



January 3, 2018

Kevin Callan, Executive Director
Washington State Major League Baseball Stadium
Public Facilities District
PO Box 94445
Seattle, WA 98124

Dear Mr. Callan:

**RE: SAFECO FIELD
2017 Maintenance and Operations Review
Marx|Okubo Job No. 17-3084**

Marx|Okubo Associates, Inc. (Marx|Okubo) was engaged by the Washington State Major League Baseball Stadium Public Facilities District (PFD) to complete the annual evaluation of the condition of Safeco Field, including key operating systems and the operating and maintenance program provided by the Seattle Mariners. The purpose of this assignment is to report to what extent the Mariners are maintaining the stadium in accordance with the lease of the facility.

The work completed by Marx|Okubo for this year's review included meetings with key employees of the Seattle Mariners' Engineering and Maintenance Department; a review of records associated with the operation and maintenance of the facility; and observations of the facility including site, structure, exterior enclosure, interiors, mechanical and electrical systems.

Safeco Field continues to be well maintained and in generally good condition. We back-checked items identified in the 2016 Marx|Okubo survey and reviewed work either underway or remaining to be completed, as well as identifying new conditions needing immediate corrective action, monitoring, or future planning and budgeting as part of operations and maintenance or capital programs. As described further in our report Section II - Methodology, there is a list of our major items of focus for this years' review. As in the past years, we have continued our review of the general concourse and suite areas, sealant joint replacement at the seating bowl, and the review of major MEP equipment including confidence test reports.

The Mariners' web-based maintenance program is designed to automatically generate preventative maintenance (PM) work orders on the major operating systems and the respective components throughout the facility. Data is input by the Mariners' maintenance staff noting issues discovered during the completion of the PM work orders as well as the general condition of the equipment. In past meetings with the Mariners' staff, they emphasized the importance of detailed information including location of deficiency, description, and recommended action. As we have done in prior years, photos of select corrections of previously noted deficiencies have been included to confirm the Mariners' progress of previously reported issues. Beginning with 2017, in lieu of the Mariners entering previously reported issues into the maintenance program, they have elected to adopt Marx|Okubo's use of PlanGrid that recorded issues included in Marx|Okubo's 2016 Maintenance and Operation Review (MOR) report. Through the use of PlanGrid, the Mariners generated corrective work orders that allow accurate location of the maintenance items. Marx|Okubo was provided with an electronic list of PM work orders in order to obtain specific information in reference to preventative maintenance on electrical systems and major components within the HVAC equipment.

Many of the items identified in our 2016 survey are related to work items that had been previously recorded with intent of addressing during the 2015/2016 off-season. Of the outstanding items, we recommend any work related to a potential code or safety issue be corrected immediately. Prudent prioritizing of other, less critical items, such as stabilizing deteriorating concrete, replacement of failing sealants, and application of protective finishes at corroding steel components should be followed by the Mariners' maintenance staff.

The Seattle Mariners' Engineering and Maintenance Department have gone through significant staffing changes during the 2017 season, which include multiple staff members leaving the department, and promotions for Ryan van Maarth and Chris Hunsaker, which also included the development of reorganizing the department and the staff's responsibilities. With this understood, the Mariners continues to demonstrate a proactive approach to potential issues as previously reported prior to the 2016 season. From the use of PlanGrid and the change in staff, the work order maintenance program software was put to limited use this 2017 season, and indicates several low priority items open from our 2016 MOR. The Mariners and Marx|Okubo are coordinating full implementation of the PlanGrid software and removal of documenting MOR's through the Mariner maintenance software. By doing this, we intend to eliminate over documented issues, which may have been recorded in previous years, to make the work order process more efficient for the Mariners, and to have Marx|Okubo assist the Mariners in the work order and maintenance program. The specific recommendations provided in this report are offered for implementation as a part of operation and maintenance work or as a capital improvement. With the facility approaching its 18th year of operation, deterioration of finishes and components is accelerating and will require a more comprehensive program for repairs and/or replacements to maintain the quality of the facility.

Mr. Kevin Callan
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In summary, based on our limited review and with limited exceptions noted, Marx|Okubo believes the Seattle Mariners continue to properly maintain the facility in a manner consistent with their lease with the Public Facilities District.

In order to keep up with advancing deterioration over time, more aggressive maintenance should continue to be expected for 2017/2018 season and the years following.

Sincerely,

MARX|OKUBO ASSOCIATES, INC.



R. Allan Thunder
Vice President
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2017
MAINTENANCE AND OPERATIONS REVIEW

SAFECO FIELD

Home of the Major League Baseball Seattle Mariners
Seattle, Washington



Prepared for:

**WASHINGTON STATE MAJOR LEAGUE BASEBALL STADIUM
PUBLIC FACILITIES DISTRICT**

PO Box 94445
110 South Atlantic Street
Seattle, WA 98124
Attn: Mr. Kevin Callan

Marx|Okubo Job No. 17-3084
January 3, 2018

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DISTRIBUTION

Mr. Kevin Callan (one hard copy and electronic PDF)

I. INTRODUCTION

Marx|Okubo Associates, Inc. (Marx|Okubo) has completed a limited review of Safeco Field for the Washington State Major League Baseball Stadium Public Facilities District (PFD). This is our fifteenth observation and review of facilities. Marx|Okubo's 2017 site visits occurred during July and August 2017.

The purpose of this review is for Marx|Okubo to provide an overview for the Public Facilities District, and it is in no way inferred every aspect of the project has been reviewed. The sole purpose of this report is to observe the major aspects of the property and evaluate their condition. Limited construction documents were provided for our reference. Specific field test results or inspection reports from current work were utilized for our review have been identified in the report. The use of this report is limited to the client to whom it is addressed.

The Seattle Mariners are responsible to maintain the facility in accordance with the applicable standard consistent with the maintenance programs at other recently constructed ballparks. The report of our observations is to state our professional opinion of the extent to which operation and maintenance procedures by the Mariners is consistent with what is required to protect the stadium from deterioration, as well as to identify specific conditions that require either additional operations and maintenance or consideration for inclusion in a capital program budget.

Marx|Okubo Associates, Inc. is a national architecture, engineering and construction consulting firm with licensed professionals providing construction-related services to building owners, lenders and equity investors. We deliver collaborative consulting and realistic solutions for the complex issues that come with dynamic property investments. Marx|Okubo's corporate office is in Denver, Colorado, with regional offices in Santa Clara, Pasadena, and San Francisco, California; Seattle, Washington; Houston and Dallas, Texas; Atlanta, Georgia; and White Plains, New York.

The following Marx|Okubo personnel were directly involved in this project:

R. Allan Thunder, AIA, VP, Northwest Region Manager – Team Lead, Building Envelope
Dustin Casper, Lead Project Coordinator
Tim Keifer, Sr. Project Coordinator
Corey Petersen, AIA, RRO, Assistant Vice President – Roof
Michael Pronk, AIA, RRO, Senior Associate – Roof
Joseph A. Milam, PE, CIAQP, AVP, Director of Mechanical Engineering – MEP, Fire/Life Safety
Steven Yi, PE, Associate – MEP, Fire/Life Safety

The site, garage, seating bowl, and general interior of the facility was reviewed by a Marx|Okubo team composed of Angela Shapiro (Site), Drina Hiemann (Garage), Dustin Casper (Lead Project Coordinator, exteriors, west facade water testing, seating bowl, and interiors), Eli Smith (seating bowl, and interiors), and Tim Keifer (Senior Project Coordinator, seating bowl, and interiors). Bob Nicholson with Architectural Elevator Consulting, LLC was retained to evaluate the escalator systems.

II. METHODOLOGY

A kick-off meeting was held on June 8, 2017 with Ryan Van Maarth, Director of Engineering and Maintenance along with Jonathan Arnold, Manager, Facility Services to discuss Marx|Okubo's 2017 review schedule. It was announced after our initial meeting, Jon Arnold was leaving the Mariners staff as of late August 2017, with no replacement reported to Marx|Okubo. The following major topics were determined to be the focus points for this year's review:

1. **Building Envelope –**
 - a. Brick facade condition and review of exterior concrete and steel elements;
 - b. Continuation of the west façade water infiltration;
 - c. The Level 3 home plate courtyard coating;
 - d. Concrete deck above the South Ticket Sales and PFD offices.
2. **MEP –**
 - a. Reviewing of the electrical system/grid and the renovated panels, load capacity, and potential power outages case scenario.
 - b. General review of plumbing and HVAC, and rundown of upcoming replacement to systems and commissioning with Chris Hunsaker.
3. **Fire Protection Systems –**
 - a. General review of sprinkler heads, piping, and commissioning.
4. **Life/Safety –**
 - a. Areas of vertical displacement (settlement at concrete sidewalks/pathways);
 - b. Stair tread nosings
5. **Building Equipment (Vertical Transportation) –** Review of escalators.
6. Follow up of concerning items noted in PlanGrid at Level 1 priority, and backcheck of items documented through PlanGrid 2016 review.

During our site visits, multiple conversations were held discussing our findings and confirming scheduling. In addition, Marx|Okubo met with maintenance technician Chris Hunsaker, to review the operation and preventative program associated with the mechanical and electrical systems, and the west façade water infiltration testing procedures. The following documents were provided for our use in compiling this year's report:

- Research of information including technical bulletins of manufacturers, as well as discussion with contractors and service providers, in regard to the construction detail proposed at the west facade as well as issues observed pertaining to elevators and escalators.

SAFECO FIELD 2017 MOR
Seattle, Washington

- Evaluation of our findings toward the preparation of our professional opinion of current maintenance procedures, both internal and external, as to adequacy, frequency, consistency with warranty/guarantee requirements, and the like.
- Presentation of our findings including our identification of conditions requiring action, supported by photographs.

The report is organized as follows:

- General review and comments referencing building and facility elements (includes summary of issues with representative photographs). With the aid of PlanGrid, a full list of detailed issues, with location and associated photographs of each has been provided to the Mariners.
- Summary and conclusion of our 2017 observations.

III. WORK ORDER SUMMARY

In past years, the Mariners had utilized information from the previous Marx|Okubo's MOR reports to create necessary work orders, by means of their web-based maintenance program, and to make corrections to the issues noted in our reports. This work order information was requested, but no work order log referencing issues created or addressed by the Mariners was provided to Marx|Okubo. This process presented some difficulties in our review of past reported issues, as well as possible duplication of issues between past and current reports, and the Mariners reported that it was difficult to communicate work orders with maintenance personnel. As part of their on-going maintenance, and Marx|Okubo's previously reported PlanGrid issues, the Mariners appear to be utilizing the PlanGrid application to create work orders directly from the software. The Mariners reported they are addressing issues as necessary, with an understanding of the PlanGrid assigned priority of each issue. The Mariner's reported, that the PlanGrid work orders created are receiving a positive response from maintenance personnel, regarding clarity of understanding the issue documented, and process efficiency. This process continues to be studied and refined, and Marx|Okubo and the Mariners are working together to maintain the status and closure of MOR work order items, and potentially removing the use of using the inefficient and outdated maintenance work order software that the Mariners are currently using. See next section for details as to the process currently being utilized with PlanGrid as the base for collecting data and addressing observed issues.

See the Mechanical/Electrical/ Plumbing Section for Marx|Okubo's comments in reference to the preventative maintenance work orders.

IV. MAINTENANCE AND OPERATIONS REVIEW (MOR)

As noted within the Work Order Summary, the Mariners have deviated from past practices of creating work orders from our MOR reports. In discussing this practice with the Mariners, we have determined that a better method of reporting, tracking and resolving issues is needed.

As part of our 2017 Maintenance and Operation Review, we have continued to use PlanGrid application to aid in defining and locating issues identified in the field throughout our on-site observations of the facilities, and a cross comparison to items addressed by the Mariners from our 2016 MOR PlanGrid items. PlanGrid is a cloud-based application designed for field work, used largely in the construction industry for verification of construction and to aid in the timely resolution of conflicts. PlanGrid is a collaborative platform for sharing information such as field markups, progress photos, and issue tracking. For the 2017 Maintenance and Operation Review Marx|Okubo used the application to "map" the location of the multitude of issues observed, set an Issue Code tag on the original construction drawings as previously provided by the Mariners. A brief description of the issue observed is included with each tag as well as the issue being assigned a 'priority' relating to Marx|Okubo's opinion as to when the issue should be addressed or corrected. Within the report, each section has a summary of the issues tagged on PlanGrid. The Safeco project has been setup onto PlanGrid to accommodate the basic plan, which is a no-cost version to the Mariners. The Mariners have been provided with the data collected and will be able to view each issue utilizing PlanGrid both in the office as well as in the field utilizing mobile devices to both determine the process they will need to implement as well as the specific location of the necessary correction. It was noted during the December 2016 – May 2017 period, the Mariners were utilizing the PlanGrid project as a means for easily creating work orders and tracking high priority issues based on our 2016 MOR issues.

Marx|Okubo's observations (and following report sections) are divided as noted in the table below. The table also notes reference information shown in the PlanGrid summary included with each report.

**SAFECO FIELD 2017 MOR
Seattle, Washington**

REPORT SECTION	TITLE (PlanGrid)	DESCRIPTION
Site	SIT	Includes flat work conditions at Parking Structure and Central Plant, as well as public sidewalk areas.
Structural	STR	Includes conditions affecting structural framing and foundations at field and other buildings. Additionally, general progress to conditions of garage beam ends.
Exterior	EXT	Includes building enclosure (walls and roofs), seating bowl and concourse areas, and exterior finishes.
West Façade Water Intrusion	EXT	Evidence of ongoing water intrusion in both the Blazing Bagel and retail spaces on the building's west elevation.
Seating Bowl Grout Pocket	SBGP	Includes conditions affecting the concrete infills at the seating bowl pick pocket infills at the base of the metal handrails (generally no work orders are generated for these items; rather repairs are contracted as budget allows).
Row 5 Issue	EXT*	Sealant detail issues associated with Rows 5 and 8 Seats around the perimeter of the Level 300 seating area.
Retractable Roof Panels	RRP	Includes the roof membrane and associated systems.
Interior	INT	Includes suite interiors, public (toilet rooms) and private (back of house or office) areas and finishes.
Mech/Elec/Plumb	MEP	Includes HVAC, power, lighting, signal, plumbing, fire protection, and alarm.
Building Equipment	BEQ	Includes elevators and escalators.
Special Equipment	SEQ	Includes retractable roof system (not roofing material) and associated equipment.

The following legend notes the custom tags (Issue Code) Marx|Okubo used with-in the PlanGrid application to identify the issues observed in our MOR:

- | | |
|-------------------------------------|---|
| (CC) Cracked Concrete | (MS) Miscellaneous |
| (CR) Corrosion | (RF) Roof Related |
| (EJ) Epoxy Joint | (SC) Spalled Concrete |
| (EL) Elevator/Escalator | (SE) Loose or missing metal stairs edge |
| (FC) Failed Concrete Joint | (ST) Spalled concrete at metal stair edge |
| (FS) Failed Sealant | (TC) Traffic Coating |
| (GP) Grout Pocket at Concrete Embed | (TH) Trip Hazard |
| (MP) Mechanical/Electrical/Plumbing | |

Priority levels are provided as a guideline in an effort to define the severity of the issue and the timeline we would expect the issue to be addressed. In PlanGrid, the priority is generally listed by the 'Room' function, with the exception being those issues related to the elevators and escalators (which have the specific equipment number as referenced by the Mariners). Additionally, in PlanGrid, 'Issue Code' tags are highlighted by a specific color, which assists in identifying the level of priority. The description of the priorities assigned to each issue is provided in the table below:

**SAFECO FIELD 2017 MOR
Seattle, Washington**

Priority:

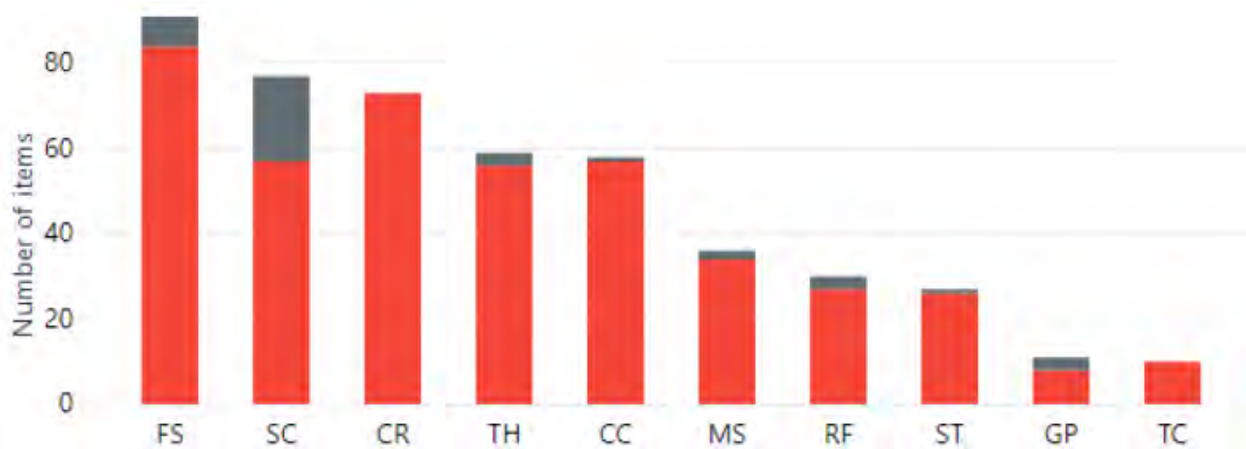
- 1 - Life safety issue requires immediate attention. Represented color is **RED**
- 2 - High priority - game or event mode issue or concern. Represented color is **ORANGE**
- 3 - Project should be done as soon as possible, but should not interfere with games or events. Represented color is **GREEN**
- 4 - Project can be completed as budget or time allows. Represented color is **BLUE**
- 5 - Low priority. No represented color.

