

Performance Infrastructure

Guaranteed Efficiencies
DRAFT Development Update

La Crosse Center

Initial Observations

- Mix of Mechanical equipment age and condition
- Mixture of lighting technologies
- High energy consumption

Recommendation

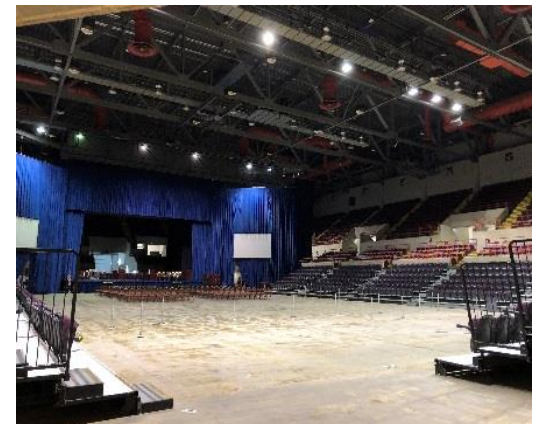
- Replace Arena lighting with LED and controls
- Retrofit South Hall A and B lighting to LED
- Replace VAV units in South Hall
- Trane control system update

Not Included in project – additional design required

- Replace Arena HVAC systems and exhaust

Expected result

- Significant energy and O&M savings
- Enhanced light quality and control
- **Goal to maintain or reduce existing carbon footprint even with expansion**



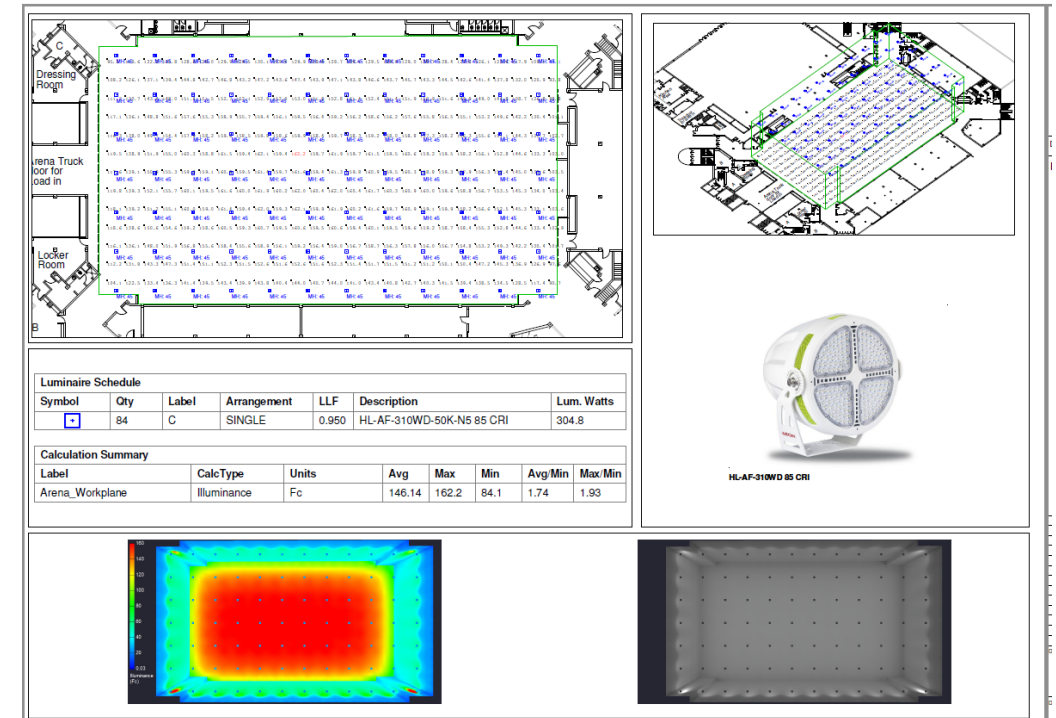
Lighting - Arena

Scope:

- Comprehensive interior and exterior lighting audit
- Replace 110 existing 1000-watt MH lights with LED
- Replace or retrofit lighting in ancillary spaces with LED

Benefits:

- Greater than 50% energy reduction while maintaining NCAA lighting requirements
- Significantly reduced time between lights-off and on
- **Better light quality for increased customer satisfaction**



Lighting – Other Areas

Scope:

- Replace South Hall A 400-watt MH system with new LED lighting
- Replace South Hall B recessed can lighting with LED lighting (similar to retrofits already completed in upper lobby)

Benefits:

- Reduced energy use and cost
- Ongoing maintenance for lamp changes minimized
- **Improved lighting levels and quality in key exhibit spaces**

Replace VAV Terminals

Scope:

- Replace thirty-two (32) Variable air volume (VAV) boxes
- Install new local controls for each VAV box
- Update control software to latest Trane version

Benefits:

- Returning the system to variable operation will save energy
- Reduce the airflow to provide only required heating/cooling
- Digital controls for zone by zone scheduling and occupancy
- Variable ventilation control to optimize outside air introduction



Project Summary

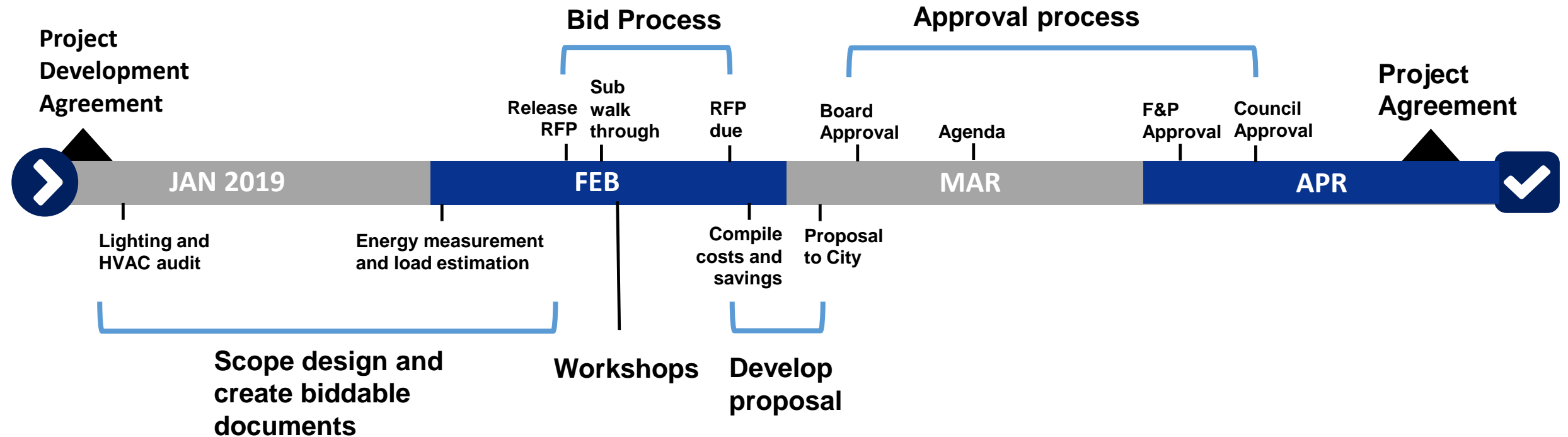
Project cost:

LED lighting (Arena and South hall):	\$449,400
VAV Terminals and Trane controls update:	<u>\$170,600</u>
TOTAL:	\$620,000

Energy Savings (annual):	\$56,200
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Implementation:	May – July, 2019
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Development Schedule



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Thank You

