

Board of Trustees Agenda Report

For the Trustee Meeting Date of September 16, 2008

ITEM TITLE: *(Please define the subject; e.g., change order – Berkeley City College)*

Contract Approval – Environmental Control Technology Program

SPECIFIC BOARD ACTION REQUESTED:

Approve contract for the installation of a control system as part of a multi-vendor controls system educational laboratory. Contractor: ACCO Engineered Systems. Contract value: \$26,790. ACCO, an active industry partner with the ECT program, is donating an additional \$13,600 in software and services.

ITEM SUMMARY: (PLEASE DISCUSS THIS ITEM)

The Environmental Control Technology program is proceeding with the implementation phase of the multi-vendor educational control integration system for the simulated commercial HVAC lab. This project is funded as part of a State Chancellor's Office's Industry Driven Regional Collaborative (IDRC) grant. ACCO Engineered Systems has submitted a proposal to provide software and services in the value of \$26,790 with an additional \$13,600 donation in software and services.

BACKGROUND/ANALYSIS:

ACCO Engineered Systems, an Automated Logic Controls (ALC) vendor, will be responsible for the installation of the parts, smarts, termination, and commissioning services of a complete, fully donated ALC controls system, in addition to installation services of a BACnet Network Router for the ALC system, and furnishing controllers, temperature sensors, relays and transducers for two air handling units, three variable air volume boxes, and one hot water system. See detailed proposal for a full description of services.

The contract is part of a unique, state-of-the-art, multi-vendor control systems installation at Laney's HVAC lab. Facility Dynamics, a nationally renowned control system engineering firm, designed the controls integration system to optimize educational value. The latest devices on the market will operate in unison with each other to support HVAC training equipment in the lab. The different systems will be fully integrated through an interoperable network, simulating the latest conditions and trends in building automation. The system will allow instructors to simulate multiple scenarios of a typical building, program faults, and design case studies, allowing students to develop the systems-thinking and problem-solving skills required of today's building technicians.

Building controls account for over 60% of LEED (Leadership in Energy and Environmental Design) certification points. They are key to energy savings in commercial buildings which account for over 1/3 of California's electricity consumption. This lab will help prepare Laney's ECT students for the critical green workforce needs of the coming decades.

ALTERNATIVES/OPTIONS:

EVALUATION AND RECOMMENDED ACTION:

SOURCE OF FUNDS (AND FISCAL/BUDGETARY IMPACT):

FUND 26, INDUSTRY-DRIVEN REGIONAL COLLABORATIVE GRANT. NO IMPACT ON OTHER BUDGETS.

OTHER DEPARTMENTS IMPACTED BY THIS ACTION (E.G. INFORMATION TECHNOLOGY):

YES _____ NO X

COMMENTS:

WHO WILL BE PRESENTING THIS ITEM AT THE BOARD MEETING?

PETER CRABTRE, DEAN VOCATIONAL TECHNOLOGY

DID A BOARD STANDING COMMITTEE RECOMMEND THE ITEM? YES _____ NO X

IF "YES", PLEASE INCLUDE THAT INFORMATION IN YOUR SUMMARY.

(*****Board contract approval is subject to negotiation and execution by the Chancellor of the District-approved contract.)

PLEASE ACQUIRE SIGNATURES IN THIS ORDER:

DOCUMENT PREPARED BY:

Prepared by: Peter J. Cole, Dean Date: 9/8/08
[Enter Your Name and Title of Individual]

DOCUMENT PRESENTED BY:

Prepared by: [Signature] Date: 9/8/08
[Enter Name of College President or Vice-Chancellor or Manager,
and Title of Individual]

FINANCE DEPARTMENT REVIEW

Finance review required Finance review *not* required

If Finance review is required, determination is: Approved Not Approved

If not approved, please give reason: _____

Signature: Thomas Smith Date: 9.9.08
Thomas Smith, Vice Chancellor for Finance and Administration

GENERAL COUNSEL (Legality and Format/adherence to Education Codes):

