# AGREEMENT #17159 FOR ENGINEERING DESIGN SERVICES FOR LAKE COUNTY

This Agreement is entered into by and between Lake County (County) and Appin Associates, 5250 Grand Ave. Ste. 14, Gurnee, IL, (hereafter "Contractor").

#### RECITALS

WHEREAS, Lake County is seeking a Mechanical Engineering Contractor to implement networked controls for mechanical equipment and other devices and to connect equipment to the BAS wherever possible as identified in Contractor's proposal dated June 1, 2017

WHEREAS, the Appin Associates is a professional provider of Engineering Design and Consulting services; and

# NOW, THEREFORE, Lake County and the Contractor AGREE AS FOLLOWS:

#### **SECTION 1. AGREEMENT DOCUMENTS**

The Agreement Documents that constitute the entire agreement between the County and the Contractor are:

- A. This Agreement
- B. APPIN Proposal dated June 1, 2017 and listed as Exhibit A

In the event of conflict between or among the above documents, the documents listed above are in the order of precedence.

## **SECTION 2. SCOPE OF SERVICES**

This agreement will cover work to be performed by Contractor for Lake County as identified in Appin Proposal dated June 1, 2017

- Add an additional third chiller to Courts Tower chiller plant to service the Jail (Design Work only)
- Add an additional third chiller to Courts Tower chiller plant to service the Jail (Construction Administration and Commissioning Work Only)
- Jail AHUs Replacement (Design Work only)
- Replace Jail DHW Unilux Boilers (Design Work only)
- Add VFDs to the Center Courts AHUs (Design and Construction Administration/Commissioning)
- Jail Smoke Evacuation System (Design Work only)
- Jail Smoke Evacuation System (Construction Administration and Commissioning Work)
- Fire Alarm Replacement at Depke Original Building (Design and Construction Administration/Commissioning)
- Depke PLC Detention upgrades (Design and Construction Administration/Commissioning)
- DOT Building C and other adjoining buildings BAS Improvements (Design and Construction Administration/Commissioning)

#### **SECTION 3. DURATION**

This Agreement shall be effective upon execution through completion of all projects identified within.

#### **SECTION 4. INDEMNIFICATION**

The Contractor agrees to indemnify, save harmless and defend the County, its agents, servants, and employees, and each of them against and hold it and them harmless from any and all lawsuits, claims, demands, liabilities, losses and expenses, including court costs and attorney's fees, for or on account of any injury to any person, or any death at any time resulting from such injury, or any damage to property, which may arise or which may be alleged to have arisen out of Contractor's negligent acts in connection with the services covered by this Agreement. The foregoing indemnity shall apply except if such injury, death or damage is caused directly by the willful and wanton conduct of the Lake County, its agents, servants, or employees or any other person indemnified hereunder.

#### **SECTION 5. INSURANCE**

The Contractor must obtain, for the Contract term and any extension of it, insurance issued by a company or companies qualified to do business in the State of Illinois and provide the County with evidence of insurance. Insurance in the following types and amounts is necessary:

- □ Worker's Compensation Insurance covering all liability of the Contractor arising under the Worker's Compensation Act and Worker's Occupational Disease Act at statutory limits.
- □ **Professional Liability** to include, but not be limited to, coverage for Errors and Omissions to respond to claims for loss therefrom.

General Aggregate Limit \$ 1,000,000 Each Occurrence Limit \$ 1,000,000

□ Automobile Liability:

Bodily Injury, Property Damage (Each Occurrence Limit) \$ 1,000,000

Contractor agrees that with respect to the above required Comprehensive Professional Liability and Automobile Liability insurance, Lake County shall:

Be named as additional insured by endorsement as their interest may appear;

Be provided with thirty (30) days notice, in writing, of cancellation or material change;

Be provided with Certificates of Insurance evidencing the above required insurance, prior to commencement of this Contract and thereafter with certificates evidencing renewals or replacements of said policies of insurance at least fifteen (15) days prior to the expiration of cancellation of any such policies. Forward Notices and Certificates of Insurance to: Lake County Purchasing Division, 18 N. County St, Waukegan, IL 60085-4350.

