -What are the issues with Boiler 4, was there a past incident with the Boiler? <br> -Page 12, Photo 36 What was done after the incident - As a back up Boiler, how often is it being run/used? | MEP/Boiler | vS6 |
| Report/ Exhibit B | 18/15 | R | No known operational issues with the boile a t this time so this should be revised |  |  |
| ${ }_{37}{ }^{\text {Capital Plan }}$ |  | a | Cooling Towers \& Condenser Pumps <br> - Given the component repairs to the cooling tower, is it realistic the unit will last another 15 years without any large component replacements? <br> $\bullet$ How is the housing? was any component rusting observed? |  | vs6 |
| Capital Plan | 39 | R | According to the vendor that recently rehabbed the unit, 15 years of useful life is realistic |  |  |
| 38 Capital Plan |  | Q | CRU's, AHU's, Fans, Packaged Units, FCU's, VAV's, VFD's \& Pumps <br> - Do you have quantities of each? Yes <br> - How were each of these priced? As a group <br> - The report notes a complete replacement of all of these system, is that accurate, just AHUs ,or are come just component replacement? Total replacement as worst case scenario <br> -Does your pricing take into account and units that have been replaced? Timing of replacement based on condition at time of assessment | MEP | vSG |
| Capital Plan | 41 | R | See above |  |  |
| ${ }_{39}$ Capital Plan/Report | 41/pg7 | a | IT Rooms <br> -Were the packaged units in the AV and IT rooms observed? Yes <br> -Are they adequately sized? If not does your pricing reflect what is needed? Yes, based on current need <br> - Does your pricing account for the units they replaced in 2022,2019? Replaced as needed | MEP | v56 |
| Capital Plan /Report | 41/pg7 | R | See above |  |  |
| ${ }_{40}{ }^{\text {Capital Plan }}$ | 42 | a | BAS <br> -Does the venue have and existing system? If yes, what is the functionality of the current system? What components are being controlled? - Is this a like for like replacement of their existing system, or would more features, control points be added? $\bullet$ What specific BAS scopes and features are included in this number? | MEP | vSG |
| Capital Plan | 42 | R | Our BAS coverage is comprehensive but well beyond it useful life. The anticipated replacement would be in-kind |  |  |

## B. VENUE SOLUTIONS GROUP/CAA ICON QUESTIONS/RESPONSE MATRIX

Questions in review of Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040

| \# ${ }^{\text {D }}$ Document | Line/Page |  | Question | Topic | Responder |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 41 Capital Plan | ${ }^{43}$ | a | Electrical <br> -Was the Venues PM schedule reviewed? <br> - What preventative maintenance does the venue perform on the electrical equipment and how frequent? <br> - Is this done internally or subcontracted out? <br> - Does the venue do InfraRed Scanning, Load Bank Test, Transfer Test? <br> -Were those reports reviewed or deficiencies provided? | MEP | VSG/Venue |
| Capital Plan | 43 | R | Infrared scanning performed on an annual basis and it is subcontracted to EEE |  |  |
| ${ }_{42}{ }^{\text {Capital Plan/Report }}$ | 43/pg7 | a | Transfer Switch/Main Breaker <br> - In your report you recommend having a spare on hand, was this reflective in your pricing? | MEP | vs6 |
| Capital Plan/Report | 43/pg7 | R | No |  |  |
| 43 Capital Plan | 44 | a | Emergency Generators <br> - Are any of the scoreboards or ribbon boards on Back Up Power? <br> -Are the IDF rooms equipment racks supported by UPS or are they hardwired to back up power? | MEP | VSG/Venue |
| Capital Plan | 44 | R | The main scoreboard display is not on emergency power but IDF rooms are on emergency power |  |  |
| ${ }_{44}{ }^{\text {Capital Plan }}$ | 47 | a | Interior Lighting <br> -What is assumed in this number? (Led Lights, Entire Floor Plate SF?) | MEP | V66/Venue |
| Capital Plan | 47 | R | LED lighting for entire ballpark (not including sports lights) |  |  |
| 45 Capital Plan | 48 | a | Lighting Controls <br> -Does the Venue currently have a system, and what areas are on the system? <br> -Does pricing assume a replacement of that system or an upgrade? <br> -Does pricing include and expansion of areas on lighting control, and what are those areas? <br> -Does this include installation of Occupancy Sensors? | MEP | vsG |
| Capital Plan | 48 | R | The current lighting control system is comprehensive but beyond its useful life |  |  |
| ${ }_{46}{ }^{\text {Capital Plan }}$ | 51 | a | Restroom Renovation: Field Level -Are Locker Room Wet Areas Included in this number | MEP | vs6 |
| Capital Plan | 51 | R | Did you mean locker rooms are on the service level? Modest upgrades included for finishes and fixtures |  |  |
| ${ }_{47}$ Capital Plan | 52-54 | a | Restroom Renovation <br> - What scope is included under this Renovation Fixtures <br> - Was the Restroom Count reviewed with Code Compliance No <br> - Will All Plumbing Fixtures Be Replaced? Likely <br> - Is lighting replacement included in this number? Lighting in interior lighting line item | MEP/Architectural | vs6 |
| Capital Plan | 52-54 | R | See above |  |  |
| 48 Capital Plan | 60 | a | Fire Alarm Panel -Was this pricing provided by venue? Yes <br> -Is this in addition to what the venue has previously spent in 2020,2021,2022? Yes <br> -How is the Dry Piping System (any issues with pinholes or pressurization) No <br> -Does pricing assume any fire sprinkler pipe replacement? how much? Panels and devices | MEP | VSG/Venue |
| Capital Plan | 60 | R | Yes, Brewers have a quote |  |  |
| $49^{\text {Capital Plan }}$ | 60 | a | Fire Alarm/Electrical/Mechanical <br> -Does this matrix include pricing associated with the any of the Outbuildings on the property? (aside from the LED Sports Light Replacement) - Does the venue maintenance and PM contracts include those buildings - combination of in-house and 3rd party | MEP | vSG/Venue |
| Capital Plan | 60 | R | Halfaer Field and Tailgate Haus only outbuildings included, Brewers maintain through JCl |  |  |

