

CYNTHIA SULLIVAN
JANE HAGUE
LOUISE MILLER

PETE VON REICHBAUER
LARRY GOSSETT

ROB MCKENNA

BRIAN DERDOWSKI

LARRY PHILLIPS

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Introduced By: Sims

CONSTR2.DOC/cmm

Proposed No.: 96-340

ORDINANCE NO. **12224**

1
2 AN ORDINANCE relating to construction
3 management practices, identifying
4 deficiencies in construction management
5 practices, specifying remedies and
6 requiring the King County executive to
7 respond.

8 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

9 SECTION 1. Findings. The construction management audit
10 of the West Point and Renton Wastewater Treatment Facilities
11 recently presented to the council identified \$5.3 million in
12 unwarranted payments and \$20 million in unexplained and
13 unsupported costs. In addition, the audit identified in
14 detail a number of construction management practices not
15 consistent with accepted industry standards and practices.

16 The audit further found that "improvements are needed to
17 ensure proper segregation of procurement and construction
18 administration on large, long-term capital projects.
19 Improvements are also needed to ensure proper authorization
20 of transactions and adequate documentation and record-
21 keeping."

22 On these bases, the council finds that legislative
23 action is needed to safeguard scarce public funds and to keep
24 faith with the trust the county's citizens have placed in
25 this government. To these ends, the council finds that
26 legislation clearly specifying implementation of the audit's
27 recommendations needs to be enacted.

1 In order to be effective, any remedy to the serious
2 problems identified in the audit needs to include clear and
3 certain penalties to the requirements to be set forth herein.

4 SECTION 2. Audit recommendations. A. The
5 recommendations contained in the audit of construction
6 management practices at the West Point and Renton wastewater
7 treatment facilities, contained herein in attachment A, are
8 determined to be the operative policy of King County for its
9 construction projects and are to be implemented by the
10 practices and procedures to be adopted by the council.
11 Specifically the audit recommendations are related to
12 construction administration practices and council policy
13 decisions. In that regard it is the intent of the council
14 that all applicable administrative audit recommendations will
15 be applied to all construction projects, and that audits of
16 construction projects and the use of professional
17 construction management firms on construction projects will
18 begin at a threshold project size of \$10,000,000 for all
19 construction projects.

20 B. The Executive is instructed to formulate, and
21 forward to the council no later than September 30, 1996,
22 written practices and procedures designed to implement in
23 detail the recommendations contained in the above-referenced
24 audit. In addition, the executive is expected to implement
25 those audit recommendations appropriate to small works
26 projects under \$100,000.

27 C. The practices and procedures to be prepared by the
28 executive and forwarded to the council no later than
29 September 30, 1996 shall specifically address the formulation

1 of mechanisms to assure good decision-making consistent with
2 the audit's recommendations and with applicable industry
3 standards and shall specify in detail a disciplinary process,
4 up to and including termination, for those employees who in
5 the future may violate the intent of this ordinance and the
6 letter of such written practices and procedures.

7 INTRODUCED AND READ for the first time this 1st
8 day of April, 1996.

9 PASSED by a vote of 13 to 0 this 22nd day of
10 April, 1996.

11 KING COUNTY COUNCIL
12 KING COUNTY, WASHINGTON

13 James Hague
14 Chair

15 ATTEST:

16 Gerald A. Peterson
17 Clerk of the Council

18 APPROVED this 3rd day of May, 1996.

19 Ken Raymond
20 for King County Executive

21 Attachments: West Point/Renton Wastewater Treatment
22 Facilities Audit Summary of Findings and Recommendations

**WEST POINT/RENTON WASTEWATER TREATMENT FACILITIES AUDIT
SUMMARY OF FINDINGS AND RECOMMENDATIONS**

FINDING 3-A.

Metro did not provide for adequate segregation between procurement and construction administration duties

RECOMMENDATION 3-A(i). Large, long-term capital projects, such as West Point and Renton, should be organized to ensure adequate segregation of the procurement and construction administration functions.

RECOMMENDATION 3-A(ii). To facilitate adequate segregation of procurement and construction administration functions, the use of independent construction management firms to manage large, long-term capital programs should be investigated.

FINDING 4-A.

Change documentation was not organized or maintained in sufficient compliance with Metro's procedures and industry standards to facilitate internal review and audit

RECOMMENDATION 4-A. Change documentation should be organized and maintained in strict accordance with the requirements set forth in Metro's Manuals. To ensure compliance, for each individual change, that is, for each individual PWC, a file content checklist should be completed and approved by management, usually the project controls manager and the program manager, prior to execution of a change by procurement. Such a procedure is standard practice on large public works projects.

FINDING 4-B.

Metro did not administer and document changes in accordance with Metro's own procedures or in conformance with industry standards

RECOMMENDATION 4-B(i). A summary of negotiations, as described in Metro's Construction Management Procedures Manuals, should be prepared for each change. Metro's manuals currently exempt changes priced on an actual time and materials basis from this requirement. All changes, including time and materials changes, should have a summary of negotiations prepared. Although it is recognized that negotiations per se are not always necessary, at a minimum, a record should be maintained that describes what steps were taken to review the contractor's proposal, the basis for compensation, and why the final price is considered fair and reasonable. The summary of negotiations should be reviewed for completeness and signed by both the project controls manager

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and the program manager prior to execution of a change by procurement.