During our 2016 MOR, Marx|Okubo noted a total of 470 issues which includes both existing issues from previous Marx|Okubo MOR reports as well as issues observed in 2016. The 2016 MOR was a setup for the initial use of Plangrid, and to continue tracking items as observed during previous years. During our 2017 MOR, Marx|Okubo confirmed the status of issues documented during the 2016 MOR, and added new items based on our scope of review for the 2017 season. Marx|Okubo noted a total of approximately 102 new issues during the 2017 MOR, and approximately 40 issues were 'Closed' out by Marx|Okubo. Of the 470 noted during our 2016 MOR issues, 348 issues remain 'Open', and 91 issues are 'Pending', which relate to elevator items or the Row 5 concern.

The following is the amount of issues noted per priority level:

- Level 1 – 2016 MOR: 50 'Open', and 7 'Closed'. 2017 MOR: 14 'Open'.
Majority of these issues documented pertain to potential trip hazards;
- Level 2 – 2016 MOR: 53 'Open', and 7 'Closed'. 2017 MOR: 22 'Open'.
Majority of these issues relate to failed sealant or damaged concrete;
- Level 3 – 2016 MOR: 125 'Open', and 27 'Closed'. 2017 MOR: 47 'Open'.
- Level 4 - 2016 MOR: 118 'Open', and 1 'Closed'. 2017 MOR: 16 'Open'.

Representational graph of the 2016 and 2017 MOR issues as identified by the Issue Code per above is as follows:



*Note: Red represents the '451 total 'Open' issues, and Grey represents the 40 'Closed' issues.

V. MOR – SITE

The site was observed to be generally in fair to good condition. Repairs were made to select damaged sidewalks along the west and north sides of the ballpark, specifically surrounding the home plate entrance. Generally, repairs appear to be removal and replacement of select damaged concrete areas, grinding for flush transition at control joints vertically displaced along concrete sidewalks and sidewalks surrounding building columns, and leveling of select tree grates. However, several of the areas that were documented by Marx|Okubo in the 2016 MOR remain unaddressed.

During our 2017 review, primary site issues being observed continue to be uneven walking surfaces, and deteriorating concrete flatwork. The cracking in the concrete sidewalk areas at the base of the columns along the buildings' north, west, and south elevations continues to be an issue with the material starting to spall and loosen, creating additional vertical displacement. Concrete replacement will likely become increasingly necessary as the cracked areas remain open to moisture intrusion and freezing during severe weather. Raised steel tree grates also continue to be an issue along the west and north sides of the ballpark, as the trees planted within continue to mature and the roots near the surface enlarge.

REPRESENTATIVE PHOTOGRAPHS OF NEW ISSUES OBSERVED		
		
<p>TH - Vertical displacement and spalled concrete at door entry and various areas of surrounding concrete. Issue #564, Priority 1</p>	<p>TH - Tree grate settlement of 1/2" at NW corner of parking garage structure. Issue #573, Priority 1</p>	<p>SC - Spalled concrete at both sides of entrance. Noted in various locations along west sidewalk adjacent to columns. Issue #565, Priority 3</p>
		
<p>SC - Damaged concrete at previously repaired concrete patch, near Home Base Entrance. Issue #568, Priority 3</p>	<p>CC - Damaged concrete at Home Base entrance. Issue #569, Priority 3.</p>	<p>FS - General condition of failed sealants throughout the north sidewalk areas. Issue #555, Priority 3.</p>

**SAFECO FIELD 2017 MOR
Seattle, Washington**

NEW OR CONTINUING ISSUES (as identified in PlanGrid)

Issue #	Stamp	Section	Description	Priority	Status
13	CC	SIT	Four sidewalk panels are cracked down the center and settling along the seam.	4	Open 2016 MOR
24	CC	SIT	Cracked and spalling sidewalk, just inside the gate.	4	Open 2016 MOR
8	FC	SIT	Sidewalk joint is separated up to 1" this point. The sealant and bushing have failed or are missing.	4	Open 2016 MOR
2	FS	SIT	Failed and/or missing sealant and bushings outside the emergency egress point.	4	Open 2016 MOR
101	FS	SIT	Approximately 2' long section of failed sealant along edge of concrete ramp to garage.	3	Open 2016 MOR
104	FS	SIT	Failed building sidewalk sealant.	3	Open 2016 MOR
98	MS	SIT	Detached curb stop.	3	Closed 2016 MOR
99	MS	SIT	Detached curb stop.	3	Open 2016 MOR
3	SC	SIT	Spalled gap along the concrete sidewalk joint varies from 1/2" to 1 1/2".	4	Open 2016 MOR
4	SC	SIT	Spalled concrete sidewalk corner at elevator framing base.	4	Closed 2016 MOR
9	SC	SIT	Spalled concrete sidewalk corner near the street light sidewalk panel.	3	Open 2016 MOR
22	SC	SIT	Spalled concrete sidewalk corner.	4	Open 2016 MOR
25	SC	SIT	Vertical displacement of sidewalk adjacent to the curb line and passenger pickup.	3	Open 2016 MOR
43	SC	SIT	Spalled lip approximately 3/8".	4	Open 2016 MOR
103	SC	SIT	Portion of spalled concrete, at garage ramp.	3	Open 2016 MOR
109	SC	SIT	Spalling and cracking of the concrete at curb-cut and surrounding slab area.	3	Open 2016 MOR
115	SC	SIT	Two small spalled areas of the concrete sidewalk along the edge.	3	Open 2016 MOR
116	SC	SIT	Spalled concrete sidewalk area near the light pole.	3	Open 2016 MOR
108	ST	SIT	Spalling at the nosing of concrete stair treads.	3	Open 2016 MOR
5	TH	SIT	Approximately 1/2" vertical displacement in front of the elevator.	1	Open 2016 MOR
7	TH	SIT	Vertically displaced tree well grate, up to 1/2".	1	Open 2016 MOR
10	TH	SIT	3/8" vertical displacement of sidewalk, outside of the egress gate.	1	Open 2016 MOR
11	TH	SIT	Tree grate displaced approximately 1".	1	Open 2016 MOR
12	TH	SIT	Approximately 3/4" vertical displacement of sidewalk along the column.	1	Open 2016 MOR

SAFECO FIELD 2017 MOR
Seattle, Washington

Issue #	Stamp	Section	Description	Priority	Status
14	TH	SIT	Vertical displacement of concrete sidewalk, approximately 1".	1	Open 2016 MOR
15	TH	SIT	1" vertical displacement in concrete sidewalk.	1	Open 2016 MOR
16	TH	SIT	Vertical displacement of concrete sidewalk at the corners of the column apron slab.	1	Open 2016 MOR
17	TH	SIT	Three sidewalk panels between the tree well and curb line have settled up to 1 1/4".	1	Open 2016 MOR
18	TH	SIT	1/2" vertical displacement.	1	Open 2016 MOR
19	TH	SIT	1/2" vertical displacement at both corners near the game day ticket sales side and entrance point.	1	Open 2016 MOR
20	TH	SIT	Vertical displacement in sidewalk 1/2" to 1-1/4".	1	Open 2016 MOR
21	TH	SIT	Vertically displaced Seattle City Light vault varied between 1/2" and 3/4".	1	Open 2016 MOR
23	TH	SIT	Spalled corner and 2" gap near street light pole and vault cover.	1	Open 2016 MOR
26	TH	SIT	1/2" vertical displacement near sculpture.	1	Open 2016 MOR
28	TH	SIT	Two hand-size pot holes near curb line.	1	Open 2016 MOR
29	TH	SIT	Over 1" vertical displacement around the tree well. This condition continues along the joint for approximately 14'.	1	Open 2016 MOR
30	TH	SIT	Six sidewalk panels along the three street trees (blazing bagels shop to team store entrance) are vertically displaced up to 5/8".	1	Open 2016 MOR
31	TH	SIT	Spalled edge of concrete sidewalk with 1-3/4" gap.	1	Open 2016 MOR
32	TH	SIT	3/8" to 1/2" vertical displacement on the sidewalk panel.	1	Open 2016 MOR
33	TH	SIT	Tree well grate is loose and vertically displaced 1".	1	Open 2016 MOR
34	TH	SIT	Approximately 3/4" of vertical displacement at the tree well sidewalk-panel corner.	1	Open 2016 MOR
35	TH	SIT	2" spall along a panel joint.	1	Open 2016 MOR
36	TH	SIT	Tree well grate loose and displaced 3/4".	1	Open 2016 MOR
37	TH	SIT	1/2" vertical displacement along this sidewalk panel.	1	Open 2016 MOR
38	TH	SIT	Vertical displacement at several joints up to 5/8". The foreground (horizontal) and the sidewalk panel joint along the two street trees.	1	Open 2016 MOR
39	TH	SIT	Cracked concrete sidewalk with 3" spalled edge. Note the lack of sealants.	1	Open 2016 MOR
40	TH	SIT	Vertical displacement varies from 1/4" to 1/2" (panel ends) in front of main entrance gate.	1	Open 2016 MOR
41	TH	SIT	3/4" vertical displacement along column and entrance gate.	1	Open 2016 MOR
42	TH	SIT	1/2" vertical displacement.	1	Open 2016 MOR
44	TH	SIT	Vertical displacement in concrete sidewalk at light control vault.	1	Open 2016 MOR

**SAFECO FIELD 2017 MOR
Seattle, Washington**

Issue #	Stamp	Section	Description	Priority	Status
102	TH	SIT	Spalled concrete corner and large gap at end of seismic joint at garage ramp.	1	Closed 2016 MOR
105	TH	SIT	Sidewalk panels have settled, approximately 1/2".	1	Open 2016 MOR
106	TH	SIT	1/2" vertical displacement of concrete sidewalk near the newly patched sidewalk panel.	1	Open 2016 MOR
107	TH	SIT	Concrete sidewalk panel has settled more than 1".	1	Open 2016 MOR
110	TH	SIT	Spalling concrete at the stained portion concrete sidewalk.	1	Open 2016 MOR
111	TH	SIT	Vertical displacement of the tree grate of approximately 1".	1	Open 2016 MOR
112	TH	SIT	Small area at spalled concrete sidewalk.	1	Open 2016 MOR
113	TH	SIT	Small area of spalled concrete sidewalk.	1	Open 2016 MOR
114	TH	SIT	Approximately 2" vertical displacement of the far panel of concrete sidewalk.	1	Open 2016 MOR
117	TH	SIT	Vertical displacement of approximately 5/8" at the four-corner panel-joint of concrete sidewalk.	1	Open 2016 MOR
118	TH	SIT	Settlement of concrete sidewalk at the asphalt curb apron joint.	1	Open 2016 MOR
119	TH	SIT	Vertical displacement of 1/2" in concrete sidewalk.	1	Open 2016 MOR
261	TH	SIT	Area of sidewalk with a previous noted trip hazard has been repaired.		Closed 2016 MOR
579	SC	SIT	Damaged concrete.	3	Open 2017 MOR
578	TH	SIT	Vertical displacement at tree grate.	1	Open 2017 MOR
577	TH	SIT	Vertical displacement	1	Open 2017 MOR
576	TH	SIT	Vertical displacement	1	Open 2017 MOR
575	TH	SIT	Vertical displacement and spalling	1	Open 2017 MOR
574	TH	SIT	Vertical displacement	1	Open 2017 MOR
573	TH	SIT	Tree grate settlement of 1/2".	1	Open 2017 MOR
572	CC	SIT	Damaged concrete	3	Open 2017 MOR
571	SC	SIT	Damaged concrete	3	Open 2017 MOR
570	SC	SIT	Spalled concrete at sidewalk panel.	3	Open 2017 MOR
569	CC	SIT	Damaged concrete	3	Open 2017 MOR
568	SC	SIT	Damaged concrete at previously repaired concrete patch.	3	Open 2017 MOR

**SAFECO FIELD 2017 MOR
Seattle, Washington**

Issue #	Stamp	Section	Description	Priority	Status
566	TH	SIT	Vertical displacement of 1/2" at sidewalk panel.	1	Open 2017 MOR
565	SC	SIT	Spalled concrete at both sides of entrance. Noted in various locations along west sidewalk adjacent to columns.	3	Open 2017 MOR
564	TH	SIT	Vertical displacement and spalled concrete at door entry and various areas of surrounding concrete.	1	Open 2017 MOR
563	TH	SIT	Vertical displacement	1	Open 2017 MOR
561	TH	SIT	Vertical displacement	1	Open 2017 MOR
559	TH	SIT	Vertical displacement	1	Open 2017 MOR
558	TH	SIT	Vertical displacement	1	Open 2017 MOR
557	SC	SIT	Spalled concrete, and vertically displaced tree grate.	2	Open 2017 MOR
556	SC	SIT	Spalled concrete noted in various locations along north sidewalk.	3	Open 2017 MOR
555	FS	SIT	Failed sealants throughout the sidewalk areas	3	Open 2017 MOR

*Note: Items updated or added this period are highlighted in RED.


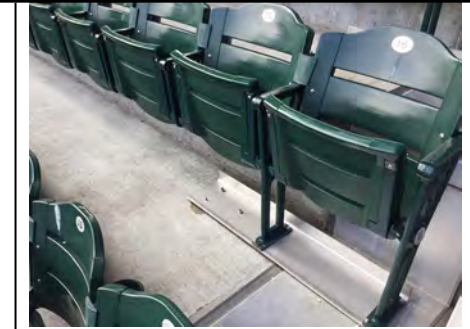

VI. MOR – STRUCTURE

The structures appear to be performing acceptably. A 2010 review performed by Magnusson Klemencic identified several vertical and slightly diagonal cracks along the east concrete wall of the stadium. As indicated in their report these cracks appeared to be typical for this type of concrete construction and do not readily appear to be a structural issue or cause for failure. A crack repair program continues, using Mariners' concrete technical staff. Previously identified cracking in structural components generally do not appear to have advanced.

Sealant failures at concrete joints was apparent at many the locations observed throughout the stadium. Sealant replacement necessary for the prevention of concrete steel reinforcement corrosion is anticipated as an ongoing maintenance item for the stadium. In addition, much of the painted structural steel needs repainting, with several areas of steel exposed and minor corrosion taking effect. Areas where steel corrosion appeared most often, but not limited to, were at steel column to concrete deck joints; steel beam to steel plates supporting the underside of the concrete seating bowl on Level 300; and at the steel rim plates along the perimeter edge of concrete decks to the seating bowl and concourse pathway.

As part of the 2015 MOR, Marx|Okubo conducted soundings of garage beam ends not previously repaired, along with recommended repairs to several locations on the east elevation. During this year's observations, it appears most the locations were patched and repaired where necessary, with exception to one area generally located at the center of the west elevation. The work was part of several concrete repairs, including cable-end pockets in garage deck slabs, contracted through Contech Services, Inc.