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| ${ }_{50}$ Capital Plan |  |  | Parking Lots <br> -How did you break out pricing by each year? Is one lot a year assumed? Paser ratings have been established by P\&D which determined timing on patching, crack <br> routing and re-sealing of surfaces <br> - Was the year by year approach directed by the client? By the stadium district's SRF plan as recommended by P\&D <br> -Is the Y23-30 resurfacing of all the lots? <br> - Is Y31-40 crack sealing/ maintenance <br> - Is annual maintenance (crack sealing/sealcoating) of the lots included in any of your pricing in years 23-30? | Site | vs6 |
| Capital Plan | 62 | R | Costs and priorities came from Payne and Dolan report, see P\&DD report |  |  |
| Attachment D |  | a | Payne \& Dolan Report <br> -How were the priorities established? | site | Venue |
| 51 Attachment D |  | ${ }^{2}$ | Payne \& Dolan identified the parking lots in most need of replacement, which not surprisingly are the preferred (season ticket-holder lots) with the highest use, as the highest priorities. A number of the preferred lots have been repaved as part of the P\&D plan over the past few years. |  |  |
| $52{ }^{\text {SRF Report }}$ | 18 |  | Parking Lot <br> $\bullet$ Is the Molitor Lot still sinking? - was there a study conducted as to why it was sinking? | Site | Venu |
| SRF Report | 18 | R | We are unaware of any such issue with the Molitor Lot |  |  |
| ${ }_{53}{ }^{\text {Capital Plan }}$ | 63/64 | Q | Plaza and Walkway Replacement <br> -Does pricing assume a complete demo and repour or is it percentage based? $20 \%$ -Does Pedestrian Walkway include all sidewalk in all of the parking lots? Yes | Site | vs6 |
| Capital Plan | 63/64 | R | Major repairs and replacement of subsided sections as needed and has been on-going |  |  |
| ${ }_{54}$ Capital Plan | 65 |  | Joint Sealants - costs provided by client, based on historical spend <br> - Does this include the Bowl and the Concourses? Yes <br> -Does this include vertical and horizontal sealants? Yes <br> -Why was costing spread across 7 years? Based on discussions with MBBC <br> - How does the venue currently address failed joint sealants? As needed | Structure | VSG/Venue |
| Capital Plan | 65 | R | Major repairs and replacement where necessary, cost spreads based on discussion with client |  |  |
| ${ }_{55}{ }^{\text {Capital Plan }}$ | 66 | a | Expansion Joints - costs provided by client, based on historical spend <br> -Did the venue provide a list of how many joints they have? How many have been repaired and when? <br> -Did VSG have a chance to review the expansion joint repair/replacement specification? <br> - Why was 2026 selected for replacement, and how many will be replaced? | Structure | vsG |
| Capital Plan | 66 | R | The Ballpark has 4 expansion joints per level. Portions of 8 joints have been replaced to date. |  |  |
| ${ }_{56}$ Capital Plan |  | Q | Traffic Membrane Recoat on Terrace Level <br> -Is this the only location where it is found? Yes <br> -If No , where else is it located <br> -If No , do you know when those areas were recoated? | Structure | vs6 |
| Capital Plan | 67 | R | Yes and the Terrace Level concourse has the coating as a result of the crane accident during construction |  |  |
| ${ }_{57}$ Capital Plan |  | a | Structural Steel Recoating <br> -The report acknowledges the venue has a successful recoating program, do you know the details of that program, can you provide? Primarily low steel <br> -Does the venue have a specifications for the steel recoating? <br> -What is used to clean the steel and coat the corroded sections? <br> $\bullet$ Is it possible to quantify how many locations were observed? Were they isolated in specific areas, or scattered throughout? Primary focus on cost is the recoating of <br> high steel, interior and exterior of roof | Structure | VSG/Venue |
| Capital Plan | 68 | R | See above |  |  |

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| ${ }_{58}{ }^{\text {Exhibit B }}$ | 16 Photo 63 | a | Photo 53 - Handrails <br> -Where in the Capital Plan do you capture the handrail repairs - Photo 53? -How many of these locations were observed? <br> -How much of the bowl was visually observed during the visit? All of it | Structure | vs6 |
| Exhibit B | 16 Photo 63 | R | Handrails currently repaired as needed by MBBC as opex |  |  |
| ${ }_{59}{ }^{\text {Capital Plan }}$ | 69 | a | DHS: Safety Compliance <br> -What scope is included in this number? <br> -Were any deficiency reports provided? <br> -How many bollards are you assuming? All K12? <br> - Is Concrete Demo/Repour Included? <br> -If yes, what \% of concrete replacement you are assuming? | Site/Security | VSG/Venue |
| Capital Plan | 69 | R | Approximately 500 fixed post bollards with a K-12/M-50 rating, including concrete/foundation work |  |  |
| ${ }_{60}$ Capital Plan/Report | 69 / Page 27 | a | Security /DHS <br> -Does the Venue have a Game Day Command Center? <br> -Was venue security discussed or reviewed in relation to the MLB Standards? <br> -Does the venue have metal detectors? <br> - If yes, how old are they, how are they set up (hard wired, portable?) | Security | vs6 |
| Capital Plan/Report | 69 / Page 27 | R | The Ballpark has a game day command center and hard-wired with battery back up walk-through metal detectors, all of which is an MLB requirement |  |  |
| 61 Capital Plan | 71-101 | a | Technology <br> -The report notes that cost data was provided from a 2019 WJHW Report. Did VSG use these figures directly, get updated figures from WJHW, or were figures escalated to establish a 2022 baseline? Updated and escalated | Technology/T | vs6 |
| Capital Plan | 71-101 | R | Both the report and a follow up review on-site in 2021 to update costs by WHHW |  |  |
| 62 Capital Plan | 71-101 | a | Frequency <br> -Technology frequency appear to be variable and not consistent. How was Technology frequency established? <br> -In there report where frequency is recommended by WJHW, it appears the VSG report went with the later time frame (Example 10-12 year range, the Capital Plan shows a 12 year frequency), what was the reasoning behind this? | Technology/T | vs6 |
| Capital Plan | 71-101 | R | WHJW recommendations on frequency, there may be variation, these are opinions based on WJHW professional judgement |  |  |
| 63 Capital Plan / Report | 71876/PG 22 | a | Audio Speaker System <br> -The Capital Plan Notes the System as FAIR, but shows the system being replaced in year. The report notes the Bowl Audio System replacement occurring in 2022/2023, Does the Capital Plan assume the project occurs and is paid for in 2022, hence why it is not included? <br> -Line 76 are you carrying a full replacement cost or a percentage, if percentage what percent? The report notes on page 22 that cabling "may not be needed" because it is part of the 2023 replacement. <br> - Venue: Has this work started/completed? Has the scope of work stayed the same or has it changed? | Technology/IT | vSG/Venue |
| Capital Plan / Report | 71876/PG 22 | R | The sound system replacement is in progress and the scope includes all seating bowl speakers and replacement of amp room equipment. It will be completed by Opening |  |  |
| 64 Capital Plan / Report | 72-75/PG 22 | a | Audio Speaker System <br> -Why are the Terrace, Club, Loge, Field Level Speaker replacements occurring separately from the Bowl DPS System? <br> - Similar to the question above has this work been done already or will be done and paid for in 2022? <br> - Does costing assume 1-1 replacement or does it address the dead zones discussed in the report? <br> -Where are exterior speaker replacement being captured? | Technology/IT | vs6 |
| Capital Plan / Report | 72-75/PG 22 | R | We can adjust a year to align |  |  |
| $\begin{array}{\|c\|} \hline 65 \\ \text { Capital Plan } \end{array}$ | $78$ | Q | Audio Playback Source What is this? I sit mentioned in the report? <br> Computer playback device for music |  | vs6 |
|  |  |  | Computer play back device for music |  |  |