## **SECTION 6. AGREEMENT PRICE**

G. Wichenko – 1,380 hrs @ \$100 per hour \$138,000.00 Engineering Associates - 372 hrs @ \$70 per hour \$26,040.00 Administrative time - 243 hrs @ \$40.00 per hour \$9,720 Total Fees \$173,760.00

Contractor estimates an additional 5 trips may be required, over and above those that can be covered by existing POs. Based on analysis of past records, it is estimated \$3,250 per 5 day trip to Waukegan.

Total travel expenses (5 visits x \$3,250/visit = \$16,250.00) \$16,250.00

# TOTAL COST FOR THIS PROPOSAL: \$190,010.00

Contractor's invoices will be issued based on itemized staff time records and actual receipts for reimbursable expenses.

## SECTION 7. PURCHASE ORDER, INVOICES & PAYMENT

A Purchase Order will be issued referencing the Contractor scope of work, tasks, hours of effort by Senior, Junior and administrative support staff, schedule for completion, expenses and travel on a not-to-exceed basis. The Contractor shall submit invoices detailing the percentage of project completion and the proportionate amount due in accordance with the payment provisions of this Agreement. Payments shall be made in accordance with the Local Government Prompt Payment Act.

#### **SECTION 8. STATEMENT OF OWNERSHIP**

The Drawings, Specifications and other documents prepared by the Contractor for this Project are the property of the County, and Contractor may not use the drawings and specifications for any purpose not relating to the Project without the County's consent, except for the Contractor's standard details and specifications. The County shall be furnished with the plans via electronic format and with reproductions of drawings and specifications as the County may reasonably require. Upon completion of the Contractor's Work or any earlier termination of this Agreement, as provided for herein, the Contractor will revise drawings to reflect changes as authorized and made during construction and he will promptly furnish the County with the plans via electronic format and one complete set of reproducible record prints. Prints shall be furnished, as an additional service at any other time requested by the County. All such drawings and specifications shall be the property of the County who may use them without Contractor's permission for any current or future Lake County project.

# **SECTION 9. TERMINATION**

The County reserves the right to terminate this Agreement, or any part of this contract, upon thirty (30) days written notice. Upon receipt of written notice from the County of such termination for the County's convenience, the Contractor shall:

- ☐ Cease operations as directed by the County in the notice;
- ☐ Take actions necessary, or that the County may direct, for the protection and preservation of the Work; and
- □ Except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing Subcontracts and purchase orders and enter into no further Subcontracts and Purchase orders.
- ☐ In case of such termination for the County's convenience, the Contractor shall be entitled to receive payment from the County for work completed to date in accordance with the terms and conditions of this Agreement. In the event of an alleged default of the Agreement by the

Contractor, the County will provide a written notice to the Contractor defining the default(s) and give seven days for the Contractor to cure said defaults(s). If the default(s) is not cured, then the County will provide written notice of termination to the Contractor.

In the event that this Agreement is terminated due to Contractor's default, the County shall be entitled to purchase substitute items and/or services elsewhere and charge the Contractor with any or all losses incurred, including attorney's fees and expenses.

#### **SECTION 10. SCHEDULE:**

The Contractor shall submit for the County's approval a schedule for the performance of the Contractor's services for each Project assigned. The schedule may be adjusted as the Project proceeds, and shall include allowances for periods of time required for the County's review and for approval of submissions

by authorities having jurisdiction over the Project. Time limits established by this schedule approved by the County shall not, except for reasonable cause, be exceeded by the Contractor or County.

## SECTION 11. JURISDICTION, VENUE, CHOICE OF LAW

This Agreement shall be governed by and construed according to the laws of the State of Illinois. Jurisdiction and venue shall be exclusively found in the 19th Judicial Circuit Court, State of Illinois.

#### SECTION 12. INDEPENDENT CONTRACTOR

The Contractor is an independent contractor and no employee or agent of the Contractor shall be deemed for any reason to be an employee or agent of the County.

#### **SECTION 13. WARRANTS**

The Contractor represents and warrants to the County that none of the work included in this contract will in any way infringe upon the property rights of others. The Contractor shall defend all suits or claims for infringement of any patent, copyright or trademark rights and shall hold the County harmless from loss on account thereof.

