

**CITY OF SAN ANTONIO  
INTERDEPARTMENTAL CORRESPONDENCE SHEET  
PUBLIC WORKS DEPARTMENT**

**CONSENT AGENDA**  
**ITEM NO. 8**

**TO:** Mayor and City Council

**FROM:** Thomas G. Wendorf, P.E., Director of Public Works

**THROUGH:** Terry M. Brechtel, City Manager

**COPIES:** Melissa Byrne Vossmer, Andrew Martin, Louis A. Lendman, Milo D. Nitschke, and file

**SUBJECT:** Martinez Creek/Woodlawn Lake Drainage Analysis

**DATE:** February 20, 2003

**SUMMARY AND RECOMMENDATIONS**

This ordinance amends a Storm Water Regional Facilities funded professional service contract and authorizes additional compensation in the amount of \$47,000.00 payable to Turner Collie & Braden, Inc., a non-MBE firm, for engineering services and \$4,700.00 for engineering contingency for an overall total amount of \$51,700.00 in connection with the Martinez Creek/Woodlawn Lake Drainage Analysis project located in Council District 7.

Staff recommends approval of this ordinance.

**BACKGROUND INFORMATION**

This ordinance provides additional compensation to Turner Collie & Braden, Inc., for professional service to conduct topographic surveys and a drainage analysis for the following streets in the Woodlawn Lake area:

1. Seeling Boulevard from St. Cloud to Donaldson Avenue
2. Bexar Drive from Wild Cherry to Winecup Drive
3. Wine Cup Drive from Bexar Drive to Donaldson Avenue
4. Placid Drive from Sage to Seeling Boulevard
5. E. Ligustrum Drive from Sutton Drive to Bandera Road
6. Sutton Drive from Bandera Road to Zachry Drive
7. Zachry Drive from Sutton Drive to Donaldson Avenue

Storm water runoff in the project study area is drained by a combination of an existing storm sewer system and overland sheet flow, and eventually drainage into Seeling Ditch. Most of the streets have concrete curbs, with approximately 27 storm sewer inlets identified. Previous street repaving projects have resulted in increased thickness of the paving layers with no corresponding increase in curb height. This increased thickness of the paving material then results in a reduction of the curb flow conveyance capacity.

The previous Woodlawn Lake Drainage Analysis conducted by TC&B evaluated the flow capacity of the existing storm sewer system and determined the storm sewer to be under designed. In addition, the study also identified some of the structures known to have flooded during the July 2002 storm events. However, the previous drainage analysis did not evaluate street ponding/flooding characteristics.

The objective of this project is to evaluate existing drainage ponding/flooding characteristics and then assess potential solutions to reduce flooding. Solutions to be evaluated include a combination of upgrading existing inlets, installing new inlets, and removal of the built-up layers of pavement. A final report from Turner Collie & Braden, Inc. should be available by March 2003. Based upon recommendations received in the final report, City staff will begin design work as required.

This professional service contract was originally approved by City Ordinance No. 96248 on August 22, 2002 and initially authorized \$50,000.00 for services related to this project. This Council action will increase the total amount authorized for this professional service contract to \$97,000.00.

#### **POLICY ANALYSIS**

Approval of this ordinance is a continuation of City Council policy to provide a planning and implementation process as a result of the July 2002 flood event.

#### **FISCAL IMPACT**

This is a one-time capital improvement expenditure and is not included in the current Capitol Improvement Program budget. Funds in the amount of \$51,700.00 are available from Storm Water Regional Facilities funds and authorized payable as follows:

\$47,000.00	payable to Turner Collie & Braden, Inc., Inc. for engineering services
\$ 4,700.00	payable for engineering contingency

#### **SUPPLEMENTARY COMMENTS**

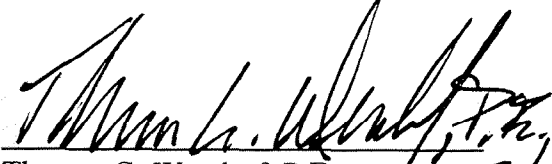
The Discretionary Contracts Disclosure statement required by the Ethics Ordinance is attached.