Legal review required Legal review *not* required

If Legal review is required, determination is: Approved Not Approved

Signature: _____ Date: _____
Thuy T. Nguyen, General Counsel

CHANCELLOR'S OFFICE APPROVAL

Approved, and Place on Agenda Not Approved, but Place on Agenda

Signature: Elihu Harris Date: 9/8/08
Elihu Harris, Chancellor



Laney College
Office of the Vocational Dean

900 Fallon Street • Oakland, California 94607
Tel. (510) 464-3218 • Fax (510) 464-3231

MEMORANDUM

DATE: September 2, 2008
TO: File
FROM: Peter Crabtree, Dean of Instruction
SUBJECT: Sole Source Contract Justification for ACCO Engineered Systems

ACCO Engineered Systems has been an active industry partner with Laney College for the past four years as part of our National Science Foundation-sponsored program in Environmental Control Technology at the college. ACCO has continued its partnership as the college has continued this critical work through a State Chancellor's Office Industry-Driven Regional Collaborative grant in advanced control systems technician training through the ECT program. ACCO representatives have played a key role in advising the college in direct digital control systems curriculum.

ACCO Engineered Systems, an Automated Logic Controls (ALC) vendor, will be responsible for the installation of the parts, smarts, termination, and commissioning services of a complete donated ALC controls systems in the value of \$13,600, in addition to installation services of a BACnet Network Router for the ALC system, and furnishing controllers, temperature sensors, relays and transducers for two air handling units, three variable air volume boxes, and one hot water system.

ACCO's contract is part of a unique multi-vendor control systems installation at Laney's HVAC lab. The latest devices on the market will operate in unison with each other to support HVAC training equipment in the lab. The different systems will be fully integrated through an interoperable network, simulating the latest trend in building automation. The systems will allow instructors to simulate multiple scenarios of a typical building, program faults, and design case studies, allowing students to develop the systems-thinking and problem-solving skills required of today's building technicians.

Building controls account for over 60% of LEED (Leadership in Energy and Environmental Design) certification points. They are key to energy savings in commercial buildings which account for over 1/3 of California's electricity consumption. This lab will help prepare Laney's student population for the critical green workforce needs of the coming decades.



**engineered
systems**

July 8, 2008

Laney College
900 Fallon St
Oakland, CA 94607

Attention: Barbara Widhalm
Reference: Laney College Controls System, Automated Logic Corporation

Direct Digital Controls
510 / 346-4300 Voice
800 / 598-2226 Service
510 / 347-1318 Fax
1133 Aladdin Avenue
San Leandro, California
94577-4311

Ms. Widhalm,

Thank you for the opportunity to provide you this proposal for the provision of an Automated Logic Direct Digital Control system for this project. This bid is based upon our design/build approach to the following documentation, and the scope of work and clarifications provided below.

- Facility Dynamics Laney Lab Controls System Design Project 07172 "Roles and Responsibilities" Memo Rev. 1 dated 7/1/08.
- Laney College HVAC Lab Control Systems – Concept Drawings 5-9-08, Rev-1, 6-6-08.

ITEM 1: BASE SCOPE OF WORK (No Electrical Installation)

Automated Logic Corporation is donating the ALC routers and controllers for this project at a value of \$13,600.

ACCO Engineered Systems shall provide the following parts, smarts, termination and commissioning services:

- Engineering, Submittals, Programming, Wiring Terminations and Commissioning of the ALC system provided.
- Install one (1) **BACnet Network Router** for the ALC system in the building. This will provide information via BACnet/IP to the Ethernet Switch.
- Furnish and install controllers, temperature sensors, relays and transducers for each of the following systems.
 - **Two (2) Air Handling Units**
 - **Three (3) Variable Air Volume Boxes (double duct and hot water re-heat).**
 - **One Hot Water System (1 Boiler, 1 Variable Speed Pump and 1 Heat Exchanger)**
- Furnish communication interface to Variable Frequency Drives furnished with BACnet communications by others.
- Up to eight (8) hours of System Demonstration and Verification with the owner representative.
- Four (4) hours of on site customer training.
- One (1) year warranty for labor and materials furnished under this proposal.

