

## CONCLUSIONS AND RECOMMENDATIONS

Walter P Moore has completed the Phase 1 condition assessment of the Bobby Dodd Stadium at Historic Grant Field in Atlanta, Georgia. The evaluation consisted of a visual review of the waterproofing systems and exposed structural elements.

Our condition assessment indicates that the stadium is in fair to good condition. Specific details of noted distress can be found in the observations section.

To address the observed distress, we have provided a prioritized list of recommendations. Our recommendations are divided into the following four categories: Immediate, High, Medium, and Low. Immediate priority items should be repaired as soon as possible. High priority items should be repaired within the next 6 months to maintain serviceability of the associated item. Medium repairs should be repaired within 12 months to prevent further deterioration. Low priority repairs should be addressed within the next 2 years. Repair priorities are based on the level of observed damage, concerns regarding life safety, and the structural need for the repairs to be performed.

### West Stands

#### Immediate Priority

- Remove and replace the loose overhead/vertical concrete spalls
- Remove and replace concrete on cracked precast concrete panel

#### High Priority

- Repair of the clip-angle connections between the structural steel members and the exterior precast panel at the back of the Upper Seating Level
- Further investigation of the connection between the precast panel and the precast seating risers at the north and south end of the Upper Seating Level

- Perform further investigation of the distressed beam at the east end of the ramp on the south side. Beam should be shored until investigation and repairs are performed.
- Repair of the clip-angle connection between the structural steel member and the precast panel on the ramps
- Remove and replace expansion joint system on the Lower Seating Level
- Remove and replace vertical expansion joint system at Suite Level
- Remove and replace cracked/spalled concrete around handrail bases at boundary wall
- Remove and replace the cracked/spalled concrete around handrail bases at aisle and walkways
- Engage an MEP engineer to evaluate the conditions where condensation occurs at the ducts above the suites.
- Remove the drain pipe on underside of the north ramp

#### Medium Priority

- Repair south wall at the bottom of the Lower Seating Level
- Repair cracks at the top of the boundary wall on the south side of the Lower Seating Level
- Recoat the structural steel throughout the West Stands
- Repair the traffic membrane on the Upper Concourse Level and walkway at the Lower Seating Level
- Recoat the exterior concrete panels on the West Stands
- Install sealant in locations where it was not previously installed
- Remove and replace deteriorated joint sealant
- Install sealant around handrail bases where it was not installed

- Remove and replace joint sealant at coping stones for the brick wall

#### Low Priority

- Repair deteriorated concrete on underside of tread/risers at Lower Seating Level near expansion joints
- Repair cracks on the Lower Concourse Level retaining wall
- Periodically monitor cracks on columns supporting entryway landing at back of stadium
- Monitor the expansion joint systems at the Upper Seating Level
- Replace traffic membrane on concrete tread/risers at the Lower Seating Level
- Remove existing handrail bases in the Lower Seating Level walkway
- Remove and replace the corroded anchor bolts connecting the aluminum benches to the concrete risers
- Clean and coat the steel lintels at Field Level

#### North Stands

##### High Priority

- Perform close-up investigation of deteriorated precast riser stems on Upper Seating Level.
- Remove and replace cracked/spalled concrete around handrail bases
- Review connection details between for the handrails above the main walkway on the Lower Seating Level to determine cause of corrosion

### Medium Priority

- Remove and replace the deteriorated grout in the precast pockets in the Upper Seating Level
- Repair the spalled concrete on the precast risers at the Upper Seating Level
- Rout and seal cracks in the walkways of the Lower and Upper Seating Levels
- Install a traffic membrane on the steps between the walkway and the bleachers at the Lower Seating Level.
- Remove and replace the topping slab on the first rows of the upper Sections 117 and 118
- Clean and coat exposed portions of structural steel members at the Lower and Upper Seating Levels
- Rout and seal cracks in the Lower and Upper Concourse Levels
- Replace joint sealant between precast seating risers in the Upper Seating Level
- Replace cove sealant between the aluminum bleachers and concrete steps at the Lower Seating Level
- Install sealant between structural steel columns and concrete slab at northeast corner of walkway in the Lower Seating Level.
- Install sealant between concrete slab and metal flashing at the main walkway in the Lower Seating Level
- Replace joint sealant between precast seating risers at upper section of Section 118 and adjacent building
- Replace joint sealant between concrete slab and CMU wall at the concourses and vomitory openings
- Apply sealant around handrail bases

### Low Priority

- Clean and coat corroded steel at connection between handrails and walkway at Lower Seating Level
- Apply zinc-rich primer the corroded handrails at the North Stands.
- Replace worn traffic membrane in the Lower Seating Level walkway
- Periodically monitor ceiling tiles for indication of water leaks
- Install missing tread and riser at Lower Seating Level
- Tuckpoint CMU joints on wall behind Lower Seating Level
- Cut bolts embedded into concrete panel at front row of Upper Level Seating

### East Stands

#### High Priority

- Remove and replace the expansion joint systems at the Upper Seating Level
- Remove and replace the expansion joint systems at the Upper Concourse Level
- Remove and replace the vertical expansion joint on the façade
- Install drain grate at the Upper Concourse Level
- Remove and replace cracked/spalled concrete around handrail bases at aisle and walkways
- Repair the fence at the top of the Upper Seating Level
- Clean out drain pipe at the northeast stair tower