Marx|Okubo has documented 70 structure related issues in PlanGrid for the Mariners to address. While other issues other than cracking have been observed, the overall number listed is greater than in past years, as we have attempted to create a baseline (generally in the wall and slab cracking of the garage structure) to use as a reference for tracking.

REPRESENTATIVE PHOTOGRAPHS OF NEW ISSUES OBSERVED		
		
<p>CC- Cracked concrete deck, above PFD Office, and Ticket sales on south side. Issue #497, Priority 2.</p>	<p>MS-Missing bolt at base plate. Issue #582, Priority 3.</p>	<p>SC-Spalled concrete at slab edge of staircase. Issue #501, Priority 1.</p>

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NEW OR CONTINUING ISSUES (as identified in PlanGrid)

Issue #	Stamp	Section	Description	Priority	Status
46	CC	STR	Cracked the corner of the upper slab at the fence post base and note the missing sealant and bushing.	4	Open 2016 MOR
48	CC	STR	Full height wall crack near reserved space number 12.	4	Open 2016 MOR
53	CC	STR	Active leak in garage deck slab crack leading from the column to the electrical room. Located near reserved space No. 69.	3	Open 2016 MOR
54	CC	STR	Garage deck slab diagonal crack with active leak. Located at reserve space number 71.	3	Open 2016 MOR
55	CC	STR	Full height wall crack. Located at reserve space number 55.	4	Open 2016 MOR
56	CC	STR	Full height crack in concrete wall with minor spalling. Located at reserve space number 63.	4	Open 2016 MOR
57	CC	STR	Hairline crack in wall at reserve space number 61.	4	Open 2016 MOR
58	CC	STR	Two hairline wall cracks at reserved space number 59, east wall, Level 1 of garage.	4	Open 2016 MOR
59	CC	STR	Diagonal crack in garage deck slab above reserved space number 158 with active leak.	3	Open 2016 MOR
63	CC	STR	Full height cracks on both sides of the column. Located by space 295.	4	Open 2016 MOR
64	CC	STR	Full-height wall crack. Located near space 293.	4	Open 2016 MOR
65	CC	STR	Three hairline cracks located in near space 288. The two are visible, the third one resides behind the column as shown in the image.	4	Open 2016 MOR
66	CC	STR	Full height wall crack. Located near parking space No. 285.	4	Open 2016 MOR
67	CC	STR	Two wall cracks located near space 283.	4	Open 2016 MOR
68	CC	STR	Garage deck slab diagonal crack above space 237.	4	Open 2016 MOR
69	CC	STR	Garage deck slab diagonal crack with active leak. Located near space 242.	4	Open 2016 MOR
70	CC	STR	Diagonal crack in garage deck slab above space 244.	4	Open 2016 MOR
71	CC	STR	Three cracks at concrete wall, one noted with efflorescence. Located at space 278.	4	Open 2016 MOR
72	CC	STR	Wall crack near space 265.	4	Open 2016 MOR
73	CC	STR	Wall crack near space 256.	4	Open 2016 MOR
74	CC	STR	Wall crack near space 254.	4	Open 2016 MOR
75	CC	STR	Three wall cracks, two of which are hairline, central crack is enlarged. Located near reserve space 188.	4	Open 2016 MOR
76	CC	STR	Two wall cracks near space 183.	4	Open 2016 MOR
77	CC	STR	Walk crack near reserved space 178.	4	Open 2016 MOR
78	CC	STR	Wall crack near reserve space 169.	4	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
79	CC	STR	Garage deck slab crack, which appears wet. Located above space number 212.	3	Open 2016 MOR
80	CC	STR	Diagonal hairline crack in garage deck slab with small area of active leaking. Located over reserved space number 204.	3	Open 2016 MOR
82	CC	STR	Crack in garage deck slab.	4	Open 2016 MOR
83	CC	STR	Wall crack near accessible stalls.	4	Open 2016 MOR
87	CC	STR	Several cracks in garage deck slab.	4	Open 2016 MOR
88	CC	STR	Three cracks in garage deck slab.	4	Open 2016 MOR
89	CC	STR	Through wall crack at garage south entry ramp retaining wall, between Level 1 to 2.	3	Open 2016 MOR
90	CC	STR	Cracking in garage deck slab, both the parking bay and drive aisle bay.	4	Open 2016 MOR
91	CC	STR	Garage deck slab crack.	4	Open 2016 MOR
94	CC	STR	Garage deck slab crack.	4	Open 2016 MOR
95	CC	STR	Garage deck slab crack.	4	Open 2016 MOR
96	CC	STR	Garage deck slab crack.	4	Open 2016 MOR
97	CC	STR	Garage deck slab crack.	4	Open 2016 MOR
120	CC	STR	Nearly full height wall crack with spalling near the base.	3	Open 2016 MOR
121	CC	STR	Wall crack, east wall of garage.	4	Open 2016 MOR
497	CC	STR	Cracked concrete deck. Recommend to be overscayed, with rout clean and reseal cracks, then deck to be overlaid with neoguard pedestrian grade product (Contech Services-Peter Barlow). Clean drains and remove debris including any moss build up.	2	Open 2017 MOR
85	CR	STR	Corrosion noted at multiple points between wall and deck slab and water is actively leaking.	3	Open 2016 MOR
125	CR	STR	Corrosion to base of steel column, northeast stairs of Level 300 concourse.	4	Open 2016 MOR
131	CR	STR	Rust corrosion at concrete reinforcement of Section 329, Row 6 in front of seats 12 and 13.	4	Open 2016 MOR
271	CR	STR	Corrosion of base plate from steel support the underside of concrete seating, located near section 312-309 entrance above women's restroom.	4	Open 2016 MOR
272	CR	STR	Corrosion of steel column base outside of Section 314 to 312 entryway.	4	Open 2016 MOR
277	CR	STR	Corrosion build up at column base, outside section 316, by the stairs and women's restroom.	4	Open 2016 MOR
285	CR	STR	Corrosion of steel plate for the beam support underside of Level 300 concrete seating this is near men's restroom of section 321.	4	Open 2016 MOR
289	CR	STR	Corrosion build up at column base, outside section 325 entrance.	4	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
290	CR	STR	Rust corrosion at base of steel beam to underside of concrete seating upper bowl 300. Near section 327 to 325 entrance.	4	Open 2016 MOR
296	CR	STR	Corrosion buildup at steel column base outside of all gender restrooms near section 327. Likely caused by failure of sealant.	4	Open 2016 MOR
300	CR	STR	Failed base plate at steel beam support to underside of upper seating bowl 300 next to entryway of section 329 to 327.	4	Open 2016 MOR
314	CR	STR	Failed base plate at steel beam support to underside of upper seating bowl 300 next to entryway of section 335 to 333.	4	Open 2016 MOR
366	CR	STR	Corrosion at base of steel column between section 247 and 248, near top of the stairs behind seat 15, row 11. Generally, appears to be a common condition at outer columns along the exposed concourses.	4	Open 2016 MOR
369	CR	STR	Efflorescence build up at steel metal decking near the pipe penetration, located back of section 247, just outside of the Terrace Club access doors.	2	Open 2016 MOR
371	CR	STR	Corrosion at steel rim plate along edge of concrete deck, northwest corner of suite level.	3	Open 2016 MOR
382	CR	STR	Exposed steel reinforcement causing corrosion. Located at concrete deck, Section 150, Row 19, between seats 1 and 4.	3	Open 2016 MOR
402	CR	STR	Corrosion at steel beam underside of bleachers this is outside of the stairs of section 185-186 near the men and women's restroom.	3	Open 2016 MOR
404	CR	STR	Corrosion at steel of horizontal cross bracing support between beam to beam, underside bleachers, section 184.	3	Open 2016 MOR
49	FC	STR	Concrete grout joint pocket has failed between reserve spaces 12 to 16. Active leaks present.	4	Open 2016 MOR
52	FC	STR	Concrete joint in garage deck slab along reserve space for 32 and drive aisle is actively leaking.	3	Open 2016 MOR
92	FS	STR	The sealant along the seismic joint has adhesively failed to the parking deck.	3	Closed 2016 MOR
93	FS	STR	The sealant has adhesively failed at the parking deck.	3	Closed 2016 MOR
100	FS	STR	Failed sealant at seismic joint.	3	Open 2016 MOR
280	FS	STR	Failed sealant at steel column base near expansion joint outside of section 319, near the all gender restrooms.	3	Open 2016 MOR
50	MS	STR	Two active leaks from open penetration points in garage deck slab.	4	Open 2016 MOR
350	MS	STR	Bar equipment metal tops rubbing up against steel cross support chipping away paint and potential future corrosion of steel this is outside the club level section is 221 and 220.	4	Open 2016 MOR
582	MS	STR	Missing nut at base plate, Section 325, Row 11, Seat 15. Also occurs at Row, Seat 16.	3	Open 2017 MOR
45	SC	STR	Spalled sidewalk panel edge at post base. Located at the third post from the end.	4	Open 2016 MOR
294	SC	STR	Spalled concrete exposing reinforcement at concrete curb and corrosion of steel. On the outer concourse near the stairway of section 327 in front of the women's restroom.	3	Open 2016 MOR
501	SC	STR	Spalled concrete at concrete deck slab edge. Spallings are considered hazardous. Recommend removal of broken spall, patch and repair. Coordinate with adjacent glazing and sealant.	1	Open 2017 MOR

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Issue #	Stamp	Section	Description	Priority	Status
530	SC	STR	Spalled concrete at underside of seating deck to vertical concrete panel. Located north of Access aisle section 344-341, directly above the men's restroom.	3	Open 2017 MOR
84	TH	STR	Approximately 4' of the seismic joint is recessed 1/2 inch.	1	Closed 2016 MOR
86	TH	STR	Portion of the seismic joint has settled.	1	Closed 2016 MOR

*Note: Items updated or added this period are highlighted in RED.

VII. MOR – EXTERIOR

Exterior review includes the exterior walls (building envelope) of the ballpark structure; the open seating bowl areas; concrete decks and plazas exposed to outdoor conditions; and the common public corridors on each concourse level including the Level 300 Home Plate outdoor seating area.

The primary corrective work that has been accomplished since our 2016 MOR includes:

- Continued replacement of flexible sealants at seating bowl expansion joints;
- Replacement of the corroded metal seat support plates, replacing them with stainless steel plates. Many the corroded steel plates appear to have been replaced.
- Painting a portion of the major Structural Steel elements.
- Replacement of loose in-fills at the "grout pockets" of Level 300 seating bowl panels.

The building envelope appears to be performing moderately well with respect to weather tightness. Marx|Okubo continues to observe minor efflorescence of the brick façade west elevation as well as evidence of active water intrusion into street level retail stores, the PFD office, and south ticket sales office, during wind-driven rain events. During our observation of exteriors this year, areas of concern related to potential water intrusion include the following; early stages of failure at concrete and brick sealants; continuation of cracking at the topping slab on the south side of the stadium above the ground level offices, and based on the significance of the crazing and report from the Mariners of leaking into the interior space below, we recommend scathing, sealing, and providing a liquid applied outdoor weather protective coating; spalling of brick at select locations along the Left Field entrance (NW Corner of Park) and the ramp at the northwest corner of the ball park; the Level 300 rotunda plaza deck, which contains traffic coating, and showing signs of significant wear and tear, however the Mariners reported no leaks occurring to the spaces below; and the corrosion of structural steel, which is currently in the process of being repainted by a multi-year phasing re-paint project by the Mariners.

Hairline concrete wall cracking observed at the east elevation along the service road has been noted by M|O for several years. To our knowledge and in comparing current photos to prior years' photos we do not believe the cracks are either lengthening or expanding in width. Continued monitoring of the cracks is, however, recommended. The application of 'crack gauges' to the wall surface continues to be recommended to aid in determining any increased cracking.

Reference Section VIII - WEST FAÇADE WATER INTRUSION for general update to areas previously identified for recommended water testing and potential sealant replacement.

In 2012, the Mariners retained the services of Wiss Janney Elstner, Associates Inc. (WJE), an exterior envelope consulting firm, to develop details and a nine-step phased plan for replacement of the seating bowl sealants. WJE's "Safeco Field Seating Bowl Joint Repairs Project Manual" dated June 12, 2012, scheduled the phasing of the repairs as noted below:

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- Phase 1: Upper seating radial sealant joints.
- Phase 2: Bleacher seating radial sealant joints.
- Phase 3: Upper concourse tunnel and stair sealant.
- Phase 4: Club seating radial sealant joints.
- Phase 5: Suite seating radial sealant joints.
- Phase 6: Upper seating tangential sealant joints.
- Phase 7: Bleacher seating tangential sealant joints.
- Phase 8: Club seating tangential sealant joints.
- Phase 9: Suite seating tangential sealant joints.

Sealant replacement appears to be an ongoing process, and is being performed by in-house maintenance staff as guided by representatives of WJE. Based on Marx|Okubo's prior recommendation, the Mariners have requested periodic inspection of the sealants by the material provider. In speaking with Chris Corsi of the Mariners, he stated Chris Kessell with Atlas Construction Supply, the material supplier, has been to Safeco Field several times to review the installations to date. As noted in our 2015 MOR the Mariners reported Phase 1 and Phase 2 had been completed. Additionally, it was reported previously that Phase 3 (Upper Level Concourse Tunnel & Stair Sealant Joints) was on hold due to weather conditions, with Sections 306-312 reported as completed. As part of our 2016 review we noted that it appears the upper joints in this phase have begun to be replaced, starting on the east side, and approximately a quarter of the way complete. Phase 5 (Suite Level Seating Bowl Radial Sealant Joints) was to begin the week of November 23, 2015 starting at Suite 67. The Mariners had reported that this Phase was anticipated to be complete by Opening Day 2016. Marx|Okubo has reviewed and documented the condition of the sealants. Below is the sealant replacement progress schedule as provided by the Mariners:

JOINT SEAL REPAIR QUANTITY TRACKING SPREADSHEET			
PHASE	PERCENT COMPLETE	PERCENT REMAINING	NOTES
1	100%	0%	
2	100%	0%	
3	25%	75%	
4	20%	80%	Expected to be complete by April 2017
5	100%	0%	
6	0%	100%	Phase coordinated with seat replacements
7	0%	100%	
8	0%	100%	Phase coordinated with seat replacements
9	0%	100%	

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Related to the sealant replacement at the precast concrete seating bowl panels are the loose infills at the "grout pockets" of the seating bowl panels. See Section IX - SEATING BOWL GROUT POCKETS, which contains an update of the issue.

In 2014/2015 the Mariners began a replacement program of the corroded metal seat support plates; the original painted metal plates replaced with stainless steel. As part of our 2017 review, it appears that many of the corroded steel plates have been replaced, with the exception to select locations at Sections 111, 126, 131, 333, and 339.


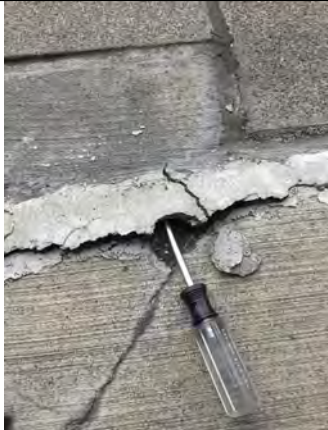



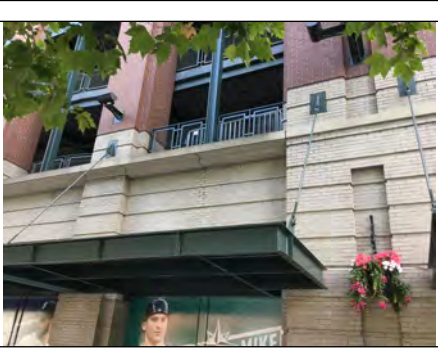
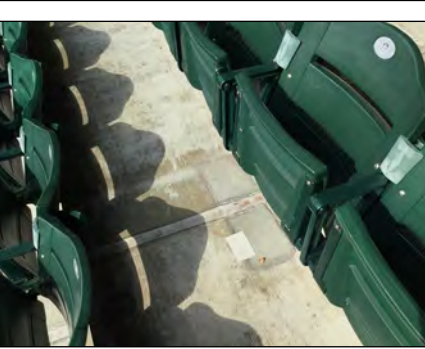
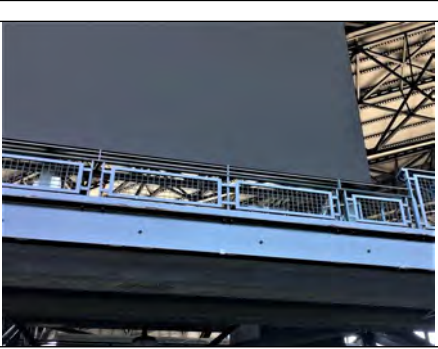
As noted in past reports, the fluid applied waterproof traffic coating applied to the concrete surface of the rotunda plaza deck on Level 300 Concourse continues to have failures at termination edges, with newly observed failures in the field of the traffic coating surface. The Mariners' reported no leaks to the enclosed space below. However, the Mariners mentioned that they will consider resurfacing this area soon, in respect to other potential amenity projects that may be constructed in this area.