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| $66^{\text {Capital Plan }}$ | 79 | a | Concourse and Restroom Speakers <br> -Why is this occurring 3 years after the entire sound system replacement? As a means of spreading out the cost <br> -How is this different then 72-75? Or where specifically does this refer to? Lines 72-75 are breaking out speakers by level, some teams choose to upgrade over 2-3 years | Technology/T | vsG |
| Capital Plan | 79 | R | The concourse and restroom speakers are all in protected locations and out of the elements. Those speakers are only used for PA announcements and the radio feed during |  |  |
| ${ }_{67}$ Capital Plan | 82 |  | Club AV <br> - Replacement frequency states 15 years, however the Capital Plan is showing work in 2029 and 2039. Are those two separate projects or does that a reflect a 7 year replacement frequency? | Technology/T | vsG |
| Capital Plan | 82 | R | It's a projection at when the sound in the clubs will need to be replaced. They should be replaced as each space is renovated. |  |  |
| ${ }_{68}$ Capital Plan | $\begin{gathered} 84-89 / \text { Page } 21- \\ 22 \end{gathered}$ |  | Video Production <br> - In the report there are recommendations on the Rack Room and Control Room, was there costing included in the Capital Plan for any of these items? <br> - If so which ones? | Technology/T | vsG |
| Capital Plan |  | R | Yes, in line 83 |  |  |
| ${ }_{69}$ Capital Plan | 83 | Q | Video Display \& Video Production <br> -Does this line item include the replacement of the Centerfield Video Board? Yes <br> -If Yes, why is this frequency 10 years and the other LED boards at 12 years? WJHW recommended, other LED boards different pixel size | Technology/T | vsG |
| Capital Plan | 83 | R | See above |  |  |
| $70{ }^{\text {Capital Plan }}$ | 85 | 0 | Upgrade recent LED to HDR <br> -Can you clarify what specifically is being upgraded to HDR? <br> -Frequency notes this as a 1 time occurrence, but it occurs again in 2033, is that correct? Why is that? | Technology/T | vsG |
| Capital Plan | 85 | R | High dynamic range, should not be a one time item, will adjust |  |  |
| $7_{11}{ }^{\text {Capital Plan }}$ | 89 | Q | Low Home, Dug outs \& Down the Line <br> - Is this the Marquee Sign? No <br> -Why is the frequency of this display 8 years, shorter than the others? |  | vs6 |
| Capital Plan | 89 | R | New to MLB, advertising, WJHW gives it 8 y year replacement cycle |  |  |
| 72 Capital Plan |  | a | Scoreboard Control <br> -The report notes a new Scoreboard Control Room is needed to run the new display's why has this been sequenced in 2025 after all equipment has been installed? -Will the existing scoreboard be able to support the new equipment in the interim? | Technology/T | vsc |
| Capital Plan | 90 | R | Video editing equipment is currently in good condition to be used with new boards |  |  |
| 73 Capital Plan / Report | 91/ Page 21 | a | IPTV Headend <br> -The report recommends relocating the IPTV Headend equipment, is this included in the costing? Not specifically. Expectation, generally confirmed by a recent project is that the Brewers IT could self perform. <br> -If yes, was the costing to relocate removed from the 2035 pricing assumption? N/A <br> -If IPTV Implementation continues in 2023-2024, why is the head end relocation occurring in 2027? Based on age of original head end installed in 2020 <br> -For the third round of IPTV replacement starting in 2034, why is the headend equipment happening in the 2035 vs . 2034 when the replacement project is starting? As a <br> means of spreading cost out. the head end can be relatively independent of the end devices going forward although there are some computer interfaces. | Technology/T | vsG |
| Capital Plan / Report | 91/ Page 21 |  | See above |  |  |