#### **SECTION 14. ASSIGNMENT**

Neither the Contractor nor the County shall assign any duties of performance under this Agreement without the express prior written consent of the other.

#### **SECTION 15. MODIFICATION**

This Agreement may be amended or supplemented only by an instrument in writing executed by the party against whom enforcement is sought.

## **SECTION 16. DISPUTE RESOLUTION**

All issues, claims, or disputes arising out of this Agreement shall be resolved in accordance with the Appeals and Remedies Provisions in Article 9 of the Lake County Purchasing Ordinance.

## **SECTION 17. NO IMPLIED WAIVERS**

The failure of either party at any time to require performance by the other party of any provision of this Agreement shall not affect in any way the full right to require such performance at any time thereafter. Nor shall the waiver by either party of a breach of any provision of this Agreement be taken or held to be a waiver of the provision itself.

#### **SECTION 18. SEVERABILITY**

If any part of this Agreement shall be held to be invalid for any reason, the remainder of this Agreement shall be valid to the fullest extent permitted by law.

IN WITNESS HEREOF, the undersigned have caused this Agreement to be executed in their respective names on the dates hereinafter enumerated.

| Lake County:                               |                  |   |
|--|------------------|---|
| RuthAnne Hall Purchasing Agent Lake County | APPIN ASSOCIATES | _ |
| Date                                       | Date             |   |



## **Building Automation System Design Services**

5250 Grand Ave. Ste. 14 Gurnee, IL 60031 Tel: (204) 925-1450 Cell: (224) 441 4760

E-mail: appin@appin.com
Web site: www.appin.com

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2017-06-01 *VIA EMAIL AS PDF* 

To: Jeremiah Varco, Lake County Facilities Manager

From: Grant Wichenko, Appin Associates

#### **526.999.ADMN LAKE COUNTY PROPOSALS**

# 1. <u>526.093.LJCD – Add an additional third chiller to Courts Tower chiller plant to service the (Design Work only)</u>

## Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01
  BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language
  Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed
  at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage. Appin prepared a design review document that covered the components such as the refrigeration monitor that need to be covered in the design.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the sequences prepared by the Consultants to ensure that there is optimal control of the chiller plant that will now serve the Jail and the Courts Tower. Each has specific cooling requirements that need be considered in the design of the chiller plant sequence as a whole.
  - a. For example, the Jail uses 100% outdoor air so there is a requirement for dehumidification. The Jail chillers now start at a lower outdoor air temperature than what would be required for the Courts Tower. Appin will ensure that AHUs have the necessary sensors to provide data for the optimum start routine.
  - b. Appin's sequences also cover the BACnet Interface Device work that covers the requirements for trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings.
- 6. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.

# 2. 526.093.LJCC - Add an additional third chiller to Courts Tower chiller plant to service the Jail (Construction Administration and Commissioning Work Only)

## Proposal Scope of Work:

Appin's role is to support the efforts by Lake County Fac Ops to review the construction progress and to commission the Work of this project. The duties include the following:

- 1. Appin's role is to support Fac Ops by reviewing job progress to ensure that the Work meet Fac Ops requirements. This work includes the review of Submittals, resolution of issues such as the selection of a new lighting equipment supplier, ensuring that the device and system names follow the Fac Ops naming conventions (both software names and lamacoid tags), preparing the IP drop list, reviewing Change Orders, responding to information requests and attending meetings by phone or in person.
- 2. The General Contractor (GC) is responsible for implementing the commissioning Work for this project. There are references to commissioning in the Bid packages. The GC will undertake commissioning under the guidance and direction from Lake County. Appin will provide input and direction as required to assist the GC in implementing their commissioning process.
- 3. When requested, Appin will provide commissioning forms for use by the GC and the Subtrades or will review the forms generated by others. Appin's forms cover two areas of responsibility.
  - a. Appin has provided forms in the original Division 25 spec that need to be filled out by the BAS supplier for the hardwired points provided in the Work. There are no forms for software points to be completed.
  - b. Appin has designed a simple commissioning checklist to be used by the GC to determine with the device or system is ready for commissioning. Once this form is completed by the GC, Appin will commission that device or system.
- 4. Appin will participate in the BIM review during the construction period and will review the as-built version of the model.
- 5. Where there are sound, lighting, air flow or other measurements required, Appin is assuming that the GC will have the relevant Subtrades conduct these measurements. Appin will oversee the measurement process and will spot check the data with the Subtrades but Appin will not be doing the measurement work.
- 6. Appin will conduct Functional Performance testing for equipment such as the chillers, Electrical, etc. as part of the BACnet Interface Device testing.
- 7. Appin assumes that the graphics for this job will be done by ALC as a separate contract. This work is not part of this scope.
- 8. Appin will provide the points list of energy data that needs to be exposed to BACnet by Division 25 so it can be brought into the eSight energy monitoring system.
- 9. Appin will design the spreadsheets used to collect the COBie data. The GC and the Subtrades are responsible for filling out the forms.