Specific failures at the rotunda plaza deck on Level 300 Concourse, are the transitions between horizontal to vertical surfaces that have split with portions of the coating peeling away thereby exposing the backer rods which are, in turn, showing signs of degradation and joint sealant failure. Failure of the traffic coating was also observed near the edges of the traffic coated area, near deck penetrations, as well as several areas throughout the field of the coated area. Failure is likely caused by water infiltration and the heating and cooling effect of the material, which causes the material to easily deteriorate, including the pedestrian foot traffic in this area. Marx|Okubo continues to recommend the installation be reviewed by the material manufacturer and the application contractor to determine what steps should be taken to correct the deficiencies. The Mariners noted that there are future plans of a large capital amenity project for this area. However, the current state of the traffic coating may not withstand another season or two. It is recommended that either full replacement or possibly patch the joints and significant field areas noted in our PlanGrid 2017 issues documented. We further recommend that either Marx|Okubo or other qualified envelope consultant team with the Mariners in discussions of resolution with the material manufacturer and installer. If suitable repairs cannot be accomplished in the next few months, sealing of the existing cracks should be performed in the interim to reduce the potential for moisture intrusion to the levels below.

Reference Section X - ROW 5 ISSUE for a general update to the current condition of the previously reported "Row 5 Issue" at Level 300.

The detached concrete garage structure, south of the ball park, was briefly reviewed this year, and generally appears to remain in fair condition. We noted several of the minor issues documented in our 2016 MOR have not been addressed. Understanding these were low priority issues, most of which are related to concrete hairline cracks, several of the cracks have increased in length and showing areas of minor spalling. Marx|Okubo anticipates performing a thorough structural review by our in-house structural engineer in the upcoming 2018 year.

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REPRESENTATIVE PHOTOGRAPHS OF ISSUES OBSERVED		
		
<p>CC - Efflorescence buildup at base of column. Further examination required Issue #508, Priority 4.</p>	<p>CC - Failure of previously repaired joint at concrete deck above south Ticket Sales office. Coordinate with similar issue noted in Structural section. Issue #496, Priority 2.</p>	<p>TC - Level 300 Home Plate courtyard traffic coating has reached the end of its useful life, with multiple areas of degradation throughout. Replacement is required over this off-season (2017-2018). Issue #524, Priority 2.</p>
		
<p>SC - Spalled brick at support pin location beneath the precast cornice. This issue is at multiple locations. Further investigation for repair solution recommended. Issue #613, Priority 2</p>	<p>FS - Sealant failure along concrete stairs to brick wall joint. Repair recommended in off-season. Issue #611, Priority 3</p>	<p>CR - corrosion at north entrance (Left Field) steel gate. This should be addressed during this off-season. Issue #506, Priority 2</p>
		
<p>FC - Significant efflorescence build-up beneath cornice to brick wall joint at open bays along west facade. Issue #547, Priority 2</p>	<p>SC - Sample photo of repairs made to spalled concrete (per 2016 MOR issue) at seating bowl.</p>	<p>CR - Corrosion observed at steel rim plate at concrete deck slab edge. Recommend continuing removal of corrosive element and repaint of steel in off-season. Issue #597, Priority 4</p>

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NEW OR CONTINUING ISSUES (as identified in PlanGrid)

Issue #	Stamp	Section	Description	Priority	Status
122	CC	EXT	Cracks occurring in topping slab. Exposed concrete steel reinforcement adjacent to steel column base.	3	Open 2016 MOR
219	CC	EXT	Cracking at topping slab. This area is located above offices on the first level along the South Elevation.	4	Open 2016 MOR
221	CC	EXT	Cracking at concrete with no patch sealant. Failed perimeter sealant at column. Failure of repaired sealant at coping joint. Filler material at column base has some give but failure of proper install to overlap perimeter joints, recommend a grout overlay.	3	Open 2016 MOR
223	CC	EXT	Area of recent repair from pioneer masonry. No new sealant applied around column joint, grout already cracking.	3	Open 2016 MOR
228	CC	EXT	Brick failure, exposed reinforcement, expansion joint location with metal cover plate (sealant surrounding appears to be failing), rubber gutter at expansion joint location leading to downspout collector. Appears to be installed as a temporary solution and not necessarily best practice of permanent solution, with exposed reinforcement and insulation. Proper fix recommended.	2	Closed 2016 MOR
229	CC	EXT	Cracked and spalled concrete at topping slab, with evidence of rust seepage to underside of coping.	3	Open 2016 MOR
245	CC	EXT	Spalled concrete at the sixth column down from the north along the partial ht. concrete wall. At construction joint between concrete panels.	3	Open 2016 MOR
430	CC	EXT	Cracked concrete along the edge of the stairs, Stair 3. The east side of the stairs. Starting street level, second, third, fourth, fifth, sixth stair up, several others; as well as side wall.	2	Open 2016 MOR
431	CC	EXT	Cracking is at edge of stairs, Stair 3, west side, adjacent to the escalator.	2	Open 2016 MOR
496	CC	EXT	Failed repair. Overscayed terrace with, Cracks the injected in the terrace be overplayed and I would say that that should probably be a category two.	3	Open 2017 MOR
512	CC	EXT	Cracked CMU block, monitor, verify any water intrusion	4	Open 2017 MOR
6	CR	EXT	Corrosion noted under the stairwell at the penetration points and stair landing.	3	Open 2016 MOR
233	CR	EXT	Corroded steel plate at seat 1 row 12 section 306.	3	Open 2016 MOR
234	CR	EXT	Reinforcing exposure causing corrosion runoff. Located adjacent to expansion joint on 3rd concrete panel up near LED light sconce. Patch and repair to allow no exposure of steel reinforcement	3	Open 2016 MOR
235	CR	EXT	Reinforcing exposure causing corrosion runoff. Located on sixth column pilaster, from south end. On first concrete panel at top control joint. Patch and repair to allow no exposure of steel reinforcement.	3	Open 2016 MOR
242	CR	EXT	Corroded steel plate at seat 1 row 15 section 306.	3	Open 2016 MOR
243	CR	EXT	Corroded steel plate at seat 1 row 20 section 306.	3	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
244	CR	EXT	The concrete patch has spalled and the reinforcing steel has visible corrosion, Section 309 through 312 walkway near stair.	2	Open 2016 MOR
266	CR	EXT	Six locations of corrosion one missing the post mounting plate; Section 316 above Row 8.	4	Open 2016 MOR
287	CR	EXT	Two posts are corroded and some staining of the wall is occurring, Section 320 upper stair guard rail along Row 9.	4	Open 2016 MOR
288	CR	EXT	Corroded steel plate near seismic joint at seat 9 row 12 section 339.	3	Open 2016 MOR
291	CR	EXT	Corroded steel plate near seismic joint at seat 8 row 21 section 339.	3	Open 2016 MOR
292	CR	EXT	Corroded steel plate near seismic joint at seat 8 row 22 section 339.	3	Open 2016 MOR
295	CR	EXT	Corroded steel plate near seismic joint at seat 8 row 23 section 339.	3	Open 2016 MOR
334	CR	EXT	Corroded steel plate at lowest level seat, suite 56.	3	Open 2016 MOR
340	CR	EXT	Corrosion at guard rail post above Row 8 near Seats 7, 14, and 15.	4	Open 2016 MOR
375	CR	EXT	Typical corrosion at flagpole steel plate and metal fence opening trim along the north bleachers. Photo at section 182 above Row 12. Approximately 5 to 8 flags affected.	3	Open 2016 MOR
380	CR	EXT	Corrosion and efflorescence build up, at steel structure adjacent to failed stormwater drain pipe. Next to the egress concrete stairway which is right behind the bar area of section 247.	3	Open 2016 MOR
381	CR	EXT	Corrosion on beam and metal cover plate at suite 55.	2	Open 2016 MOR
383	CR	EXT	Corroded steel plate at seat 16 row 35 section 149.	4	Open 2016 MOR
386	CR	EXT	Corroded steel plate at seat 1 row 24 section 147.	4	Open 2016 MOR
390	CR	EXT	Corroded steel plates at approximately 29 locations in section 131 adjacent to the stair between sections 131 and 132.	4	Open 2016 MOR
391	CR	EXT	Located at the stairs for section 126 and 127 Row H of the diamond club level and rows 9 and 10 area. Corrosion at base of steel tube to base plate, also concrete joint failed sealant just behind seat 1 (row h), failed grout sealant at stairs, and corrosion seepage at stair tread nosing near seat 18, row 9, section 126.	2	Open 2016 MOR
393	CR	EXT	Replaced stainless steel base plate and original steel corroded baseplate at seats 1 and 2 of row 10 section 125.	2	Open 2016 MOR
395	CR	EXT	Corroded steel plate at seat 1 row 26 section 115.	4	Open 2016 MOR
396	CR	EXT	Original steel corroded plates at section 111, to all seats 2-3 along the expansion joint. No plates along this column of seats (2-3) have been replaced.	2	Open 2016 MOR
397	CR	EXT	Original steel contains corroded baseplate at row 24 seat 1 section 110 on condition along this column of seats	2	Open 2016 MOR
445	CR	EXT	Corrosion at base of lower hand rail. Section 318. Row 1. Seat 4.	3	Open 2016 MOR
447	CR	EXT	Corrosion on mounting plates at base of seats, Section 333. Rows 1 through 5. End of the row, seats 17, 18 or 19, at each row respectively.	3	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
448	CR	EXT	Corrosion on mounting plate, hand railing at mid-landing, Section 339. Between Rows 8 and 9. Seat 1 on Row 8.	3	Open 2016 MOR
449	CR	EXT	Corrosion at base of column supports noted as GR-J2 on drawing.	3	Open 2016 MOR
450	CR	EXT	Corrosion at base of panel filler between columns at beverage vendor at the Level 300 NW plaza deck area.	3	Open 2016 MOR
451	CR	EXT	Corrosion to bottom of metal door frame, Door U02A.	3	Open 2016 MOR
456	CR	EXT	Corrosion on base mounting plate on bottom of railing Section 219.	3	Open 2016 MOR
457	CR	EXT	Corrosion on mounting plate, railing, bottom of Section 221	3	Open 2016 MOR
463	CR	EXT	Corrosion at steel framing under smaller scoreboard at the bull pen area.	3	Open 2016 MOR
506	CR	EXT	Pick up this offseason corrosion at north entrance (Left Field) steel gate. Base at 2 priority, canopy at 4.	2	Open 2017 MOR
513	CR	EXT	Exposed horizontal reinforcement	3	Open 2017 MOR
519	CR	EXT	Clean and Repaint metal	4	Open 2017 MOR
520	CR	EXT	Efflorescence build up at steel beam. Further investigation required	2	Open 2017 MOR
521	CR	EXT	Corrosion and efflorescence build up at interceptor. Further investigation required	2	Open 2017 MOR
527	CR	EXT	Corrosion at metal door frame (U11C), next to access aisle 335-333	3	Open 2017 MOR
543	CR	EXT	Corrosion at bottom of back beam of canopy. Canopies painted within recent years and corrosion already occurring. Likely due to gutters. Gutters to be first inspected, addressed and sealed, then scrape and repaint beam.	4	Open 2017 MOR
546	CR	EXT	Expose reinforcement underside of Coping. Failure could be too likely to fail sealant at beam above as noted in previous year 2016	3	Open 2017 MOR
585	CR	EXT	Row 13, Seat 8, section 339, corroded seat support plate	3	Open 2017 MOR
588	CR	EXT	Corrosion at canopy support steel. Scrape and repaint. (General condition at upper 300 level of canopy support steel)	4	Open 2017 MOR
597	CR	EXT	General condition of seating bowl metal at guard rail to beam. In part of scrape and repaint steel	4	Open 2017 MOR
599	CR	EXT	Monitor corrosion and bleeding at post embed plate	4	Open 2017 MOR
141	FC	EXT	Failed grout joint beneath cornice. Efflorescence seeping from weep tube.	4	Open 2016 MOR
388	FC	EXT	Failed concrete grout joint along row 9 this is at section 140. Have a condition of concrete joints throughout this lower bowl section of level 100.	4	Open 2016 MOR
1	FS	EXT	Wall crack sealant is adhesively failing.	3	Open 2016 MOR
126	FS	EXT	Failed grout joint, located outside of section 314 to 312 between the food areas on the outer portion of the concourse and concrete ramp.	4	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
127	FS	EXT	Outside of Suite 325-321. Failed sealant.	3	Open 2016 MOR
129	FS	EXT	Failure of traffic coating and joint sealant.	3	Open 2016 MOR
143	FS	EXT	Failed sealant at beam over coping, located along west elevation, 7th bay from north end.	3	Open 2016 MOR
144	FS	EXT	Failed sealant. Beam to coping. Located along west elevation, 7th bay from north end.	3	Open 2016 MOR
145	FS	EXT	Gaskets hardening and appear original. Glazing appears installed from outside. Clean and wet seal with DOW 795 at removed gasket locations.	3	Open 2016 MOR
146	FS	EXT	Failed gaskets at inside and outside. Condition appears consistent at glazed locations along west facade. Beyond 10 EUL.	3	Open 2016 MOR
148	FS	EXT	Backer rod is too shallow steel to CMU joint sealant and sealant has failed. Sealant to be replaced from noted location of bottom mullion and downward to steel beam.	4	Open 2016 MOR
149	FS	EXT	Approximately 20% of sealant is failing at the Southwest entry glazing above the canopy.	4	Open 2016 MOR
216	FS	EXT	Sealant failure. Crack at topping slab shows evidence of infiltration to underside of coping.	3	Open 2016 MOR
217	FS	EXT	Sealant failure at topping slab to coping joint.	4	Open 2016 MOR
218	FS	EXT	Sealant failure at patched cracks. Column sealant stiff and brittle.	4	Open 2016 MOR
220	FS	EXT	Sealant failure. Fibrous material exposing out of coping horizontal joint.	3	Open 2016 MOR
226	FS	EXT	Exposed wood shim at center of column. Exposed plastic joint rod. Failure of sealant	4	Open 2016 MOR
227	FS	EXT	Dry efflorescence buildup at column, likely from weep tube directly above at coping to brick joint. Note corrosion at base of steel column where no sealant applied.	4	Open 2016 MOR
230	FS	EXT	Failure of liquid applied sealant, exposing backer rod.	4	Open 2016 MOR
231	FS	EXT	Failed sealant at CMU wall to coping joint. Failure of patched sealant at coping crack.	4	Open 2016 MOR
236	FS	EXT	Failed sealant around perimeter of door, level 2-3 condition for immediate replacement. Man door centered on east wall near fire hydrant, noted "F30A3" door tag along header.	3	Open 2016 MOR
239	FS	EXT	Failed sealant along perimeter top concrete column pilaster, base of steel column, causing efflorescence and cracking of concrete due to water infiltration. Grout patch appears to show evidence that it's been previously repaired unsure if issue was addressed by this repair.	3	Open 2016 MOR
241	FS	EXT	Organic growth and failure of sealant at expansion joint.	3	Open 2016 MOR
247	FS	EXT	Field grout joint along top of the masonry pilaster, this is located just below the Safeco Field and Center Field signs. Level 4 condition just for monitoring.	4	Open 2016 MOR
257	FS	EXT	Open walkway in front of Sections 314-316 deck behind the accessible seating the sealant along entire length has failed.	3	Open 2016 MOR
260	FS	EXT	Areas of failed sealants on both sides, along walkway to seating sections 314-316.	4	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
268	FS	EXT	Failed expansion joint sealant from concrete to CMU wall outside of entryway, near section 312 and 309 women's restroom. Level 2-3. It appears in this condition along the perimeter all the way down to the man door (U32C) approximate length of 30-40 feet. Failing adhesively and cohesively.	4	Open 2016 MOR
273	FS	EXT	Failed horizontal sealant at bleacher stair near seat 17 row 21 section 326.	3	Open 2016 MOR
274	FS	EXT	Failed sealant around perimeter of concrete deck to CMU wall, joint photos taken outside of section 314 to 312. Typical at various locations along this line	4	Open 2016 MOR
276	FS	EXT	Typical adhesive and cohesive failed sealant along concrete curb to concrete walkway joint, near stairs outside of sections 316 to 314 by the women's restroom.	4	Open 2016 MOR
279	FS	EXT	Failed horizontal sealant at bleacher stair near seat 19 row 21 section 330.	3	Open 2016 MOR
282	FS	EXT	Failed horizontal sealant at bleacher stair near seat 24 row 21 section 331.	3	Open 2016 MOR
286	FS	EXT	Failed horizontal sealant at bleacher joint near seat 9 row 22 section 337.	3	Open 2016 MOR
298	FS	EXT	Failed horizontal sealant at bleacher joint near seat 4 row 13 section 341.	3	Open 2016 MOR
312	FS	EXT	Section 321 row 6, seat 7; failed sealant.	2	Open 2016 MOR
316	FS	EXT	Adhesive and cohesive failure of sealant along perimeter of brick wall. Generally located between sections 335 to 333.	4	Open 2016 MOR
323	FS	EXT	Section 330 upper stair the vertical sealant has failed.	4	Open 2016 MOR
325	FS	EXT	Failed horizontal sealant at suite 69. Generally, occurs at the entire length of the joint at the west side of this level.	3	Open 2016 MOR
330	FS	EXT	Failed horizontal sealant at suite 64. Generally, occurs at the entire length of the joint at west side of this level.	3	Open 2016 MOR
346	FS	EXT	Failed sealant tape at expansion joint, seat 1 row 2 section 215.	2	Closed 2016 MOR
348	FS	EXT	Failed sealant tape at expansion joint near seat 11 row 6 section 216.	2	Closed 2016 MOR
349	FS	EXT	Failed sealant tape at expansion joint near seat 6 row 7 section 218.	2	Open 2016 MOR
352	FS	EXT	Failed horizontal sealant at stairs near seat 1 row 11 section 223.	2	Open 2016 MOR
354	FS	EXT	Failed sealant tape at expansion joint near seat 9 row 7 section 227.	2	Open 2016 MOR
355	FS	EXT	Failed sealant tape at expansion joint near seat 8 row 8 section 233.	2	Open 2016 MOR
356	FS	EXT	Failed sealant tape at expansion joint near seat 7 row 3 section 234.	2	Open 2016 MOR
357	FS	EXT	Failed horizontal sealant at stairs near seat 1 row 11 section 236.	2	Open 2016 MOR
359	FS	EXT	Failed sealant tape at expansion joint near seat 1 row 8 section 237.	2	Open 2016 MOR
360	FS	EXT	Failed sealant tape at expansion joint near seat 6 row 3 section 240.	2	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
361	FS	EXT	Efflorescence at underside of suite level bleachers in section 241.	3	Open 2016 MOR
363	FS	EXT	Efflorescence at underside of suite level bleachers in section 242.	3	Open 2016 MOR
364	FS	EXT	Failed sealant tape at expansion joint near seat 2 row 10 section 244.	2	Open 2016 MOR
365	FS	EXT	Efflorescence at underside of suite level bleachers in section 244.	3	Open 2016 MOR
367	FS	EXT	Failed sealant tape at expansion joint near seat 12 row 9 section 245.	2	Open 2016 MOR
368	FS	EXT	Failed vertical sealant at stairs near seat 15 row 10 section 246.	2	Open 2016 MOR
370	FS	EXT	Failed sealant tape at expansion joint near seat 15 row 8 section 247.	2	Open 2016 MOR
373	FS	EXT	Failed horizontal sealant at tread to riser concrete joint, north bleachers, along Row 11.	3	Open 2016 MOR
374	FS	EXT	Failed horizontal sealant at stairs near seat 3 Row 7 section 182.	2	Open 2016 MOR
376	FS	EXT	Failed horizontal sealant at stairs near seat 3 Row 7 section 184.	2	Open 2016 MOR
377	FS	EXT	Typical sealant cohesion and adhesion failure along north bleachers, along Row 9, and similar condition along Row 11.	3	Open 2016 MOR
378	FS	EXT	Failed sealant and backer rod underside Section 182 bleachers.	4	Open 2016 MOR
379	FS	EXT	Failed sealant and backer rod underside Section 180 bleachers.	4	Open 2016 MOR
385	FS	EXT	Failed sealant at 200 level with water dripping on seats below at section 147.	1	Open 2016 MOR
389	FS	EXT	Failed sealant on backside of dugout between section 139 to 136.	4	Open 2016 MOR
394	FS	EXT	Failed sealant at expansion joint near seat 10 row 28 section 119.	3	Open 2016 MOR
401	FS	EXT	Typical condition of concrete joint sealant failure along north concourse on level 1, near Sections 187 and 190	4	Open 2016 MOR
403	FS	EXT	Failed horizontal sealant at stairs near seat 26 row 3 section 192.	2	Open 2016 MOR
460	FS	EXT	Missing sealant at expansion joint area. 100 level concourse, above Section 133 above Thai Ginger international wok.	3	Closed 2016 MOR
495	FS	EXT	Failed sealant at base of column	3	Open 2017 MOR
498	FS	EXT	Failed sealant around Column base to concrete deck joint.	2	Open 2017 MOR
500	FS	EXT	Adhesion failure at sand large joint coping side, with ok pliability. Cohesion failure at terrace side. Coping flexible joint full cohesive failure. This offseason repair	2	Open 2017 MOR
504	FS	EXT	Monitor gaps greater than 1/4" more sealant may be necessary. Approx. 25% window gaskets this facade	4	Open 2017 MOR
505	FS	EXT	Failed sealant under coping	3	Open 2017 MOR
507	FS	EXT	Underside of coping	3	Open 2017 MOR