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|  | ${ }_{4}$ Capital Plan / Report | 92 / Page 23 | a | Replace Public Area TVs <br> -WJHW recommends replacing the public displays as spaces are being renovated, however the Capital Plan appears to replace a specific amount each year. Is that correct? <br> -Why was this approach taken? <br> - Is this a 1 for 1 replacement or were more displays added <br> - Does this include concession menu boards converting to IPTV? <br> -Where are BOH, Premium, and Team Spaces Display Replacements Captured? <br> -Where do you capture the replacement of the TVs that are currently being installed on the Cement Overhangs? | Technology/IT | vS |
|  | Capital Plan / Report | 92 / Page 23 | R | TV's replaced as needed, this an annual allowance |  |  |
|  | ${ }_{75}{ }^{\text {Capital Plan }}$ | 93 | a | IPTV Distribution <br> - Is the assumed replacement frequency 8 years? <br> -In the second and third replacement is running new cable to each device anticipated to be replaced? <br> -If no, was that costing removed from cost? | Technology/IT | vs6 |
|  | Capital Plan | 93 | R | We have budget for periodic upgrades to cable as technology evolves, hard to predict |  |  |
|  | $76{ }^{\text {Capital Plan }}$ | 94 | a | Update Broadcast Infrastructure \& Equipment <br> -Does this include a complete replacement of existing broadcast cabling? Yes <br> -Does this include the expansion of cabling? Likely <br> - Does this include the installation of new cable trays? TBD <br> -Does this include any cost considerations for conduit adds? TBD | Technology/IT | vs6 |
|  | Capital Plan | 94 | R | Yes, all new broadcast cable/fiber/connections in ballpark to meet MLB broadcast standards |  |  |
|  | 77 Capital Plan | 95 | a | Broadcast Compound <br> -What is assumed in this pricing? It is more so a Price Per SF Estimate? the latter <br> $\bullet$ Is this expanding current footprint or relocating location on existing property? Expand to satellite pad <br> - Is utility needs are included in the assumed price? power currently in this location <br> -Is cable termination in garage included in pricing? TBD | Architectura/AV | VSG |
|  | Capital Plan | 95 | R | See above |  |  |
|  | $78{ }^{\text {Capital Plan }}$ | 96/25 | a | Upgrade Fiber Backbone <br> - The report notes on page 25 a new structured cabling system was deployed in 2019, was this project part of the LED Ribbon Board Replacement? I didn't see a specific line item for this project in the SRF. How was it funded? | Technolog//T | v56/Venue |
|  | Capital Plan | 96/25 | R | Project funded by MBBC |  |  |
|  | ${ }_{79}{ }^{\text {Capital Plan }}$ | $97-98$ | a | Wi-fi <br> -What line item is Wi-Fi captured? <br> -Does cost assume a one for one replacement or are added locations included? <br> -Does the venue have any coverage gaps? | Technology/IT | vS6/Venue |
|  | Capital Plan | 97-98 | R | MLB pays for Wi-Fi upgrades |  |  |
|  | ${ }_{80}$ Capital Plan | $97-98$ | a | Wi-Fi <br> -Is the Wi-Fi accessible on the exterior of the building? <br> -If yes, does that include the parking lots, any of the outbuildings, the entire Pedestrian Plaza <br> - Has that cost or that expansion been included? | Technology/IT | vsG |
|  | Capital Plan | 97-98 | R | Primarily the ballpark proper but bleeds onto the plaza |  |  |
| $81{ }^{\text {Report }}$ |  | 25 | a | IT/Structured Cabling <br> - How/Where does the Capital Plan address the recommendation for IDF expansion and the creation of new IDF or Telecom Enclosers? <br> - How/Where does the Capital Plan address the expanding the capacity within the riser pathways? <br> -Are all end point locations wired up with CAT 6A? <br> - If not, does the Capital Plan have any costing to remove older cables and upgrade to CAT6A? Where is that captured? | Technology/IT | vs6 |

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| Report | 25 | R | IDF room expansion not currently in cap ex plan |  |  |
| $82^{\text {Report }}$ | 25 |  | IT does have a few private networks for specific services. <br> -Was there discussion with the venue about firewalls and network security? Yes, Delaware North continues to operate its own firewall, but network security is monitored by the Brewers <br> -Is the network set up with Redundancy? Yes, we have a redundant fiber ring around the stadium with redundant core network switches. -Does the MLB do an IT Audit, If Yes, was any documentation provided? Yes, all information and network security related IT services is provided, monitored, audited by MLB. For non-security related IT services, the Brewers perform a self-audit. <br> -Does the venue have diverse pathways? Yes, we have dual internet services with our primary being locally and regionally diverse to the stadium. <br> - Is network equipment on Back Up Power or UPS? Both, we have a redundant power system in our MDF with UPS and backup generator power. All other IDF rooms have UPS backup power. | Technology/T | VSG/Venue |
| Report | 25 | R | See above |  |  |
| $83^{\text {Report }}$ | 26 | a | IT significant cost will be incurred". What specifically is this referring to? I believe this refers to the MLB Wi-Fi consortium agreement with Clubs and cellular carriers. -What are the current structure of those arrangements, or cost allocation associated with that work pertaining to equipment replacement and upgrades? Currently, there is no cost to the Clubs to operate or replace Wi -Fi in the stadium in-lieu of rental income from the DAS carriers. -Were these scope omitted from the Capital Plan? No cost to ballpark, MLB has provided the last two Wi-Fi systems to the stadium with funds received from the DAS carriers and other sources. -If yes, why? |  | vs6/Venue |
| Report | 26 | R | See above |  |  |
| Capital Plan | 98 | a | LAN Access Switches |  |  |
| Capital Plan | 98 | R | WHWW recommends this approach |  |  |
| Capital Plan | 99 |  | Security Cameras <br> -A system upgrade was noted in 2019, how many of the 343 cameras were installed new? -How many Panasonic camera are still in use? Are they expected to last until 2030? -When were the Tyo Illustra cameras installed and how many are there? -Does the venue have any coverage gaps? (FOH, BOH, Stairwells, Bowl?) | Technology/T | VSG/Venue |
| Capital Plan | 99 |  | Approximately 300 cameras have been installed since 2018 with the majority coming in two phases - 2018 and 2019. Some Illustra cameras were installed in $2018 / 2019$ and a number have been added since that time. We have 38 Panasonic cameras but we don't rely on them for security purposes. The exterior Panasonics are used for traffic management. We are adding Axis cameras in January, 2023 which will make the Panasonic cameras irrelevant as we realize those cameras are obsolete. Lastly, I will not |  |  |
|  |  | aR | Head End for Video Management System | Technology/T | vs6 |
| ${ }_{86}$ |  |  | -There isn't much detail about this in the report, please clarify why it is needed, and what is included in this scope of work? |  |  |
| ${ }^{\text {c }}$ Capital Plan | 100/27 |  | CCTV systems are driven by a VMS (Video Management System, including a number of servers in the MDF, switches in IDF rooms and work stations in Stadium Control and offices for staff with security duties and responsibilities. |  |  |
| Capital Plan 87 | 101 | a | Access Control <br> -What types of spaces have Access Control Readers, and how many? -Does costing assume 1 for 1 replacement, or does it include expansion of locations? -If expansion, how many and where at? <br> -What does costing include ?(Devices, cabling, power supplies?) | Technology/IT | VSG |
| Capital Plan | 101 |  | The current Access Control System will be replaced as a 2023 SRF project, including 100 readers, inclusive of modules, alarm monitoring input boards, digital input/output boards, dual serial interface boards and software upgrade. The replacement will allow for the expansion that we require. A future replacement of this system is anticipated | $\square$ |  |