RECOMMENDATION 4-B(ii). An independent estimate or analysis of a contractor's time and materials proposal should be performed and documented for each and every change. For time and materials changes a complete and independent review, essentially an audit, of a contractor's and its subcontractor's calculations of costs is required, and this review must be documented.

RECOMMENDATION 4-B(iii). Formal training in contract administration and complying with procedures manuals should be implemented.

FINDING 4-C.

Metro did not comply with the terms and conditions of its contracts when negotiating changes

RECOMMENDATION 4-C(i). Bonus and incentive payments to contractors should only be made when explicitly allowed by contract. Change orders should only be paid for changes in the scope of work.

RECOMMENDATION 4-C(ii). Compensation to contractors for overhead costs should be calculated and paid in accordance with the terms and conditions under which a contract is awarded. Construction contracts should specify the maximum allowable overhead mark-ups on changes and further specify that this overhead mark-up includes all overhead costs, including change and change order administration costs.

FINDING 4-D.

Metro made adjustments to contracts that cannot be confirmed as representing fair and reasonable costs for which Metro was responsible

RECOMMENDATION 4-D. The practice of using factor-formulas to price impact should be discontinued. Change order impact costs should be assessed and paid only on the basis of the industry-accepted approaches and/or through cost audits and technical analysis. Contractors on large, complex contracts should be required by their contracts to submit resource-loaded baseline (as-planned) schedules that can be fully supported by bid estimates.

FINDING 5-A.

Metro did not enforce or follow contract terms and conditions, or standard industry practices, for the negotiation and acceptance of renovation work orders

RECOMMENDATION 5-A.

A contractor's proposal should not be accepted as the basis for pricing a work order unless that proposal 1) conforms with the requirements of the contract, and 2) contains sufficient detail for the basis of the proposal to be evaluated and understood. Before a work order is approved, a negotiation record should be prepared that fully reconciles the negotiated price with Metro's independent estimate.

FINDING 5-B.

The Technical Services Director improperly delegated to the Construction Manager the authority to approve work order pricing

RECOMMENDATION 5-B.

Work order scope definition and negotiation should be segregated from work order approval. Review and approval of work orders should occur under the supervision of a Procurement Manager, who should not report to the same manager as construction and program management.

FINDING 5-C.

Metro's renovation contract inappropriately allowed the same mark-up rate on vendor equipment purchases as on construction work

RECOMMENDATION 5-C.

Work order contracts should specify a mark-up rate for the purchase of major equipment that is lower than the mark-up rate applied to construction activities.

FINDING 6-A.

At West Point, Metro paid mark-up rates above industry standards for certain construction support services received from its Architectural and Engineering contractor

RECOMMENDATION 6-A(i).

Standard policies and contract terms should be developed addressing the appropriate use of design firms for construction management support services on large capital projects. Construction management support services should be procured using a competitive selection process, not a single-source process.

RECOMMENDATION 6-A(ii).

Audit services and industry guidelines should be utilized to negotiate fair and reasonable mark-up rates for construction support services when a contractor's staff reside in a project owner's offices and are providing long-term project support.

RECOMMENDATION 6-A(iii).

A cost-benefit study to analyze the use of construction management firms for managing large capital projects should be considered. Hiring a construction management firm in a competitive environment would validate, via competitive

procurement, the mark-up rates paid for construction support services.

FINDING 6-B.

Adequate cost data did not exist to effectively manage the Architectural and Engineering contractor at West Point

RECOMMENDATION 6-B(i).

For large dollar cost-reimbursement contracts, contract provisions should be developed that require cost data to be prepared, monitored, evaluated and presented as "budgeted versus actual costs expended" for individual tasks in an element of cost format. Budgeted and actual cost data, when submitted in this format, enable an owner to evaluate and verify the types and quantities of services received as compared to those budgeted.

RECOMMENDATION 6-B(ii).

Contractors should be required to use formal cost accounting systems for invoicing on large cost-reimbursement contracts. Contractor's should be required to invoice in accordance with their formal system without manual modifications.

FINDING 6-C.

Metro did not always provide a competitive bidding environment for the required construction support services

RECOMMENDATION 6-C(i).

Policies should be developed to facilitate adherence to State regulations concerning conflicts of interests when responding to inquiries by potential contractors. In addition, obvious conflicts of interests should be fully considered before awarding contracts.

RECOMMENDATION 6-C(ii).

Policies should be developed to prohibit the use of negotiated contracts to procure unrelated goods and services that would normally be acquired through a competitive selection process.

FINDING 7-A.

Metro's policies and procedures for releasing retention did not provide adequate transaction authorization for releasing the liquids stream contract retention (for an insurance bond) prior to contract completion

RECOMMENDATION 7-A.

Detailed internal control procedures should be established for authorization relating to the release of retention on the basis of accepting insurance bonds. The procedure needs to ensure executive management approval of all early releases of retention. Retention should also only be released upon review and concurrence of a procurement manager separate from construction management.