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Issue #	Stamp	Section	Description	Priority	Status
509	FS	EXT	Failed sealant at canopy embed plates to brick wall	3	Open 2017 MOR
608	FS	EXT	Failed horizontal sealant in Section 222, Row 5, Seat 2.	3	Open 2017 MOR
611	FS	EXT	Sealant failure along concrete staircase to brick wall. Area beneath not observed, but this may be allowing water intrusion to space below.	3	Open 2017 MOR
151	MS	EXT	Snap cover is loose. Reseat during re-sealant process.	4	Open 2016 MOR
237	MS	EXT	Efflorescence build up at bottom of steel connector plate between cross bracing at underside of the name. Unknown if this is coming from the deck behind and dripping down or if this is showing potential corrosion at bottom edge of plate. Scraping remove efflorescence and reapply performance coating. Located third portal bay from where CMU starts at the 2nd level.	3	Open 2016 MOR
253	MS	EXT	Photo observing general condition of paint at steel lenthils/beams across the entire north elevation and recommend painting within the next couple years. As it appears some areas are flaking off and surface corrosion to steel. This specific photo is located at the sign above ticket sales.	4	Open 2016 MOR
299	MS	EXT	Exposure of backer rod at tier 2 of upper city bowl level 300 above section 329 to 327 entrance.	4	Open 2016 MOR
344	MS	EXT	One loose grout pocket at suite Seattle Rainiers.	2	Open 2016 MOR
399	MS	EXT	Open vertical joint at top of stairs at north side of Section 105.	3	Open 2016 MOR
405	MS	EXT	Loose backer rod at underside of bleachers in section 195.	4	Open 2016 MOR
444	MS	EXT	Stainless steel corner plate on seismic joint, Section 311, Row 3, between seats 2 and 3, is loose. Also note, corners are a bit raised, off concrete pathway, creating a potential trip hazard.	3	Open 2016 MOR
458	MS	EXT	Peeling paint on railing around handicapped platform, Section 220. Issue occurring at several of the accessible seating platforms.	3	Closed 2016 MOR
459	MS	EXT	Exposed rebar, bottom step between Section 242-243, Row 1.	3	Open 2016 MOR
502	MS	EXT	Failed grout at brick with exposure to metal behind causing corrosion bleed. Rout clean and regROUT. Sand joint ok, continue to monitor replacement in five years (sand partially degrading at joint).	2	Open 2017 MOR
503	MS	EXT	Improved detail for full closure.	4	Open 2017 MOR
508	MS	EXT	Efflorescence buildup at base of column. Further examination required	4	Open 2017 MOR
510	MS	EXT	Grease hood damaging in metal siding from runoff grease	4	Open 2017 MOR
511	MS	EXT	Damaged rodent screen to be replaced	4	Open 2017 MOR
514	MS	EXT	Torn curtain dock 4	3	Open 2017 MOR
515	MS	EXT	Damaged curtain at dock 3	3	Open 2017 MOR

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Issue #	Stamp	Section	Description	Priority	Status
517	MS	EXT	Further investigation required for the efflorescence at underside of cornice to brick wall joint.	3	Open 2017 MOR
518	MS	EXT	Further investigation required for the efflorescence at underside of cornice to brick wall joint.	3	Open 2017 MOR
545	MS	EXT	Efflorescence build up, continue to monitor.	4	Open 2017 MOR
547	MS	EXT	Significant amount of efflorescence at this bay location. Likely due to similar failure condition observed at above the Blazing Bagel space. Potential testing and repair recommended.	2	Open 2017 MOR
606	MS	EXT	Impact damage to handrail and concrete curb and metal corrugated siding	2	Open 2017 MOR
62	SC	EXT	Joint patch failure at column.	4	Open 2016 MOR
124	SC	EXT	Spalled concrete near steel baseplate of handrail at the north stairs coming down from Section 306 to the Level 300 concourse.	3	Open 2016 MOR
246	SC	EXT	Spalled concrete, grout pocket near seat 15 row 13 section 309.	3	Open 2016 MOR
248	SC	EXT	Spalled concrete at grout pocket near seat 9 row 13 section 312.	3	Open 2016 MOR
250	SC	EXT	Spalled concrete at stair landing near seat 16 row 9 section 312.	3	Closed 2016 MOR
251	SC	EXT	Spalled concrete at stair riser near seat 1 row 9 section 313.	3	Closed 2016 MOR
254	SC	EXT	Spalled concrete, grout pocket near seat 17 row 13 section 313.	3	Open 2016 MOR
255	SC	EXT	Spalled concrete, grout pocket near seat 17 row 17 section 313.	3	Open 2016 MOR
256	SC	EXT	Spalled concrete, grout pocket near seat 17 row 20 section 313.	3	Closed 2016 MOR
258	SC	EXT	Spalled concrete, grout pocket near seat 16 row 22 section 314.	3	Closed 2016 MOR
259	SC	EXT	Spalled concrete, grout pocket near seat 14 row 17 section 315.	3	Closed 2016 MOR
264	SC	EXT	Spalled concrete near seat 4 row 10 section 319.	3	Closed 2016 MOR
267	SC	EXT	Spalled concrete near seat 15 row 16 section 321.	3	Closed 2016 MOR
284	SC	EXT	Spalled concrete near seat 10 row 12 section 335.	3	Closed 2016 MOR
301	SC	EXT	Spalled concrete at stair landing near seat 1 row 9 section 344.	3	Closed 2016 MOR
302	SC	EXT	Spalled concrete at grout pocket near seat 8 row 12 section 344.	3	Closed 2016 MOR
304	SC	EXT	Spalled concrete at grout pocket near seat 8 row 13 section 344.	3	Closed 2016 MOR
305	SC	EXT	Spalled concrete at grout pocket near seat 8 row 17 section 344.	3	Closed 2016 MOR
306	SC	EXT	Spalled concrete at grout pocket near seat 8 row 18 section 344.	3	Closed 2016 MOR
308	SC	EXT	Spalled concrete at grout pocket near seat 8 row 19 section 344.	3	Closed 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
310	SC	EXT	Spalled concrete at grout pocket near seat 8 row 19 section 345.	3	Closed 2016 MOR
311	SC	EXT	Spalled concrete at grout pocket near seat 8 row 16 section 345.	3	Closed 2016 MOR
320	SC	EXT	Spalled concrete at northwest end patio on Level 300.	4	Open 2016 MOR
329	SC	EXT	Cracked concrete wall along the stair, Section 334.	4	Open 2016 MOR
347	SC	EXT	Spalled concrete at bleacher stair tread near seat 14 row 4 section 214.	3	Closed 2016 MOR
384	SC	EXT	Section 146, Row 3, near seats 14-13 spalled concrete and failed sealant at concrete deck	4	Open 2016 MOR
387	SC	EXT	Spalled concrete at seat 2 row 22 section 146.	2	Closed 2016 MOR
392	SC	EXT	Spalled concrete around the seats 14-15, and 16 of Rows 9 and 10 in section 126	3	Open 2016 MOR
398	SC	EXT	Spalled concrete at stair near seat 24 row 31 section 107.	3	Open 2016 MOR
400	SC	EXT	Spalled concrete and corroded conduit at landing near elevator behind section 190.	3	Open 2016 MOR
433	SC	EXT	Missing concrete at the base, support base, this is Stair 5. Upper section from Level 100 concourse up to street level.	2	Open 2016 MOR
446	SC	EXT	Minor spalling of concrete at seismic joint, Row 3 and 4. Seat 16. Section 325.	3	Closed 2016 MOR
522	SC	EXT	Rust corrosion at metal plate on gate. This is an overall condition of gates. To be scraped clean and repainted.	3	Open 2017 MOR
583	SC	EXT	Spalled concrete with corrosion at wall corner near entrance to Section 313.	3	Open 2017 MOR
586	SC	EXT	Top retextured finish at concrete stair beginning to degrade. Monitor to verify quantity of condition and if this previous overlay repair is beginning to see end of life	4	Open 2017 MOR
590	SC	EXT	Row 17, seat 14, section 320, spalled concrete patch and repair.	3	Open 2017 MOR
594	SC	EXT	Spalled concrete at seat 15 row 23 section 143.	3	Open 2017 MOR
595	SC	EXT	Spalled concrete at stairs adjacent to rows 24, 25, 28 at section 134-135 stair aisle.	4	Open 2017 MOR
596	SC	EXT	Spalled concrete at stair near seat 1 row 31 section 114.	3	Open 2017 MOR
598	SC	EXT	Spalled concrete with corrosion at stair guardrail wall, Section 194.	3	Open 2017 MOR
600	SC	EXT	Spalled concrete with corrosion at stair guardrail wall, Section 193.	3	Open 2017 MOR
602	SC	EXT	Spalled concrete with corrosion at stair guardrail wall, Section 190.	3	Open 2017 MOR
603	SC	EXT	Spalled concrete with corrosion near Row 3 Section 184.	3	Open 2017 MOR
609	SC	EXT	Spalled concrete at stair tread Section 239, Row 4, Seat 1.	3	Open 2017 MOR