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| $88 \text { Report }$ | 26 | a | DAS <br> -When was the DAS Installed/Upgraded Installed in 2016, replaced in 2021 <br> -Does AT\&T pay for all upgrades to the system? Yes, for AT\&T owned equipment, other carriers pay for upgrades they own -Does the venue have any cost associated with the system? No <br> - Is the system expandable, or 5 G capable? Yes, the ballpark already has AT\&T 5G service | Technology/IT | VSG/Venue |
| Report | 26 | R | See above |  |  |
| ${ }_{89}{ }^{\text {Capital Plan }}$ | 103-121 | Q | Elevator <br> -Please clarify what specific scope is included in Elevator Modernization/Safety Upgrade? ( cab refresh, component replacement, full cab replacement?) <br> -Are the same for each elevator or different? <br> -If different do you have the breakout? | Elevators | vs6 |
| Capital Plan | 103-121 | R | Costs include a standard allowance for car interior upgrades and/or cab shells, all electronics and drives |  |  |
| ${ }_{90}{ }^{\text {Capital Plan }}$ | 103-121 | a | Escalator <br> -Please clarify what specific scope is included Escalator Modernization? Electronics, drives, steps - Is the scope the same per unit or does it differ? Same for all - If different please provide detail | Escalator | vs6 |
| Capital Plan | 103-121 | R | Difference in costs due to different lengths of escalators |  |  |
| $9_{91}$ Report |  | a | Roof: <br> -Why were the mechanical maintenance repairs, identified in HH report, omitted from the Capital Plan? Not included in roof membrane cost <br> -On Page 29, it was noted that "the New PVC Membrane Roof Covering is nearly identical in color and appearance to the original membrane", is this of importance or concerning? No <br> -Were specification provided/reviewed on the roofing repairs that have been completed? Yes <br> -Were any other roofing documentation (installation reports, warranty documentation) provided or reviewed as part of this report? Yes <br> -Were the roof's life safety systems reviewed in compliance with OSHA? No <br> -How often does the venue clean the roof? <br> -Were cleaning methods and products reviewed or discussed? | Roof | vs6 |
| Report | 31 | R | Yes, we were provided all roof specs and warranty info plus spoke to the roofing contractor who performed the CF panel replacement in 2021, HH costs are in line 167 |  |  |
| $92^{\text {Report }}$ | 31 | a | Leaks <br> - Does the venue experience frequent leaks? -How do they typically go about resolving them? | Roof | VSG/Venue |
| Report | 31 | R | The leaks are attributable to the operable roof and are addressed annually |  |  |
| ${ }_{93}$ Exhibit B | 12 | Q | Photo 39 - Metal Corrosion <br> - Has the water source leading to the corroded sheet metal been discovered and remediated? | Roof | VSG/Venue |
| Exhibit ${ }^{\text {B }}$ | 12 | R | Yes, this situation has been addressed |  |  |
| $9^{4}$ Report | 30 | a | Roof <br> - Is replacement of the Flexible Membrane covering on the Bulb Seals captured in the Matrix? Where? Not included in roof membrane cost <br> -Does the Capital Plan capture missing metal downspouts? Where, How many were observed? 2 missing downspouts were observed, which would have been included <br> in that cost. It should be understood that many of the areas where the downspouts were possibly located were also concealed from view. <br> -Is thermal imaging, as recommended on page 30 , included in your replacement costs? No <br> -In your costing, how much of the insulation is assumed to be replaced? $10 \%$ <br> -Were the design documents for RR-4R reviewed? Yes Did they address the corrosion of the on the underside of the deck? <br> -Does costing of the retractable roof reflect replacement of metal roof deck? No. from our vantage point, we could not tell the extent of damage. In addition, we had spoken to the contractor that performed the 2020 roof replacement work. They indicated that they did not replace any roof deck, that they only painted surface rust. | Roof | vs6 |
| Report | 30 | , | See above |  |  |

