



CONTRACT EXECUTIVE SUMMARY

(limit the first page to one page)

Date: 9/ 5/12 Project Manager: Woods Allee Division Section: Planning & Development

CONTRACT DETAILS:

Project Number: 201207703
(Contract Control # / Alfresco #)

Project Name: Automated Guideway Transit System (AGTS) Central Control Upgrade

Contractor: Bombardier Transportation

Is contract pay-out lump sum, time and materials, or other: By invoice, monthly

Is City Council Approval Required: Yes No

TERM DETAILS:

Amendment NO. (if applicable): N/A

Additional time provided by this amendment (if applicable): N/A

Original Contract Term from: Commencement date to: 9/30/16

TOTAL CONTRACT TERM (including this amendment if applicable) from: (Same as Original) Commencement date to: 9/30/16

Total Term (including all amendments) is over three years? Yes No

If yes, attach Justification Memo.

FUNDING DETAILS:

Amount of original contract (if applicable): \$31,800,000

Amount of all amendments not including this one (if applicable): \$N/A

Amount of this amendment (if applicable): \$N/A

TOTAL CONTRACT AMOUNT (including ALL amendments, if applicable): \$31,800,000

GOALS DETAILS:

Established Goal: MBE/WBE % DBE % ACDBE % SBE %

Proposed Goal: MBE/WBE % DBE % ACDBE % SBE %

(Note: If required and/or proposed goal is 0%, explanation why goal is 0% is required in project description below)

Goal achieved to date (if amendment): MBE/WBE % DBE % ACDBE % SBE %

(Note: if achieved goal is less than established/proposed goal, explain how goal will be achieved:

Goal not applicable to the Ordinance check here: (If the goal is n/a, then no other information should be entered in the Goals Details area. 0% and n/a are not the same)

CONTRACT JUSTIFICATION:

Project description/purpose of contract:

Project description/purpose of contract: This proposed contract is to upgrade the AGTS central control system including hardware and software. The AGTS system has been operating for 15 years. The equipment is obsolete and components are starting to become unavailable. The entire upgrade process due to the complexity and must-ride nature of the system will take approximately three years to be fully complete.

Selection process and basis for selection: Due to the proprietary nature of this system, the importance of the AGTS to the Airport's operations, the necessity of having a single point of responsibility and a minimal quantity of non-proprietary support and installation work Bombardier is only qualified provider.

We have contacted the DSBO and they have determined that this contract's Scope of Services does not fall under the definition of DSBO's CEI (Construction Empowerment Initiative) Ordinance. Professional Services for design, construction or reconstruction are subject to the goals ordinance. Anything outside of these services, including professional services not related to construction are reviewed on a case-by-case basis. Professional Services not related to construction usually do not have assigned goals.

IF Item B above, attach Justification Memo.

Woods Allee

Woods Allee
10000 Woodloch Drive, Suite 1000, Woodloch, Michigan 48091
Phone: 313.487.1100 Fax: 313.487.1101

Project Manager
Phone Number: 303-342-2832

Date

Daniel Albee 9/7/12
Deputy Manager Date

ORDINANCE/RESOLUTION REQUEST

Please email requests to the Mayor's Legislative Team
at MileHighOrdinance@DenverGov.org by 3:00pm on **Monday**.

**All fields must be completed.*
Incomplete request forms will be returned to sender which may cause a delay in processing.*

Date of Request: 10/12/2012

Please mark one: Bill Request or Resolution Request

1. Has your agency submitted this request in the last 12 months?

Yes No

If yes, please explain:

2. Title: *(Include a concise, one sentence description – please include name of company or contractor and contract control number - that clearly indicates the type of request: grant acceptance, contract execution, amendment, municipal code change, supplemental request, etc.)*

This is a request for contract execution for Bombardier Transportation (contract # 201207703) to provide and install upgraded control equipment and site specific software for the Automated Ground Transportation System (AGTS/train) at DIA.

3. Requesting Agency: Department of Aviation

4. Contact Person: *(With actual knowledge of proposed ordinance/resolution.)*

- Name: Steve Campbell
- Phone: (303) 342-2154
- Email: steve.campbell@flydenver.com

5. Contact Person: *(With actual knowledge of proposed ordinance/resolution who will present the item at Mayor Council and who will be available for first and second reading, if necessary.)*

- Name: David Rhodes
- Phone: 303-342-2646
- Email: dave.rhodes@flydenver.com

6. General description of proposed ordinance including contract scope of work if applicable:

The proposed ordinance is to authorize a contract with Bombardier Transportation that will provide and install upgraded central control equipment, site specific software and the human interface which operates the AGTS at DIA. This work will replace equipment installed in 1993.

****Please complete the following fields: (Incomplete fields may result in a delay in processing. If a field is not applicable, please enter N/A for that field.)**

- a. Contract Control Number: 201207703
- b. Duration: 46 months
- c. Location: DIA
- d. Affected Council District: 11
- e. Benefits: The AGTS system has been commercially operating at DIA for 17 years. The equipment is obsolete and parts and elements including support for the operating system are no longer available.
- f. Costs: Central control system and equipment = \$24.8 million, \$7 million of additional services that may arise during the replacement work

<i>Current Contract Amount</i>	<i>Additional Funds</i>	<i>Total Contract Amount</i>
<i>(A)</i>	<i>(B)</i>	<i>(A+B)</i>
31,800,000		31,800,000

To be completed by Mayor's Legislative Team:

SIRE Tracking Number: _____

Date: _____

<i>Current Contract Term</i>	<i>Added Time</i>	<i>New Ending Date</i>
46 months		9/30/2016

g. Date Goals Assigned: We have contacted the DSBO and they have determined that this contract's Scope of Services does not fall under the definition of DSBO's CEI (Construction Empowerment Initiative) Ordinance. Professional Services for design, construction or reconstruction are subject to the goals ordinance. Anything outside of these services, including professional services not related to construction are reviewed on a case-by-case basis. Professional Services not related to construction usually do not have assigned goals.

h. Goals:

7. Is there any controversy surrounding this ordinance? (Groups or individuals who may have concerns about it?) Please explain. None known.