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Issue #	Stamp	Section	Description	Priority	Status
610	SC	EXT	Spalled brick at underside of cornice. Appears to be caused by water infiltration to support metal pin, causing corrosion to metal pin, and damaging brick.	2	Open 2017 MOR
613	SC	EXT	Spalled brick beneath coping. One of multiple locations in this area adjacent to the ramp	2	Open 2017 MOR
434	SE	EXT	Worn or damaged stair edge nosing, Stair 5, from the Terrace Club level (between the Terrace Club level and Level 100). Center section of stairs at the club level, south side of the center section, third stair up from the landing.	2	Open 2016 MOR
435	SE	EXT	Missing as well as replaced fasteners and stair tread leading edge nose plate, Stair 8. There are multiple stairs tread nose edging on this section of stairs that have loose or missing fasteners.	2	Open 2016 MOR
436	SE	EXT	Minor spalling stair tread edge nosing, Stair 10, street level section, south side of the site. The west center section of stairs. Edge nosing is loose, minor spalling at leading edge. First two treads coming down from the top of the lower landing. multiple edge nosings at this end of street level, Stair 10, have loose tread edge nose. Multiple edge nosings at this end of street level, Stair 10, have loose tread edge nose.	2	Open 2016 MOR
407	ST	EXT	Spalling of concrete at stair treads, Stair 14E. Note the edge nosing seems to be generally secure.	2	Open 2016 MOR
408	ST	EXT	Spalling of concrete at stair treads, Stairs 14A. Note, over 50% of these treads on this stair appear to be somewhat loose.	2	Open 2016 MOR
409	ST	EXT	Spalling of concrete at stair treads, Stair 14B. Several of the treads here appear somewhat loose, need to be re secured.	2	Open 2016 MOR
410	ST	EXT	Spalling of concrete at stair treads, Stair 14C.	2	Open 2016 MOR
411	ST	EXT	Spalling of concrete at stair treads, Stair 14D.	2	Open 2016 MOR
412	ST	EXT	Stair 13, several of the treads are loose, should be re attached.	2	Closed 2016 MOR
413	ST	EXT	Spalling of concrete at stair nosing. Stair 17, upper section.	2	Open 2016 MOR
414	ST	EXT	Spalling of concrete on the leading edge of stair tread nosing. Stairway 17A.	2	Open 2016 MOR
415	ST	EXT	Spalling of concrete at stair treads. Stairway 18A.	2	Open 2016 MOR
416	ST	EXT	Spalling of concrete at stair tread nosing, Stair 19, upper section.	2	Open 2016 MOR
417	ST	EXT	Spalling of concrete at stair nose tread, Stair 20. Lower section.	2	Open 2016 MOR
418	ST	EXT	Spalling of concrete, stair nose concrete, Stair 20 upper section.	2	Open 2016 MOR
419	ST	EXT	Spalling of concrete, upper nosing, Stair 19A.	2	Open 2016 MOR
421	ST	EXT	Spalling concrete under leading edge tread nosing. Stair 21, lower section, generally each step on the lower section has spalling under the leading edge of the stair nosing	2	Open 2016 MOR
422	ST	EXT	Spalling concrete, stair edge nosing, upper section, Stair 21.	2	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
423	ST	EXT	Spalling concrete, under tread edge nosing, Stair 21A.	2	Open 2016 MOR
424	ST	EXT	Spalling concrete under corner hand rail support, top of Stair 22.	2	Open 2016 MOR
425	ST	EXT	Spalling concrete, stair edge nosing, bottom section, Stair 23.	2	Open 2016 MOR
426	ST	EXT	Spalling concrete, Stair 23 upper section.	2	Open 2016 MOR
427	ST	EXT	Spalling concrete, stair edge nosing, Stair 22A.	2	Open 2016 MOR
428	ST	EXT	Spalling concrete, stair edge nosing upper section Stair 24.	2	Open 2016 MOR
429	ST	EXT	Spalling concrete, stair edge nosing, bottom section, Stair 24.	2	Open 2016 MOR
462	ST	EXT	Spalling of the concrete near the end of the steps near the bull pen fan area. Close to the Robinson and Griffey signs	3	Open 2016 MOR
128	TC	EXT	Failed coating, with no fabric reinforce lap at horizontal to vertical curb. Blistering observed	3	Open 2016 MOR
130	TC	EXT	Blister and traffic coating failure located at the far north end of traffic coating joint behind the CMU penthouse.	3	Open 2016 MOR
307	TC	EXT	Failure of traffic coating at column base plate to steel column of the rotunda outdoor seating area on Level 300. It appears some weep holes drilled around base the holes show signs of corrosion spewing out.	3	Open 2016 MOR
309	TC	EXT	Failure of traffic coating at column base plate to steel column of the rotunda outdoor seating area on Level 300.	3	Open 2016 MOR
341	TC	EXT	Worn traffic coating at suite Los Angeles Angels.	3	Open 2016 MOR
461	TC	EXT	Deteriorated traffic coating at the Holy Smoke BBQ vending area, near Stair 15 Level 100 concourse.	3	Open 2016 MOR
328	TH	EXT	Railing base at Suite 65 creates a potential trip hazard.	1	Open 2016 MOR
332	TH	EXT	Railing base at Suite 62 creates a potential trip hazard. Also occurs at Suites 59, 58, 57, 56, 55, 54, 53, 52, 51, and 44.	1	Open 2016 MOR
420	TH	EXT	Trip hazard, Stair 25 leading to the concrete slab, Level 100 concourse.	1	Open 2016 MOR
437	TH	EXT	Missing letters in compass. Level 100, main concourse. Leaving holes, a potential trip hazards.	1	Open 2016 MOR
567	TH	EXT	Bolt heads showing through concrete just outside man door.	1	Open 2017 MOR

*Note: Items updated or added this period are highlighted in RED.

VIII. WEST FAÇADE WATER INTRUSION

As noted in Marx|Okubo's 2015 Safeco Field MOR report, evidence of ongoing water intrusion in both the Blazing Bagel and Mariners' Team Store were observed along the west elevation. As construction detailing of the exterior façade is similar to the Blazing Bagel and Mariners' Team Store, Marx|Okubo performed water testing (ASTM E2128-01a and AAMA 501.2-03) of the exterior façade immediately above the Blazing Bagel. Testing performed on both the beam end and interior side of the beam-to-cornice joint resulted in significant water intrusion into the store. The beam-to-brick connection on the south end (grid W10) was highly suspect as it appears that during construction the beam was too long and rather than cut the beam length to fit properly, the brick veneer was chipped away resulting in inadequate depth and shape for a proper sealant joint. The revisiting of the affected area was included in our 2016 scope, with design and development of a saddle flashing detail, and guidance of the Mariners' maintenance personnel for the flashing's installation followed by testing.

The saddle flashing detail was constructed and installed periodically throughout the spring of 2017. Similar testing procedures, as performed in 2015, were conducted to the saddle flashing to determine if the detail addresses the issue. Upon our first test we discovered that the water infiltration into the Blazing Bagel shop below was significantly reduced, however, water was still infiltrating into the space. Marx|Okubo then directed an alternative test method, which would isolate specific regions around the saddle flash, exposing areas of infiltration. Upon this secondary test, we determined that a main point of water intrusion was at a material intersecting joint below the precast cornice to brick wall. The joint is on the east side of the wall, exposed to exterior conditions. Marx|Okubo suggested to clean, rout, and reseal the joint with new backer rod and Dow Corning 795 silicone sealant. We rested the area, post curing of the new sealant, and the test performed with 'PASS' results. Water appears to no longer be infiltrating into the Blazing Bagel shop below. As previously reported, there are similar locations of potential water intrusion along the open bays of the west facade. Marx|Okubo estimated approximately 11 open bay locations, where the issue may occur. Areas of potential failure along the west facade were documented in Marx|Okubo's 2016 MOR. Further investigation is recommended during the 2017-2018 off-season.

Upon our discovery of the cornice to brick wall joint failure, it was noted that several locations with a similar joint detail along the exterior brick wall were showing signs of spalling brick along the top course (below the precast cornice) of the brick wall. It appears that the brick is spalling at structural vertical metal support pins set mid-depth of the brick to the underside of the cornice. We believe that part of this failure is from the original, poorly, constructed metal flashing detail below the cornice, which leaves an open joint for water to intrude back to the pin, causing corrosion, and spalling of the brick. There were no reports from the Mariners, that spalled brick impacted any of the public pedestrians. Marx|Okubo recommended solution will be to patch and repair the spalled brick locations, remove any near failure spalled brick locations, rout and reseal the intersecting joint. The rout and resealing of the joint will possibly be similar to the detail described above at the cornice to brick wall beneath the saddle flash location.

REPRESENTATIVE PHOTOGRAPHS OF WEST FACADE WATER INFILTRATION TESTING

JOINT REPAIR

REPRESENTATIVE PHOTOGRAPHS OF WEST FACADE WATER INFILTRATION TESTING



Condition prior to saddle flash install and sealant replacement.



Beam end with failure at brick pilaster.



Saddle flashing installed at both ends of beam.



Isolation water test procedure.






Water infiltration at brick wall to cornice joint during isolation water test.



Brick wall to cornice joint repair in progress, located at cornice associated to the west facade saddle flash installation. Also note failure of joint causing spalling brick.

IX. MOR – SEATING BOWL GROUT POCKETS

In 2014, Marx|Okubo's scope of work included review of the grout pockets at the leading edge of the precast concrete seating bowl panels. Each grout infill was mapped and its condition prioritized. Areas of repair were recommended starting with the worse conditions. In May 2015, the Mariners' contracted with Contech Services, Inc. to begin making repairs, which started on the 300 level. This year, Marx|Okubo provided a general review regarding the status of repairs made in comparison to last year. It appears that grout pockets continue to be addressed as the budget allows. Several locations of the original detail appear to be failing, and continuation of grout infill is recommended as necessary.

REPRESENTATIVE PHOTOGRAPHS OF NEW ISSUES OBSERVED		
		
GP - One loose grout pocket at suite 53. Update 2017 MOR - Action completed. Issue #335, Priority 2.	GP - Missing grout pocket near seat 9 row 10 section 236. Update 2017 MOR - Action completed. Issue #358, Priority 1.	GP - Loose grout pocket at suite San Francisco Seals. Update 2017 MOR - Action remains 'Open'. Issue #343, Priority 2.

NEW OR CONTINUING ISSUES (as identified in PlanGrid)

Issue #	Stamp	Section	Description	Priority	Status
335	GP	EXT	One loose grout pocket at suite 53.	2	Closed 2016 MOR
343	GP	EXT	One loose grout pocket at suite San Francisco Seals.	2	Open 2016 MOR
358	GP	EXT	Missing grout pocket near seat 9 row 10 section 236.	1	Closed 2016 MOR
438	GP	EXT	Grout pocket at former support post for hand rail appears to be loose, between Section 306 and 307, Row 3, Seat 12.	3	Open 2016 MOR
439	GP	EXT	Railing grout pocket embed, Row 1, Section 306, Seat 1.	3	Open 2016 MOR
440	GP	EXT	Railing grout pocket embed, Section 306, Row 1, Seat 12.	3	Open 2016 MOR
441	GP	EXT	Two railing grout pocket embeds, Section 307, Row 1, Seats 12 and 13	3	Open 2016 MOR
442	GP	EXT	Railing grout pocket embed, Row 1, Seat 12, Section 308.	3	Open 2016 MOR
443	GP	EXT	Railing grout pocket embed, this is at the base of the stairs between Sections 310 and 311, Row 1.	3	Open 2016 MOR

*Note: Items updated or added this period are highlighted in **RED**.



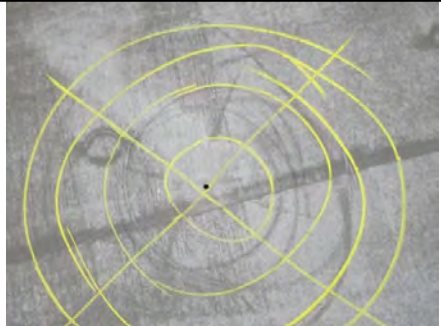



X. MOR – ROW 5 ISSUE

For 2017, the Row 5 issue generally remains static. Varying degrees of moisture continue to seep out of the concrete joint between the walkway slab and the cast concrete seating sections directly behind the Row 5 Seats, and at a similar sealant detail behind the Row 8 Seats. Since Wiss Janney Elstner submitted their report dated July 22, 2011 indicating the slab to beam joint below Row 5 is actually performing as designed and the joint was intended to weep moisture from the slab areas behind, the Mariners have attempted to determine where the point of water intrusion is actually occurring. A workable solution to the issue has yet to be determined. The particular joints in concern are related to the Issue #, as shown in the photos below. Lateral joints near Row 5, have also been documented as an association to this ongoing issue. However, it is our understanding that sealing these joints do not have the continued impact that the vertical concrete face joints have. Several of the lateral joints were sealed between our 2016 MOR and 2017 MOR, and documented by the Mariners using PlanGrid.




REPRESENTATIVE PHOTOGRAPHS OF NEW ISSUES OBSERVED		
		
<p>FS-Failed horizontal sealant in Section 222 Row 5 Seat 2. Issue #608, Priority 3 2017 MOR</p>	<p>FS - Failed sealant tape at expansion joint near seat 1 row 5 section 213 during 2016 MOR. Update 2017 MOR - Action completed. Issue #351.</p>	<p>FS - Section 341 row 5; failed sealant along row 5 including stairs. Issue #338, Priority 3</p>

XI. MOR – RETRACTABLE ROOF PANELS (MEMBRANE)

With the original 15-year warranty having expired in 2014 and an extended warranty was not pursued due to the projected costs, a full review of the roof membrane was completed to identify areas of needed repair as well as general condition. Access was provided on July 17, 2017 for Marx|Okubo to perform our annual review of the membrane on the retractable roof at Safeco Field. Overall the roof generally appears in good condition considering its age. During our review, we revisited issues from our past reports that remained to be addressed including membrane tears or holes; lifted old patch or seams at walk pads; debris and water build-up in gutters; rubbing and cracking skirt panels; moss build-up; rust/corrosion or fading paint at steel framing; birds' nests; etc. Many of last year's issues were repaired or otherwise addressed including most of the membrane penetrations, birds' nests, and gutter debris. Select locations of new gutter debris were observed this year along the south side of Panel 2. Some painting of the roof trusses has occurred primarily at the lower half where accessible with a poll-mounted paint roller. Fading and rust/corrosion is still evident at many areas of the trusses. Several of the recent roof patches are not properly adhered and will need to be corrected again. A few more penetrations were identified and previous penetrations were more clearly marked as needed. The south roof structure trolley platform remains heavily stained. As previously reported, cracking was noted at the skirt panels primarily near the end point connections with some new cracks noted this year. Generally, the roof membrane is performing well for its age. Ongoing roof maintenance should continue. The roof should be expected to perform for several more years assuming roof reviews, maintenance and repairs are being performed regularly.

REPRESENTATIVE PHOTOGRAPHS OF NEW ISSUES OBSERVED		
		
RF - Disengaged fastener	RF - Gutter debris.	RF - Panel #3, south half, bullet hole.
		
RF - Failure of recently placed patchwork.	RF - Panel 3, south half. Repairs of previous holes that are failing, loose and not properly adhered.	RF - Cracking at Skirt panel connection 8/9. Ongoing issue.

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REPRESENTATIVE PHOTOGRAPHS OF NEW ISSUES OBSERVED		
		
RF - Panel 2, north half. Truss A. Evidence of recent repainting. Note minor corrosions still evident above the recent painting. This is common in several areas of the truss framing.	RF - Panel 2, Truss D, NE corner. Minor corrosion showing through painted finish on truss.	RF - Panel 2 - North half, Truss C, east side. Just east and slightly south of truss Column H. Infill piece of previous hole in membrane. Appears there was a cover patch, that has since fallen off.