### Medium Priority

- Investigate the metal stud used as a axial member in the Upper Seating Level
- Remove and replace delaminated parge coat and epoxy inject cracks at the column near gridline X on the Lower Concourse Level (refer to Figure 1 for location)
- Apply traffic membrane to the walkways at the Lower Seating Level
- Recoat the parge coat on the façade
- Install sealant between concrete members
- Remove and replace the joint sealant at the coping stone at the facade and at the brick wall in front of the Lower Seating Level.
- Remove and replace deteriorated cove sealant at the facade
- Remove and replace deteriorated joint sealant around the window frame and door frame on the facade
- Apply sealant around handrail bases

### Low Priority

- Replace worn traffic membrane at northeast stair tower
- Seal the cracks in the Lower Concourse Level
- Remove and replace the deteriorated concrete on the top of the exterior wall at the Lower Concourse Level
- Recoat the structural steel members throughout the stands.
- Recoat corroded spots on the treads in the Upper Seating Level
- Recoat the steel on the window frame, door frame, and decorative structural steel arch at the facade

- Recoat the corroded areas on the structural steel members supporting the façade members
- Periodically monitor ceiling tiles for indication of water leaks
- Coat the brackets supporting the aluminum benches in the Upper Seating Level

## South Stands

### High Priority

- Install missing handrail in the Lower Seating Level

### Medium Priority

- Repair deteriorated concrete in the walkway at the Lower Seating Level and on the columns in the southeast corner of the Lower Concourse Level
- Remove and replace spalled concrete column in the southeast corner of the Lower Concourse Level.
- Apply traffic membrane on southeast corner of the Lower Concourse Level
- Apply elastomeric coating to columns with low concrete cover in the southeast corner of the Lower Concourse Level
- Remove and replace deteriorated bricks at southeast corner of the Lower Seating Level

### Low Priority

- Clean and coat corroded steel
- Remove and replace the deteriorated cove sealant at CMU walls
- Tuckpoint CMU joints
- Replace deteriorated sealant on CMU control joints

ESTIMATED REPAIR QUANTITIES

Based on our visual survey, we have developed an estimated repair quantities to assist the Owner in their budgeting and maintenance program. Table 1 shows the estimated repair quantities.

Table 1 Estimated Repair Quantities

PRIORITY	DESCRIPTION	UNIT	ESTIMATED QUANTITY				
			West Stands	North Stands	East Stands	South Stands	Entire Stadium
Immediate	Overhead Slab Repair	S.F.	100	-	-	-	100
Immediate	Cracked Panel Repair	S.F.	10	-	-	-	10
High	Precast Façade Panel Repair (Clip Angles)	EA	35	-	-	-	35
High	Expansion Joint Replacement - Premolded	L.F.	1500	-	50	-	1550
High	Expansion Joint Replacement - Vertical	L.F.	15	-	12	-	27
High	Spall at Handrail Base	EA	150	10	50	-	210
High	Remove Drain Pipe	EA	1	-	-	-	1
High	Unclog Drain	EA	-	-	1	-	1
High	Expansion Joint Replacement - Adhered	L.F.	-	-	300	-	300
High	Repair Broken Fence	L.S.	-	-	1	-	1
High	Install Drain Grate	EA	-	-	1	-	1
High	Handrail Installation	EA	-	-	-	1	1
Medium	Concrete Wall Repair	S.F.	200	10	75	-	285
Medium	Clean and Coat Corroded Steel	LS	1	1	-	-	1
Medium	Crack Repair	L.F.	150	500	300	600	1550
Medium	Traffic Membrane - Repair	S.F.	20	-	-	-	20
Medium	Recoat Precast Panels	S.F.	3000	-	-	-	
Medium	Joint Sealant Installation	L.F.	50	500	-	-	550
Medium	Joint Sealant Replacement	L.F.	180	1200	750	200	2330
Medium	Install Grout and Sealant Around Handrail Bases	EA	100	-	30	-	130
Medium	Replace Sealant at Coping Stone	L.F.	200	-	250	-	450
Medium	Grout Pocket Repair	EA	-	5	-	-	5
Medium	Epoxy Injection	L.F.	-	15	5	-	20
Medium	Joint Sealant Replacement at Handrail Base	EA	-	75	50	-	125
Medium	Partial Depth Concrete Floor Repair	S.F.	-	50	-	50	100
Medium	Traffic System - New System	S.F.	-	2000	2000	6500	10500
Medium	Concrete Topping Repair	S.F.	-	125	-	-	125
Medium	Install Missing Flashing	L.F.	-	2	-	-	2
Medium	Column Repair	S.F.	-	-	50	15	65
Medium	Cove Sealant	L.F.	-	-	300	-	300
Medium	Brick Replacement	EA	-	-	-	5	5
Low	Concrete Wall Repair	S.F.	10	-	75	-	85
Low	Recoat Concrete Tread/Risers on Lower Seating Level	LS	1	-	-	-	1
Low	Removal of Old Handrail Posts	EA	8	-	-	-	8
Low	Replace Anchor Bolts on Benches	L.S.	1	-	-	-	1
Low	Clean and Coat Corroded Shelf Angle/Lintel	L.F.	25	-	-	-	25
Low	Traffic Membrane - Recoat	S.F.	-	3500	4000	-	7500
Low	Zinc Rich Primer at Handrail	LS	-	1	1	-	2
Low	Install Sheet Metal	S.F.	-	5	-	-	5
Low	CMU/Brick Tuckpointing	L.F.	-	16	-	50	66
Low	Cut Existing Bolts	EA	-	25	-	-	25
Low	Clean and Coat Corroded Steel	L.S.	-	1	1	-	1
Low	Coat Bench Brackets	L.S.	-	-	1	-	1
Low	Cove Sealant	L.F.	-	-	-	75	75