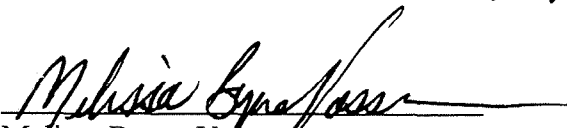
## COORDINATION

This request for ordinance has been coordinated with the Finance Department and the Office of Management and Budget.

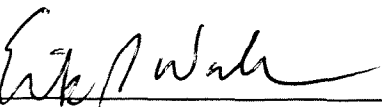
## ATTACHMENT

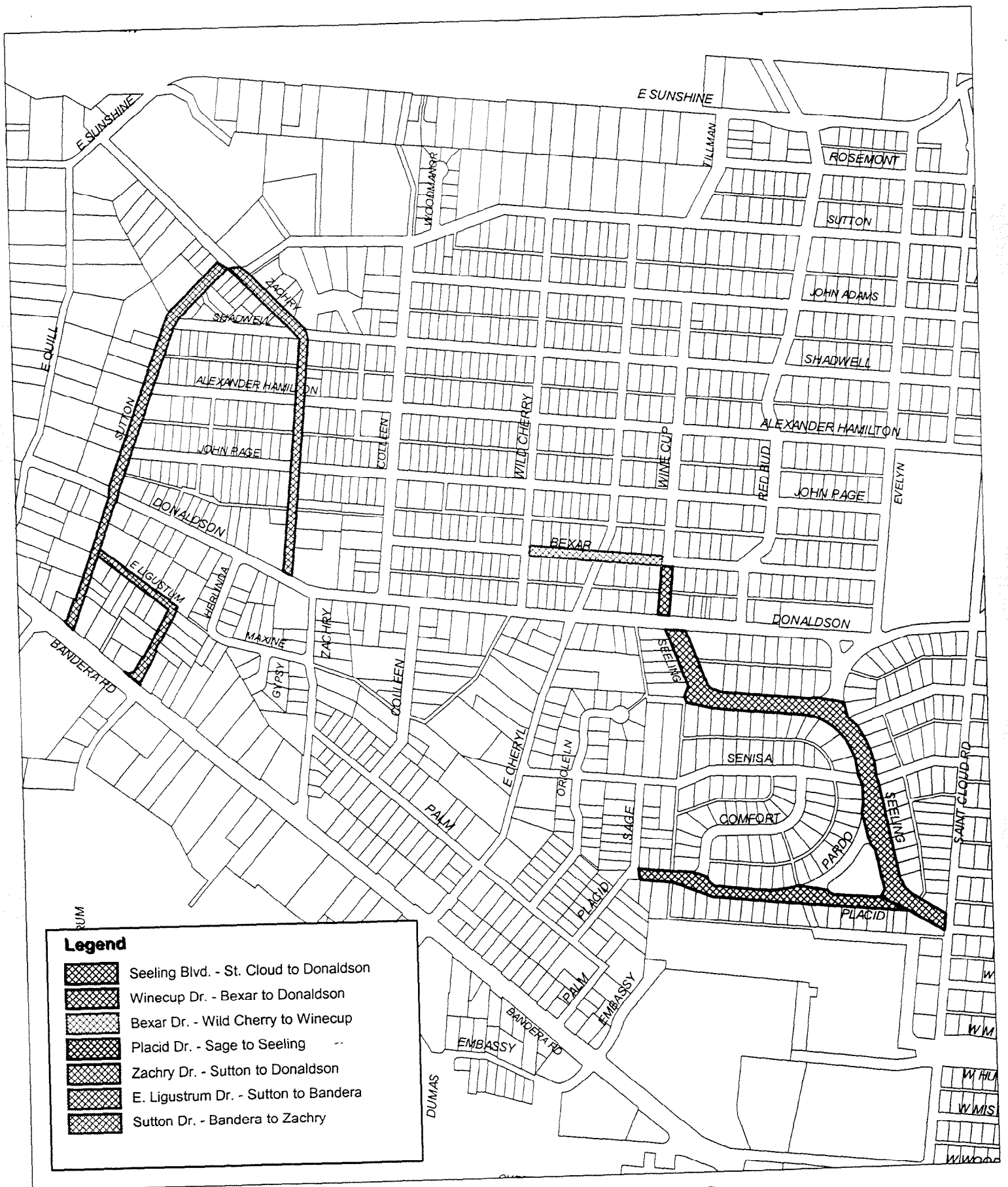
- I. Project Map
- II. Turner Collie & Braden, Inc., Inc. Letter, dated January 22, 2003
- III. Discretionary Contracts Disclosure