NEW OR CONTINUING ISSUES (as identified in PlanGrid)

Issue #	Stamp	Section	Description	Priority	Status
464	RF	RRP	Minor dirt and debris in north gutter, Panel 2.	4	Open 2016 MOR
465	RF	RRP	Wear of finish on truss with minor corrosion. Old condition but appears to be spreading and getting worse.	4	Open 2016 MOR
466	RF	RRP	Wear of finish on truss with minor corrosion. (Showing truss identification marker). Old condition but appears to be spreading and getting worse.	4	Open 2016 MOR
467	RF	RRP	Old patch failing with corner peeling up. Between Trusses C and D.	3	Open 2016 MOR
468	RF	RRP	Wear of finish on truss with minor corrosion. Old Condition but appears to be spreading and getting worse. (Note: Only a representative sampling of photos was taken; not all areas documented as it does occur in many areas)	4	Open 2016 MOR
469	RF	RRP	Corrosion on strap around column base.	4	Open 2016 MOR
470	RF	RRP	Corrosion on strap around column base.	4	Open 2016 MOR
471	RF	RRP	Minor dirt and debris in north gutter, Panel 2.	4	Open 2016 MOR
472	RF	RRP	Bird nest at north tip of Truss B.	4	Open 2016 MOR
473	RF	RRP	Peeling walkway pads near roof hatch (old condition).	4	Open 2016 MOR
474	RF	RRP	Chip in paint with corrosion, truss beam A83NW.	4	Open 2016 MOR
475	RF	RRP	Bullet hole in membrane. Located 6 membrane panels east of skirt flap #6.	3	Open 2016 MOR
476	RF	RRP	Cracking of skirt flaps at connection points.	3	Open 2016 MOR
477	RF	RRP	Panel 3, tear in membrane. Issue is located approximately 16 membrane panels east of Skirt Flap #4.	3	Open 2016 MOR

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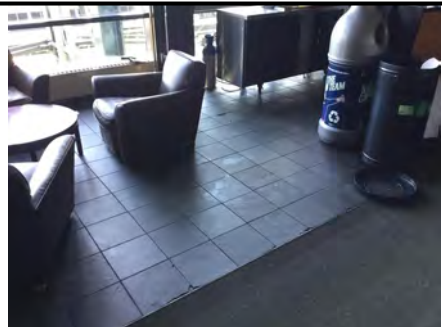
Issue #	Stamp	Section	Description	Priority	Status
478	RF	RRP	Panel 3, wear near membrane connections from rain skirt. (Near Skirt panel #3). 2017 MOR Update: Appears patches were provided in the off-season, however, upon our review the repair patches have failed. See updated photos.	4	Open 2016 MOR
479	RF	RRP	Panel 3, Three holes in membrane. Located approximately 17 membrane panels east of Skirt Panel 3/4. 2017 MOR Update: Appears patches were provided in the off-season, however, upon our review the repair patches have failed. See updated photos.	4	Open 2016 MOR
480	RF	RRP	Minor area of standing water and dirt in south gutter, Panel 3.	4	Open 2016 MOR
481	RF	RRP	Cracking at skirt panel connection point 8/9.	4	Open 2016 MOR
482	RF	RRP	Cracking at Skirt panel connection point 23/24, 34/35, 37/38, 38/39, 39/40, and 40/41.	4	Open 2016 MOR
483	RF	RRP	Significant rust staining on south trolley rail platform.	4	Open 2016 MOR
484	RF	RRP	Roof structure steel rusting at Panel 2 south side, east end.	3	Closed 2016 MOR
485	RF	RRP	Worn graphics at Panel 2 east end.	4	Open 2016 MOR
486	RF	RRP	Moss build-up at worn graphics, Panel 2 east end.	4	Open 2016 MOR
487	RF	RRP	Moss build-up at worn graphics, Panel 2 mid-roof.	4	Open 2016 MOR
488	RF	RRP	Ponding water at Panel 2 south gutter mid-roof, looking west.	3	Closed 2016 MOR
489	RF	RRP	Previous roof cut in roof membrane at Panel 2 south, west end.	3	Open 2016 MOR
490	RF	RRP	Mud flap is dragging on roof membrane causing excessive wear. Located at Panel 1 north side mud flap 15.	3	Closed 2016 MOR
616	RF	RRP	Disengaged fastener, which may cause damage to the membrane.	3	Open 2017 MOR
617	RF	RRP	Gutter debris	4	Open 2017 MOR
618	RF	RRP	Panel 2 - North half, Truss C, east side. Just east and slightly south of truss Column H. Infill piece of previous hole in membrane. Appears there was a cover patch over that has since fallen off.	3	Open 2017 MOR
619	RF	RRP	Failed patches at previously made repairs	3	Open 2017 MOR

*Note: Items updated or added this period are highlighted in RED.

XII. MOR – INTERIORS

Interior review generally included the suite and box seat areas as well as the press box facilities and associated restrooms and corridor areas. General office areas are not included as part of the scope of work. Interiors were found to be in fair condition and continue to show expected wear and tear as the facility ages. Several 2016 MOR items were closed during our 2017 MOR, including a few new items. One new item, Issue #604, is of significant concern related to water infiltration at the suite ceiling to exterior window joint. This item was reported to Marx|Okubo from Mariner maintenance staff, and was in progress of being temporarily addressed by Mariner staff. It is recommended that during the off-season we perform further investigation to find the actual cause, and recommendations based on our findings for a permanent fix.

Ongoing renovation of general interior finishes should be anticipated as part of the scheduled maintenance program.

REPRESENTATIVE PHOTOGRAPHS OF NEW ISSUES OBSERVED		
		
<p>MS- Water infiltration at ceiling of suite 35. Further investigation recommended. Issue #604, Priority 2.</p>	<p>MS - Stained ceiling tile, Suite 29. Issue #605, Priority 4.</p>	<p>MS - Damaged slate tile at food bar, located near Section 220. Issue #607, Priority 4.</p>

NEW OR CONTINUING ISSUES (as identified in PlanGrid)

Issue #	Stamp	Section	Description	Priority	Status
452	MS	INT	Minor moisture damage to the base under one of the storefront windows, Suite Level outside Suite 69. Same issue on both sides of the double doors.	4	Open 2016 MOR
453	MS	INT	Loose threshold at door leading to common corridor, Suite 41. UPDATE 2017 MOR: Condition appeared to be addressed at select locations, however, several locations were noted with damaged threshold.	4	Open 2016 MOR
454	MS	INT	Seam in carpet is unraveling, Suite F. UPDATE 2017 MOR: Suite was not accessible during our visit.	4	Open 2016 MOR

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Issue #	Stamp	Section	Description	Priority	Status
455	MS	INT	Pipes under the sink, all gender restroom, U17D. Concourse 300 are not wrapped. All the 'all gender' restrooms should be checked for compliant wrapping of pipes beneath the sinks. UPDATE 2017 MOR: Several "all gender" restrooms we observed, with added pipe covers. It is assumed this was addressed at all conditions throughout the ball park.	1	Closed 2016 MOR
604	MS	INT	It was reported by Mariner staff at Suite 35 (Mariner Suite) on Level 200, water infiltration is occurring at the ceiling to exterior window wall. The infiltration is causing damage to the ceiling tiles, wall finish, and flooring. Upon further investigation by Marx Okubo, it appears the water accessing through the exterior wall at infrastructure pipe penetrations. The water appears to be coming from surface runoff and concrete deck cracks from Level 300. At the time of our site visit, Mariner Staff were attempting to address the issue with a temporary solution of sealant. Marx Okubo recommends further investigation to this area during the 2017/2018 off-season.	2	Open 2017 MOR
605	MS	INT	Stained ceiling tiles observed in Suite 29.	4	Open 2017 MOR
607	MS	INT	Damaged slate tile at food bar, located near Section 220.	3	Open 2017 MOR

*Note: Items updated or added this period are highlighted in RED.

XIII. MOR – MECHANICAL/ELECTRICAL/PLUMBING

Specific mechanical, electrical, plumbing, and life safety equipment with corrective work orders in 2016 were reviewed and the extent of the necessary repairs was discussed with Ryan Van Maarth, Chris Hunsaker, Paul Fuller, Ken Stanton, and Jonathan Arnold. The repairs were properly made and the equipment is in proper operating condition.

The maintenance program operates with the assistance of the MVP Plant computerized maintenance management system that was updated in 2009. The maintenance program continues to be well staffed and properly organized. The following is based on a review of the completed work order information for 2016. Marx|Okubo has been provided with direct access to the program in order to obtain the information needed. The Mariners have provided Marx|Okubo with access to the program, so that we can review specific work orders. In general, the timing and tasks completed as part of the preventive maintenance program continues as it has been in the past few years.

In 2016, there was slight decrease in the number of work orders issued, from 8,961 to 7,687, a decrease of 14.2% after a 1.7% decrease in 2015. If we consider only the Preventive Maintenance and Corrective work orders, there was a decrease from 6,716 to 5,472, which is a decrease of 18.5%. The number of Preventive Maintenance work orders decreased from 5,720 to 5,107, a decrease of 10.7%. The number of corrective work orders decreased significantly, with 365 in 2016 compared to 996 in 2015. The number of corrective work orders continues to be a small part of the total work orders listed, a good indicator of the effectiveness of the maintenance program.

During 2016, the staff was generally able to complete the majority of preventive maintenance tasks. The majority of preventative maintenance tasks not completed are HVAC monthly, annual, and semi-annual tasks on equipment throughout the building. It is recommended that the staff analyze the need for the number of preventative maintenance tasks programmed into MVP Plant as they do not appear to be completed by the staff or not closed out in the database. The review also shows there continues to be relatively few corrective work orders on the mechanical equipment in the park, however there was a slight increase from 44 in 2015 to 46 in 2016, which includes work orders for temperature settings or other control related issues. There were 30 corrective work orders for HVAC equipment generally related to replacement of equipment components such as motors, valves, control components and small fans. Equipment affected included water-source heat pumps, air conditioning units, VAV boxes and exhaust fans. The frequency of these events does not indicate a need for replacing entire units in the near future.

The current status of the electrical preventive maintenance program was discussed with Paul Fuller, electrician in charge of the program. As noted in prior reports, the majority of minor problems are corrected at the time of the infra-red or visual examination. During 2016, only preventative maintenance work orders were noted to perform infra-red scans. This suggests that the program as it is currently operating is providing an appropriate level of maintenance.

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The in-house infrared scan program has been extended to include electrical components connected to the main HVAC equipment.

In 2015, the Mariners elected to defer the main switchgear preventive maintenance program which had operated for the prior six years, and to pick it up again in 2017. As discussed last year, Marx|Okubo has no issue with this change since no problems had been noted in the second set of work for each main service and this is still within guidelines provided by the InterNational Electrical Testing Association.

The maintenance staff continues to review the frequency and tasks to be completed for the preventive maintenance program for some of the equipment. Any proposed changes will be reviewed and discussed with the Mariners, as appropriate.

The following items are based on interviews with the maintenance staff and visual observations made during our tour of the facility accompanied by members of the maintenance staff.

There continues to be a dissatisfaction with the current MVP Plant computerized maintenance management system that has been in use since the facility opened. The system does not appear to be very user friendly, with duplication of effort in closing out work orders and difficulty obtaining the history for a particular piece of equipment. While some members of the maintenance staff use MVP Plant on a daily basis, others noted that they do not use the program at all. The plumbing staff currently share a workstation with an operating system that is no longer being supported. An updated version of MVP Plant was recently released, and staff is currently determining the efficiency of the new version. The option of utilizing mobile devices to review work orders and equipment history along with closing out work orders after the tasks have been completed in the field appears to be an efficient and beneficial paperless tool for the maintenance staff. It appears as though preliminary research on alternative maintenance programs has been completed by the staff, but an in-depth cost-benefit analysis has yet to be performed. While changing systems might have a short-term impact on the analyses completed of the maintenance program, this should not be a significant concern and the team should look at available programs to see if there is one that might better serve their needs.

The workstation in the central plant frequently has issues with downloading/uploading programming data to the field devices through the Johnson Controls Metasys building automation system (BAS). As a result, this requires a member of the mechanical staff to visit the device in the ballpark and plug in with a laptop to implement any changes in programming. Whether the issue lies between the connection from the workstation to the server or from the server to the network automated engine (NAE) and finally to the field devices is unknown. It is recommended that representatives from Johnson Controls and the IT staff for the Mariners resolve the issue.

The air handling units are generally in good condition with the staff providing sufficient maintenance of the units. Based on the age of the units, some minor routine issues have surfaced. Corrosion was observed in the condensate drain pans of the air handling units. The maintenance staff is aware of this issue although to remove the corrosion and re-coat the pans will be difficult. Space to access and/or remove the pans is limited.

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The intake louvers for the air handling units are provided with welded wire bird screens. The screens are now deteriorating allowing larger debris to enter the intake ductwork from the exterior stairwells. The heat exchanger for the Mammoth unit, serving the clubhouse, does not have filters for the outside air or exhaust which causes an increase in fan energy.

A gas-fired, heating water boiler, located in the central plant was observed to be inactive due to a failure of the heat exchanger. It was noted by Chris Hunsaker that replacing the heat exchanger was relatively high and installing a new boiler from a different manufacturer may be more cost efficient.

An issue that will be ongoing will be the replacement of the original flow control valves serving the water source heat pumps as the bellows within the valves are reportedly failing. Replacement of the valves will help reduce total flow and cooling load requirements on the condenser water system.

Chris Hunsaker noted a possible need to upgrade the total capacity of the cooling towers at the central plant. An engineering study has not been conducted but should be anticipated if the cooling load in the ballpark continues to increase.

The Mariners elected to extend the timing of the electrical preventive maintenance program. The program will be continued in 2017, working on a five-year cycle instead of the original three-year cycle. The ballpark is divided into three sections and infrared scans are performed on a specific section every third year. In 2016, infrared scans were conducted for equipment serving the field, central plant, and parking garage.

This is within recommendations of the International Electrical Testing Association, especially given that no new problems were detected during the last round of testing. An Arc Flash Study has been completed to determine the risk of arc flashes within the electrical system and the level of personnel protective gear that would be appropriate if the system is worked on live. This is consistent with OSHA requirements for proper operation of a facility.

One major item of concern continues to be the Microlite lighting control system. The computer program for this system is DOS-based and is no longer supported by the manufacturer. The individually controlled breakers are also obsolete and becoming more difficult to find on the secondary market. It is recommended that the process begin for replacing the current lighting control system. A new control system is provided for the field LED lights to provide the desired effects, but it still relies on the Microlite system to turn the lights on and off initially. While the breakers could be turned on and off manually in the event of a failure of the control computer, this would take considerable manpower and likely would result in increased electrical usage.

The six gas-fired, domestic water condensing boilers are equipped with condensate neutralization kits designed to raise the pH level of the condensate discharged from the boilers so as not to harm the drain piping. It appears as though the kits have not been serviced and require new media.

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The staff has also had problems with the Johnson Controls DX9100 controllers for the boilers due to their age. A long-term plan to replace the controllers should be implemented.

The facility has had a few leaks in domestic hot water piping over the years, but there was no significant increase in the frequency of leaks during the past year. The plumbing staff continues to replace or re-solder the swing arm of the drain line from some of the urinals as issues arise. This appears to be due to a build-up of ureic acid in the line if it does not have adequate slope. This has become an issue due to the replacement of all urinals with ultra-low flow units (0.125 gallons per flush instead of 1 gallon per flush) several years ago. While there have not been enough instances to warrant replacing all ultra-low flow urinals and piping, the team is monitoring this and has replaced urinals and piping where problems have occurred.

Approximately five to ten cast iron P-traps, serving the soft drink and alcoholic stations in the concession stands, have been replaced due to the acidic nature of the beverages. The P-traps are generally easily visible and accessible for the staff to replace. To help resolve this issue, the recommendation to ask concession staff members to flush the drain lines with water after each game has been put forward.

The lack of control and supply of domestic hot water was noted in three general areas of the ballpark and has resulted in occupant complaints. The three sets of restrooms in Sections 183 through 186 are not connected to the main domestic hot water system and supplied hot water through electric, point-of-use water heaters. The main and field level complaints are the result of an inability to service flow control valves on the recirculation system. No shut-off valves are installed, and the flow control valves cannot be isolated.

Where observed, exterior fire sprinkler heads are corroded which could prevent proper activation. It is recommended that a certain percentage of the heads be tested to ensure a zero-failure rate.

REPRESENTATIVE PHOTOGRAPHS OF ISSUES OBSERVED		
		
CR – Corrosion on exterior fire sprinkler head. Priority 1.	MP – Deteriorating wire bird screens in the outside air intake louvers for the air handling units. Priority 3.	MP – Inactive heating water boiler due to failed heat exchanger. Priority 2.

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REPRESENTATIVE PHOTOGRAPHS OF ISSUES OBSERVED

		
CR – Corrosion in the condensate drain pan of an air handling unit. Priority 3.	CR – Corrosion on the cast iron P-traps serving the concession area beverage stations. Priority 3.	CR – Deteriorating copper waste piping in the urinals. Priority 3.

NEW OR CONTINUING ISSUES

Issue #	Stamp	Section	Description	Priority	Status
MEP_001	CR	MEP	Corrosion on exterior fire sprinkler head.	1	Open 2017 MOR
MEP_002	MP	MEP	Deteriorating wire bird screens in the outside air intake louvers for the air handling units.	3	Open 2017 MOR
MEP_003	MP	MEP	Inactive heating water boiler due to failed heat exchanger.	2	Open 2017 MOR
MEP_004	CR	MEP	Corrosion in the condensate drain pan of an air handling unit.	3	Open 2017 MOR
MEP_005	CR	MEP	Corrosion on the cast iron P-traps serving the concession area beverage stations.	3	Open 2017 MOR
MEP_006	CR	MEP	Deteriorating copper waste piping in the urinals.	3	Open 2017 MOR

*Note: Items updated or added this period are highlighted in RED.