## 3. 526.094.LJAD – Jail AHUs Replacement (Design Work only)

# Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- 1. Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01 BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage. This work will ensure that Fac Ops issues are dealt with properly at the design stage.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the Consultant's sequences to make sure they are consistent with other Lake County projects. Appin will write the sequences that cover the trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings. Appin will ensure that the points list is complete and consistent with other Lake County projects of a similar nature.
- 6. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.

## 4. 526.095.LJDD – Replace Jail DHW Unilux Boilers (Design Work only)

# Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- 1. Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01 BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the Consultant's sequences to make sure they are consistent with other Lake County projects. Appin will write the sequences that cover the trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings. Appin will ensure that the points list is complete and consistent with other Lake County projects of a similar nature.
- 6. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.

## 5. 526.096.LCCV – Add VFDs to the Center Courts AHUs (Design and Construction Administration/Commissioning)

## Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- 1. Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01 BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the Consultant's sequences to make sure they are consistent with other Lake County projects. Appin will write the sequences that cover the trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings. Appin will ensure that the points list is complete and consistent with other Lake County projects of a similar nature.
- 6. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.
- 7. Appin will provide the points list of energy data that needs to be exposed to BACnet by Division 25 so it can be brought into the eSight energy monitoring system.
- 8. Provide Construction Administration and Commissioning services as part of this proposal. This is a small project so Appin has not created a separate proposal for design and construction administration services.

# 6. 526.097.LJSD – Jail Smoke Evacuation System (Design Work only)

# Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- 1. Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01 BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the Consultant's sequences to make sure they are consistent with other Lake County projects. Appin will write the sequences that cover the trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings. Appin will ensure that the points list is complete and consistent with other Lake County projects of a similar nature.
- 6. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.

# 7. 526.097.LJSC – Jail Smoke Evacuation System (Construction Administration and Commissioning

## Proposal Scope of Work:

Appin's role is to support the efforts by Lake County Fac Ops to review the construction progress and to commission the Work of this project. The duties include the following:

- 1. Appin's role is to support Fac Ops by reviewing job progress to ensure that the Work meet Fac Ops requirements. This work includes the review of Submittals, resolution of issues such as the selection of a new lighting equipment supplier, ensuring that the device and system names follow the Fac Ops naming conventions (both software names and lamacoid tags), preparing the IP drop list, reviewing Change Orders, responding to information requests and attending meetings by phone or in person.
- 2. The General Contractor (GC) is responsible for implementing the commissioning Work for this project. There are references to commissioning in the Bid packages. The GC will undertake commissioning under the guidance and direction from Lake County. Appin will provide input and direction as required to assist the GC in implementing their commissioning process.
- 3. When requested, Appin will provide commissioning forms for use by the GC and the Subtrades or will review the forms generated by others. Appin's forms cover two areas of responsibility.
  - a. Appin has provided forms in the original Division 25 spec that need to be filled out by the BAS supplier for the hardwired points provided in the Work. There are no forms for software points to be completed.
  - b. Appin has designed a simple commissioning checklist to be used by the GC to determine with the device or system is ready for commissioning. Once this form is completed by the GC, Appin will commission that device or system.
- 4. Appin will participate in the BIM review during the construction period and will review the as-built version of the model.
- 5. Where there are sound, air flow or other measurements required, Appin is assuming that the GC will have the relevant Subtrades conduct these measurements. Appin will oversee the measurement process and will spot check the data with the Subtrades but Appin will not be doing the measurement work.
- 6. Appin will conduct Functional Performance testing for equipment such as the Smoke Evac system, etc. as part of the BACnet Interface Device testing.
- 7. Appin assumes that the graphics for this job will be done by ALC as a separate contract. This work is not part of this scope.
- 8. Appin will provide the points list of energy data that needs to be exposed to BACnet by Division 25 so it can be brought into the eSight energy monitoring system.
- 9. Appin will design the spreadsheets used to collect the COBie data. The GC and the Subtrades are responsible for filling out the forms.