  
Thomas G. Wendorf, P.E.  
Director of Public Works

  
Melissa Byrne Vossmer  
Assistant City Manager

Approved:

  
for Terry M. Brechtel  
City Manager



## WOODLAWN LAKE AREA STREETS

Proposed Survey & Drainage Analysis

No Scale

# Turner Collie & Braden Inc.

Engineers • Planners • Project Managers

CARLOS GARZA  
Senior Vice President

6800 Park Ten Blvd.  
Suite 1805  
San Antonio, Texas 78213  
210 296-2001  
Fax 210 296-2135

January 22, 2003

Mr. Thomas G. Wendorf, P.E.  
Director of Public Works  
City of San Antonio  
P.O. Box 839966  
San Antonio, TX 78205

**Re: WOODLAWN LAKE AREA STREET SURVEYS AND DRAINAGE ANALYSIS  
PROPOSED SCOPE OF SERVICES AND BUDGET**

Dear Mr. Wendorf:

Turner Collie & Braden Inc. (TC&B) is pleased to submit to the City of San Antonio (City) this proposal to conduct topographic surveys and a drainage analysis for some of the streets in the Woodlawn Lake area. The streets to be included in this project are as follows:

Seeling Boulevard - from St. Cloud to Donaldson Avenue  
Bexar Drive - from Wild Cherry to Winecup Drive  
Wine Cup Drive - from Bexar Drive to Donaldson Avenue  
Placid Drive - from Sage to Seeling Boulevard  
E. Ligustrum Drive - from Sutton Drive to Bandera Road  
Sutton Drive - from Bandera Road to Zachry Drive  
Zachry Drive - from Sutton Drive to Donaldson Avenue

Stormwater runoff in the project study area is drained by a combination of an existing storm sewer system and overland sheet flow, and eventually draining into Seeling Ditch. Most of the streets have concrete curbs, with approximately 27 storm sewer inlets identified. Previous street repaving projects have resulted in increased thickness of the paving layers with no corresponding increase in curb height. This increased thickness of the paving material then results in a reduction of the curb flow conveyance capacity. Approximately 181 structures (mainly residential) are located adjacent to the streets to be surveyed. The total length of streets to be surveyed and drainage analyzed is approximately 2 miles.

The previous Woodlawn Lake Drainage Analysis conducted by TC&B evaluated the flow capacity of the existing storm sewer system draining the project study area and determined the storm sewer to be under designed. In addition, the previous study also identified some of the structures known to have flooded during the July 2002 storm events. However, the previous drainage analysis did not evaluate street ponding/flooding characteristics.

The objective of this project is to evaluate existing drainage ponding/flooding characteristics and then assess potential solutions to reduce flooding. Solutions to be evaluated include a combination

# Turner Collie & Braden Inc.

Mr. Thomas G. Wendorf, P.E.

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of upgrading existing inlets, installing new inlets, and removal of the built-up layers of pavement. The following will be provided to the City:

- Field topographic surveys including:
  - Street centerline profiles – provides drainage flow direction.
  - Street cross-sections – to be used to calculate street ponding characteristics.
  - Verification of storm sewer inlet locations and sizes.
  - Slab elevations (finish floor) for some of the houses along the survey route – provides an indication on the severity of structure flooding during existing and proposed conditions.
- A detailed drainage analysis of the project study area including ponding/flooding widths and depths along each street, and contributing drainage area delineations.
- Recommendations regarding possible replacement of existing inlets, installation of new inlets, and street re-construction.

## SCOPE OF SERVICES

The following Scope of Services is proposed in this study effort.

### Task 1 Project Coordination

- a. Conduct Weekly Progress meetings with City staff to discuss project status and results.