The following will be provided by others for our use under a separate contract:

- Panel fabrication.
- All required conduit and wire pulling.
- 120VAC to our temperature control panels.
- Provision and installation of all valves.
- Provision, installation and startup of variable frequency drives.
- Installation of well temperature sensor wells and differential pressure transducer taps furnished under this proposal.



GENERAL CLARIFICATIONS:

- This bid is based upon all work being performed during normal working hours, Monday through Friday, 7:00 a.m. to 4:00 p.m. No overtime or shift work is included.
- The following items are excluded from this scope of work:
 - All work associated with fire/life safety system, fire/smoke dampers, smoke detectors, and smoke control.
 - Warranty associated with valves and meters furnished by others.
 - Cutting, patching, access doors and painting.
 - Air and water balance.
- Enclosures shall be NEMA1 rated.
- Anything not specifically mentioned above is excluded.

PRICING:

For the above ITEM 1 SCOPE OF WORK, the fixed total price is:

\$ 26,790

The above is my understanding of the project. If my scope, bid basis or assumptions are not correct, please allow me to propose that revised work.

Please do not hesitate to call me if you require additional information. You can reach me directly at 510-346-4340 or my mobile phone at 510-755-5132.

Sincerely,

Douglas Johnson
Project Manager – Direct Digital Controls

- Overview
- Building Automation Systems
- Building Services
- Commissioning
- Energy Services
- Engineering & 3-D Modeling
- Fabrication
- HVAC Piping
- Plumbing
- Process Piping
- Rigging
- Sheet Metal



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BUILDING AUTOMATION SYSTEMS > OVERVIEW

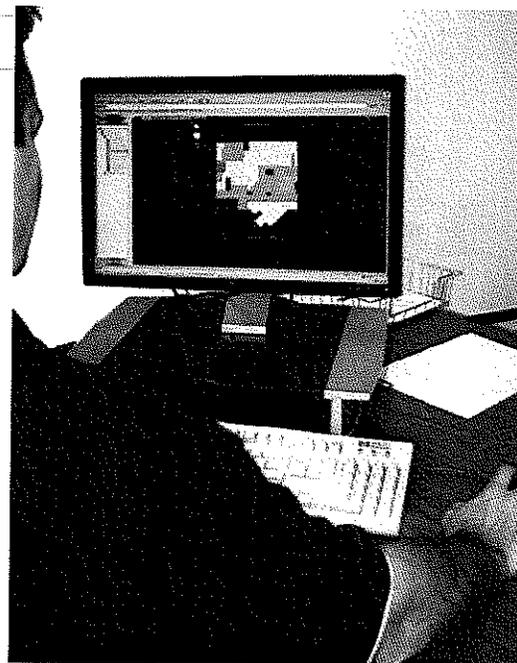
- Overview
- ACCO DDC (Northern Division)
- Sunbelt Controls (Southern CA)

The brains behind a building's mechanical system is the building controls. In the past, these control systems were simple electric switches, thermostats, and pneumatic controls. Mechanical Contractors relied on other sub-contractors to install these control systems.

In order to have a better handle on the design, scheduling, and installation of the control systems, ACCO entered the building controls industry over 25 years ago. We started as a Honeywell OEM retailer in California. This allowed us to self perform the design and installation of the building controls and we were able to better control system scheduling, installation, and commissioning.

As the industry migrated from pneumatic controls to electronic direct digital controls in the mid 1980's, ACCO established itself as a design-build independent controls contractor and named its control business ACCO Direct Digital Controls. Subsequently, ACCO was chosen by Automated Logic Controls (ALC) to represent and install their products in Northern and Southern California.