# 8. 526.098.LDFA – Fire Alarm Replacement at Depke Original Building (Design and Construction Administration/Commissioning)

#### Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- 1. Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01 BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the Consultant's sequences to make sure they are consistent with other Lake County projects. Appin will write the sequences that cover the trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings. Appin will ensure that the points list is complete and consistent with other Lake County projects of a similar nature.
- 6. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.
- 7. Appin will provide the points list of energy data that needs to be exposed to BACnet by Division 25 so it can be brought into the eSight energy monitoring system.
- 8. Provide Construction Administration and Commissioning services as part of this proposal. This is a small project so Appin has not created a separate proposal for design and construction administration services.

# 9. 526.099.LDDP – Depke PLC Detention upgrades (Design and Construction Administration/Commissioning)

## Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- 1. Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01 BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the Consultant's sequences to make sure they are consistent with other Lake County projects. Appin will write the sequences that cover the trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings. Appin will ensure that the points list is complete and consistent with other Lake County projects of a similar nature.
- 6. Appin will provide the points list of energy data that needs to be exposed to BACnet by Division 25 so it can be brought into the eSight energy monitoring system.
- 7. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.
- 8. Provide Construction Administration and Commissioning services as part of this proposal. This is a small project so Appin has not created a separate proposal for design and construction administration services.

## 10. 526.100.LDCB – DOT Building C and other adjoining buildings BAS Improvements (Design and **Construction Administration/Commissioning)**

## Proposal Scope of Work:

Appin is responsible for the BAS design. The Consultant will provide the equipment design. Appin will ensure that whatever equipment is selected follows the BACnet-based Lake County Networked Controls design model.

- 1. Appin will create Division 25 Specifications for the Bid. Appin will also create the necessary Division 01 BIM section and references to commissioning requirements. Appin will write appropriate BACnet Language Adders to be inserted into the equipment sections that need to come with BACnet Interface Devices installed at the factory.
- 2. Appin will generate design review documents for the project and will attend at project review meetings both in person and by conference call. This work will ensure that Fac Ops issues are dealt with properly at the design stage.
- 3. Appin will add in notes on the Drawings and Specifications to ensure that the BACnet and device networking requirements are covered in the Base Bid.
- 4. Appin will revise the Division 25 Specifications based on the final design documents prior to releasing the job for bid.
- 5. Appin will review the Consultant's sequences to make sure they are consistent with other Lake County projects. Appin will write the sequences that cover the trending, alarming and scheduling and the energy optimization routines that are now standard in Lake County buildings. Appin will ensure that the points list is complete and consistent with other Lake County projects of a similar nature.
- 6. Appin will not include a Front End Graphics specification in this project as we assume this Work will be done by ALC under a separate contract.
- 7. Appin will provide the points list of energy data that needs to be exposed to BACnet by Division 25 so it can be brought into the eSight energy monitoring system.
- 8. Provide Construction Administration and Commissioning services as part of this proposal. This is a small project so Appin has not created a separate proposal for design and construction administration services.

# **Proposal fees and expenses:**

# **Fees**

| G. Wichenko – 1380 hrs @ \$100 per hour          | \$138,00.00 |
|--|-------------|
| Engineering Associates - 372 hrs @ \$70 per hour | \$26,040.00 |
| Administrative time - 243 hrs @ \$40.00 per hour | \$9,720.00  |

# TOTAL FEES PER ABOVE

\$173,760.00

This proposal includes the cost of 5 site visits to Lake County during this Fiscal Year. The estimated cost for each site visit, based on past invoices, is \$3,500.00.

5 trips x \$3,500/trip \$16,250.00

# TOTAL FEES AND EXPENSES

\$190,010.00

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/mtf