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| 95 Capital Plan/Report |  |  | Clock Tower Roof <br> -Why is there no cost for the Clock Tower Roof. If it was replaced in 2017/2019, then according to frequency it should occur 2037/2039? No, as its a 25 year item outside of 2040 <br> -Does this line include MR1? MR-1 replaced in 2020 <br> -If no, where is it captured? <br> -Has the venue contacted Firestone Building Products on the observed deficiencies of the MR1 and MR2? Operator has a robust roof maintenance program | Roof | V56/Venue |
| Capital Plan/Report |  | R | See above |  |  |
| $96{ }^{\text {Report }}$ |  |  | Roof <br> - Is replacement of the Flexible Membrane covering on the Bulb Seals captured in the Matrix? Where? Not included in roof membrane cost <br> -Does the Capital Plan capture missing metal downspouts? Where, How many were observed? 2 missing downspouts were observed, which would have been included in that cost. It should be understood that many of the areas where the downspouts were possibly located were also concealed from view. <br> -Is thermal imaging, as recommended on page 30, included in you Capital Plan costs? No <br> - How are the last two sentences in the Translucent Fiberglass Panels relevant to that specific scope? They are at the roof line | Roof | vsG |
| Report | 32 | R | See above |  |  |
| ${ }_{97}$ Capital Plan/Report | 160 \& 164/33 | a | TH-1,2 <br> - Does this pricing include the elastomeric coating? | Roof | vs6 |
| Capital Plan /Report | 164/33 | R | Yes |  |  |
| ${ }_{98}$ Capital Plan/Report | 165/33 | a | TH-3 <br> -This is listed in the report as Poor, however Capital Plan has it listed as Fair, which should it be? | Roof | vs6 |
| Capital Plan/Report | 165/33 | R | Fair condition instead of poor |  |  |
| $99^{\text {Report }}$ | 33 |  | Concession Equipment <br> -The report is confusing it states most of the existing food service equipment is original and it also states most of the equipment was updated in 2017. Can you clarify or provide more specifics? The report states the Front of House equipment (what the customer sees) was updated in 2017, but the back-of-house equipment, such as kitchens, concession back production rooms, pantries, etc., still have the original equipment <br> -How is draft beer being represented in the Capital Plan? We did not provide a budget for new draft beer equipment as DNC is discontinuing using draft beer as the equipment fails and replacing it with refrigerated coolers for packaged products. <br> - Is there any cost associated with the removal of the existing draft beer system? We did not provide a capital cost for the removal of draft beer systems as often the concessionaire will stop using the refrigerated lines, drain the system, turn off the pumps and remove the beer towers from the counters as a repair and maintenance item. The lines that run under the slab or overhead may be left in place. <br> -Does the venue have portables? Yes, assessed but was decided to exclude from cap ex <br> -If yes, are replacements represented in the Capital Plan? <br> - Where are Concession FOH finishes captured in the Capital Plan Our capital budget was for foodservice equipment only. Finishes, typically would be included in the architectural or graphics portion of the report. | Concession | vsG |
| Report | 33 | R | See above |  |  |
| $100{ }^{\text {Capital Plan/Report }}$ | 169-170/34 |  | Concession Equipment <br> -If most of the equipment is original, and replacement frequency is $10-15$ years, why isn't the majority of the replacement equipment being purchased in the first 5 years? -What logic is applied to the concession equipment replacement in the Capital Plan? <br> -Given how the equipment replacement schedule has been spaced out as costing been factored in for the "more frequent maintenance" that is referenced in the report? | Concession | vs6 |
| Capital Plan/Report | 169-170/34 | R | See line 199 |  |  |
| $101{ }^{\text {Report }}$ | 34 | a | Ice Makers <br> - Are the 41 ice makers notes in the report the Hoshizaki ice makers that were installed in 2015? Yes <br> -How old are the 10 planned for replacement 2037? These should be replaced in 2026 and 2037 on a 10 year life cycle | Concession | vsG |

## B. VENUE SOLUTIONS GROUP/CAA ICON QUESTIONS/RESPONSE MATRIX

Questions in review of Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040

| Document | Line/Page |  | Question | Topic | Responder |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Report | 34 | R | See above |  |  |
| $102{ }^{\text {Report }}$ | 34 | a | Suites <br> -Does the Capital Plan capture adding power to the suites for the incorporation of integral induction warmers? -Does the Capital Plan capture the replacement of food delivery carts with Electric? | Concession | vs6 |
| Report | 34 | R | We don't have these specifics, no master plan of the space has been completed |  |  |
| $103{ }^{\text {Report }}$ | 36 | a | POS <br> - Is the POS system included in the Capital Plan? Where/Why Not <br> -What is the typical frequency of that technology? Over 18 years wouldn't there be at least 1 additional upgrade? | Concession | vs6 |
| Report | 36 | R | Assessed but was decided not to include in cap ex |  |  |
| ${ }_{104}$ Capital Plan | 174 | a | MLB Mandates <br> -What are the specific MLB Mandates that the venue is deficient in? - How were those costed out in the Capital Plan | Architectural | vs6 |
| Capital Plan | 174 | R | American Family field is in compliance with MLB mandates, however the capital plan contemplates MLB mandates in future years yet to be identified |  |  |
| $105{ }^{\text {Capital Plan }}$ | 175 | a | Government Mandates <br> -What are the specific Governmental Mandates that the venue is deficient in? <br> -How were they costed? | Architectural | vsG |
| Capital Plan | 175 | R | The capital plan contemplates government mandates e.g. ADA in future years, or ADA or code changes triggered by future renovations |  |  |
| $106 \text { Question }$ |  | a | Bowl Concrete/Condition <br> -The report and matrix does not specifically discuss the condition of the bowl concrete and stairs. Were they reviewed? -What condition are they in? <br> -What costing is included in the Capital Plan |  |  |
| Question |  | R | Condition of the concrete in the seating bowl is good, minor repairs done within operating budget (rails, for example) |  |  |
| $107 \text { Question }$ |  | a | Site Landscaping <br> -Was the site landscaping and irrigation reviewed? landscaping yes, assessed but was decided to exclude from cap ex -What costing is included in the Capital Plan? <br> -Was the playground area reviewed? <br> -Venue had replaced trees previously, any current issues with them or other trees on the property? |  |  |
| Question |  | R | Irrigation was not reviewed, landscaping was reviewed, see report, we did not include costs for improvements to landscaping |  |  |
| $108{ }^{\text {Question }}$ |  | a | Field <br> - Is there a field heating system or Sub Air System? What condition is it in? <br> - How is the field's drainage, has the venue experienced any flooding? |  |  |
| Question |  | R | Neither system currently |  |  |
| $109{ }^{\text {Question }}$ |  | a | Ops and groundskeeping FFE <br> -Was any FFE factored in to the Capital Plan, if so what areas? <br> - Suite/Premium Furniture? Included in CSF <br> - Laundry Equipment /Vehicle Replacement? Ops, event and groundskeeping FFE excluded from assessment |  |  |
| Question |  | R | Not included, Suite/premium furniture in overall suite efefurbishment allowance |  |  |
| $110{ }^{\text {Question }}$ |  | a | Outbuilding <br> -Aside from the roof and concrete was there any other scope included in the Capital Plan pertaining to these areas? |  |  |
| Question |  | R | Halfaer Field lighting and Tailgate Haus only outbuildings included |  |  |
| $111 \text { Question }$ |  | a | Naming Rights Signage Replacement -What is the current contract terms? -Why was this not included in the Capital Plan |  |  |
| Question |  | R | This is precluded by the Lease |  |  |
| $\left.\right\|_{112} \text { Question }$ |  | a | Admin Spaces/Offices - How are spaces like these captured in the Capital Plan? |  |  |