Since our beginnings in the controls business, ACCO's DDC division has expanded its products and services through the acquisition of additional product lines such as Trane Tracer Summit, Carrier Comfort Network and others.



Photos: 1 2

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Overview
Building Automation Systems
Building Services
Commissioning
Energy Services
Engineering & 3-D Modeling

Fabrication
HVAC Piping
Plumbing
Process Piping
Rigging
Sheet Metal



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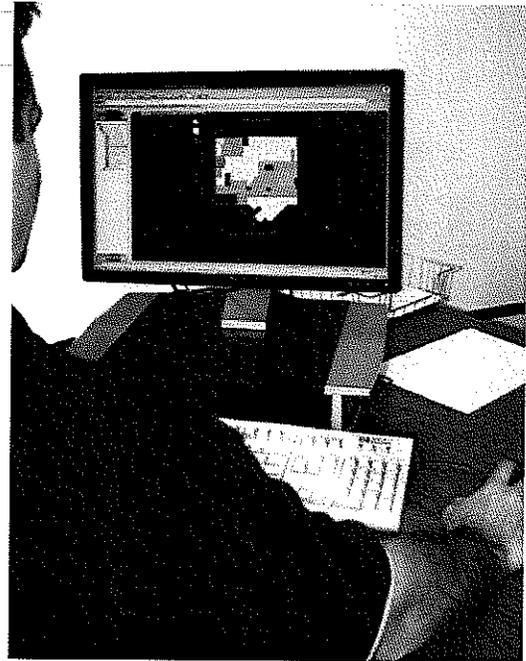
BUILDING AUTOMATION SYSTEMS > ACCO DDC (NORTHERN DIVISION)

Overview
ACCO DDC (Northern Division)
Sunbelt Controls (Southern CA)

ACCO Direct Digital Controls serves our Northern Division and provides full service DDC offerings for Building Automation System solutions. These offerings include both new construction, as well as retrofit and design/build projects.

We specialize in providing a fully integrated, single source solution with engineering applications, project management, field execution, system start-up and full commissioning services. We also support and provide ongoing BAS system maintenance over the life of your building with our dedicated DDC service team, dispatched by our 24/7-response center.

Our solutions cover all vertical markets, including High Tech, Mission Critical Data Centers, Commercial office, College & Universities, Government, K-12, as well as Life Sciences.



Photos: 1 2

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Overview
 Building Automation Systems
 Building Services
 Commissioning
 Energy Services
 Engineering & 3-D Modeling

Fabrication
 HVAC Piping
 Plumbing
 Process Piping
 Rigging
 Sheet Metal



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ENERGY SERVICES > ENERGY EFFICIENCY & RE-COMMISSIONING

Overview
 ESCO Partnerships
 Central Plants & Retrofits
 Renewable Energy
 Energy Efficiency & Re-Commissioning
 Automation and Lighting
 Go Green with ACCO
 Design/Build

Many building owners and operators want to improve the efficiency of their facility to reduce costs, attract higher level tenants, and meet rising standards of green building operation. For owners that do not need the financing options that an ESCO offers, working with ACCO Energy Services directly is a solution that can achieve these results in an expedited and cost effective way.

Your building's overall energy efficiency is affected by many things: air distribution, heating, cooling, lighting and controls. Making all of these work efficiently together within your facility is a challenge to say the least. For new construction projects, commissioning is a way to ensure that all of your building's systems are installed as designed and work together in harmony to optimize your overall efficiency. For older buildings or renovation work, a process called "re-commissioning" is the way to bring the benefits of commissioning to your existing facility. Re-commissioning evaluates your building's usage, energy systems and control system, and then adjusts and fine tunes your systems. Re-commissioning eliminates inefficient reheating or overcooling, re-adjusts the operating schedules of the lighting and HVAC to match your occupancy, and adjusts the building controls to optimize the efficiency of the air distribution, cooling, heating and ventilation systems.

ACCO can be your one stop shop for all your energy efficiency and re-commissioning requirements, whether you operate a commercial office building or a University campus.



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