



**Building Automation System Design Services**

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*VIA EMAIL AS PDF*

To: Jeremiah Varco, Lake County Facilities Manager  
From: Grant Wichenko, Appin Associates

## **526.999.ADMN – LAKE COUNTY CONSOLIDATED PROPOSAL TO COVER MULTIPLE PROJECTS FOR FISCAL YEAR 2018-2019**

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This proposal covers work relating to controls integration via BACnet, mechanical upgrades involving controls and energy efficiency improvements and/or implementation. Appin's role in this work involves spec writing, document review, reports, mark-up of drawings and documents, construction administration and commissioning.

Appin will work with the Facilities Operations staff at Lake County and various consultants hired to perform tasks to implement networked controls for mechanical equipment and other devices and to connect equipment to the BAS wherever possible within the campus complex. This enables the County to maximize energy savings, leads to increased efficiency and effectiveness of the Facilities Operations Department and contributes to the sustainability of the built environment.

Appin's role is to create the Division 25 Controls Specification and ensure that it fits with the Design Consultant's specification. All documents and drawings are reviewed and marked up by Appin to ensure that controls are identified and/or referenced wherever necessary and that all equipment that has the capacity to be integrated into the BAS is provided with the appropriate BACnet interface to make that connection. Appin performs the task of Construction Administration for the controls. Following construction and/or installation, Appin reviews the graphics that will be used by Facilities Operations to control the devices and commissions the controls. In addition, Appin will tabulate and enter meter information to enable energy usage data to be available in a timely manner and usable format.

The following is a list of projects to be covered by this proposal for this fiscal year:

1. Provide Construction Administration and Commissioning for the Courts Tower project Phase 3 including the Jail Entrance, Booking and Sheriff's Office Renovations.
2. Replace the Round Lake Beach Branch Courthouse RTUs new RTUs that come with modern fault detection and diagnostics technology for remote monitoring and control via the Facility Operations BACnet Internetwork (Design, Construction and Commissioning).
3. Provide Construction Administration and Commissioning Work for the Transfer Switch, Switchgear and Ejector Pumps in PDO that were integrated into the ALC system in the building.
4. Replace the Child Advocacy Center (CAC) RTUs new RTUs that come with modern fault detection and diagnostics technology for remote monitoring and control via the Facility Operations BACnet Internetwork (Design, Construction and Commissioning).
5. Replace the Depke RTUs new RTUs as part of the roof replacement (Design Work only).
6. Replace the Depke RTUs new RTUs as part of the roof replacement (Construction Administration and Commissioning Work).
7. Generate and Commission ALC Graphics for the Simple Fire Alarm System at DOT.
8. Jail AHUs Replacement (Construction Administration and Commissioning Work).
9. Provide ALC graphics for Depke, Admin Tower Fire Alarm, Coroner's, Courts Tower (Phases 1 and 2), Babcox Renovations (Phase 3), Work Release, Adult Probation.
10. Migrate the ALC graphics for Central Permit Facility to the new ALC server installation in Waukegan.

The total hours for Appin to complete these projects is estimated below and assigned to the phases of the work based on experience with similar projects:

Staff Position	Spec Writing	Document Review and Mark-up	Construction Admin	Commissioning	Total Hours	Total Weeks based on a 40 hour week
Grant Wichenko	30	500	115	400	1145	28.6
Engineering Associates	5	100	15	100	220	5.5
Admin Staff	5	100	70	65	240	6

Grant Wichenko – 1,145.00 hrs @ \$100 per hour \$114,500.00  
 Engineering Associates – 220 hrs @ \$70 per hour \$15,400.00  
 Administrative time – 240 hrs @ \$40.00 per hour \$9,600.00

**Total Fees** **\$139,500.00**

This proposal includes the cost of 2 site visits to Lake County during this Fiscal Year lasting approximately 10 days each. The estimated cost for each site visit, based on past invoices, is \$3,500.00.

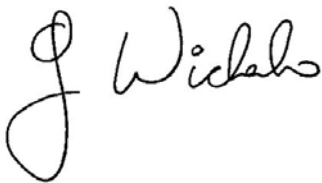
**Total travel expenses (2 visits x \$3,500/visit = \$7,000.00)** **\$7,000.00**

**TOTAL COST FOR THIS PROPOSAL:** **\$146,500.00**

The numbers in this proposal represent upset limits. Appin's invoices will be issued based on itemized staff time records and actual receipts for reimbursable expenses.

Please call me if you have questions regarding this proposal.

Grant Wichenko



Appin Associates

GW/jh