XIV. MOR – BUILDING EQUIPMENT

Marx|Okubo's 2017 MOR scope of work included a comprehensive review of the ballpark's eleven escalators located in Safeco Field. The review was conducted by Architectural Elevator Consulting, LLC, (AEC) on July 10 and 11, 2017, by Bob Nicholson, President, and Harry Temple both QEI Certified inspectors. The escalators were inspected per A17.1 standards.

During the 2016 season, ELTEC, the current servicing contractor for all vertical transportation equipment at Safeco Field, had made repairs/modifications to the escalators per AEC's recommendations following AEC's 2015 review. The escalators were found to be properly maintained by ELTEC and in better condition than the previous review.

In addition to the field review, AEC reviewed the Maintenance Control Program (MCP) and annual inspection results from ELTEC's December 2016 inspection. During the December 2016 inspection ELTEC did full skirt index testing. The results of those tests were reviewed by AEC and all escalators were found to be in compliance.

The following is a summary items:

The bottom of Escalators 13 and 14 are still open to a storage area. While unlikely that someone would get to this area, it is a major code violation to have the escalator trusses open. This was brought to the immediate attention of the Mariners when discovered in 2015 and still found to be an open item.

The primary focus of the 2017 MOR escalator review was to ensure that the escalators were being properly maintained, operating safely and identify any upgrades needed over the evaluation term. The escalator reports generated by AEC in 2015 were reviewed to ensure that all items were completed.





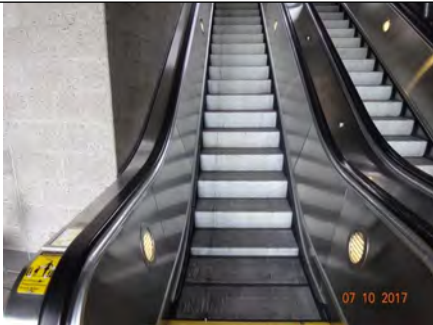







Items listed in the "New or Continuing Issues Log" are all open. Compared to the 2015 review, the escalator safety switches were operating much more satisfactorily.

In general, escalators were found to be well maintained. Compared with similar escalators in the Puget Sound area ELTEC is doing an above average job of maintenance. Most of the pits were clean. The skirt switches and other safety devices were tested, and all worked properly. This is especially good when considering the escalators are located outside.

According to ELTEC the Mariners were considering slowing the escalators down from 120 Feet Per Minute (FPM) to 90 FPM. While there is nothing operationally wrong with the escalators at the higher speed, we too recommend slowing the units down for safety reasons. All of the escalators at the proper stopping glide at 120 FPM, but at the slower 90 FPM the lower speed will give passengers a better chance of hanging on if the escalators stop for any reason.

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The following photographs are issues or concerns identified by AEC, regarding their 2017 MOR escalator review;

REPRESENTATIVE PHOTOGRAPHS OF ISSUES OBSERVED		
		
1.1 Sign with escalator numbers is worn.	1.2 Typical escalator pit with minimum dirt.	1.3 Escalator motor at top of escalator with light layer of dust.
		
1.4 Escalator steps with excessive oil/grease on steps and risers.	1.5 Escalator with minor oil leak on left side.	1.6 Bottom of escalators 13 and 14 is open to space above freezer.
		
1.7 Underside of escalators for 13 and 14 is open.	1.8 Excess oil accumulation in pit.	1.9 Top of escalator 11 with dual motors.
		
1.10 Pit in fair condition.	1.11 Oil accumulation in pit.	1.12 Finish of leading edge of step is coming off.

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NEW OR CONTINUING ISSUES (as identified in AEC's 2017 MOR)

Issue #	Description	Escalator
11.1	Upper right step level device failed.	11
11.2	Escalator Number tag at bottom is worn and should be replaced.	11
11.3	Minor dirt in pits at top and bottom.	11
11.4	Remove oil from top of machine.	11
12.1	Light amount of water in pit.	12
12.2	Minor dirt in pit.	12
12.3	Step risers have medium accumulation of oil/grease and should be cleaned.	12
12.4	Remove zip tie on top deck switch device.	12
13.1	Bottom pit is dirty.	13
13.4	Top pit is dirty with oil.	13
13.5	Step risers need to be cleaned of oil accumulation.	13
13.6	Clad bottom of escalator to eliminate access to underside.	13
14.1	Top pit is dirty with oil.	14
14.2	Bottom pit is dirty.	14
14.3	Replace worn comb plates at bottom. 30% of paint has come off.	14
14.4	Repair gear box to eliminate oil leak.	14
14.5	Clad bottom of escalator to eliminate access to underside.	14
15.1	Water and oil are pooling in bottom of pit.	15
15.2	Top right skirt brush tip is bad and should be replaced.	15
15.2	Tip on brush is missing on bottom right side.	15
15.3	Escalator would not run after inspection. Shout off when operating up.	15
18.1	Data tag has worn state number at bottom.	18
18.2	Lots of grease in middle of step riser.	18
19.1	Top pit is dirty.	19
20.1	Most steps are dirty and need to be cleaned.	20
21.1	Steps are dirty.	21
21.1	The finish in the leading edge of several steps has chipped off.	21

An elevator review was not conducted in this year's 2017 MOR. As previously reported, the primary focus of the 2016 MOR elevator review was to opine on the status of issues previously identified by AEC in 2015. A Marx|Okubo staff member, non-certified but with elevator inspection experience, was accompanied by an ELTEC technician on July 29, 2016. ELTEC provided visual access to the pits and car tops so that photographs could be taken of deficiencies or repairs. The escalators were not included in our 2016 review. During our 2016 MOR, it was in Marx|Okubo's opinion that the elevator equipment is being maintained in average-to-good condition when compared to similar properties. Marx|Okubo was not able to opine on ride quality as specialized equipment is required to measure speed, rate, force, time and jerk.

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Items listed in the "Continuing Issues Log" below were assigned a status of either "In Review", "Open", or "Pending". Items identified as "In Review" appear to have been addressed but should be verified and closed-out by a certified elevator inspector. The low quantity of "Open" items suggests that ELTEC is addressing issues in a timely manner. Items which are related to performance issues, have been changed to "pending" and should be verified and closed-out by a certified inspector. On December 6, 2016, a conference call was held between ELTEC, the Mariners, and Marx|Okubo to discuss the status of "open" and "in review" elevator items identified in PlanGrid Issue Report – 10/05/16.

CONTINUING ISSUES (as identified in PlanGrid per Marx|Okubo 2016 MOR)

Issue #	Stamp	Section	Description	Elevator	Status
154	EL	BEQ	BEQ-1: Rupture valve is tagged but not sealed.	Elevator 1	Pending
155	EL	BEQ	BEQ-2: Two seismic hold downs are missing on tank unit.	Elevator 1	Pending
156	EL	BEQ	BEQ-5: Jamb braille is crooked at 100.	Elevator 1	Pending
157	EL	BEQ	BEQ-8: Seismic retainer on governor is too far out. Should be adjusted.	Elevator 2	Pending
158	EL	BEQ	BEQ-9: Machine has small oil leak.	Elevator 2	Pending
159	EL	BEQ	BEQ-10: Pit stop switch is at 19" state now requires them to be 36" to 48". Marx Okubo response: Dee to follow-up with completed photo on 3/5/2017.	Elevator 2	Open
160	EL	BEQ	BEQ-11: Pit is dirty.	Elevator 2	Pending
161	EL	BEQ	BEQ-12: Cab steadier's need to be tighten on top of car.	Elevator 2	Pending
162	EL	BEQ	BEQ-14: Oil is leaking from machine onto floor.	Elevator 3	Pending
163	EL	BEQ	BEQ-13: Alarm bell in car does not work.	Elevator 3	Pending
164	EL	BEQ	BEQ 9: Machine has small oil leak.	Elevator 2	Pending
165	EL	BEQ	BEQ 15: Remove loose hanger rollers from cross head.	Elevator 3	Pending
166	EL	BEQ	BEQ 17: Remove old door operator cover screws from car top.	Elevator 4	Pending
167	EL	BEQ	BEQ 18: Acceleration is jerky. (12.9 jerk rate)	Elevator 4	Pending
168	EL	BEQ	BEQ 19: Bracket for battery is missing in controller. Battery was installed new in 2008. Bracket never put back.	Elevator 4	Pending
169	EL	BEQ	BEQ 20: Machine is leaking a small amount of oil.	Elevator 5	Pending
170	EL	BEQ	BEQ 24: 2nd clip on hoist rope shackles is too far away from 1st clip. Measured at 7". Should be spaced 4" apart.	Elevator 5	Pending
171	EL	BEQ	BEQ 28: Car jerks to a start.	Elevator 6	Pending
172	EL	BEQ	BEQ 29: Clips on Shackles are 7" apart. Should be spaced 4" apart.	Elevator 6	Pending
173	EL	BEQ	BEQ 30: No install date on hoist ropes. Marx Okubo response: ELTEC was not the original installer of the ropes and therefore cannot provide a new tag.	Elevator 6	Open
174	EL	BEQ	BEQ26: Small oil leak under machine.	Elevator 6	Pending
175	EL	BEQ	BEQ 32: Acknowledgement light on phone does not blink. Marx Okubo response: This issue requires training by Mariner's security personnel. ELTEC to provide training.	Elevator 7	Open

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Issue #	Stamp	Section	Description	Elevator	Status
176	EL	BEQ	BEQ 34: Final limit was not working.	Elevator 7	Pending
177	EL	BEQ	BEQ 35: Hoist ropes have excessive grease.	Elevator 7	Pending
178	EL	BEQ	BEQ 36: Check rope tension.	Elevator 7	Pending
179	EL	BEQ	BEQ 37: Adjust slide guides to limit left to right movement.	Elevator 7	Pending
180	EL	BEQ	BEQ 39: Seismic retainers for governor are too far out. Marx Okubo response: The original equipment was not installed with a seismic retainer on the governor. ELTEC to follow up with proposal to add seismic retainer.	Elevator 7	Open
181	EL	BEQ	BEQ 40: Pit equipment is not labeled with elevator numbers.	Elevator 7	Pending
182	EL	BEQ	BEQ 41: Check bearing on motor/brake shaft, sounds loud. Marx Okubo response: ELTEC requested that one of their repair supervisors follow up on this issue.	Elevator 7	Open
183	EL	BEQ	BEQ 43: Grout at hoistway sill is missing, Level B Marx Okubo response: Mariners will follow up with completed photo.	Elevator 7	Open
184	EL	BEQ	BEQ 44: Acknowledgment light on phone does not blink.	Elevator 8	Pending
185	EL	BEQ	BEQ 45: Door restrictor needs adjusted. Does not work.	Elevator 8	Pending
187	EL	BEQ	BEQ 47: Counterweight has excess oil on 2:1 sheave.	Elevator 8	Pending
188	EL	BEQ	BEQ 48: Rail lubricators on counterweight are dry.	Elevator 8	Pending
189	EL	BEQ	BEQ 49: Hoistway door at Level B is bent at sill. Marx Okubo response: ELTEC will follow up on this issue with proposal.	Elevator 8	Open
190	EL	BEQ	BEQ 50: Commutator on hoist motor is very loud and has high spots.	Elevator 8	Pending
191	EL	BEQ	BEQ 51: Pit equipment is not properly labeled.	Elevator 8	Pending
192	EL	BEQ	BEQ 53: Shackle clips on counterweight look too far apart.	Elevator 9	Pending
193	EL	BEQ	BEQ 54: No Car top handrail. News side only. Marx Okubo response: Mariners have approved this upgrade. ELTEC will follow up with completed photo on 3/31/17.	Elevator 9	Open
194	EL	BEQ	BEQ 55: Pit equipment is not numbered.	Elevator 9	Pending
195	EL	BEQ	BEQ 56: Counterweight is dirty.	Elevator 9	Pending
196	EL	BEQ	BEQ 57: Hatch door at 100 stays open on its own.	Elevator 9	Pending
197	EL	BEQ	BEQ 58: Pit stop switch is at 18". State requires it to be at 36" to 48". Marx Okubo response: Dee to follow up with proposal.	Elevator 9	Open
198	EL	BEQ	BEQ 59: Trip hazard in car on wind up safety.	Elevator 9	Pending
199	EL	BEQ	BEQ 63: Cab flooring is a trip a hazard	Elevator 9	Pending
200	EL	BEQ	BEQ 65: Rupture valve is not tagged.	Elevator 1	Pending
201	EL	BEQ	BEQ 66: Jack head is leaking oil.	Elevator 1	Pending
202	EL	BEQ	BEQ 68: Inside car capacity and certificate say car is rated for 4,000 lbs. Top of car says it is only rated for 3,500 lbs.	Elevator 1	Pending
203	EL	BEQ	BEQ 69: Hatch door only has one fire tab.	Elevator 1	Pending

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Issue #	Stamp	Section	Description	Elevator	Status
204	EL	BEQ	BEQ 70: Needs car top handrails. Marx Okubo response: Mariners have approved this upgrade. ELTEC will follow up with completed photo on 3/31/17.	Elevator 1	Open
205	EL	BEQ	BEQ 71: Most relays in controller are missing clips to hold them in place.	Elevator 1	Pending
206	EL	BEQ	BEQ 73: Pit is dirty.	Elevator Garage 1	Pending
207	EL	BEQ	BEQ 74: Hall gong comes on after doors open. Marx Okubo response: Per ELTEC, the original equipment is not adjustable. ELTEC will follow up with proposal to install new.	Elevator Garage 1	Open
208	EL	BEQ	BEQ 75: Car top is dirty.	Elevator Garage 1	Pending
209	EL	BEQ	BEQ 76: Hoistway sills are dirty.	Elevator Garage 1	Pending
210	EL	BEQ	BEQ 77: Left lock on car top hatch is broken.	Elevator Garage 1	Pending
211	EL	BEQ	BEQ 78: Some relays are missing clips.	Elevator Garage 1	Pending
213	EL	BEQ	BEQ 81: Pit is dirty.	Elevator Garage 2	Pending
214	EL	BEQ	BEQ 82: Car top is dirty.	Elevator Garage 1	Pending
215	EL	BEQ	BEQ 85: All relays are missing clips.	Elevator Garage 2	Pending
491	EL	BEQ	BEQ 42: Adjust doors so they do not slam open at end of travel.	Elevator 7	Pending

XV. CONCLUSIONS

As Safeco Field moves into its 18th year of operation, it will be necessary to implement both cosmetic and material improvements and replacements to keep the facility as a leader among its peer group. It is Marx|Okubo's opinion the maintenance practices employed by the Mariners to ensure the protection and ongoing enjoyment of Safeco Field for the Public Facilities District and the people of the State of Washington, have generally met or exceeded the minimum requirements and have been generally responsive to correction of conditions which would lead to deterioration of the asset. The Mariners have actively pursued previously recommended repairs. In the years ahead as the systems continue to age, more aggressive maintenance should be anticipated.

The specific recommendations provided in this report are expected to be part of the operation and maintenance budget or part of a capital project request. As noted above, many of the deficiencies, specifically related to sealants and paint, identified from our observations are expected to be corrected as part of proposed and/or approved capital items for 2016. The most important issues being addressed in this report requiring the Mariners' attention include the following:

- Continued elimination of trip hazards in remaining locations throughout the site primarily at pavement and tree grates.
- Continued monitoring of remaining unaddressed beam-ends and post-tensioned grout pockets at the Parking Structure.
- Continued monitoring of underside of precast concrete seating bowl panels for cracked or spalled concrete that may potentially dislodge and drop onto pedestrians below.
- Continuation of sealant replacements including taped joints.
- Continued replacement of corroding plates beneath stadium seating that span over control joints.
- Continued removal and replacement of loose grout fill at pockets of precast seating bowl panels.
- Follow up with contractor that performed coating replacement at the outside corner for repairs needed under warranty.
- Develop repair plan and schedule for failed sealants along the ball park's west façade.
- Continuation of slab crack repairs with consideration of topical coatings for aesthetic purposes.
- Repair of noted roof deficiencies.
- Restoration or replacement of wearing or damaged finishes (floors, doors, walls, ceilings).
- Consideration of options available to address internal corrosion of domestic water piping.
- Review and address non-compliant accessibility concerns.

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Marx|Okubo will provide our report of findings to support preparation of work orders (if the Mariners choose to do so). If requested, we would be pleased to review Capital Maintenance Repairs for any work, which the Public Facilities District is required to approve.

XVI. EXHIBITS

A. NONE