## B. VENUE SOLUTIONS GROUP/CAA ICON QUESTIONS/RESPONSE MATRIX

Questions in review of Milwaukee Brewers Baseball Club Ballpark Capital Needs Assessment and Capital Plan 2023-2040

| Document | Line/Page |  | Question | Topic | Responder |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Question |  | R | MBBC project |  |  |
| ${ }_{113}{ }^{\text {Question }}$ |  | a | 2022 Work <br> -Would it be fair to state that for projects occurring in 2022, you captured the current condition of that equipment as it is today, but did not include any costing in the Capital Plan? Yes <br> - What is the fiscal vear time frame associated with 2023 in the canital nlan? Calendar vear |  |  |
| Question |  | R | Se above |  |  |
| $114{ }^{\text {Question }}$ |  | Q | Plumbing <br> -Were Grease Traps, Grease Interceptors, Hot Water Heaters included in the Capital Plan? Yes, to hot water heaters and we don't have interceptors in cap ex -Where, and at what quantities? |  |  |
| Question |  | R | MBBC/DNC replaces food service grease traps as needed in opex |  |  |

## Appendix C

## C. WJHW 2019 REPORT WITH COSTING 08/30/2019

## Executive Summary

During the last several seasons WJHW has provided the Milwaukee Brewers with various reports and strategies related to sound and video production upgrades. This executive summary and project budge are intended to assist with planning for the next few years (and even decades) as it relates to Entertainment Technologies at the ballpark. We will look at some specific timing strategies as it relate

As outlined in each existing report, and summarized here, computer-based devices used for vide As oduction, editing, scoreboards, sound or other uses need to plan for replacement after the 5 tht season
of use, or an active sparing must be undertaken. Network hardware has a sighty longer life but should be on an active replacement cycle aligning with your enterprise standards.

## Budget Methodology

We have priced replacement technologies in current dollars (2019/early 2020) and then escalated by $3 \%$ for purchases into future years. In the event a capital replacement task is postponed, it should be moved into the next column and appropriately escalated. Contingency and soft costs (e.g. design fees,
administration, etc.) are included on an annual basis below the line. We have assumed the project(s) are exempt from taxes. In the event that taxes are assessed, they should be added to the line item.
These budgets have not been adjusted to reflect impact of tariffs that have recently gone into effect. Good news is that Daktronics and Prismview on the display have indicated that it should not have an looks like sound material costs could be impacted appreciably $10-15 \%$ (materials are roughly $40 \%$ of the costs quoted herein.

## Timing Considerations

he Park naming rights sponsor change in 2021 presents an excellent opportunity for change(s) to the scoresents the opportunity for increasing the height of the video board with minimal structural impact

While it is most efficient to change the scoreboard and video production components in the same off season to simplify work in the scoreboard room, to spread costs out, the video production system has until 2022 and has bern broken out into two phases with the core of the work performed in 2022 and cameras and lenses postponed until 2023 or perhaps 2024. This means scoreboard rack room will be disrupted wis.

The sound system is in need of changing and updating to modern speaker products; amplifiers are original, and replacements will need to be sourced from non-commercial re- sellers (e.g. e-bay). It is recommended to be deferred no further than 2022 and broken into two phases as well (Club Level dow for 2022 and Terrace Level for 2023). In both phasing approaches we recommend the two phases be designed and bid at one time, with options for $1-2$-year deferrals if necessary.
Generally, it takes 2-3 months for bidding documents to be developed and put on the stree urthermore, we generally note that between the start of Sping Training and Opening Day, it is often challenging to the the key decision makers together to review particular subiects So from an overall
planning perspective, we recommend beginning design and planning after the end of the preceding season with the goal of bidding in early June, with an award in early August.

## Coltask Curently Without a Specific Time Fra

There are a few areas that need some special discussion and attention:

1. AV in Clubs - Generally these should be upgraded as the space is renovated and re-imagined. We
have removed exact costs and would be glad to review as plans are developed
2. "Television" Distribution-Most new and renovated facilities deploy IPTV solutions in lieu of coax "cable TV" plants for ease of support and maintenance and potential incremental revenue in sponsored spaces. The solution is daunting in a renovation as it requires new Cat $6 / 6 \mathrm{~A}$ cable to be pulled to each television from the nearest telecommunications closet. The closets the looking at incremental upgrades as locations and venues are upgraded, which makes perfect sense over a period of 3 off seasons.
The current generation of televisions is adequate for the purpose and should only be changed as areas are renovated or uplifted. Newer televisions offer some features (e.g. 4k, HDR, etc.) th programming currently support that technology in the near term.
3. Broadcast Cabling is a thorny subject that starts with the inadequate sized and configured broadcast truck parking area and extends to the obsolete cabling currently installed. This subject futher examination with the Brewers and the District with an understanding of options and development plans.