### Task 2 Data Collection and Site Visits

- a. Obtain the following from City files:
  - i. Horizontal and vertical datum information used for the previous Woolawm Lake Drainage Analysis project.
  - ii. Existing street design/record drawings.
- b. Conduct site visits and verify the following:
  - i. Location of existing drainage systems including storm sewers, inlets, and drainage ditches.
  - ii. Drainage flow patterns and flow constraints.

### Task 3 Topographic Surveys

Conduct topographic surveys including the following:

- a. Profiles - Centerline profiles for approximately 2 miles of streets.
- b. Cross-sections - Street cross-sections from approximate right-of-way to right-of-way at approximately 106 locations, assuming at street intersections and/or 100-foot intervals.
- c. Inlets - Provide the location, size, and elevations on top-of-curb, gutter, and flow line of pipes for approximately 27 inlets.
- d. Slab Elevations - Provide slab elevations (finish floor) for approximately 50 homes along the survey route. Prior to the house being surveyed, permission from the homeowner will be obtained. Houses to be surveyed will be randomly selected

# Turner Collie & Braden Inc.

Mr. Thomas G. Wendorf, P.E.

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based on homeowner permission and location. Every effort will be made to survey at least one house on each block and or areas where topography changes.

## Task 4 Drainage Analysis

For the project study area, conduct the following:

- a. Determine contributing drainage area boundaries and peak flows.
- b. Determine ponding/flooding widths and depths for existing drainage conditions (storm sewer, inlets, flow direction, etc.) during the design storm. The WinStorm and Flow Master computer programs will be used for this analysis.

Notes:

1. Drainage criteria to be used are those as outlined in the City's Unified Development Code (UDC).
2. All pertinent data and information developed as part of the previous Woodlawn Lake Drainage Analysis project will be used for this project.

## Task 5 Determine Recommendations

Determine recommendations to reduce existing flooding including:

- a. Evaluating the replacement of existing storm sewer inlets and/or placement of new inlets.
- b. Consider re-construction of streets including lowering of pavement elevations and/or changes in drainage flow direction.
- c. Determine probable construction costs for recommendations.

Note:

1. Proposed drainage modifications will be sized to reduce existing flooding conditions and not necessarily sized as outlined in the City's UDC.

## Task 6 Summarize Findings and Recommendations

Upon completion of the effort:

- a. Prepare a report summarizing the project approach, findings, and recommendations.
- b. Include appropriate text, tables, and exhibits to summarize the effort.
- c. Prepare street profiles reflecting recommended changes in street grades and drainage modifications.
- d. Submit two copies of a *Draft Report* to City staff for review.
- e. Obtain City's *Draft Report* review comments, make changes to reflect comments, and then submit four copies of the *Final Report*.

## DELIVERABLES

Project deliverables will include the following:

- Topographic field survey notes and digital copies of all data.
- Final report including:
  - Copies of back-up calculations

## Turner Collie & Braden Inc.

Mr. Thomas G. Wendorf, P.E.

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- Digital copies of report text, tables, exhibits, and computer models.

### PROJECT SCHEDULE

Upon project authorization, we are proposing the following schedule:

- Topographic surveys to be completed within three weeks after horizontal and vertical datum have been obtained from the City and assuming 106 cross sections (100-foot intervals) will be developed.
- Recommendations to be developed two weeks after surveys have been completed.
- A **Draft Report** will be submitted to the City within three weeks after surveys have been completed.
- Assume one week for City staff to review **Draft Report**.
- A **Final Report** to be submitted within one week after City's **Draft Report** review comments have been received.

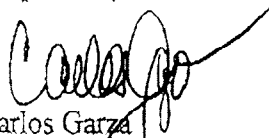
Total project time, eight weeks assuming City's datum information will be obtained at the same time of project authorization and assuming one week for City review of **Draft Report**.

### COMPENSATION AND LIABILITY

We anticipate the effort to complete this study to be \$47,000 (\$23,500 for surveys) assuming street cross-sections will be developed at approximately 100-foot intervals (106 total). Terms of payment and liability will be in accordance with the attached form H202. This project budget does not include the cost for additional geo-technical surveys, verification of existing utility locations, and environmental documentation.

Again, TC&B appreciates the opportunity to conduct this project and assist the City of San Antonio with flooding problems in the Woodlawn Lake area. If you have any questions or need additional information, please call either John Espinoza at 296-2009 or me at 296-2001.

