

## **POC Decision Paper**

8 June 2025

**Purpose:** The purpose of this document is to obtain approval for Change Order #24 associated with the new library project at a cost of \$14,887.05.

**General:** Change orders address unforeseen events that alter the design, scope of work, schedule and costs of a project. Currently, the approved change orders for the library project total \$217,111.26.

**Issue:** The relative humidity levels in the library are too high and could cause potential health issues and deterioration of the library literary holdings. Relative humidity readings at the library are displaying ~70% and should be in 50 – 60% range.

### **Background.**

- The physical transition to the library started in late April and continued through the months of May and June which was consistent with the issuance of the temporary certificate of occupancy (CO). The final CO was approved on 7 May. The pre-punch list was established 23 April. The high humidity level was first noted in early May and several attempts were made to adjust the HVAC system.
- At first it was thought that the new library space needed time to dry out since there was extensive drywall work, painting, floor curing, constant opening of doors for contract work. Simultaneously, the mechanical engineer and HVAC rep verified that the four units were appropriately sized and functioning. Outside air intakes were closed for a period of time to no avail. Additional floor dehumidifiers were added, but they did not substantially affect the relative humidity and required frequent emptying of filled collection containers.

**Solutions to Consider:** The original HVAC subcontractor recommends dehumidifier modules be installed on all four roof-top units. This will allow the units to run longer to reduce the humidity.

**Financial Status:** FOL has sufficient funds to fund to support the solution proposed in Change Order #24.

**Recommendation:** Approve COR #24.

### **Voting Results**

Rich Bartz                      approved 8 June and is author of decision paper

Ben Bowditch                approved via 09 June 25 email

Catherine Clowers	approved via 09 June 25 email
Josh Rose	approved via 09 June 25 email
Dough Brinson	approved via 13 June 25 email

**Further Considerations:** All members approved of the Change Order 24 by 13 June 2025. However, there was concern that the issue of high relative humidity was a symptom but the contractor/architect did not identify the causative reason for the high readings. FOL requested Walker Architecture investigate further to see if a specific cause could be identified and whether the proposed remedy (i.e., COR 24) would solve the issue. The Architect's mechanical engineer verified the proper number, sizing, installation and operation of the four roof-mounted units. He also requested the contractor/client adjust various air flow portals on the building and HVAC units and conducted a data collection effort on the HVAC performance and building relative humidity. The results indicated that the humidity was averaging approximately high 50%. The recommended humidity level for libraries is 35 – 55%. The Architect recommended that the change order for the dehumidification modules be approved as this will help reduce the high relative humidity levels that have been found in other similar situations throughout the industry. The expectation is that the humidity will approach low to mid 50%, but will be difficult if not impossible to attain mid 30's in eastern NC.