## C. WJHW 2019 REPORT WITH COSTING 08/30/2019

| Miller Park* Technology Replacement Plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Disspine | "em | Repacenenetit Y Years |  | Estinated Cost oer | 2020 | 2021 | 2022 | ${ }^{2023}$ | ${ }^{2024}$ | ${ }^{2025}$ | 2026 | ${ }^{2027}$ | 2028 | 2029 | 2030 | 2031 | 2032 | ${ }^{203}$ | 2034 | 2035 | ${ }^{2036}$ | 2037 | 2038 | 2039 |
|  |  |  |  | 2019 Dolaras | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year9 | Year 10 | Year 11 | Year 12 | ${ }_{\text {Year } 13}$ | Year 14 | Year 15 | Vear 16 | Year 17 | $\mathrm{V}_{\text {ear } 18}$ | Year 19 | Year 20 |
| Technology |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Audio Systems |  |  |  | 150,00 |  |  | 159,135 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 15 10 10 | $\substack{\text { Frar } \\ \text { far } \\ \text { arar }}$ | 1.1000.000 |  |  |  | 1,220,000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | ${ }_{10}^{10}$ | $\xrightarrow[\substack{\text { frar } \\ \text { far }}]{ }$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fied Level speates sand Amps | 10 | far | ${ }^{\text {924,000 }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | ${ }_{12}^{15}$ | $\underset{\substack{\text { Vares } \\ \text { cood }}}{\text { cos }}$ | 1.50.0.00 4 |  |  | (1.59.3.30 ${ }_{\text {4.246 }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 6ood | 10.000 <br> 30000 <br> 30, |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | ${ }_{610}$ | $\frac{?}{7}$ | ${ }^{30,000}$ |  |  | 21,278 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Conousse, restoom seaekers and deatronics | $\underset{7}{101015}$ | ${ }_{\text {dor }}^{\text {porta tar }}$ |  |  |  |  | ${ }^{327.818}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Audio H | 7 | poort tar | ${ }^{455000}$ | ${ }^{\text {450.000 }}$ |  |  |  |  |  |  | ${ }_{56,34}$ |  |  |  |  |  |  | ${ }^{68.067}$ |  |  |  |  |  |
| Scoring and isisply S Sstem(s) |  | ${ }_{12}^{12}$ | $\frac{\text { far }}{\text { arem }}$ | ,3000.000 <br> 1.12500 |  | ${ }_{\text {300000 }}^{\frac{3}{1772050}}$ |  |  |  |  |  |  |  |  |  |  |  | ${ }_{\text {L }}^{4.455 .501}$ |  |  |  |  |  |  |
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|  |  | ${ }^{\frac{12}{12}}$ | new | ${ }_{\text {800,000 }}^{450,00}$ |  | ${ }^{82465000}$ |  |  |  |  |  |  |  |  |  |  |  | (1,74.827 |  |  |  |  |  |  |
|  | Namine faht Stionser) | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 12 |  | , |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Outide Soonso Displays) | ${ }^{12}$ | ${ }_{\text {good }}{ }_{2018}$ |  |  |  |  |  |  |  | ${ }^{328,364}$ |  |  |  |  | 1166.10 |  |  |  |  |  |  |  |  |
|  | Soranics SStem | - ${ }^{\frac{5}{12}}$ | vaies | ${ }_{25000}^{2500}$ |  | 26,500 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ungarae io Peremum Graphics S Sisem | 5 | ${ }_{\substack{\text { na } \\ \text { na }}}$ | 250,000 |  | option |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vuteo Production Ssstem | Replace Wrieless Camea S Ssiem |  |  | 225,000 | 233500 |  |  |  |  |  |  | ${ }^{28,0020}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 10 | ${ }_{\text {Fair }}$ | (1.900.000 |  |  | 2015,7010 |  |  |  |  | ${ }_{800912}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Rads. Miluow Disistubuion | ${ }_{20}$ |  | 200000 |  |  | ${ }^{2212,180}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Renovate Rack and Contul Room SSWAG physisial Construction | ${ }^{10}$ | Fair | ${ }^{450,000}$ |  |  | 477,05 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Rephae Exstig Camear Compement | $\begin{aligned} & \frac{\frac{2}{12}}{120} \\ & \frac{12}{20} \end{aligned}$ |  |  |  |  |  | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 20 <br> 20 <br> 10 | New | (120.000 |  |  | orfion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | ${ }^{10} 20$ |  | 10.000 <br> 120.000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Uogate Cameass of Ok Cameas + +cabe) |  |  | not pricedyet |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vidoe Editing System |  | ${ }^{5}$ |  | ${ }_{\text {250,000 }}^{\text {25000 }}$ |  | 257,50 |  |  |  |  | ${ }_{\substack{2985,513 \\ 17908}}$ |  |  |  |  | ${ }^{346.058}$ |  |  | 22688 |  | 40.177 |  |  |  |
|  |  | ${ }_{5}^{5}$ |  | $\xrightarrow{1 \text { 125000 }}$ | ${ }^{125.000}$ |  |  | ${ }^{4377091}$ |  | ${ }^{14,909}$ |  |  |  |  | 167,900 |  |  |  |  | ${ }^{198,746}$ |  |  |  |  |
|  | Eatharaje | ${ }^{8}$ | $\underbrace{\substack{\text { new } 2018}}_{\text {neen }}$ | ${ }^{4000000}$ |  |  |  |  |  |  | ${ }^{23,880}$ |  |  |  |  |  |  |  | ${ }^{3225518}$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Contingency/Soot Costs @ 15\% |  |  |  | 2,86,500 | ${ }_{7,788,088}$ | 9,257,626 | 3,32,9977 | . | 299,92 | 1,20,5,515 | $1.38,068$ | . | . | ${ }_{193,188}$ | 3,786,488 | . | 10,00,662 | 688,04 | ${ }^{223,58}$ | ${ }_{461,353}$ | . | . |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


[^0]:    This represents the Baseline Capital Improvement Costs in 2022 dollars. Each activity cost is rolled up and aggregated by each system.

[^1]:    This represents the total cost of each Baseline Capital Improvement Costs scheduled out based on frequency from 2023-2040. Escalation is then added to

[^2]:    Project recommendation and frequency as established by VSG in AFFFCA. Values associated with each project are based on CAA ICON's projected costs.