To be completed by Mayor's Legislative Team:

SIRE Tracking Number: _____


Date: _____

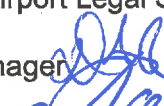
August 29, 2012


MEMORANDUM

JUSTIFICATION FOR NON-COMPETITIVE SELECTION

TO: Kim Day - Manager of Aviation

THROUGH: Xavier DuRán, Director of Airport Legal Services 

THROUGH: David Rhodes, Division Manager 

FROM: Woods Allee, Section Manager 

SUBJECT: Non-Competitive Selection Process

Per Executive Order 8B – Competitive Selection Policy, please select one reason for choosing a Non-Competitive Selection Process or for Initiating a Contract Exceeding Three (3) years: **Obtainable only from a single source.**

Work Scope

Denver International Airport (DIA) is currently operating an Automated People Mover (APM) that has been manufactured, installed, operated and maintained by Bombardier. The system, CX-100, was installed in 1993-1995. The system operates between the Main Terminal and Concourses A, B and C. For Concourses B and C, the installed Automated Guided Transportation System (AGTS) serves as the **only** passenger connection to the Terminal.

An APM system is a combination of interrelated, interacting subsystems and elements designed to operate together as a cohesive system. The primary elements of an APM consist of the operating system and fixed facilities. This proposed project will replace the existing proprietary relay-based Automated Train Control (ATC) system with Bombardier's (BT) proprietary CITYFLO 550 throughout the entire system. The ATC system components are becoming obsolete.

This work will also allow the replacement of the upper level train control software that was created in the 1980's and has since reached the end of its design life, complicating any system enhancement. Also, as part of the work, the existing Central Control facility installed in the Airport Office Building (AOB) will be upgraded

as well as the installation of a new AGTS Control Facility in the AGTS maintenance facility.

The work performed under this contract shall make a provision to handle the functional and operational requirements for the on-going South Switch work and running surface extensions into the South Terminal Redevelopment program. (The electrical controls and guide beam will be handled under a separate contract, when it is required to be installed.)

During the entire lifespan of this project the system availability and quality of passenger service has to be maintained. To ensure passenger availability all activities on this contract work that impact the operating system must be approved first by Bombardier's Operations Group and secondly by the CCD Project Manager. The work involves extensive coordination of all cut over, phasing and system operation work between the existing and the new work to minimize the impact to passenger service.

Options considered instead of a sole source contract

Locate a second party to supply the Automated Train Control system. If a second party could be found, and they were interested in the project, the contractor would need to replicate all aspects of the system: control room, all wayside equipment, all equipment racks in all concourses and retro-fit all the vehicles. This work would need to be performed while the existing system is operating and coordinated with the Bombardier Operating and Maintenance team. A complete second system, including the control equipment on the vehicles, would need to be constructed. The logistics of completing such a task while providing service seems so complex and excessively expensive that this approach is questionable at best.

If in fact such a second party control system could be developed and installed, it would also be a proprietary system. This would require going forward that there would be the need for two maintenance contracts, one for the controls and one for the rolling stock. To further complicate this approach, the rolling stock would have split responsibility between the vehicle supplier and the controls supplier because of the controls that are on the vehicle.

To date, in the United States, all Airport APM systems have chosen controls systems and vehicles that are from the same manufacturer, by the same OEM supplier.¹ For the reasons stated above, a second party supplier for the control system is determined not to be a viable option.

Do nothing

While the option to do nothing is always available, it comes with risk. As the system equipment is reaching obsolescence and the design life is expiring, the exact time when the system fails to operate is not predictable with any certainty. With any electronic and electro-mechanical system there will be failures. The electro-mechanical failures are normally fixable in a timely manner. However, an electronics control system failure due to hardware obsolescence is not recoverable, leaving the Airport without service to Concourses B & C, where 71% of the Airport's gates are located.

In addition, the project will take 39 months to fully implement and test while providing day-to-day service to the Airport's passengers. Due to the electronic components reaching obsolescence at this time and the duration of the project, doing nothing puts the Airport at an unacceptable risk.

Recommendation

The implementation of a new or upgraded AGTS control system into an operating system of any type is challenging in the best of circumstances. To have a control system of a different supplier implemented into an operating system at an airport, if someone could be found to do it, comes with too much risk. To do nothing now and delay the project to another time also brings unacceptable risk to the system's stability and impacts the expanded capacity which comes with the South Terminal Expansion project.

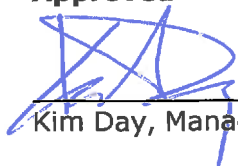
Based upon our knowledge of the industry, the nature of the Denver must-ride system, and the amount of on-going and planned work to this system, we conclude that continuing with a Bombardier system presents not only the lowest risk of impact to Airport operations, but also the only workable solution. With this in mind, they are the only qualified provider to ensure the required level of reliability and the provisions necessary to allow for the required upgrades to the system.

No U.S. airport APM system has a second party operating control system, they all use the OEM proprietary product.

Denver will not be the first airport to have this upgrade performed; Bombardier Transportation completed the same project for the Hartsfield-Jackson Atlanta Airport approximately one year ago. Denver will have the benefit of lessons learned at Atlanta.

Logplan recommends a sole source negotiated procurement with Bombardier Transportation for the Central Control System upgrade and Automated Train Control Replacement.

Approved



Kim Day, Manager of Aviation

9.13.2012

Date