Respectfully,



Carlos Garza  
Sr. Vice President

cc: Mr. Joseph H. duMenil, City of San Antonio  
Mr. Alan J. Potok, P.E., TC&B  
Mr. John A. Espinoza, P.E., CFM, TC&B



**City of San Antonio**  
**Discretionary Contracts Disclosure\***

*For use of this form, see City of San Antonio Ethics Code, Part D, Sections 1&2  
Attach additional sheets if space provided is not sufficient.  
State "Not Applicable" for questions that do not apply.*

*\* This form is required to be supplemented in the event there is any change in the information under (1), (2), or (3) below, before the discretionary contract is the subject of council action, and no later than five (5) business days after any change about which information is required to be filed.*

**Disclosure of Parties, Owners, and Closely Related Persons**

For the purpose of assisting the City in the enforcement of provisions contained in the City Charter and the Code of Ethics, an individual or business entity seeking a discretionary contract from the City is required to disclose in connection with a proposal for a discretionary contract:

(1) the identity of any individual who would be a party to the discretionary contract:

N/A

(2) the identity of any business entity<sup>1</sup> that would be a party to the discretionary contract:

Turner Collie & Braden Inc.

and the name of:

(A) any individual or business entity that would be a subcontractor on the discretionary contract:

N/A

and the name of:

(B) any individual or business entity that is known to be a partner, or a parent or subsidiary business entity of any individual or business entity who would be a party to the discretionary contract:

Parent Business Entity of Turner Collie & Braden Inc. - TCB INC.

<sup>1</sup> A *business entity* means a sole proprietorship, partnership, firm, corporation, holding company, joint-stock company, receivership, trust, unincorporated association, or any other entity recognized by law.

# City of San Antonio Discretionary Contracts Disclosure\*

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Attach additional sheets if space provided is not sufficient.  
State "Not Applicable" for questions that do not apply.

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(3) the identity of any lobbyist or public relations firm employed for purposes relating to the discretionary contract being sought by any individual or business entity who would be a party to the discretionary contract.

N/A

## Political Contributions

Any individual or business entity seeking a discretionary contract from the city must disclose in connection with a proposal for a discretionary contract all political contributions totaling one hundred dollars (\$100) or more within the past twenty-four (24) months made directly or indirectly to any current or former member of City Council, any candidate for City Council, or to any political action committee that contributes to City Council elections, by any individual or business entity whose identity must be disclosed under (1), (2) or (3) above. Indirect contributions by an individual include, but are not limited to, contributions made by the individual's spouse, whether statutory or common-law. Indirect contributions by an entity include, but are not limited to, contributions made through the officers, owners, attorneys, or registered lobbyists of the entity.

To Whom Made:	Amount:	Date of Contribution:
E.M. Barrera	\$ 200.00	04/06/01
David Carpenter	\$ 200.00	04/23/01
Bonnie Conner	\$ 210.00	03/08/01
Ed Garza	\$1,000.00	04/30/01
	\$ 500.00	08/16/01
	\$ 500.00	11/28/01
	\$ 240.00	08/08/02
Roland Gutierrez	\$ 200.00	05/11/01
Bobby Perez	\$ 200.00	04/06/01
Carroll Schubert	\$ 500.00	04/30/01

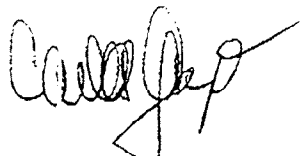
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### Disclosures in Proposals

Any individual or business entity seeking a discretionary contract with the city shall disclose any known facts which, reasonably understood, raise a question<sup>2</sup> as to whether any city official or employee would violate Section 1 of Part B, Improper Economic Benefit, by participating in official action relating to the discretionary contract.

<b>Signature:</b> 	<b>Title:</b> Sr. Vice President  <b>Company:</b> Turner Collie & Braden Inc.	<b>Date:</b>  1/24/03

<sup>2</sup> For purposes of this rule, facts are "reasonably understood" to "raise a question" about the appropriateness of official action if a disinterested person would conclude that the facts, if true, require recusal or require careful consideration of whether or not recusal is required.